CHAIRPERSON'S STATEMENT

The Forum of Regulators (FOR) is a statutory body that has been created with the objective of achieving harmonization in approach to regulation in the electricity sector in India. Since its inception, the Forum has been playing a key role in evolving consensus on several regulatory issues facing the sector.

During the year 2009-10, the Forum has taken a number of initiatives in pursuit of its objective. The most significant achievement was the evolution of the Renewable Energy Certificate (REC) mechanism. The REC framework conceived by the Forum will go a long way in bringing about competition in the renewable segment and eventual mainstreaming of renewable sources. It will also provide an alternate option to the obligated entities to comply with their Renewable Purchase Obligations (RPOs).

Standards of Performance (SOPs) for Licensees are another area that requires uniformity in approach. After detailed deliberations, the Forum evolved Model Regulations in this regard. This will help harmonize the performance standards being set for distribution licensees and. in turn, bring about the desired regulatory certainty. Another significant initiative of the Forum during the year was the development of benchmark capital cost for distribution. This is in line with the vision of the Tariff Policy framed under the Act. Benchmarking of capital cost is crucial in a cost-plus regime as it acts as a safeguard against the pervasive tendency of the licensees to inflate their capital costs for earning higher returns.

Formulation of the Supply Code is an important responsibility of the State Commission. The Forum carried out a study of the Supply Codes prevalent in 10 selected states. This study has revealed diversity in approach in this regard. Based on the findings, the Forum proposes to evolve a Model Supply Code. Incentive and disincentive schemes for the employees is considered to be an important driver for efficient operation of the utilities. Designing such a scheme for government-owned utilities is a real challenge. The Forum deliberated and evolved such model of incentive and disincentive mechanisms for government-owned distribution utilities.

Demand Side Management (DSM) and energy efficiency plays an important role in load management. Time of Day (ToD) tariff is a tool used to achieve this objective. The Forum finalized a report on ToD Tariff and recommended the approach to tariff design based on time of use. The Forum also evolved model regulations on DSM.

The consensus evolved on such a wide canvas of issues would go a long way in furthering the distribution reforms. The responsibility rests with the state regulators to take it forward by translating the vision enshrined in these reports to reality. The Forum has been engaging in discussions and consultations with all the relevant stakeholders in course of evolving guidelines and model regulations. We look forward to continued support from the stakeholders in ensuring effective discharge of the Forum's responsibilities in future.

(Dr. Pramod Deo)

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1. THE FORUM OF REGULATORS

The conceptualization of an independent regulatory commission for the electricity sector dates back to the early 1990s, when the National Development Council (NDC) Committee on Power headed by the then Chief Minister of Maharashtra, recommended in 1994 the constitution of "independent professional Tariff Boards at the regional level for regulating the tariff policies of the public and private utilities". The Committee reiterated that "the Tariff Boards will be able to bring along with them a high degree of professionalism in the matter of evolving electricity tariffs appropriate to each region and each State.

The need for the constitution of a regulatory commission was further reiterated in the Chief Minister's Conference held in 1996. The Common Minimum National Action Plan for Power that evolved in the Conference *inter-alia* agreed that reforms and restructuring of the State Electricity Boards (SEBs) are urgent and must be carried out in a definite time frame; and identified creation of regulatory commissions as a step in this direction. Thus the Electricity Regulatory Commissions (ERC) Act, 1998 was enacted paving the way for creation of regulatory commissions at the Centre and in the states.

The 1998 Act was enacted with the objective of distancing the government from tariff regulation. The Act provided for ERCs at the Centre and in the states for rationalization of electricity tariff, transparent policies regarding subsidies etc. The ERC Act, 1998 has since been replaced by the Electricity Act, 2003 (EA, 2003). With the introduction of the EA, 2003, the functions of the regulatory commissions have been extended by *inter-alia* assigning the role of development of power market and advisory function to the government. The Central Electricity Regulatory Commission (CERC) and most of the State Electricity Commissions (SERCs) were constituted under the ERC Act, 1998. However, some SERCs like MSERC, JERC-M&M and JERC-UTs were constituted after the EA, 2003.

The Forum was constituted vide the Ministry of Power's (MOP). Notification dated 16th February, 2005 in pursuance of the provision under section 166(2) of the EA, 2003 with the primary objective of harmonization of regulation in the power sector. The Forum consists of Chairperson of CERC and Chairpersons of 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:

- 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 FOR.
- The Secretary to the Central Commission shall be the *ex-officio* Secretary to the Forum.
- Secretarial assistance to the Forum shall be provided by the Central Commission.
- The headquarters of the Forum will be located at New Delhi.

Functions of the Forum:

The Forum shall discharge the following functions, namely:-

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

Finances of the Forum:

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

MISSION STATEMENT

The Forum of Regulators was conceived with the mission of nurturing the growth of independent regulation and empowerment of all having a stake in the electricity sector in India. In pursuit of this objective, the Forum aims to:

- Harmonization of regulation in the power sector;
- Compliance of National Policies across India;
- Provide platform to the ERCs to maintain regulatory certainty in India's power sector.
- Facilitate initiatives to promote investment in the power sector by way of implementation of widespread policies/regulations in the interest of consumers;

2. THE YEAR IN RETROSPECT

The Forum of Regulators was conceived with the mission of nurturing the growth of independent regulation and empowerment of all entities having a stake in India's electricity sector. It has been responsible for harmonization, coordination and ensuring uniformity of approach amongst the ERCs across the country to achieve greater regulatory certainty in the sector. FOR has been undertaking research work, either in-house or through outsourcing, on issues relevant to power sector regulation and has been actively evolving measures for protection of consumers' interest.

The following studies were successfully completed in the last year:

- **Capital cost benchmarks for distribution business**

  The Forum commissioned a study on capital cost benchmarking for the distribution business. The Administrative Staff College of India was engaged for the same. The study was carried out so that the capital cost benchmarks could serve as a broad indicator and assist the ERCs while approving the capital costs.

- **Study to evolve an appropriate model of incentive-disincentive mechanism for distribution utilities**

  The Working Group on loss reduction strategies came out with a suggestion that there should be a study to evolve an appropriate model of incentive-disincentive mechanism for the distribution utilities. The study concluded that the incentive mechanism should address two basic things, first the elements of distribution like wheeling and supply function separately and second that there should be clarity and simplicity in determination of various cost elements of supply and wheeling businesses.

- **Analysis of Supply Codes of 10 states**

  The Apellate Tribunal for Electricity (ATE) under its order asked the Forum to conduct a study on supply codes of different states and identify the gaps and variation, if any, in the present codes. In certain states, the formats given to the consumers e.g., for new connection, reconnection, mutation, test reports, agreements etc. are not separately given in the supply code. Either they form part of the conditions of supply (Punjab, AP), Distribution Code (Tamil Nadu) or they form part of a separate regulation (e.g., in case of West Bengal, a separate regulation exists for a new connection). After a detailed analysis, It was decided to frame a model on the supply codes, which will feature the suggested mandatory provisions in accordance with the provisions of EA, 2003 and the best practices being followed by different states.

Trainings & Capacity Building Programmes

FOR has also been conducting capacity building programmes for the personnels of the ERCs and other concerned bodies. FOR successfully conducted seven capacity building programmes. An orientation programme was conducted for the Chairpersons and Members of the ERCs at IIM-Ahmedabad, and then a three-day residential programme was held at National Power Training Institute (NPTI), Faridabad on DSM. There was also a training programme on Regulations, Competition and Consumer Issues in the Electricity Sector. In order to enhance the skills of the officers of ERCs, a training programme was held at IIT-Kanpur. A workshop on DSM-load research was carried out at NPTI, Faridabad followed by a residential training programme on Open Access, role of LDCs and Power markets for officers of the regulatory commissions and State Load Despatch Centres (SLDCs). The trainings ended with a session on finance and economics for regulatory commissions, which was held at IIM-Bangalore.

Meetings & Key outcomes

In 2009-10, five meetings of the Forum were held and major points of discussions and subsequent outcomes are as follows:

- A critical review of the last 10 years experience in Electricity Reforms and Regulations was made with a focus on constraints and gaps between the vision and achievements in a presentation made by Mr. Ajay Pandey of IIM-Ahmedabad on his report submitted to FOR.
- The members of FOR suggested that there was a need for determining transmission prices for more number of seasons and different periods of the day (such as peak and off-peak). This was considered because there are frequent changes in the demand of a distribution utility during a day and during a year.
- The Draft regulation on the REC implementation by the CERC and SERCs was presented by the Secretariat. After various discussions, the draft regulations were approved.
- A proposal for a study on implementation and impact analysis of ToD tariff in India was considered and approved.
- With respect to the trading margin, it was agreed by the Forum that fixing of the same should not be discriminatory by the SERCs.
- A proposal for the development of a web-based Regulatory Information Management System (RIMS) and development of FOR's website was considered, and approved.
- It was decided that a RPO study should be conducted that should feature the impact on various consumer tariffs, if the RPO targets are enhanced gradually versus the scenario where the RPO targets are enhanced immediatelyf.
- A proposal for study on implementation and impact analysis of ToD tariff in India was considered and approved with some modifications on the cost of metering and mix of states to be covered with respect to the nature of demand curve and rebate considerations on the off-peak supply of electricity.

3. ACTIVITIES DURING THE YEAR

3.1 Meetings of Forum of Regulators:

a. Twelfth meeting (11-12 June, 2009 at New Delhi):

- Proposal for constitution of a Task Force for the implementation of recommendations made by the FOR was approved and the chairperson was authorized to constitute the same.
- Recommendation made by the Standing committee on Energy on the inclusion of additional Unscheduled Interchange (UI) charge imposed on the utilities under CERC's UI Regulation for overdraw during the time blocks when frequency was below 49.2 Hz was discussed. It was deliberated that the SERCs should not allow the same in the Annual Revenue Requirement (ARR) w.e.f., 01.08.2009.
- The draft on the FOR Conduct Business Rules was considered and approved by the Forum.

- A Presentation was made by Mr. Ajay Pandey of IIM-Ahmedabad on highlights of the study report on "Electricity Reforms & Regulations–A critical review of last 10 years experience with focus on constraints & gaps between the vision and achievements". The Forum took the following decisions on the report:
  - A copy of the report may be placed on the website of the Forum.
  - A copy of the report may also be sent to the MoP.
  - FOR Secretariat may identify the points on which follow-up action is required on the part of the ERCs.

- A presentation was made by the Secretariat highlighting the main features of the model Standard of Performance (SoP) Regulations. The Forum desired that the legality of the proposal of giving compensation through automatic route should be scrutinized by the Secretariat. It was felt to make the SoPs more specific and thus it was directed by the Secretariat to discuss it further in the next meeting.
- A presentation was made by the Secretariat highlighting the key features of the proposed REC Implementation Framework. There was a consensus on the proposal subject to the following:
  - Legality of the proposal for enforcing compliance of RPOs through imposition of some sort of charges should be examined further in detail.
  - The effectiveness of the jurisdiction of the SERCs on the State Designated Agencies (SDAs) should be further examined and necessary interface with the Ministry of New and Renawable Energy (MNRE) in this regard be evolved.
  - Impact of the proposal of solar REC to be exchanged at a price of about Rs. 12 to Rs. 13 per unit on consumer tariffs needs to be assessed further.
  - The accreditation agencies at the state level would need to have adequate monitoring capability, particularly in respect of use of fossil fuel by biomass based generators.
- The report on Metering Group was discussed and accepted with few modifications with respect to standards and testing of meters.

b. Thirteenth meeting (17th July, 2009 at New Delhi):

- The Forum decided to constitute a Working Group on standardization of regulatory accounts and authorize the chairperson to nominate the members of the group.
- The Forum approved the proposal of conducting the following capability enhancement programmers :
  - Open access, role of Load Despatch Centres (LDCs) and power markets, at NPTI, Faridabad.
  - Finance and Economics for Regulatory Commissions at IIM, Bangalore.
  - Legal Aspects of Power Sector Regulation: Experiences and Enforcement Issues at the National Law School of India, Bangalore.
  - Training Programme on DSM–Load Research at NPTI, Faridabad for two days.
- The Forum considered the recommendation of the Task Force and decided that the wheeling charges applicable to consumer categories for which open access has been allowed should be displayed on the websites of the concerned SERC in a comprehensive manner with the help of illustrative examples.
- A presentation was made on behalf of the CERC highlighting the main features of the approach paper circulated by CERC on the above mentioned subject for inviting

comments of all the stakeholders. The members of FOR suggested that the need for determining transmission prices for more number of seasons and different periods of the day (such as peak and off-peak) be explored because quite often there are frequent changes in the demands of a distribution utility during a day and during a year.

c. *Fourteenth meeting (4th September, 2009 at New Delhi):*

- Draft regulations on the REC implementation by the CERC and SERCs were presented by the Secretariat. After discussion, the draft regulations were approved with the following modifications:

- In case of a genuine difficulty in meeting RPOs due to non-availability of RECs, the obligated entity can approach SERCs for carry forward of RPO compliance requirement.
- The fund to be created out of the compliance charges should be utilized for the purchase of RECs only and not for transmission infrastructure, which is the duty of STUs.
- The provision for solar REC may be included as proposed in the twelfth meeting of the Forum.
- If a State Nodal Agency (SNA) is not able to perform the function assigned satisfactorily, SERCs can designate any other agency to perform the functions meant for SNAs.
- A small percentage of the sale proceeds received by sale of RECs may be earmarked in the draft CERC regulations for the purpose of capacity building of SNAs and other facilitative initiatives such as common software applications etc.
- Other drafting suggestions received from the SERCs may be appropriately incorporated.

- It was decided that the Secretariat should seek legal opinion on the issue whether the trading entities formed in the process of reorganization of SEBs would have the status of deemed licensees under the EA, 2003.
- A proposal for study on implementation and impact analysis of ToD tariff in India was considered and approved with some modifications on the cost of metering and mix of states to be covered with respect to the nature of demand curve and rebate considerations on the off-peak supply of electricity.
- With respect to the trading margin, it was agreed by the Forum that fixing of the same should not be discriminated by the SERCs.

d. Fifteenth meeting (19th November, 2009 at Amritsar):

- The ongoing study on the supply codes for 10 states was presented by M/s PricewaterhouseCoopers (PwC). After discussions, it was decided to frame a model on

the supply codes which will feature the suggested mandatory provisions in accordance with the provisions of EA, 2003 and the best practices being followed by different states.

- Study on the model SoP was considered and the same was approved with modifications in terms of the rights of SERCs and reporting and obligations of the licensees.

- A presentation was made on the findings and recommendations of the study on Distribution Margin. It was felt that the study should be completed after duly addressing the issues on the segregation of the supply and network business, and procurement of power by the licensees.
- Procurement of power through competitive bidding by the state distribution utilities was discussed. It was decided that the FOR Secretariat was asked to compile data regarding the extent of short-term procurement by utilities and on the number of hours of load shedding with the objective of bringing out the need for long-term procurement of power.

e. Sixteenth meeting (1st Feb, 2010 at Lucknow):

- It was directed to the FOR Secretariat to prepare a note on seeking further legal opinion where the deemed trading licensee companies have been created by the state governments during the process of unbundling of SEBs under the provisions of various State Reforms Acts. While preparing this note, the Secretariat should also obtain inputs from the concerned SERCs.
- The RPO study should be conducted that should feature the impact on various consumer tariffs, if the RPO targets are enhanced gradually versus the scenario where the RPO targets are enhanced immediately.
- It was also directed to conduct a study on the various alternatives available before a SERC for implementation of SoPs regulations.
- A proposal for the development of a web-based RIMS and development of FOR's website was considered, and approved with a few modifications with respect to the formats and compatibility of the RIMS with the industry and international best practices.
- It was proposed to conduct a study for evolving a standard franchisee model for the distribution business.

3.2 Capacity Building Programmes:

During the year the FOR successfully conducted seven capacity building programmes:

- Training Programme on Regulations, Competition and Consumer Issues in the Electricity Sector; The mentioned training programmes was conducted from 18th May, 2009 to 21st May, 2009 in Dharamshala (HP).
- An orientation programme was conducted for the chairpersons and members of the ERCs at IIM-Ahmedabad during 29th May, 2009 and 7th June, 2009.
- A three-day residential programme was held at NPTI, Faridabad on DSM between 15th June, 2009 and 18th June, 2009.
- To enhance the skills of the officers of ERCs, a training programme was held at IIT-Kanpur during 3rd - 8th August, 2009.
- A workshop on DSM-load research was carried out on 7th - 8th September, 2009 at NPTI, Faridabad. The workshop was conducted for the officers of ERCs and utilities.
- A residential training programme on Open Access, role of LDCs and Power markets for officers of the regulatory commissions and SLDCs was conducted during 4th - 7th November, 2009 at NPTI, Faridabad.
- Between 14th and 18th December, 2009 a training session on finance and economics of regulatory commissions was held at IIM-Bangalore.

3.3 Studies completed during FY 2009-10:

a. Capital cost benchmarks for distribution business:

In FY 2008-09, the Forum commissioned a study on capital cost benchmarking for the distribution business. The Administrative Staff College of India was engaged for the same. The study was carried out so that the capital costs benchmarks could serve as a broad indicator and assist the ERCs while approving the capital costs. The recommendations of the report were:

- In case of 33 kV, 11 kV and low tension (LT) lines, the utilities adopt different sizes of conductors and various types of supports. This might have been adopted by the utilities based on their requirements. Based on the costs furnished, the utilities shall try to economize on the costs.
- The costs of 33/11kV sub-stations vary considerably in the layouts, type of structures, control rooms and other related civil works etc. Since the utilities are constructing large number of sub-stations in rural areas under the Rajiv Gandhi Gramin Vidyutikaran Yojana (RGGVY) and other schemes, it is desirable that the layouts are simplified and the costs reduced.
- The distribution transformer capacities are standardized in most of the utilities to 15/16 kVA single phase, 25 kVA, 63 kVA and 100 kVA. It may not be desirable to go in for large capacity distribution transformers, unless they have to cater highly concentrated loads or when the load density is high. Installation of smaller capacity transformers reduces the lengths of LT lines and losses, thereby improving the voltages.
- Standard layouts and estimates with bill of material for some of the important elements are given in the report.
- The model given for updating the benchmark costs may be updated after 3-5 years as there may be changes in technology that impact the actual capital costs and changes in the weights of the composite price indices. If the base of the price indices shifts, appropriate adjustments would need to be made.
- The continuous ground wire has to be run for overhead lines as per the Rule 90 of Indian Electricity (IE) Rules, 1956. It is not being followed in many of the utilities other than Uttarakhand. It is to be ensured that the ground wire has to be run in all the utilities, unless it is relaxed by the electrical inspector under Rule 134 (1) of IE 208 Rules 1956. The additional cost due to this will not change the range of the benchmark costs.
- The utilities have not purchased energy efficient, star labelled transformers so far. Certain utilities are proposing to purchase energy efficient star rated power and distribution transformers. Our enquiries reveal that the costs of such transformers are around 10% more than the normal transformers. The respective regulatory commissions may allow about 10% weightage in the cost of transformers, wherever such transformers are purchased by the utilities.

b. *Study to evolve an appropriate model of incentive-disincentive mechanism for distribution utilities:*

The Forum commissioned a study on incentive-disincentive mechanism of the distribution utilities. The Working Group on loss reduction strategies came out with this suggestion and thus the assignment to evolve an appropriate model of incentive-disincentive mechanism for the distribution utilities was awarded to M/s PwC. The outcomes were:

- The study report captured the experience of various mechanisms prevailing in national and international utilities.
- It was experienced in maximum cases that the incentive is shared with the staff and various parameters are defined like price control and performance of energy networks.
- It was concluded that the incentive mechanism should address two basic things: A) Elements of distribution like wheeling and supply function separately B) Clarity and simplicity in determination of various cost elements of supply and wheeling businesses.
- When the two businesses are segregated then for designing the incentive mechanism, revenue and cost and the performance or business drivers are identified, and the incentive is provided on the controllable parameters.
- For the supply business parameters like quality of supply, O&M, distribution losses (technical and commercial), collection efficiency, working capital are chosen as controllable parameters and the targets are set by the benchmarking exercise or past performance.
- While for the wheeling business the return on capital was chosen in addition to what is there for the supply business, except collection efficiency. Targets were based on the projections, benchmarking or past experience.

c. *Analysis of supply codes of 10 states:*

The ATE under its order asked the Forum to conduct a study on supply codes of different states and identify the gaps and variation, if any, in the present codes. The order was released against one appeal having its concern on the consumer grievances redressal. The said assignment was awarded to M/s PwC. Summary of the findings are as under:

- In certain states, the formats given to the consumers (e.g., for new connection, reconnection, mutation, test reports, agreements etc.) are not separately given in the supply code. Either they form part of the conditions of supply (Punjab, AP), Distribution Code (Tamil Nadu) or they form part of a separate regulation (e.g., in case of West Bengal, a separate regulation exists for a new connection).
- In Jharkhand, although the formats for the applications have been mentioned to be the part of schedules for the electricity supply code, but these were not available on the Commission's website.

- In Maharashtra and West Bengal (except for temporary connections), none of the formats are available in supply code or any other regulation covered under this study.
- In certain states, the documents to be attached along with the application (e.g., for new connection, reconnection, mutation, test reports, agreements etc.) are not clearly mentioned in the supply code.
- Except for the states of MP, UP and Delhi, none of the other states have a clear distinction between temporary and permanent disconnection of services due to non-payment of charges.
- All the states have covered the process applicable in case of unauthorized use and theft of electricity.
- The process applicable for voluntary disclosure of tampered meters has been covered only in case of UP, Delhi and Assam.
- After a detailed analysis, it was decided to prepare a model regulation.

3.4 Model Regulations

The Forum in the year under retrospection came out with the following model regulations:

1. SoPs for distribution licensees:

These standards lay down the guidelines to maintain distribution system parameters within the permissible limits. These standards serve as guidelines for the licensees for providing an efficient, reliable, coordinated and economical system of electricity distribution.

The salient features of these performance standards are:

- To lay down SoPs.
- To measure performance against the standards for the licensee in providing service to ensure that the distribution network performance meets a minimum standard which is essential for the consumers' installation to function properly.
- To enable the consumers to design their systems and equipment to suit the electrical environment that they operate in.
- To enhance the quality of the services to meet acceptable customer service standards in the short term and gradually move towards improved customer service standards in the long term.
- There shall be the guaranteed SoPs which are the minimum standards of service that a distribution licensee shall achieve. The guaranteed SoPs shall be differentiated across the licensee area based on the concentration of population. The categorisation shall be applicable for Class-I cities, urban areas and rural areas.
- The failure of licensee to achieve the guaranteed standards of service shall entail payment of compensation to the consumer.

- The overall SoPs will be those standards which the licensee shall seek to achieve in the discharge of its obligations.
- There is a provision of audit in order to monitor the compliance of the standards by the licensees and report to the Commission with a grading system of the audit reports submitted.

2. *Model regulation by SERCs for REC framework.*

Following are the important provisions:

Recognition of REC issued under CERC REC Regulations

a) REC framework is a national level framework. The Model Regulation recognizes that the certificate issued under the Central Electricity Regulatory Commission (Terms and Conditions for recognition and issue of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2009 shall be the valid instruments for the discharge of the mandatory obligations set out in these regulations for the obligated entities to purchase electricity from renewable energy sources.

Designation of State Agency by SERC

b) The State Commission shall designate an agency as a State Agency for accreditation and recommending the renewable energy projects for registration and to undertake functions under these model regulations.

Effect of default

c) If the obligated entities do not fulfill the RPO as provided in these regulations during any year and also do not purchase the certificates, the Commission may direct the obligated entity to deposit amount into a separate fund as the Commission may determine on the basis of the shortfall in units of RPO and the forbearance price decided by the Central Commission.

If any obligated entity fails to comply with the obligation, it shall also be liable for penalty as may be decided by the Commission under Section 142 of the Act.

In case of genuine difficulty in complying with the RPO because of non-availability of certificates, the obligated entity can approach the Commission for carry forward of compliance requirement to the next year.

3. *Fees and charges to be levied by SLDCs.*

The FOR in its report on Open Access recommended that CERC may formulate regulation for fees and charges levied by Regional Load Despatch Centre (RLDC) to ensure that they not only recover operating and capital servicing cost but also generate surpluses to provide equity for future investments."

Accordingly, in terms of Section 178 (h) (2)of the Act, the CERC has been vested with the powers to make regulations, by notification, on the levy and collection of fee and charges under Section 28. Under these provisions the CERC has notified the Central Electricity Regulatory Commission (fees and charges of RLDC and other related matters) Regulations, 2009 on 18.09.2009.

The report also states that the SERC may thereafter frame regulations for SLDCs as these are essential for ensuring financial autonomy.

Following are the important provisions of the Regulations:

a. Application for determination of fees and charges accompanied by the CapEx plan for the control period

b. Provisions for truing up of annual fees and operating charges recovered for the period after the expiry of the control period and admitted by the Commission after prudence check at the time of truing up.

c. LDC Development Fund

d. Computation of annual charges consists of the following components, namely:- (a) Return on equity; (b) Interest on loan capital; (c) Depreciation; (d) Operation and maintenance expenses excluding human resource expenses; (e) Human resource expenses; (f) National Level Despatch Centre (NLDC) charges and corporate office expenses; and (g) Interest on working capital;

e. Levy and collection of fees and charges: System Operation Charge and M arket operation Charge

f. Billing and other miscellaneous provisions

4. ACTIVITIES OF THE ELECTRICITY REGULATORY COMMISSIONS DURING FY 2009-10

4.1 Achievements of CERC

Apart from the tariff regulations, licensing, the Central Commission has a crucial developmental role. The focus of activities of the Commission during the year has consequently been on the development of the electricity market.

One of the most significant regulatory initiatives in this direction during the year was the introduction of medium-term open access to inter-state grid through which a transmission corridor can be availed of for a period ranging from three months to three years. Simultaneously, the Commission also issued the new regulatory provisions for seeking connectivity to the grid. The new dispensation has abolished the discrimination between the public sector and private sector generators in the matter of connectivity to the grid. The regulations on "Grant of Connectivity, Long-Term Access and Medium-Term Open Access in Interstate Transmission" aim at providing transmission products of different varieties, standardization of procedures, defining the timelines and ensuring level-playing field among different categories of market players.

Medium-term open access would be available for any period between three months to three years and it shall be provided on the basis of availability of transmission capacity in the existing transmission system. Long-term access can be availed for any period between 12 years to 25 years and might require construction of new transmission capacities for giving long-term access. One of the important features of the regulations is that a thermal generating company of at least 500 MW capacity and a hydro generating company of at least 250 MW capacity, irrespective of ownership (whether government owned or private sector) will be connected to the grid directly and there will be no requirement of constructing a dedicated transmission line.

During this year, the CERC notified further amendments to the open access regulations. These amendments have been carried out with the objective of streamlining and rationalizing the processes involved in obtaining open access keeping in view the importance of open access in carrying forward reforms in the power sector. The regulations have provided that if the SLDC does not respond in the given timelines, which is seven working days on the first occasion and three working days on subsequent occasions, the concurrence of the SLDC shall be deemed to have been given. The SLDCs will check only two parameters i.e., availability of transmission capacity and availability of metering infrastructure. This has been done to explicitly provide that no other ground can be the basis for refusal of the open access. The transmission charges for short-term open access have been rationalized keeping in view the philosophy that these should reflect the economic value of the service provided and the charges for long-term usage and short-term usage should ultimately converge. The SLDCs have now been mandated to display on their websites, the information regarding the applications pending for decisions, the reasons for refusal of open access in cases where

open access has been refused, the applicable transmission losses and other related information.

To facilitate greater private sector participation in the transmission segment through the competitive route, the Commission issued regulations for grant of transmission license in which the modalities regarding eligibility of private players have been completely harmonized with the framework for procurement of transmission services through competitive bidding. The Empowered Committee, which is chaired by one of the members of the Commission, also succeeded in getting the bidding process completed for three important transmission systems in the country and three private sector companies have been declared successful.

The CERC has notified new regulations on UI for electricity grid operations and also amendments to the Indian Electricity Grid Code (IEGC). The main objectives of restructuring of the UI regime are to enforce grid discipline and to rationalize the UI rates for the entities who abide by the specified grid operation parameters. Simultaneously, CERC has also narrowed down operational frequency range for the Indian electricity grid with the objective of improving the quality of supply.

Sending a clear message that UI is not a route for trading in electricity, CERC has for the first time specified limits for the overdrawal from the grid within the permissible operating range. This is in accordance with the philosophy that main purposes of UI are enforcing grid discipline and providing for settlement rates for unintended UI interchanges. This step should force the distribution utilities to go in for planned procurement of electricity and thereby creating an environment for investors to set up new power plants. Presently, many utilities postpone setting of power projects and rely on overdrawals from the grid for meeting consumers' demand. The new tighter frequency band would lead to better quality of supply to the consumers. For example, the water pumps would run at a speed closer to design speed and deliver higher output. The Commission intends to further review the operating range in the near future.

The UI rate vector has also been restructured. Now, there is a difference between the rates applicable to UI (overdrawal and underdrawal as against the schedule) within the normal permissible limits and the rates applicable to those entities which resort to excessive overdrawal and endanger the grid security. In other words, the UI regime now diffe rentiates between a normal operator and a habitual overdrawing entity.

Taking a strict view of the continued grid indiscipline by various state utilities, CERC ordered imposition of penalties on three state utilities after going through the due legal process (these were stayed or quashed). These penalties have been imposed for violation of the IEGC provisions which require the constituents (state utilities) to undertake manual load shedding for curtailing the overdrawal whenever the grid frequency goes below 49 Hz. This threshold frequency has been raised to 49.2 Hz by the CERC with effect from April 1, 2009.

4.2 Achievements of the Electricity Regulatory Commissions during 2009-10.

A. Jammu and Kashmir Stat e Electricity Regulatory Commission (JKSERC):

The JKSERC came out with various regulations on electricity supply code, power procurement from renewable sources, tariff determination from RE sources, recovery of expenditure for supply of electricity. Terms and conditions for determination of transmission tariff and licensee's duty for supply of electricity regulation 2010. The state could only procure 1.77% of RE power during the year. 100% metering plan was approved by the commission with a target date of December 2010. However, the utilities could achieve only 53% by then. The target date got further revised to 31st December, 2011.

B. Assam Electricity Regulatory Commission (AERC):

The Commission has already approved the metering plan and utility achieved a 98.82% of metering this year. The Commission also appointed the Ombudsman officer vide Order dated 21st November, 2009. With respect to the Commission's guidance on consumer grievances, state utility established three new forums of consumer grievances at Silchar, Tezpur and Jorhat in addition to the existing one at Guwahati.

C. Madhya Pradesh Electricity Regulatory Commission (MPERC):

The MPERC notified order on Consumer Grievances and Redressal on 30.04.04 which was revised this year on 28th August, 2009, regulation provides for one independent member. The MPERC also introduced the balancing and settlement code for intra-state ABT on 30th October, 2009. ABT came into force from 1st January, 2009 which features for all the intra-state entities, excluding grid connected Captive Power Plants (CPPs). Tariff orders for various kinds of RE sources i.e. Wind, Biomass, Bagasse and small hydro in place. RPO target set as 10%, however the achievement so far has been 1%.

D. Uttar Pradesh Electricity Regulatory Commission (UPERC):

The UPERC ruled out the terms and conditions of supply of power from captive and non-conventional energy generating plants on 9th September, 2009, which featured various kinds of sources like Biomass, Bagasse, Small hydro and Solar. Achievement on the procurement of RE has been between 3-4%.

E. Tripura Electricity Regulatory Commission (TERC):

The TERC circulated draft regulations on grid codes and open access to all the stakeholders and public on 12th May, 2010. As far as the consumer grievances redressal and Ombudsman are concerned, the commission already framed the regulation in September 2006, following which licensee has formed a three-tier forum in November 2009 indicating the names/ designations of officers and the Secretary, TERC has been designated for the Ombudsman job.

F. Joint Electricity Regulatory Commission for Manipur and Mizoram (JERC-M & M):

The Joint commission notified the grid code regulation on 20th May, 2009 along with the terms and conditions for grant of intra-state trading licenses on 23rd November, 2009. It also ruled out a regulation on terms and conditions for open access on 20th October, 2009. The Commission also notified the appointment of the Electricity Ombudsman officer on 2nd July, 2009.

G. Chhattisgarh State Electricity Regulatory Commission (CSERC):

The CSERC notified the conduct of business regulation on 20th July, 2009. With a view to align Multi Year Tariff (MYT) regulations with the Central Commission regulation 2009-14, CSERC came out with a regulation on terms and conditions of determination of tariff on 9th January, 2010. Tariff for RE sources like Biomass and solar plants is already in place. The RPO targets have been set as 5% from Biomass, 3% from small hydro plants and 2% from solar, wind, Bagasse based cogeneration etc. is already fixed.

H. Orissa Electricity Regulatory Commission (OERC):

The Commission approved an amount of Rs. 201.8 lakh towards Repair & Maintenance (R&M) expenditure for FY 2010-11, which includes Annual Maintenance Charges (AMC) for Supervisory Control & Data Acquisition (SCADA) / Energy Management System (EMS) equipments etc. A consultative paper on harnessing of power from RE sources, including cogeneration has also been floated. The Commission is actively involved and has engaged a consultant to prepare a approach paper on RE tariff determination and RPS fixation. However, a RPO order which features targets for RE procurement starting 3% for FY 2007-08 with 0.5% escalation every year is in place. For the year 2009-10, this achievement was 4.25% as against the target of 4%.

I. Uttarakhand Electricity Regulatory Commission (UERC):

The Commission issued a tariff order on 23rd October, 2009 for Uttarakhand Power Corporation Ltd (UPCL), which had a separate chapter on the analysis of metering, billing and collection system of a licensee. The Commission tried to bring out the discrepancies in the same which, in turn, helped a licensee to plug in the holes and realize the untapped revenue. The truing up exercise for the past years generated a net surplus of Rs. 47.8 crore, which was refunded to consumers through tariffs for the FY 2009-10. The Commission also issued a draft regulation namely Tariff and other Terms for supply of Electricity from Non-conventional and Renewable Energy sources Regulation, 2010. It was a revision to the earlier order of 2008 and was made in line with the CERC Regulation, 2009.

J. Himachal Pradesh Electricity Regulatory Commission (HPERC):

While determining the tariff for 2010, the Commission made provisions for automatic meter reading and energy efficiency, and DSM to emphasize on technological upgradation. It also came out with a revised order on tariff related and other issues with respect to small hydro power projects on 2nd February, 2010 to deal with tax rates and other charges. The Commission also penned down the Electricity Supply Code, 2009 on 26th May, 2009.

K. Haryana Electricity Regulatory Commission (HERC):

The Commission issued an order on determination of tariff for the Biomass based power generating plants on 6th November, 2009. The tariff so evolved was Rs.4.84/unit with fixed cost component as Rs.2.07 and variable cost as Rs.2.77/unit. During the year, the Commission approved the tariff orders for the state generating, transmission and distribution companies.

L. Bihar Electricity Regulatory Commission (BERC):

The Commission came out with an order for determination of tariff for purchase of power from Biomass and Bagasse based cogeneration power plants on 21st May, 2009. The Commission passed orders on determination of generation tariff for the state generation company and fuel adjustment charges for the distribution utilities throughout the year.

M. Rajasthan Electricity Regulatory Commission (RERC):

In order to promote RE in the state, the Commission has specified the tariff for wind power plants to be commissioned during FY 2009-10. Also, two separate tariffs have been specified for Biomass based power plants – one for normal commissioning and one for incentivized commissioning (commissioning within 15 months of closure). Similarly, tariff for solar power plants has also been specified, which is inclusive of GBI payable by the Government of India (GoI) to solar power producers. Discoms in the state have been mandated to purchase a minimum of 6% and 1.45% from wind energy and biomass energy sources, respectively, for FY 2009-10 under the RPO. Similar guidelines for solar energy will be issued after commissioning of 50 MW capacity plants in the state.

The state appears to be moving towards ToD tariff and has directed the discoms to include this concept in the next tariff petition for consumers with higher contract demands. The state is continuing with its efforts to achieve a 20% reduction in cross-subsidy charges from the opening levels of cross-subsidy surcharge. The rates for the consumers in the 11 kV, 33 kV and Extra High Voltage (EHV)category have been defined.

Consumer Grievnance Redressal Forumes (CGRFs) have been established at various levels to facilitate easy access for consumers. The Ombudsman has been appointed for each distribution licensee. The Commission notified New Regulations "RERC (Settlement of Disputes by Electricity Ombudsman) Regulations, 2010" on 23rd March, 2010, which is aimed at making the institution of Ombudsman more effective.

N. Jharkhand Electricity Regulatory Commission (JSERC):

The state identified the transmission charges for long-term open access and wheeling charges for consumers below 132 kV. The Commission through the tariff order for FY 2010-11 has directed the licensees to prepare and submit a comprehensive metering plan along with the next tariff petition. The Commission also issued tariff regulations for Biomass and Cogeneration units and fixed the minimum power to be procured from these renewable resources. As much as 3.5% of total power procurement should be from Biomass and Cogeneration in FY 2014-15. The cross-subsidy surcharge for consumers in HTS 33kV (above 100 kVA) and HTS 132 kV (above 100 kVA) have been identified. Norms for RoE, depreciation rates and stand-

by charges have also been notified in the state. Differential rates of energy charges have been identified for peak and off-peak tariffs for better management of load.

The CGRFs of all the licensees in Jharkhand have been established and are functional. The Ombudsman has also been appointed. The Commission has established and notified the constitution of the State Advisory Committee.

O. Kerala State Electricity Regulatory Commission (KSERC):

Open Access regulations were issued on 4th August, 2009. The wheeling and transmission charges have been specified as 50 ps/ unit and 32 ps/unit, respectively. 100% metering has been achieved in the state with Time of the Day metering being introduced for HT and EHT consumers and optional Time of the Day metering has been introduced for LT industries.

A total of 400 petitions were received by the CGRFs in the state, out of which 191 have been settled in the favour of consumers. The Commission has engaged a consultant (Consumer Advocacy & Public Relations) for taking initiatives to create awareness among consumers about the power sector and their rights and privileges so as to ensure an enhanced participation in the regulatory process.

P. Karnataka Electricity Regulatory Commission (KERC):

The Commission specified ToD tariff for HT industries, HT water supply and LT industries. Tariffs for Mini Hydel, Wind, Biomass and Cogeneration have also been specified. A figure for maximum procurement of power through renewable resources has been done away with, and instead a discom-wise minimum percentage has been fixed in its place. In order to encourage open access, surcharge has been made zero in the state and, wheeling and transmission charges for open access consumers have been identified.

The KERC has issued orders for harnessing the surplus captive power from CPPs in the state by specifying the rates linked to UI rates. Karnataka Power Trading Corporation Limited (KPTCL) has completed upgradation of SCADA for 220 kV levels in the state and is working on higher levels.

Q. Gujarat Electricity Regulatory Commission (GERC):

The state carried out the High Voltage Distribution System (HVDS) implementation at four state discoms, which will help in the reduction of technical losses. The intra-state ABT got fully implemented with all its commercial aspects w.e.f, 5th April, 2010 in pursuance of order of the Commission. All generating stations, distribution licensees and other grid users will now be covered under the purview of intra-state ABT. The transmission charges for long-term and short-term open access users have been identified. In order to harness surplus captive generation and to promote open access, cross-subsidy surcharge has now been made same for both HT/EHT industrial categories as well as railway tractions at Rs. 0.51/kWh. Also, there is no penalty for reduction of contract demand by consumer having CPP. All of this is done with an ultimate objective of making affordable power available to the consumers. The targets for reduction in distribution losses were achieved for three out of six discoms. A total of eight CGRFs are operational in the state and GERC has appointed one independent member for every forum.

5. INSIGHTS

5.1 Studies commissioned during the year:

In the various meetings and discussions, the following studies were taken up:

1. *Assessment of various RE sources, potential in different states and determination of RPO trajectory and its impact on tariff:*

   Task force for implementation of FOR recommendation in its last meeting held on 3rd September, 2009 while deliberating on framing model regulation on renewable decided that a detailed study may be commissioned on the assessment of the various RE potential in different states and determine the impact on tariff if the RPO targets are enhanced gradually versus the scenario where the RPO targets are enhanced immediately.

   Pursuant to the provisions of the Electricity Act, the FOR have stipulated that the SERCs shall fix minimum percentage of purchase of power from such sources taking into account the availability of renewable sources in the region and its impact on the retail tariff. Further, the NAPCC has recommended increasing the share of renewable to 10% by 2015 and 15% by 2020. Similar target has been mentioned by The FOR in its Policy on Renewables. In order to achieve these targets and to set RPO trajectories for coming years, it is critical to assess the RE potential available in the country and the various challenges that are required to be addressed.

   The report will provide scenarios for RPO trajectory based on availability of Renewable Energy (RE) sources, target suggested by NAPCC, operationalisation of REC mechanism and the impact on tariffs. It will also highlight the key challenges and bottlenecks that might be required to be addressed for step increase in the growth.

5.2 Agenda for FY 2010-11

1. Finalization of Model regulation of Intra-State Open Access.
2. Model DSM regulation.
3. Finalization of the study on standardization of distribution franchisee.
4. Finalization of Study on "Analysis of Tariff Orders & Other Orders of State Electricity Regulatory Commissions (SERCs)."
5. Finalization of Study on "Evolving an Appropriate Model for Distribution Margin".
6. Finalization of Study on "Implementation & Impact Analysis of Time of Day (ToD) tariff in India".
7. Finalization of Study on "Assessment of various Renewable Energy Resources Potential in Different States, Determination of RPO Trajectory and its Impact on Tariff."
8. Capacity Building Programme for Officers of Regulatory Commissions.
9. Workshops on DSM and Energy Efficiency.

6. FORUM OF REGULATORS
Bank Reconciliation Statement
FROM 01-04-2009 TO 31-03-2010

BANK OF INDIA SAVING A/C 121

	Amount (Rs.) DR	Amount (Rs.) CR
BALANCE AS PER BANK STATEMENT		29,959.22

CHEQUE ISSUED BUT NOT CLEARED IN BANK

DATE	NAME	CHEQUE NO	Amount (Rs.)		Date of Realisations
31-03-2010	MEETING EXPENSE	182122	3,662.00		06.04.2010
31-03-2010	JAGDISH STUDIO	182123	1,915.00		08.04.2010
31-03-2010	TDS 194-J	182124	20,900.00		09.04.2010
31-03-2010	TDS 194-C	182125	1,028.00		09.04.2010
31-03-2010	CERC	182126	5,49,089.00		19.04.2010
31-03-2010	SHIVA SYSTEMS	182127	12,318.00	5,88,912.00	28.05.2010
				(5,58,952.78)	

AMOUNT DEBITED IN OUR BOOK BUT NOT CREDITED IN BANK

DATE		NAME	CHEQUE NO	Amount (Rs.)		Date of Realisations
31-03-2010		FUNDS TRF. from A/c No. 2258	779345	30,76,810.00		03.05.2010
31-03-2010		MANIPUR	482874	2,00,000.00		07.04.2010
31-03-2010		J&K	109085	1,00,000.00		07.04.2010
31-03-2010		SAFIR	712360	2,40,000.00		19.04.2010
31-03-2010		MOP	202506	2,92,877.00	39,09,687.00	13.04.2010
BALANCE AS PER BANK BOOK					33,50,734.22	

ANNEXURE I

Members of the Forum of Regulators			
Sl. No.	**Photograph**	**Name & Designation**	**Electricity Regulatory Commissions**
Chairperson, 'FOR'			
1.		Dr. Pramod Deo Chairperson	Central Electricity Regulatory Commission (CERC)
Members, 'FOR'			
2.		Shri A. Raghotham Rao Chairperson	Andhra Pradesh Electricity Regulatory Commission (APERC)
3.		Shri Jayanta Barkakati Chairperson	Assam Electricity Regulatory Commission (AERC)
4.		Shri B.K. Halder Chairperson	Bihar Electricity Regulatory Commission (BERC)
5.		Shri Manoj Dey Chairperson	Chhattisgarh State Electricity Regulatory Commission (CSERC)
6.		Shri Barjinder Singh Chairperson	Delhi Electricity Regulatory Commission (DERC)
7.		Dr. P.K. Mishra Chairperson	Gujarat Electricity Regulatory Commission (GERC)

8.		Shri Bhaskar Chatterjee Chairperson	Haryana Electricity Regulatory Commission (HERC)
9.		Shri Yogesh Khanna Chairperson	Himachal Pradesh Electricity Regulatory Commission (HPERC)
10.		S. Maria Desalphine Chairperson	J&K State Electricity Regulatory Commission (J&KSERC)
11.		Shri Mukhtiar Singh Chairperson	Jharkhand State Electricity Regulatory Commission (JSERC)
12.		Shri K.P. Pandey Chairperson	Karnataka Electricity Regulatory Commission (KERC)
13.		Shri K.J. Mathew Chairperson	Kerala State Electricity Regulatory Commission (KSERC)
14.		Dr. J.L. Bose Chairperson	Madhya Pradesh Electricity Regulatory Commission (MPERC)
15.		Shri V.P. Raja Chairperson	Maharashtra Electricity Regulatory Commission (MERC)
16.		Shri Bijoy Kumar Das Chairperson	Orissa Electricity Regulatory Commission (OERC)

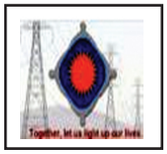
17.		Shri Jai Singh Gill Chairperson	Punjab State Electricity Regulatory Commission (PSERC)
18.		Shri D.C. Samant Chairperson	Rajasthan Electricity Regulatory Commission (RERC)
19.		Shri S. Kabilan Chairperson	Tamil Nadu Electricity Regulatory Commission (TNERC)
20.		Shri Rajesh Awasthi Chairperson	Uttar Pradesh Electricity Regulatory Commission (UPERC)
21.		Shri V.J. Talwar Chairperson	Uttarakhand Electricity Regulatory Commission (UERC)
22.		Shri Prasad Ranjan Ray Chairperson	West Bengal Electricity Regulatory Commission (WBSERC)
23.		Shri V.K. Garg Chairperson	Joint Electricity Regulatory Commission for UTs Except Delhi (JERC-UTs)
24.		Shri C. Hmingthanzuala Chairperson	Joint Electricity Regulatory Commission for Manipur & Mizoram (JERC-M&M)
25.		Shri Manoranjan Karmarkar Chairperson	Tripura Electricity Regulatory Commission (TERC)
26.		Shri P.J. Bazeley Chairperson	Meghalaya State Electricity Regulatory Commission (MSERC)

ANNEXURE II

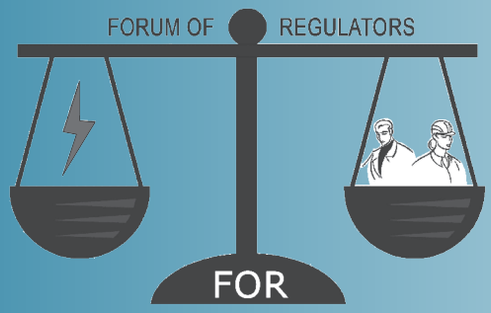
Address and contact details of Electricity Regulatory Commissions

Sl. No.	Logo	Electricity Regulatory Commissions	Address	Contact No./E-mail
1.		Central Electricity Regulatory Commission	3 rd & 4 th Floor, Chanderlok Building, 36, Janpath, New Delhi- 110001	Ph: 91-11-23353503 Fax: 91-11-23753923 wE-mail : info@ cercind.gov.in
2.		Andhra Pradesh Electricity Regulatory Commission	4th & 5th Floors 11-4-660, Singareni Bhavan Red Hills Hyderabad - 500 004	Ph:23397381, 23397399 Fax: 23397378 & 23397489 E-mail: commn-secy@ aperc.gov.in
3.		Assam Electricity Regulatory Commission	ASEB Campus, Dwarandhar, G.S.Road, Sixth Mile, Guwahati - 781022	Ph: 0361-2234442 / 2234472 Fax: 0361-2234432
4.		Bihar Electricity Regulatory Commission	Ground Floor, Vidyut Bhawan-II, B.S.E.B. Campus, Jawahar Lal Nehru Marg (Bailey Road), Patna - 800021 Bihar (India)	Phone : 091-612-6526749, 2504489, 2504488 Fax : 0612-2504488 Email: bercpat@berc. co.in
5.		Chhattisgarh State Electricity Regulatory Commission	Civil Lines, G.E Road, Raipur (CG.) Pin 492001	Phone : 91-771-4073555, Fax : 4073553 Email : cserc.sec.cg@ nic.in
6.		Delhi Electricity Regulatory Commission	Viniyamak Bhavan, C-Block0 Shivalik, Malviya Nagar New Delhi-110017	Telefax : 91-11-26673608 Email : secyderc@ nic.in
7.		Gujarat Electricity Regulatory Commission	1st Floor, Neptune Tower Opposite Nehru Bridge Ashram Road Ahmedabad - 380 009 Gujarat - India	Phone: 079-26580350, 26580359 Fax: 079-26584542 Email : gerc@gercin. org

8.		Haryana Electricity Regulatory Commission	Bays 33-36, Sector 4,Panchkula-134112 Haryana	Phone: +91 (172) 2582531 Fax:+91(172)2572359 E-Mail: herc@chd.nic.in
9.		Himachal Pradesh Electricity Regulatory Commission	Keonthal Commercial Complex, Khalini Shimla-171 002 Himachal Pradesh	Phone: + 91 - 177 - 2627262 / 2627263 Fax.: + 91 - 177 - 2627162 E-Mail : hperc@rediff.com
10.		J&K State Electricity Regulatory Commission	PDC Complex, Ashok Nagar Satwari, Jammu	Telephone : 0191-2457899 Fax: 0191 -2454420 E-mail: jkserc@hotmail.com
11.		Jharkhand State Electricity Regulatory Commission	2nd floor, Rajendra Jawan Bhawan-cum-Sainik Bazar Main Road, Ranchi-834001	Ph.: 0651-2330926 Fax: 0651-2330924 E-mail: jserc@sancharnet.in
12.		Karnataka Electricity Regulatory Commission	No. 9/2, Mahalaxmi Chambers, 6th & 7th Floor, M.G.Road, Bangalore-560001	Ph: 080-25320355, 25320213, 25320214 Fax: 080-25320338 E-mail: kerc@vsnl.com
13.		Kerala State Electricity Regulatory Commission	K.P.F.C.Bhavanam C.V.Raman Pillai Road Vellayambalam Thiruvananthapuram 695 010	Ph: 0471-2735588 Fax: 0471-2735599 E-mail: kserc@erckerala.org
14.		Madhya Pradesh Electricity Regulatory Commission	"Metro Plaza", 3rd & 4th Floor, E-5 Arera Colony, Bittan Market, Bhopal – 462 016	Ph: 0755-24635850 Fax: 0755-2430158 Email:secmperc@sancharnet.in
15.		Maharashtra Electricity Regulatory Commission	World Trade Centre, Center No.1, 13th Floor, Cuffe Parade, Colaba, Mumbai-400005	Tel:091-22 22163964/65/69 Fax:091-22-22163976 Email:mercindia@mercindia.org.in

16.		Orrisa Electricity Regulatory Commission	Bidyut Niyamak Bhavan, Unit-VIII, Bhubaneswar- 751 012	Ph.:+91-674-2396117, 2393097, 2391580, 2393606 Fax.:+91-674-2393306, 2395781 E-mail- orierc@rediffmail.com, info@orierc.org
17.		Punjab State Electricity Regulatory Commission	SCO: 220-221, Sector-34-A, Chandigarh	Ph: (0172) 2645164 - 65 - 66 Fax: (0172) 2664758, 2645163 E-mail: percchd8@hotmail.com
18.		Rajasthan Electricity Regulatory Commission	Shed No. 5, Vidhyut Bhawan, Vidhyut Marg, Joyti Nagar, Jaipur 302005.	Ph: 2741181, 2741016 Fax: 2741018 Email : rercjpr@yahoo.co.in
19.		Tamil Nadu Electricity Regulatory Commission	19-A, Rukhmani Lakshmipathy Salai (Marshalls Road), Egmore, Chennai – 600 008.	Ph:044-28411378/ 28411379 E-mail: tnerc@vsnl.net
20.		Uttar Pradesh Electricity Regulatory Commission	Kishan Mandi Bhawan, 2nd Floor, Gomti Nagar, Lucknow – 226010.	Phone:2720424, Fax: 2720423 Email: secretary@uperc.org
21.		Uttarakhand Electricity Regulatory Commission	The Institute of Engineers (India), 1st Floor, Near ISBT, Majra, Dehradun (Uttarakhand)	Tel:0135-2763441 Fax: 0135-2641314 E-mail: uerc@indiatimes.com
22.		West Bengal Electricity Regulatory Commission	FD-415A, Paura Bhavan, (3rd Floor), Sector – III, Bidhannagar, Kolkata – 700091	Ph: 2359-2189,2359-3397 Fax:(033)2359-3397 E-mail: wberc@cal3.vsnl.net.in

23.		Joint Electricity Regulatory Commission for UTs Except Delhi	2nd Floor, HSIIDC Office Complex, Udyog Vihar, Phase-V, Gurgaon (Haryana)	Ph: 0124-2343302, 23714168 Fax: 0124-2342853 Email: sec_jerc@hotmail.com
24.		Joint Electricity Regulatory Commission for Manipur & Mizoram	D-31, Mahatma Gandhi Road, Upper Khatla, Aizawl, Mizoram-796001.	Ph: 0389-2301926 Fax: 0389-2301299/2344301 E-mail: jerc.mm@gmail.com
25.		Tripura Electricity Regulatory Commission	Buthoria, Choumuhani, Agartala – 799 001	Ph: 0381-2326372 Fax: 0381-2326372 Email: ssctercom@yahoo.com
26.		Meghalaya State Electricity Regulatory Commission	Lower Lachumiere, New Administrative Bldg., 1st Floor, East Khasi Hills District, Shillong – 793 001 (Meghalaya)	Ph: 91-364-2500142 / 2500069 Fax: 91-364-2500062 Email:mmserc@gmail.com secy.mserc-meg@nic.in



III

Status Report on Issues Pertaining to National Electricity Policy

CONTENTS

1. Grid Codes

Provision in NEP (National Electricity Policy)

5.3.2 .....

- The State Regulatory Commissions who have not yet notified the Grid Code under the Electricity Act, 2003 should notify the same not later than September 2005.

S. No.	SERC	Date of Notification	Status
1.	AERC	10.02.2005	AERC (Assam Electricity Grid Code Regulations, 2004)
2.	BERC	20.07.2010	Notified
3.	CSERC	30.12.2006	Notified
4.	DERC	22.04.2008	Implemented through notification of "Delhi Electricity Regulatory Commission (State Grid Code) Regulations, 2008" (No. F. 17(14)/Engg./DERC/2003-04 dated 22.04.2008.
5.	HPERC	11.08.2008	HP Grid Code is in force in the State of HP.
6.	JSERC	04.02.2009	Notified
7.	J&KSERC	20.11.2007	Under implementation
8.	KERC	26.01.2006	Notified. Proposed to be modified to comply with IEGC 2010.
9.	KSERC	13.01.2006	Regulations on Grid Code under the Act was published on 13.01.2006.
10.	MPERC	Notified on 20.08.04 Revised Notified on 24.10.05	Implemented and Revised.
11.	MSERC	WIP	
12.	OERC	01.05.2006	Orissa Grid Code (OGC) Regulation, 2006 is already issued.

S. No.	SERC	Date of Notification	Status
13.	PSERC	09.03.2008	The State Grid Code effective from 01.04.2006 was notified vide No. PSERC/Secy.Regu.-.26 dated 09.03.2006 and published in the State Gazette dated 24.03.2006.
14.	RERC	Notified on 24.05.2008	On 28.04.2010, the CERC notified new Electricity Grid Code, incorporating some important changes. Consequently, amendments in relevant clauses of Rajasthan Electricity Grid Code (REGC) have been made and draft "RERC (REGC) (1st Amendment) Regulations, 2010" has been prepared and published in newspaper on 12.06.2010 for inviting public comments.
15.	TERC	In Draft stage	The Draft Regulation has been circulated among stake holders and public through paper publication and official letters on 12.05.10. On receipt of comments a hearing thereof the Gazette Notification shall be proceeded.
16.	UERC	09.04.2007	Notified
17.	UPERC	14.07.2007	Revised on this date.
18.	JERC (MM)	20.05.2009	The Commission Notified Grid Code Regulation 2009 on 20.05.2009.

2. Technology Up-gradation

Provision in NEP:

5.3.3 .....

- The Regulatory Commissions need to provide facilitative framework for non-discriminatory open access. This requires load dispatch facilities with state-of-the art communication and data acquisition capability on a real time basis. While this is the case currently at the regional load dispatch centers, appropriate State Commissions must ensure that matching facilities with technology upgrades are provided at the State level, where necessary and realized not later than June 2006.

S. No.	SERC	Status
1.	AERC	Technology up-gradation to provide facilitative framework for non-discriminatory open access at SLDC has been done.
2.	BERC	SLDC is functioning at BSEB H.Q. Up-gradation of SLDC was done by Powergrid under ULDC project. The work of SCADA is under progress by Powergrid.
3.	CSERC	SCADA installed. Up-gradation is in progress. Inter State Open Access being availed by 30 generators (approx) for 800 MW (approx.).
4.	DERC	SLDC is well equipped with setting up of the communication and data acquisition capability on real time basis. Open access is being provided to all power utilities.
5.	HPERC	The SLDC is capable of handling the open access cases, having all requisite capabilities.
6.	J&KSERC	Jammu and Kashmir State Electricity Regulatory Commission issued on 25.01.2006 the "Open Access in Intra-state Transmission and Distribution" Regulation, 2006 providing a facilitative framework for non-discriminatory open access in the state. The State Load Despatch Centre, Jammu and the sub-Load Despatch Centre, Srinagar have been provided with communication and data acquisition capabilities on a real time basis. These centres are being further upgraded by the State Government under the Prime Minister's Reconstruction Programme, for which an amount of Rs. 53 crore has been allotted.
7.	KERC	KPTCL has taken up the up gradation of SCADA under integrated SCADA scheme. KPTCL has completed implementation of SCADA upto 220 kV level. The implementation at lower voltages is under progress and expected to be completed during FY-11.

S. No.	SERC	Status
8.	KSERC	Regulation for SLDC fees and charges is in draft stage. SLDC is functioning on funds from the Single Utility, Kerala State Electricity Board
9.	MPERC	Non- discriminatory Open Access is being provided to consumers with Contract demand of 1 MW and above since October 2007. The SLDC (State Load Despatch Centre) is facilitating the Open Access in M.P. The Commission is considering ARR of SLDC for last 4 years including approval of Capex plan for technology up-gradation and allowing levy of fees and charges to recover all the expenses of SLDC including Capex for technology up-gradation.
10.	MSERC	WIP
11.	OERC	OERC (Terms and Conditions of Open Access) Regulation, 2005 and OERC (Determination of Open Access Charges) Regulation, 2006 have already been published respectively on 21.06.2005 and 18.07.2006. Consumers seeking Open Access for power exceeding 1 MW from generator has been allowed from 01.01.2009 whereas from any licensee has been allowed from 01.04.2008. The Commission has taken steps for separation of SLDC from STU. SLDC is fully organized to process Open Access application. SLDC has started filing ARR and tariff application with the Commission starting from FY 2009-10. The Commission has approved an amount of Rs.201.8 lakh towards R&M expenditure for FY 2010-11 which includes AMC charges for SCADA/EMS equipment etc. The Commission has further directed that any capital expenditure such as establishment of WAN for collection of metering data etc. during FY 2010-11 should be met from SLDC fund with prior approval.
12.	PSERC	PSTCL (erstwhile PSEB) has already established a state-of-the art EMS/ SCADA (Energy Management System/Supervisory Control and Data Acquisition) system in association with PGCIL (Power Grid Corporation India Ltd.) under ULDC (United Load Despatch and Communication) Scheme, commissioned since August, 2002. PSTCL has already put up 49 Remote Terminal Units (RTU) (31 nos. 220 kV and 18 nos. 132 kVout of 57 nos. and 78 nos.respectively) covering all 220 kv and 132 kV Generating Stations, 220 kV and 132 kV sub-stations connected with interstate tie-lines as well as important 220 kV sub-stations. Further, all the remaining 220 kV sub-stations are likely to be covered by 31.12.2011. 132 kV sub-stations will be covered in a phased manner.
13.	TERC	The Open Access Draft Regulation is under circulation among stake holders and public vide No. F.25/TERC/09/101-112 dated 12.05.10. On receipt of comments the same shall be published in Tripura Gazette. At present scenario there is little scope of Open Access probability.

S. No.	SERC	Status
14.	UERC	Directions have been issued for segregation of SLDC, its ring fencing and development of necessary infrastructure.
15.	UPERC	SLDC has established Multi-Buyer Multi-Seller Unit with necessary infrastructure to undertake energy UI accounting under ABT, however, licensees have informed that real time online data exchange system is yet to be operationalized. Accounting software developed has been tested and personnel trained in ABT related matter. SLDC is already functioning and carrying out energy accounting from TPS under ABT, but yet to be made independent. Ring fencing and manpower of SLDC is under implementation, as per GoI guidelines. Remote Console for availability of data of Power Houses has been commissioned. The ABT monitoring software is functional. Links are being established between STU and other utilities for automatic and real time transfer of information. Vide Commission's order dt. 05-03-09, all the entities (except Obra and Harduaganj P/s) have come under the purview of ABT since 01-07-09. The Commission has also specified ABT provisions in Generation Regulations 2009. The interface points G-T and T-D have ABT compatible metering.
16.	JERC (MM)	Status as of now, the two states are not have SCADA back up SLDC. Necessary steps are being taken up by the two states to have full fledge SLDC.

3. Open Access Transmission Charges & Distribution Networks Charges

Provision in NEP:

5.3.3.....

Non-discriminatory open access shall be provided to competing generators supplying power to licensees upon payment of transmission charge to be determined by the appropriate Commission. The appropriate Commissions shall establish such transmission charges no later than June 2005.

5.4.5.....

Section 49 of the Act provides that such consumers who have been allowed open access under Section 42 may enter into agreement with any person for supply of electricity on such terms and conditions, including tariff, as may be agreed upon by them. While making regulations for open access in distribution, the SERCs will also determine wheeling charges and cross-subsidy surcharge as required under Section 42 of the Act.

WHEELING CHARGES(Paise/Unit)

S. No.	SERC	Year	Utility	EHT/132kV	HT/33/66 kV	HT/11 kV	LT
1.	AERC	2009-10	LAEDCL	Nil	0.16	0.68	1.94
			CAEDCL	Nil	0.16	0.68	1.94
			UAEDCL	Nil	0.16	0.68	1.94
2.	CSERC	2009-10	CSPDCL		17		
3.	DERC	2009-10	BRPL	It may be noted that 132kV network does not exist in Delhi	9.03	38.07	70.82
			BYPL		10.4	43.89	87.52
			NDPL		10.55	45.33	80.66
4.	HPERC	2009-10	HPSEB	In FY 09 the wheeling charges notified paise 75 per unit and in FY 10, true up 80.54 paise per unit and FY11 the wheeling charges are 100.73 paise per unit.			
5.	KERC	2009-10	BESCOM			7.00	17.00
			MESCOM			21.00	48.00
			CESCO			16.00	38.00
			HESCOM			21.00	49.00
			GESCOM			17.00	39.00

S. No.	SERC	Year	Utility	EHT/132kV	HT/33/66 kV	HT/11 kV	LT
6.	KSERC	2009-10	Open Access regulation issued on 04.08.2009.Wheeling charges is 50Ps per unit.				
7.	MSERC	2009-10	Yet to be finalized.				
8.	OERC	2009-10	WESCO	50.73			
			NESCO	64.16			
			SOUTHCO	81.27			
			CESU	73.62			
9.	RERC	2009-10		1	11	32	Not Prescribed
10.	UERC	2009-10	UPCL	In absence of voltage wise data, the Commission was constrained from determining voltage wise wheeling and transmission charges. However, the average wheeling charges as per the Tariff Order for FY 2010-11 is 65.60 Paise per unit.			
11.	UPERC	2009-10	PVVNL	LTOA-29.7 STOA-7		LTOA-47.5 STOA-11	-
			DVVNL				-
			MVVNL				-
			PuVVNL				
			KESCO	LTOA-28.7 STOA-6		LTOA-46.5 STOA-10	-
			NPCL	-	-	-	-
12.	JSERC	2010-11	JSEB		Rs. 0.14/Unit (Aggregate)		
13.	GERC	2009-10	All Discoms (MGVCL,PGVCL,DGVCL & UGVCL)			13.48	44.93
			Torrent Power Ltd. (Ahmedabad)			20.67	69.04
			Torrent Power Ltd. (Surat)			15.91	41.63
14.	JERC (MM)	2009-10	No Transmission charges/wheeling charges/Cross-subsidy charges are fixed by this joint Commission so far.				

WHEELING CHARGES (Rs/MW/Month)							
15.	J&KERC	2009-10	Power Development Department (PDD)	Rs 455/ MW/ day		Rs 914 /MW / day	
16.	MPERC	2009-10		NIL	33kV – 14 Paisa per kWh	49 Paisa per kWh	107 Paisa per kWh
17.	PSERC	2009-10	LTOA		4281		
			STOA		2569		

LTOA – Long Term Open Access

STOA – Short Term Open Access

Transmission Charges (28.08.2008)

S. No.	SERC	Year	LTOA (Rs./MW/Month)	STOA (Rs./MW/Day)
1.	AERC	2009-10	Rs 286962.4	Rs 9434/MW/day
2.	CSERC	2009-10	72115	593
3.	DERC	The Open Access power transmission is provided by SLDC, Delhi. Adeuate arrangements have been made for non-discriminatory open access to all power utilities with wheeling charges in line with the CERC guidelines. In this regard, Open Access Regulation vide Notification No. F.11(133)/2003/Power/12 & NO. F. 8(18)/DERC/2005-06/3635 dated 3.1.2006 has been issued by DERC mentioning the various charges for Open Access. However, in Delhi, no consumer of any voltage level has availed the facility of open access. Further, DERC Order dated 29.08.2008 provides illustration of open access charges for the three DISCOMs.		
4.	GERC	2009-10	2410/MW/Day	603
5.	HPERC	The transmission charges notified for FY 09 45365.71 Rs./MW/month, in FY 10 true up 51661.83 Rs./MW/month and for FY 11 the transmission charges are 64967.43 Rs./MW/month.		
6.	JSERC	2010-11	Rs. 0.18 /Unit	-
7.	J&KSERC		30,000/month	1000/day
8.	KERC	2009-10	102427.00	841.87
9.	KSERC	Open Access regulation issued on 04.08.2009. Transmission charges is 32Ps per unit.		
10.	MPERC	2010-11	Rs.2554/MW/Day	Rs.77.29/MWh
11.	MsERC	Yet to be finalized.		
12.	OERC	2009-10	Rs.5040	Rs.1260
13.	PSERC		4431	2659
14.	UERC	2010-11	44821.20	To be taken up separately
15.	UPERC		.094 Rs./kWh (connected above 132 kV voltage level) .126 Rs./kWh (connected at 132 kV voltage level)	.04 Rs./kWh (connected above 132 kV voltage level) .05 Rs./kWh (connected at 132 kV voltage level)

4. Time-Bound Programme on Aggregate Technical & Commercial Losses

Provision in NEP:

5.4.6 A time-bound programme should be drawn up by the State Electricity Regulatory Commissions (SERC) for segregation of technical and commercial losses through energy audits. Energy accounting and declaration of its results in each defined unit, as determined by SERCs, should be mandatory not later than March 2007. An action plan for reduction of the losses with adequate investments and suitable improvements in governance should be drawn up. Standards for reliability and quality of supply as well as for loss levels shall also be specified, from time to time, so as to bring these in line with international practices by year 2012.

S. No.	SERC	Utility	Loss Reduction					
			2006-07		2007-08		2008-09	
			Target	Achieve	Target	Achieve	Target	Achieve
1.	BERC	BSEB	Road map and trajectory for reduction of AT&C loss and also segregation of AT&C losses given to BSEB (deemed Licensee).					
2.	CSERC	CSEB	33.81	35.54	32.54	34.46	-	-
3.	GERC	DGVCL	Commission has approved the distribution loss trajectory for the control period for 2008-09 to 2010-11 for MYT for all the distribution licensees of Gujarat.					
		MGVCL						
		PGVCL						
		UGVCL						
		TPL						
4.	KERC (Only T & D Losses)	BESCOM	20.00	19.99	19.00	16.72	16.00	15.11**
		GESCOM	27.05	26.03	26.50	26.01	24.02	25.46
		HESCOM	25.00	25.06	24.00	25.15	22.50	20.88
		MESCOM	14.90	13.71	14.80	12.95	12.90	12.84
		CESC	22.00	22.62	21.00	17.35	16.75	16.41
		Hukeri RECS	14.70	15.16	14.60	15.38	14.70	15.19
5.	KSERC	KSEB	Loss reduction in the Single Utility, Kerala State Electricity Board during 2005-06; the target and Achievement was 21.89% & 22.96 % respectively.					

S. No.	SERC	Utility	Loss Reduction					
			2006-07		2007-08		2008-09	
			Target	Achieve	Target	Achieve	Target	Achieve
6.	MPERC	MP Purv Kshetra VVCL	34.50%	43.29%	32.50%	43.03%	29.50%	37.23%
		MP Paschim Kshetra VVCL	30.00%	36.71%	28.50%	37.16%	27.00%	33.76%
		MP Madhya Kshetra VVCL	43.00%	48.25%	40.00%	49.83%	37.00%	38.93%
7.	MsERC	MeECL	Target 15% achieved 30% for FY. 2009-10.					
8.	JSERC	JSEB	36.70%	39.40%	32.70%	43.30%	28.70%	43.10%
9.	RERC	Jaipur Discom	29.52%	33.70%	28.50%	30.86%	23.90%	24.90%
		Ajmer Discom	34.08%	37.68%	35.00%	36.14%	32.00%	29.56%
		Jodhpur Dis.	31.29%	32.47%	33.00%	30.84%	26.50%	29.04%
		Rajasthan	31.61%	34.65%	32.00%	32.56%	27.38%	27.59%
10.	UPERC**	DVVNL (incl. Bulk)	No Tariff Order issued in FY 2005-06, however, UPPCL informed that against target of 23.9%, 34.2% was achieved. For Kesco the target was 30.47% against which, 37.72% was achieved.					
		PuVVNL						
		PVVNL (incl. Bulk)						
		MVVNL						
		KESCO						
11.	JERC (MM)		Tariff Petition is being filed by Mizoram and Manipur Electricity Department. Segregation of loss and Loss Reduction target etc shall know after analyzing the petitions.					

5. Metering Plans

Provision in NEP:

5.4.9 The Act requires all the consumers to be metered within two years. The SERCs may obtain from the distribution licensees their metering plans, approve these, and monitor the same. The SERCs should encourage use of pre-paid meters. In the first instance, ToD meters for large consumers with a minimum load of one MVA are also to be encouraged. The SERCs should also put in place independent third-party meter testing arrangements.

S. No.	SERC	Metering Plan
1.	AERC	98.82% of total consumers are metered and the rest unmetered; the process of metering is on going.
2.	BERC	Directive for 100% metering has been given to BSEB in Tariff Order of 2006-07 and repeated in Tariff Order for 2008-09. BSEB has been directed to provide no new connection without a meter.
3.	CSERC	Target date of 100% meterization has been extended up to March 2009. No new connection without a meter. The Board has been advised to put in place a third-party meter testing arrangement. ToD tariff has been made applicable for all industrial HT consumers.
4.	DERC	a. All new connections issued are duly metered. b. All existing connections are metered, except for new connections in JJ Clusters. c. Discoms have installed the energy meters with facilities for recording energy consumption on a real-time basis within half-an-hour slot for the consumers (11kV and above). Pre-paid meters are also being procured to provide the consumers with a different metering option.
5.	GERC	Distribution Licensees have submitted that all the connections are metered except in case of Agriculture connections. Following is the metering status for FY 2009-10.

<table>
<tr><th>S. No.</th><th>SERC</th><th colspan="2">Metering Plan</th></tr>
<tr><td></td><td></td><td>Distribution Licensee</td><td>Metered Connections</td></tr>
<tr><td></td><td></td><td>UGVCL</td><td>28.87%</td></tr>
<tr><td></td><td></td><td>DGVCL</td><td>45.74%</td></tr>
<tr><td></td><td></td><td>MGVCL</td><td>40.64%</td></tr>
<tr><td></td><td></td><td>PGVCL</td><td>36.00%</td></tr>
<tr><td></td><td></td><td>TPL (AHMEDABAD)</td><td>100%</td></tr>
<tr><td></td><td></td><td>TPL (SURAT)</td><td>100%</td></tr>
<tr><td></td><td></td><td colspan="2">The Commission has directed to improve the status of metering of agricultural consumers.</td></tr>
<tr><td>6.</td><td>JSERC</td><td colspan="2">The Commission in the Tariff Order for FY 2010-11 of JSEB has issued direction to the licensee to prepare and submit a comprehensive metering plan along with the technical specification of meters to be installed at various network levels with the next tariff petition. It has also been directed that the licensee shall ensure that the metering plan is synchronized with the T&D loss reduction plan.

The third-party meter testing arrangements have already been put in place by the Commission.</td></tr>
<tr><td>7.</td><td>J&KSERC</td><td colspan="2">The Commission had approved the metering plan for 100% metering of all consumers by 31st December, 2009. However, the utility could not achieve the target for various reasons, the main reason being a case initiated by the State Vigilance Organization against the utility regarding purchase of meters. The Vigilance case has now been closed.

The Commission reviewed the status regarding implementation of the metering plan and it was noticed that by the target date of 31st December, 2009 the utility could achieve only 53% of consumer metering. After careful consideration, the Commission has approved a revised metering plan for achieving 100% consumer metering by 31st December, 2011.

The utility had proposed introduction of ToD metering, but the same was not approved by the Commission for reason of insufficient data. The utility has been directed to submit detailed proposals for introducing pre-paid meters and ToD meters in the State.</td></tr>
</table>

<table>
<tr><th>S. No.</th><th>SERC</th><th>Metering Plan</th></tr>
<tr><td>8.</td><td>KERC</td><td>Discoms have installed meters for all the installations except IP sets and BJ/KJ. Specific metering plan is yet to be furnished by discoms. Status of percentage of metering of BJ/KJ installations & IP sets as on 31.3.2008 is as under:
<table>
<tr><th></th><th>BJ/KJ</th><th>IP Sets</th></tr>
<tr><td>BESCOM</td><td>98.43%</td><td>9.62%</td></tr>
<tr><td>MESCOM</td><td>85.98%</td><td>93.40%</td></tr>
<tr><td>CESC</td><td>100.00%</td><td>20.65%</td></tr>
<tr><td>HESCOM</td><td>82.72%</td><td>29.40%</td></tr>
<tr><td>GESCOM</td><td>72.34%</td><td>24.72%</td></tr>
</table></td></tr>
<tr><td>9.</td><td>KSERC</td><td>100% Metering in the state. ToD metering in HT and EHT Consumers. For LT industries optional ToD metering is introduced.</td></tr>
<tr><td>10.</td><td>MPERC</td><td>In the state of MP, the un-metered consumers belong to Domestic & Agriculture categories. The status of un-metered connections as on 31.03.2010 is given below-
A- Domestic Category –
<table>
<tr><th rowspan="2">S. No.</th><th rowspan="2">Name of Discom</th><th colspan="2">Number of un-metered connections</th><th colspan="2">Un-metered of total connections (%)</th></tr>
<tr><th>Urban</th><th>Rural</th><th>Urban</th><th>Rural</th></tr>
<tr><td>1.</td><td>MP Poorv KVVCL</td><td>1859</td><td>728403</td><td>0.23</td><td>52.14</td></tr>
<tr><td>2.</td><td>MP Paschim KVVCL</td><td>0</td><td>283340</td><td>0.00</td><td>21.74</td></tr>
<tr><td>3.</td><td>MP Madhya KVVCL</td><td>17880</td><td>256630</td><td>1.90</td><td>26.56</td></tr>
<tr><td></td><td>State Total</td><td>19739</td><td>1268373</td><td>0.73</td><td>34.59</td></tr>
</table>
B- Agriculture Category –
The Commission has observed that to provide meters to an individual agriculture consumer is very difficult due to field conditions. Hence for agriculture consumers, the Commission has directed for meterization of distribution transformers having pre-dominant agriculture load.</td></tr>
</table>

<table>
<tr><th>S. No.</th><th>SERC</th><th>Metering Plan</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Name of Discoms</th><th>DTRs in service</th><th>No. of Agricultural pre-dominant DTRs</th><th>No. of Agricultural pre-dominant DTRs provided with meters</th><th>% of Agricultural pre-dominant DTRs provided with meters</th></tr>
<tr><td>MP Poorv KVVCL</td><td>60,175</td><td>24,995</td><td>517</td><td>2.1</td></tr>
<tr><td>MP Paschim KVVCL</td><td>90,412</td><td>57,584</td><td>6,015</td><td>10.4</td></tr>
<tr><td>MP Madhya KVVCL</td><td>84,901</td><td>51,525</td><td>4,879</td><td>9.5</td></tr>
<tr><td>State Total</td><td>235,488</td><td>134,104</td><td>11,411</td><td>8.5</td></tr>
</table>
II. The directions of the Commission to achieve 100% meterization are given below:-
i. All un-metered domestic connections in urban areas should be provided with the meters by end of December, 2010.
ii. All un-metered domestic connections in rural areas be provided with meter in a phased manner and meterization be completed by March, 2011.
iii. Not less than 25% of the distribution transformers having pre-dominant agriculture load spread over the entire area of the Company be provided with the meter by end of Deccember, 2010.
</td></tr>
<tr><td>11.</td><td>MSERC</td><td>WIP</td></tr>
</table>

<table>
<tr><th>S. No.</th><th>SERC</th><th>Metering Plan</th></tr>
<tr><td>12.</td><td>OERC</td><td>
<table>
<tr><th>Sl. No. 16 (OERC)</th><th colspan="4">Metering Plan</th></tr>
<tr><th>METERING POSITION as on 31.03.2010</th><th>WESCO</th><th>NESCO</th><th>SOUTHCO</th><th>CESU</th></tr>
<tr><td>Total no of consumer meters</td><td>549845</td><td>557832</td><td>616658</td><td>1107273</td></tr>
<tr><td>No of working consumer meters</td><td>539311</td><td>399311</td><td>569027</td><td>999281</td></tr>
<tr><td>Percentage of working meters</td><td>98</td><td>72</td><td>92</td><td>90</td></tr>
<tr><td>No. of 33 kV feeders</td><td>85</td><td>60</td><td>112</td><td>125</td></tr>
<tr><td>No. of 33 kV metering</td><td>85</td><td>57</td><td>112</td><td>109</td></tr>
<tr><td>No. of 11 kV feeders</td><td>466</td><td>428</td><td>425</td><td>601</td></tr>
<tr><td>No. of 11 kV feeder metering</td><td>451</td><td>93</td><td>425</td><td>601</td></tr>
<tr><td>No. of DTRs</td><td>18565</td><td>22647</td><td>14694</td><td>22796</td></tr>
<tr><td>No. of DTR metered</td><td>12558</td><td>372</td><td>9236</td><td>8832</td></tr>
</table>
OERC has been monitoring the metering status and metering plan of discoms in each quarterly Performance Review Meeting. The discoms to utilize pre-paid meters if the consumer elects for it. The Commission has further directed that all the govt. consumers should preferably be provided with pre-paid meters to avoid default in payment by them. The Commission in its successive tariff order has directed that all the three-phase consumer should be allowed ToD benefit if they are fitted with requisite meters, irrespective of their contract demand. For the purpose of independent third-party meter testing arrangement, accredited test laboratories are used as per CEA (Installation and Operation of meters) Regulation 2006.
</td></tr>
<tr><td>13.</td><td>PSERC</td><td>All connections, except AP are metered. The licensee has been directed to comply with the requirements of the Electricity Act, 2003 the without any further delay and complete 100% metering.</td></tr>
<tr><td>14.</td><td>RERC</td><td>The RERC has notified “RERC (Metering) Regulations, 2007” on 29th May, 2007 to supplement CEA Metering Regulations which specify requirement of testing, sealing, calibration of metering equipment, practices that should be provided for measurement and recording of various parameters.

The RERC has put-in-place 4 independent third-party meter testing agencies in the state.

The Rajasthan un-metered category consumers exist only in the agriculture (flat rate) category. All other categories of consumers are metered.</td></tr>
</table>

S. No.	SERC	Metering Plan
		Discoms have already been directed to provide meters to agriculture (flat rate) consumers through super transformers. The discoms are in process of providing the meters. As per Supply Code Regulation supply of electricity to temporary connections shall be made preferably through pre-paid meters and the licensee is not entitled to recover any security if supply to a consumer is made through a pre-paid meter. The discoms have been directed to include the concept of ToD tariff mechanism in the next tariff petition at least for those category of consumers having higher contract demand say 1500 kVA to begin with.
15.	TERC	The licensee already achieved 92.5% metering installation both electro magnetic/electronic. The balance un-metered Kutirjyoti consumers shall be completed within the next one year. The ToD metered system also available and installed on demand from consumers.
16.	UERC	Directions issued for 100% metering. Penalty imposed for non-compliance. ToD implemented on LT loads above 25 kW and all HT consumers. % of DT's metered as on 31.03.2009: 40.61% % of consumer metering as on 31.07.2009: 98.04%
17.	UPERC	All 11 kV feeders have been metered, ToD meters for Large and Heavy Power Consumers (HV-2) have been installed. Directions have been issued for 100% metering; Discoms are in the process of installing electronic meters for all consumers. Provisions in tariff order for TVM/ToD meters for all connections above 25kW/HP. Commission directives for pre-paid meters on all Government and public institutions above 45 kW.
18.	JERC (MM)	100% consumers metering is completed by Power & Electricity Department, Government of Mizoram. The Electricity Department, Government of Manipur is reportedly finding it difficult due to lack of funds and other factors. Pre-paid meters and ToD for large consumers and encouraged in the regulations. Third-party meter testing is yet to be put in place.

6. Implementation of HVDS, SCADA & Data-Base Management

Provision in NEP:

5.4.11 High Voltage Distribution System (HVDS)is an effective method for reduction of technical losses, prevention of theft, improved voltage profile and better consumer service. It should be promoted to reduce LT/HT ratio keeping in view the techno-economic considerations.

5.4.12 SCADA and data management systems are useful for efficient working of distribution systems. A time bound programme for implementation of SCADA and data management system should be obtained from distribution licensees and approved by the SERCs keeping in view the techno-economic considerations. Efforts should be made to install substation automation equipment in a phased manner.

S. No.	SERC	HVDS	SCADA & Data-Base Managment
1.	AERC	Not implemented till now, but the pilot project is going on in selected areas.	Planned for implementation in Guwahati city.
2.	BERC	HVDS is being provided under rural electrification.	SCADA & data base management work is under progress in BSEB.
3.	CSERC	CSPDCL has started converting LT system to HVDS as a pilot scheme.	SCADA implemented in EHV system of JTU.
4.	DERC	No new HVDS scheme being taken up.	SCADA centres for all discoms are in place. With the installation & operation of SCADA centres, discoms have unmanned many 66 kV and 33kV grid sub-stations.
5.	GERC	HVDS implementation is carried out at MGVCL, UGVCL, DGVCL and PGVCL for effective reduction in losses.	
6.	J&KSERC	HVDS has been introduced in the state on a pilot basis. Since the system is yielding good	

S. No.	SERC	HVDS	SCADA & Data-Base Managment
		results, the utility has decided to implement HVDS on a large scale under the Restructured APDRP. SCADA and Data Management System have not so for been introduced in the state. However, the cities of Jammu and Srinagar and 28 other towns are being covered under SCADA and Data Management System under the R-APDRP.	
7.	KERC	KERC has been monitoring LT/HT ratio. Further, ESCOMs have taken up segregation of feeders supplying to IP sets through "Nirantara Jyothi Scheme".	KPTCL has taken up the upgradation of SCADA under integrated SCADA scheme. For data-base management, ESCOMs have taken up computerization for implementation of MIS and the Commission is monitoring the status.
8.	KSERC	Implementation of HVDS, SCADA & Data-Base Management are included as part of R-APDRP	
9.	MPERC	The Commission is allowing HVDS under Capex Plan of distribution companies.	The Commission shall allow expenditure on SCADA and Data Base Management systems as CapEx expenditure.
10.	MSERC	No HVDS	WIP
11.	OERC	The Comission has directed that all future RE works shall be made through HVDS only as far as possible.	All 220 kV Grid S/S should have SCADA and communication facilities as per Orissa Grid Code. Out of 19, 220 KV Grid sub-stations, 16 sub-stations have already SCADA facility. All the EHT sub-stations load data are being captured and analyzed online. The system namely SLIM (State Load Information and

S. No.	SERC	HVDS	SCADA & Data-Base Managment
			Management System) is in place and can be viewed through website www.orierc.org. It provides a dash board displaying 15-minutes load data of each discom as well as that of Orissa on a continuous basis. It also provides information on over-loading and interruptions. If R-APDRP fund is made available to the discoms of Orissa then SCADA/DMS can be made operational in distribution sector.
12.	PSERC	The utility in the state has taken various steps with regard to HVDS. These are detailed below:- 1. About 82000 AP connections have already been converted into HVDS and the utility has planned to convert a total of 2.5 lakh such connections to HVDS by the end of March, 2011. 2 The utility has issued the following directions in this regard: a) All new AP connections with load ranging from 21 kW to 50 kW, the connection shall be released by installing independent 25/63 kVA distribution transformer, with zero LT. b) All new MS connections having connected load above 50 kW shall be released only by providing independent 63/100/200 kVA distribution transformers depending upon the load to be released with effect from 01.10.2006.	Under the R-APDRP Scheme, three towns in the state of Punjab (Ludhiana, Jalandhar and Amritsar) qualify for implementation of SCADA/DMS projects. Bidding process for the same is in progress and contract likely to be awarded by end July, 2010.

S. No.	SERC	HVDS	SCADA & Data-Base Managment
		For load ranging from 21 kW to 50 kW, the connection shall be released by installing independent 25/63 kVA distribution transformer, with zero LT. c) All new SP/NRS/DS connections having loads ranging from 11 kW to 50 kW (upto 20 kW in case of SP consumers), the connection shall be released by providing independent transformer of 10/16/25/63 kVA or higher capacity with zero LT. All DS/NRS connections with loads ranging from 51 to 100 kW shall be released at 11 kV only by providing independent 63/100/200 kVA distribution transformer depending upon the load to be released. DS/NRS loads above 100 kW shall continue to be released as per existing instructions at 11 kV supply voltage. d) In post/planned colnies having high load of ACs, heaters/geysers and other gadgets, transformers spared from AP under HVDS shall be installed to cater to a cluster of 4/5 to 8/10 houses depending upon load and meters shall be installed in Pillar boxes/MCBs. Similar action shall be taken in case of commercial premises in planned shopping centres/ malls etc. and for SP/MS connections in industrial estates and other areas.	

S. No.	SERC	HVDS	SCADA & Data-Base Managment
13.	RERC	In its loss reduction Plan, discoms are contemplating LT Less System (i.e.,) HVDS as well as Aerial Bunched Cables.	The discoms have contemplated installation of SCADA for all feeders/transformers situated in areas with population of more than 4 lakh and energy consumption more than 350 LU/Annum as part of APDRP programme. Discoms are contemplating Automated Data logging for these feeders.
14.	TERC	HVDS system is yet to be adopted by the licensee.	The system is under process of installation. The RTU has been installed and internal checking is in progress. OFC laying has been undertaken and near completion. The software for SCADA system has been developed.
15.	UERC	The Commission has directed all loads above 75kW on HT.	Centralised commercial Data-base MIS has been implemented at corporate office of the distribution licensee and integration to divisional MIS is under progress. The discom has taken up the project for AMR and data logging for high value consumers in accordance with the directions of the Commission. Consumer indexing and GIS mapping has been completed in few circles and is under progress in other circles.
16.	UPERC	HT tariff rates are fixed so as to encourage the consumers to opt for supply at a higher voltage. HVDS has been adopted for rural network.	SCADA and Data-base Management are available at all thermal and hydro power stations, 400 kV and 220 kV Transmission System, and at few grid 132 kV substations.
17.	JERC M&M	Necessary Action is being taken for introduction of HVDS. JERC (Supply Code) Regulations also encourage HVDS.	Manipur and Mizoram Electricity Department are taking necessary steps to introduce SCADA & Data-Base Management System.

7. Norms for Standard of Performance

Provision in NEP:

5.13.1 Appropriate Commission should regulate the utilities based on pre-determined indices on quality of power supply. Parameters should include, amongst others, frequency and duration of interruption, voltage parameters, harmonics, transformer failure rates, waiting time for restoration of supply, percentage of defective meters and waiting list of new connections. The Appropriate Commissions would specify expected standards of performance.

S. No.	SERC	SoP–Date of Notification	Summary
1.	AERC	05.08.2005	As per annexure -I
2.	BERC	22.01.2007	Effective from 21.04.2008.
3.	CSERC	14.07.2006	SoP has already been notified along with the Supply Code. Penalties for delay in consumer services have also been notified.
4.	DERC	18.04.2007	SoPs have been notified by DERC vide "Delhi Electricity Supply Code & Performance Standard Regulations, 2007" dated 18.4.2007. These regulations are currently under revision.
5.	GERC	31.03.2005	The performance standards for distribution licensees are provided in the Standard of Performance regulations (Notification no. 10/2005 dated 31.03.2005). The distribution licensees have submitted quarterly reports with details required under SoP provisions before the Commission.
6.	HPERC	Distribution Licensee Standards of Performance Regulation notified in 2005	The Commission is monitoring reports of the utility on an annual basis of standards notified i.e. zone wise T&D losses, reliability indices, DTR failures, percentege of defective meters and guaranteed and overall Standards of Performance achieved by the utility are also evaluated and monitored
7.	JSERC	Notification No.438 dated 17.8.2005	The norms for SoPs and level of compensation to consumers for default in each case have been specified as required under the NEP.

S. No.	SERC	SoP–Date of Notification	Summary
8.	J&KSERC	Notified on 19.06.2006	The Jammu and Kashmir State Electricity Regulatory Commission (Distribution Performance Standards) Regulations lay down guidelines to maintain certain critical distribution system parameters for providing an efficient, reliable, coordinated and economical system of electricity distribution and retail supply.
9.	KERC	10.06.2004	Regulations issued.
10.	KSERC	09.05.2006	A former Technical Member of State Electricity Board is engaged by the Commission as Compliance Examiner for ensuring implementation of the Elec. Act, regulations and performance standards in particular. He submits regular reports to the Commission after conducting on the spot inspections at distribution section offices of the State Electricity Board and other licensees in the state. This helps the Commission to take up the issues with the licensees persuading them to initiate corrective steps. He also monitors the performance of CGRFs and Ombudsman in addition to attending complaints of general nature from consumers. He also handles the consumer protection and awareness initiatives of the Commission.
11.	MPERC	16.04.04 and revised on 28.10.05	Pre-determined indices have been specified for quality of power supply and other parameters including voltage variations, harmonics, transformer failure rate, duration of interruption, restoration of supply, release of connection, meter complaints etc.
12.	OERC	28.05.2004	OERC has issued OERC (Licensees Standards of Performance) Regulation, 2004. The Commission has specified expected SoPs such as frequency and duration of interruption etc. of licensees in the said Regulation.
13.	PSERC	29.06.2007	SoPs have been specified in the PSERC (Electricity Supply Code & Related Matters) Regulations, 2007 effective from 1st January, 2008 notified vide Notification no. PSERC/Secy/Regu. 31 dated 29th June, 2007 and published in the State Gazette dated July 27, 2007.

S. No.	SERC	SoP–Date of Notification	Summary
14.	RERC	The FOR has already issued the model SOP. Based on it, the Commission has had extensive consultations with the distribution companies and a draft SOP has been evolved. On such draft SOP, the process of previous publication has been initiated and public comments have been invited.	
15.	TERC	18.01.2005	Guidelines for new connection, temporary supply, transfer of ownership, penalty provision for non-compliance, consumer's interest, pilferage etc. and frequency and voltage profile etc. have been incorporated.
16.	UERC	17.04.2007	Payment of compensation and penalties for delay in consumer services are also notified in the regulation. Quarterly report is being submitted by the distribution licensee on SoPs. SERC also spreading awareness among consumers about SoPs.
17.	UPERC	SoPs have been included in the Electricity Supply Code since February 2005 and notified. Compensation to consumers for non-adherence to some of the standards has been made effective from the date of notification of the Code. For the remaining Standards, penalties have been made effective in phases. Implementation issues and systems and processes are being put in place in all discoms.	
18.	JERC-M&M	02.03.2009	SoP for the states of Manipur and Mizoram was otified on 02.03.2009.
19.	JERC (GOA & UTs)	18.12.2009	The Regulation has covered quality of power supply, voltage limits, time of restoration of supply and other issues connected with power supply to consumers etc.

8. Setting up of CGR Forum & Ombudsman

Provision in NEP:

5.13.3 It is advised that all State Commissions should formulate the guidelines regarding setting up of grievance redressal forum by the licensees as also the regulations regarding the Ombudsman and also appoint/designate the Ombudsman within six months.

S. No.	SERC	CGR Regulation	Summary
1.	AERC	22.12.2003	The Commission appointed Smt. Neelim Dutta, ACS (Retd), former Jt. Secy to Goa, as Electricity Ombudsman vide order no. AERC/69/2003/242 and she has been working since 21st November , 2009. The APDCL vide order CGM (Com)/CGRF/2010/13 dated 17th March 2010 established three new forums of consumer grievance at Silchar, Tezpur and Jorhat in addition to the existing one at Guwahati. These forums consist of the three members each and one of them represents consumer interest.
2.	BERC	20.05.2006	At present one CGR Forum and one Ombudsman are functioning for the entire licensed area of BSEB.
3.	CSERC	Notified 15.02.2005 and revised on 22.12.07.	CGRF established at five places. Ombudsman appointed at Raipur. Forums and Ombudsman are functional.
4.	DERC		a. In pursuance to Sections 42(5) & 42(6) of Electricity Act, 2003, DERC has formulated "Delhi Electricity Regulatory Commission (Guidelines for establishment of Forum for redressal of grievances of the consumers and Ombudsman) Regulations 2003". b. Accordingly, in each discom and NDMC, a Consumer Grievances Redressal Forum (CGRF) comprising of Chairman-cum-Member (Technical), Member (Legal) and Member (NGO) is in place. c. The institution of Electricity Ombudsman has been established which acts as the appellate body over the CGRFs.

S. No.	SERC	CGR Regulation	Summary
5.	GERC		There are eight Consumer Grievance Redressal Forums (CGRFs) operating in Gujarat. In every CGR Forum, one independent member has been appointed by the Commission. The Commission has appointed Shri Rajpara as the Electricity Ombudsman in Gujarat and it operates from an independent office.
6.	HPERC	2003 & 2004	HPERC (Electricity Ombudsman) Regulations 2004 and HPERC (Guidelines for Establishment of Forum for Redressal of the Consumers) Regulations 2003 are in force and as per Regulations the offices were established and are functioning.
7.	JSERC	CGR Regulation has been notified vide Notification No. 172 dated 6.04.2005	The CGR Forums of all the licensees in Jharkhand have been established and are functional. The Ombudsman has also been appointed.
8.	J&KSERC	The Electricity Act, 2003 (Central Act. No.36 of 2003) does not extend to the state of Jammu and Kashmir. However, the state has enacted its own Act known as the Jammu and Kashmir Electricity Act, 2010 (Act No. XIII of 2010). The said Act was notified only on 29th April, 2010. Under sub-section 5 of Section 36 of the Act, every distribution licensee shall, within six months from the commencement of the Act or date of grant of license, whichever is earlier, establish a forum for redressal of grievances of the consumers in accordance with the guidelines as may be specified by the SERC. The requisite guidelines have been drafted by the Commission. The Forum will be established by the distribution utility (Jammu & Kashmir State Power Development Department) in accordance with these guidelines. An Ombudsman will be appointed by the Commission in accordance with the Electricity Ombudsman Regulations.	
9.	KERC	10.06.2004	CGRFs have been constituted in all the five discoms. The Commission has appointed an Ombudsman.

S. No.	SERC	CGR Regulation	Summary
10.	KSERC	06.10.2005	In Kerala, CGRFs are in all the places and all vacancies in the CGRFs have been filled up. One member in the CGRFs is appointed by the Commission from among individuals of proven integrity associated with consumer rights activities. With 14 revenue districts in the state, the main licensee is the Kerala State Electricity Board having three CGRFs functioning at Kottarakkara (South), Ernakulam(Central) and Kozhikode (North) all within the prescribed distance limit of 200 Kms. The CGRFs have already been directed to conduct hearings on pending petitions at district headquarters apart from their headquarters, on notified days giving vide publicity in media. Total no. of petitions received in CGRF for the year 2009-10 is 400 and 191 have been settled in favour of consumers. Ombudsman: A senior Electrical Engineer with a degree in law has been appointed as the Ombudsman. The Ombudsman's office is located at Cochin and is functioning since August 2008. He hears appeals on the orders of CGRFs and passes appropriate orders. Out of 80 appeal petitions disposed of by the Ombudsman during 2009-10, 47 were in favour of the petitioners and 37 in licensees' favour.
11.	MPERC	Notified on 30.04.04 and revised on 28.08.09	Conditions of service and terms of offices of CGRF and Ombudsman, and guidelines for redressal of grievances of consumers by the Forum and electricity ombudsman have been issued. Regulation provides for one independent Member.
12.	MSERC	-	Done
13.	OERC	OERC has issued OERC (Grievance Redressal Forum and Ombudsman) Regulation, 2004	There are 12 CGRFs and two Ombudsmen offices are operating in the State. One Ombudsman office covers NESCO, WESCO & SOUTHCO and the other Ombudsman office covers CESU only. The Ombudsmen are directly appointed by the Commission whereas the President and Finance Members of the GRFs are nominated by the Commission from a panel of names submitted by the concerned discoms. The Commission nominates the Co-opted Member.

S. No.	SERC	CGR Regulation	Summary
14.	PSERC	PSERC(Forum & Ombudsman) Regulations, 2005 framed.	1) CGRF, Shakti Sadan, The Mall, Patiala functioning since 01.08.2006. 2) Ombudsman, Electricity Punjab, Chandigarh appointed by PSERC and functioning since 11.09.2006
15.	RERC	RERC (Guidelines for Redressal of Grievances) Regulation, 2008 have already been notified.	i) As per the Regulations in force, the CGRFs have been established by the discoms at sub-divisional level, circle level and corporate level to facilitate consumers for easy access and thereafter with a right to represent directly to the ombudsman. Each corporate level forum has one independent member nominated by the Commission. ii) The Regulation "RERC (Settlement of Disputes by Ombudsman) Regulations, 2003" was notified on 20.11.2003. The Ombudsman have already been appointed for each distribution licensee. New Regulations "RERC (Settlement of Disputes by Electricity Ombudsman) Regulations, 2010" have been notified on 23rd March, 2010 to make the institution of Ombudsman more effective.
16.	TERC	Notified in September, 2006.	The licensee has formed three tiers Consumers Redressal Forum in November, 2009 indicating the names/designation of officers and the same is functioning. The Secretary, TERC has been designated for the Ombudsman job.
17.	UERC	Notified	Two CGRFs and one Ombudsman are functional.
18.	UPERC	Notified	CGRFs made functional since 2003 in district HQ towns on basis of regulations made in 2003. Ombudsman has been appointed and is functional. State Govt. requested to expedite sanction of staff for the office of Ombudsman. On the basis of feedback from consumers and stakeholders, the Commission modified these regulations which were notified in 2007. Now CGRFs are in operation in 20 Commissionaires as per new regulations.

S. No.	SERC	CGR Regulation	Summary
19.	JERC-M&M	CGRF Regulation notified on 16.10.2008 and Ombudsman Regulation notified on 20.10.2008	One Ombudsman has been designated for the two states and One CGRF each for Manipur and Mizoram has been setup, Internal Grievance Redresal Cells (IGRC) are also set up at various distribution centres within the states.
20.	JERC for the state of Goa & UTs	JERC-4/2009 Dated 31.07.2009	Ombudsman appointed guidelines for setting up of CGRF issued to the State of Goa and UTs under JERC.

9. Capacity Building for Consumer Groups

Provision in NEP:

5.13.4 The Central Government, the State Governments and Electricity Regulatory Commissions should facilitate capacity building of consumer groups and their effective representation before the Regulatory Commissions. This will enhance the efficacy of the regulatory process.

S. No.	SERC	Summary
1.	AERC	The Assam Electricity Regulatory Commission started a Consumer Advocacy Cell in February 2005 and the following activities were carried out by the Cell over these years :- a. Empanelled interested consumer groups as authorized representatives of electricity consumers. b. Designed a Compact Disc containing useful information of the CAC and of the electricity sector like Electricity Act, 2003, National Electricity Policy, Regulations published for benefit of consumers and others. c. Started publication of a newsletter from the Cell titled "The Electricity Consumer Grid" for information to the consumers on electricity matters. Have published ten issues of the bulletin so far. d. Conducted a survey of Electricity Consumers in Assam which was published in the second volume of the newsletter. e. Organized three 'Electricity Consumers' Awareness Meet' giving wide publicity and inviting participation from the empanelled consumer groups, representatives of electricity supplier, government and the media and important dignitaries and consumer activists. f. The Cell observed "National Energy Conservation Day". On the occasion banners on the need for energy conservation were displayed and leaflets on how to save energy were distributed among consumers. In a meeting organized at the Commission's office premises, the urgency in conserving energy and building awareness among consumers on the matter were highlighted.
2.	BERC	Comments/suggestions of consumers/stake-holders and general public are invited on matter relating to tariff determination and finalization of regulations.
3.	CSERC	Consumer Advocacy Cell has been set up in the Commission.

S. No.	SERC	Summary
4.	GERC	The Commission had invited consumer groups to participate in multiyear tariff process and to give their valuable suggestions for improving services for the consumers. The Commission has encouraged consumer groups to be a member of the tariff study committee for rationalizing the categories and tariff slabs in benefit of the consumer.
5.	HPERC	The Commission has appointed a consumer representative under Section 94 of the Electricity Act, 2003.
6.	JSERC	- Coordination Forum–The State Government has already issued notification constituting the Coordination Forum as required u/s 166 (4)the Electricity Act, 2003. - District Level Committee–As required u/s 166 (5) of the Electricity Act, 2003 the State Government has constituted a Committee in each district. The Deputy Commissioners of the district have been nominated as the Chairman of the said Committee. - State Advisory Committee–In accordance with the provisions contained in Section 87 of the Electricity Act, 2003, the Jharkhand State Electricity Regulatory Commission has established and notified the constitution of the State Advisory Committee. - Besides the above, public hearings are also held while determination of tariff and formulation of Regulations.
7.	J&KSERC	The Commission organizes workshops and also encourages consumer organizations to organize seminars/workshops. During the year 2009-10, the Commission facilitated capacity building by one of the consumer organizations.
8.	KERC	Capacity building for consumer groups is being done through Office of Consumer Advocacy by conducting workshops, training, Seminars and issue of quarterly magazines/leaflets.
9.	KSERC	A Consultant (Consumer Advocacy & Public Relations) has also been engaged from 15-05-2010 for taking initiatives to arrange meetings of consumer groups and consumer activists to create awareness among consumers about the power sector and their rights and previlages so as to ensure consumer participation in the regulatory process. Publishing of leaflets and pamphlets and other propaganda tools in furtherance of the above objective are part of his assigned duties.
10.	MPERC	In order to involve the consumer groups, the Commission through a public notice had invited NGOs to join the movement for safeguarding consumer's interests in the state. In response around 126 NGOs so far have been registered with the Commission. The Commission through public notices along with individual letters invites the NGOs to

<table>
<tr><th>S. No.</th><th>SERC</th><th>Summary</th></tr>
<tr><td></td><td></td><td>participate and present their views/suggestions on behalf of the consumers during the course of hearings on determination of ARR/tariff for distribution licensees. This has been done regularly every year since 2008-09. The Commission has also been arranging separate hearings with NGOs during the course of the determination of ARR/tariffs every year from 2008-09 regularly.

The Commission has also been arranging regular workshops with NGOs of Madhya Pradesh on the issues of consumer awareness, consumer empowerment, consumer protection and consumer education. The first such workshop was held in August 2008 and since then it has been organized regularly every year. The Commission has organized three workshops. In the Workshops, eminent NGOs from the country like Grahak Panchayat, Mumbai, Prayas, Pune etc. had participated and provided valuable contributions of their experience in the field of consumer education and empowerment.</td></tr>
<tr><td>11.</td><td>MSERC</td><td>WIP</td></tr>
<tr><td>12.</td><td>OERC</td><td>The consumers are important stakeholders of the Power Sector and protection of their interest is built-in in the preamble of the Electricity Act, 2003. In various regulatory decision-making processes, the Commission takes the views and opinions of the consumers and permits them to participate in its hearings. Sec. 94(3) of the Electricity Act, 2003 empowers the State Commission to authorize any person to represent the interest of the consumers in its proceedings.The OERC in its last four tariff hearings has been engaging the Nabakrushna Choudhury Centre for Development Studies, premier academic and research institute of Govt. of Orissa as ‘Consumer Counsel’ for analyzing and putting its independent views on the ARR & tariff Application of the Licensees/Generating Company. The Commission had also engaged NGOs and Consumer Activists as Consumer Counsel, to collect necessary feedback on distribution licensees’ performance and consumer satisfaction on the services provided by the distribution licensees. The number of those consumer counsels are given below:
<table>
<tr><th>Licensee</th><th>FY 2009-10</th><th>FY 2010-11</th></tr>
<tr><td>CESU</td><td>5</td><td>4</td></tr>
<tr><td>NESCO</td><td>2</td><td>2</td></tr>
<tr><td>WESCO</td><td>3</td><td>3</td></tr>
<tr><td>SOUTHCO</td><td>2</td><td>2</td></tr>
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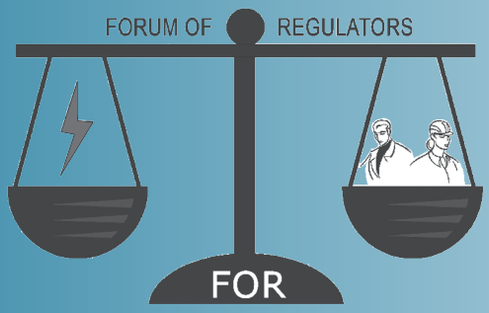
<tr><th>S. No.</th><th>SERC</th><th>Summary</th></tr>
<tr><td></td><td></td><td>
The Commission during different tariff hearings had appointed a number of other consumer counsels. The Consumer Counsels had also participated in the tariff hearings and submitted their views. The number of those consumer counsels are given below:
<table>
<tr><th>Licensee</th><th>FY 2009-10</th><th>FY 2010-11</th></tr>
<tr><td>CESU</td><td>5</td><td>4</td></tr>
<tr><td>NESCO</td><td>2</td><td>2</td></tr>
<tr><td>WESCO</td><td>3</td><td>3</td></tr>
<tr><td>SOUTHCO</td><td>2</td><td>2</td></tr>
</table>
The Commission has taken several steps in consumer interface and capacity building so that they can effectively participate in formulating different polices by the Commission.

Training, Capacity Building of Consumer Groups

❑ The Officers of the Commission undertook interactive training of various district government and utility functionaries through the ISRO's GRAMSAT programme in collaboration with the energy department. Three such sessions were organized
❑ Annual interactive meetings with GRFs & Ombudsman
❑ Networking of consumer groups empanelled with OERC
❑ State-wise Consumer Satisfaction Survey
❑ Bilingual tariff compendiums published annually
❑ Booklet (Frequently Asked Questions) titled "What Should You Do?" published & distributed to electricity consumers
❑ Compendium of OERC Regulations in English & Oriya published & distributed
❑ Book on comprehensive overview of Orissa Power Sector published every year
❑ Performance Standards published annually
❑ Public awareness campaign based on FAQ in all major Oriya & English dailies
❑ Audiovisual spots based on FAQ telecast on Doordarshan. In October, 2006 the Commission prepared and telecast two episodes of popular teleserial named' Jagi Utho' on Doordarshan 1 & 6 to educate consumers about role and functions of GRF & Ombudsman and Minimum Standards of Performance
</td></tr>
</table>

S. No.	SERC	Summary
		❑ Phone-In Programmes to educate consumers broadcast on All India Radio ❑ Street theatre in rural areas to educate consumers ❑ Participation in Consumer Fairs & Festivals ❑ In 1998, the Commission set up its website, the first of its kind in the country's power sector The OERC website has been upgraded into a portal which will be much more consumer-friendly and interactive in future.
13.	PSERC	Consumer Groups participate in public hearings for determination of tariff. Representatives of some of these consumer groups nominated as Members of PSERC, State Advisory Committee. Comments of consumers groups are invited through public notices before taking decisions on important issues by the Commission.
14.	RERC	Nil
15.	TERC	The Consumers Advocacy Cell has yet not introduced or functional in Tripura.
16.	UERC	The Commission has chosen members of Advisory Committee, which meets at least once in quarter, from different fields representing interest of various consumer groups such as domestic, commercial, industrial, agriculture, academic etc. From time to time the Commission has been publishing notices in newspapers highlighting the important orders, Regulations issued/to be issued by it seeking comments from all the stakeholders. Further, the Commission has been holding various meetings/Jan-Gosthis across the states wherein consumers are told of their rights and duties under the Act and the Regulations.
17.	UPERC	The Commission had initiated creation of a Cell for Consumer Education and Advocacy (CCEA) on public-private partnership basis initially and the MoU was signed with VOICE, New Delhi, w.e.f. 14th November, 2007, and worked for two years. Due to non-performance of CCEA it has since been disbanded. The Commission is in the process of identifying suitable options for setting up Cell.
18.	JERC (MM)	Nil



IV
Status Report on National Tariff Policy

CONTENTS

1. Return on Equity

Provision in Tariff Policy :

5.3 (a) Return on Investment

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The Central Commission would notify, from time to time, the rate of return on equity for generation and transmission projects keeping in view the assessment of overall risk and the prevalent cost of capital which shall be followed by the SERCs also. The rate of return notified by CERC for transmission may be adopted by the SERCs for distribution with appropriate modification taking into view the higher risks involved. For uniform approach in this matter, it would be desirable to arrive at a consensus through the Forum of Regulators.

S. No.	SERC	RoE %	Summary
1.	BERC	14%	The Commission has provided RoE @ 14% for transmission and distribution licensee in the relevant regulations.
2.	CSERC	14%	Specified in the Regulations. The rate of return notified by CERC in terms and conditions of tariff, Regulation 2009-14 has been adopted. Date of notification 01.03.06 & 09.01.10
3.	DERC	14%	Generation RoE is 14%
			Transmission RoCE is 14%
			Distribution the RoCE is 14% + 2% supply margin.
4.	GERC	14%	For Generation, Transmission, Distribution – 14%
5.	HPERC	14%	Return on equity is 14% per annum (post tax) for Hydro Tariff Generation.
6.	JSERC	14%	For Generation, Transmission, Distribution – 14%
7.	KERC	16%	The Commission has allowed RoE of 16% for all the licensees in the state in its tariff order dated 25th November, 2010.
8.	KSERC	14%	14% return on equity for generation and transmission projects keeping in view the assessment of overall risk and the prevalent cost of capital
9.	MPERC	16% Pre-Tax	**DISTRIBUTION:** The Commission, vide its regulation namely "The Madhya Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Supply and Wheeling of Electricity and Methods and Principles for Fixation of Charges), Regulation 2009 (G-35 of 2009)", has specified the return on equity for distribution licensees of state as 16% (pre-tax) per annum for the control period from 2010-11 to 2012-13.

S. No.	SERC	RoE %	Summary
		15.5 % Pre-Tax	**TRANSMISSION:** The Commission, vide its regulation namely "The Madhya Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Transmission Tariff) Regulation 2009 (RG-28 (I) of 2009)", has specified the return on equity for Transmission Licensee as 15.5 % (pre-tax) per annum for the control period from 2009-10 to 2011-12. An additional return of 0.5% of equity of such projects is provided, which have been completed on time.
		15.5% Pre-Tax	**GENERATION:** The Commission, vide its regulation namely "The Madhya Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Generation Tariff) Regulation 2009 (RG-26 (I) of 2009)", has specified the return on equity for Transmission Licensee as 15.5 % (pre-tax) per annum for the control period from 2009-10 to 2011-12. An additional return of 0.5 % of equity of such projects is provided, which have been completed on time.
10.	PSERC	14%	In line with CERC Tariff Regulations 2008-09, RoE was being allowed @ 14% for the year, 2009-10, CERC adopted an RoE of 15.5% (pre-tax to be grossed upto 23.48%). However, the Commission retained RoE at 14% for the reason that the utility has been unable to effect improvements in critical performance parameters.
11.	RERC		**Generation** – 15.50% pre-tax grossed up for applicable tax rate (16% for RE) **Transmission** – 15.50% pre-tax grossed up for applicable tax rate **Distribution** – 16% pre-tax grossed up for applicable tax rate
12.	UERC	14%	RoE notified on 14.05.2004 for generating companies, 15.06.2004 for distribution licensee and 25.08.2004 for transmission licensee with a Debt:Equity ratio of 70:30. In certain cases where equity is less than 30%, the said actual equity is considered for tariff determination.
13.	UPERC		Gen:15.5% Dist: 16% Trans:14%

S. No.	SERC	RoE %	Summary
14.	J&KSERC	14% for generation utility Zero % for distribution utility	The distribution utility in Jammu and Kashmir is the State Power Development Department. As there is a substantial gap between revenue and expenditure which is being met through Government budgetary support, there will be no significant effect by any return on equity in the present circumstances. The utility had not proposed any RoE, though the Regulations provide for 14% RoE per annum.
15.	JERC (M&M)	15.5 pre-tax	For Generation, Transmission & Distribution as per CERC norm.
16.	OERC	15.5%	The Commission allows 15.5% as RoE as per CERC norm for capital invested in the form of equity for the projects commissioned after 01.04.1996 in STU (OPTCL). Similarly, the Commission allows RoE @ 15.5% on pre-tax basis to OHPC (State Hydro Generator) as per CERC norm for the projects commissioned after 01.04.1996. However, during the year 2010-11 Commission approved 18.674% to OHPC power stations and UIHEP on post-tax basis. The Commission allows 16% RoE to discoms on the amount of equity infused to the business as per LTTS Order.

2. Depreciation Rates

Provision in Tariff Policy :

5.3 (c) Depreciation

The Central Commission may notify the rates of depreciation in respect of generation and transmission assets. The depreciation rates so notified would also be applicable for distribution with appropriate modification as may be evolved by the Forum of Regulators.

<table>
<tr><th>S. No.</th><th>SERC</th><th>CERC Rates</th><th>Suggestions for separate Depreciation Rates</th></tr>
<tr><td>1.</td><td>BERC</td><td>Adopted</td><td>Depreciation rates as specified by CERC have been adopted in tariff orders for retail sale of electricity for 2006-07 and 2008-09 issued by the Commission.</td></tr>
<tr><td>2.</td><td>CSERC</td><td>Adopted</td><td>Specified in the Regulations. The depreciation rates specified by CERC in terms and conditions of tariff, Regulation 2009-14 have been adopted.</td></tr>
<tr><td>3.</td><td>DERC</td><td>Adopted</td><td>The Commission has approved the depreciation rates for the control period FY 2007-11 as per rates specified in the MYT Regulations.</td></tr>
<tr><td>4.</td><td>GERC</td><td>Adopted</td><td>
<table>
<tr><th>Licensee</th><th>Depreciation rates for FY 2009-10</th></tr>
<tr><td>GSECL</td><td>As per clause 17 of CERC (Terms and Conditions of Tariff) Regulations, 2009.</td></tr>
<tr><td>GETCO</td><td>-do-</td></tr>
<tr><td>UGVCL</td><td>5.29%</td></tr>
<tr><td>DGVCL</td><td>5.27%</td></tr>
<tr><td>MGVCL</td><td>5.26%</td></tr>
<tr><td>PGVCL</td><td>5.28%</td></tr>
<tr><td>TPL (Generation)</td><td rowspan="3">CERC depreciation rates on different categories as permitted by GERC Terms & Conditions of Tariff Regulations, 2005.</td></tr>
<tr><td>TPL (Ahmedabad</td></tr>
<tr><td>TPL (Surat)</td></tr>
</table>
</td></tr>
<tr><td>5.</td><td>HPERC</td><td>Adopted</td><td>For approving the depreciation during FY 2009-10 of the Control Period, the Commission has first determined the opening and closing GFA of all the functions. For this the Commission has considered the closing value</td></tr>
</table>

<table>
<tr><th>S. No.</th><th>SERC</th><th>CERC Rates</th><th>Suggestions for separate Depreciation Rates</th></tr>
<tr><td></td><td></td><td></td><td>of assets approved for FY08 as per True up for the respective functions and the approved capitalization schedule for FY08 and for the Control Period.

As the Board is still in the process of valuation and asset mapping and therefore the segregated depreciation rates for different assets cannot be implemented. Therefore, the Commission has considered the rate of depreciation as 2.5% inline with the practice followed in the previous tariff orders.</td></tr>
<tr><td>6.</td><td>JSERC</td><td></td><td>
<table>
<tr><th>Sl. No.</th><th>Description</th><th>Depreciation Rates (%)</th></tr>
<tr><td>1.</td><td>Land</td><td>0</td></tr>
<tr><td>2.</td><td>P&M</td><td>3.6</td></tr>
<tr><td>3.</td><td>Building</td><td>3.6</td></tr>
<tr><td>4.</td><td>Civil Works</td><td>1.80</td></tr>
<tr><td>5.</td><td>Hydraulics</td><td>1.80</td></tr>
<tr><td>6.</td><td>Lines, Cables, Network</td><td>3.60</td></tr>
<tr><td>7.</td><td>Vehicles</td><td>6.00</td></tr>
<tr><td>8.</td><td>Furniture & Fixture</td><td>6.00</td></tr>
<tr><td>9.</td><td>Office Equipments</td><td>6.00</td></tr>
</table>
</td></tr>
<tr><td>7.</td><td>KERC</td><td>Adopted</td><td>The Commission has adopted the depreciation rates as per CERC Tariff Regulations.</td></tr>
<tr><td>8.</td><td>KSERC</td><td></td><td>Depreciation in respect of generation and transmission assets is as per CERC norms.</td></tr>
<tr><td>9.</td><td>MPERC</td><td>Same as CERC Rates.</td><td>The Commission has specified the depreciation rates in line with the rates specified by CERC, in its regulations namely The Madhya Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Generation Tariff) Regulation 2009 (RG-26 (I) of 2009), The Madhya Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Transmission Tariff) Regulation 2009 (RG-28 (I) of 2009) and The Madhya Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Supply and Wheeling of Electricity and Methods and Principles for Fixation of Charges), Regulation 2009 (G-35 of 2009)".</td></tr>
</table>

S. No.	SERC	CERC Rates	Suggestions for separate Depreciation Rates
10.	PSERC	Adopted	As per PSERC Tariff Regulations, Depreciation for generation and transmission is to be calculated annually as per Straight Line Method over the useful life of the asset at the rate of depreciation specified by the CERC from time to time. Depreciation of distribution and other assets (not covered by CERC) shall be as per Government of India norms of 1994. Accordingly, depreciation rates prescribed by the Govt. of India, Ministry of Power for SEDs vide its Notification No. SO-226(E) dated 29.03.1994 are being allowed.
11.	RERC	Adopted	5.28% SLM (Straight Line Method) for 12 years and balance upto 90% to be spread over on remaining life of the asset (Regulation 23 of RERC Tariff Regulation, 2009)
12.	UERC	Adopted	CERC specified rates are adopted by the UERC.
13.	UPERC	Adopted	**Gen:** As per CERC Tariff Regulations, 2009. **Distribution:** Weighted average rate of 7.84% taken as Fixed Asset Registers not maintained. **Trans:** Regulations do not contain any depreciation schedule. As per Tariff Order for 2009-10 the depreciation rates approved for Transco is 3.08%. For 2008-09, it was 5.27%.
14.	J&KSERC	Adopted	2.57% for generation utility and 3% for distribution utility.
15.	JERC-M & M	Adopted	Rates prescribed by the CERC.
16.	OERC	Not adopted	OERC has adopted depreciation as per orders of Hon'ble High Court and in accordance with DoE Notification No.1068/E dated 29.01.2003 at pre-92 norms as notified by GoI. However, for transmission depreciation in the shape of special appropriation is allowed as per the CERC Notification over and above the depreciation computed at pre-92 rate. For distribution business, the depreciation is allowed at pre-92 rate as per orders of Hon'ble High Court. Similarly for hydro generation projects (Rengali Hydro Electric Project, Upper Kolab & Chiplima) depreciation is allowed at pre-92 rates at an average rate of 2.57%. For hydro projects like Bulra & Balimela, the depreciation is allowed limiting to principal repayment of loan.

3. Implementation of Intra-state ABT

Provision in Tariff Policy :

6.2 Tariff structuring and associated issues

According to National Electricity Policy, the Availability Based Tariff (ABT) is to be introduced at the state level by April 2006. This framework would be extended to generating stations (including grid connected captive plants of capacities as determined by the SERC).

S. No.	SERC	Intra-state ABT	Summary
1.	BERC	Notified	BSEB still continues to be a vertically integrated utility handling generation, transmission and distribution of electricity.
2.	CSERC	Notified	Separate regulations that are not notified yet are to be notified shortly. However, Regulations on Terms and Conditions of determination of tariff according to MYT principles notified on 09.01.2010 are based on ABT. Accordingly, the generating companies whose tariff is determined under Section 62 will supply power to distribution licensee as per ABT. In case of difficulties experienced to start with, the Commission may allow it as a trial run for a period as specified in the tariff order of the generating company.
3.	DERC	01.04.2007	Intra-State ABT introduced in Delhi w.e.f. 1.4.2007 UI rate same as prescribed by CERC as on 31.3.2007. SLDC acts as the nodal agency for collection and distribution of UI charges in this regard.
4.	GERC		The Intra-State ABT was fully implemented with all its commercial aspects w.e.f. 5th April, 2005 in pursuance of the clause 16 of Amendment Order No. 3 of 2010 dated 01.04.2010 of the Commission. All generating stations, distribution licensee and other grid users will be covered under the purview of Intra-State ABT During the period of mock trial of Intra-State ABT, State Load Despatch Centre/State Transmission Utility (SLDC/STU) has made various communications through meetings and correspondences with all participants to get acquainted with all operational, scheduling and accounting aspects under the purview of Intra-State ABT. Experiences gained by all participants during the period of mock trial will facilitate them to overcome any difficulties and pave the way for actual implementation.

S. No.	SERC	Intra-state ABT	Summary
5.	HPERC	Notified	The inter- state ABT is not being implemented in the State.
6.	JSERC	-	Balancing and settlement mechanism regulation for open access consumers (including CPP) is notified by the Commission in FY 2009-10.
7.	KERC	Notified	Order for implementation of ABT issued on 26.12.2006. Proxy implementation of ABT started in January 2007. Full-scale implementation expected during FY-11.
8.	KSERC		Since unbudling is not complete, there is only one utility supplying bulk power and scope of Intra-State ABT is limited
9.	MPERC	Notified on 30.10.2009.	Balancing and Settlement Code for Intra-State ABT Notified on 30.10.2009 for Intra-State Entities excluding Grid connected CPPs. The Intra-State ABT came into force from 1.11.09. All the generating companies and distribution companies of the State are following this Regulation.
10.	PSERC	Not introduced	Regulations are still to be framed.
11.	RERC		The Commission has already issued regulations on Intra-State ABT which has come into force w.e.f. 1.4.2008.
12.	UERC	Order Issued on 04-01-2005	Direction was issued on 04.01.2005 for completing the requirement for Intra-state ABT by 01.11.2005
13.	UPERC	05-03-09	Vide Commission's order dt. 05-03-09, all the entities (except Obra and Harduaganj P/s) have come under the purview of ABT since 01.07.2009. The Commission has also specified ABT provisions in Generation Regulations 2009. The interface points G-T and T-D have ABT compatible metering. Allocation of power in the state to the discoms is yet to be finalized by State Govt and SLDC is also yet to be made independent.
14.	JERC-M&M	Not Introduced	Intra-state ABT is not yet introduced in Manipur and Mizoram.

S. No.	SERC	Intra-state ABT	Summary
15.	OERC	Notified on 14.02.2008	Intra-State ABT Regulation has been notified. Mock Exercises in hourly mode and 15-minutes mode have been conducted. Preparedness of discoms is being ascertained. Hearing in this regard has been completed on 16.06.2010. Final Order on implementation date will be issued shortly.

4. ToD Tariff

Provision in Tariff policy:

6.2 Tariff structuring and associated issues

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The Appropriate Commission may also introduce differential rates of fixed charges for peak and off-peak hours for better management of load.

S. No.	SERC	ToD introduced	Consumer Category	Peak Tariff	Off-Peak Tariff
1.	BERC	TOD tariff has been introduced for HT consumers in Tariff Order dated 26.08.2008 issued by the Commission.			
2.	CSERC	Yes	All EHV and HV Industries including coal mines.	130% of normal rate of energy charge.	85% of normal rate of energy charge.
3.	DERC	Not introduced	Seasonal Tariff has been introduced for industrial category of consumer.		
4.	GERC	The Tariff Rates as applicable to UGVCL, DGVCL, MGVCL & PGVCL with respect to Tariff Orders dated 14.12.2009	Rates LTP – IV: Motive power load not exceeding 125 BHP – consumer opts to be charged in place of LTP-I tariff by using electricity exclusively during night hours. Rate LTP – IV (A): Minimum CD of 20 kW and upto 100 kW at low voltage – consumer opts to be charged in place of LTP-III tariff by	385 paise/kWh 405 Paise/kWh	200 Paise/kWh 200 Paise/kWh

S. No.	SERC	ToD introduced	Consumer Category	Peak Tariff	Off-Peak Tariff
			using electricity exclusively during night hours using electricity exclusively during night hours from 10.00 PM to06.00 AM next day.		
5.	HPERC	The Commission has already introduced differential tariffs for peak and off-peak hours for better management of load in respect of Small and Medium Industrial Power Supply (SMS), Large Industrial Power Supply (LIPS) and Water and Irrigation Pumping Supply (WIPS) categories.			
6.	JSERC		HTS	06:00 AM -10:00 AM & 06:00 PM to 10:00 PM: 120% of normal rate of energy charge Energy Charge: Rs 4.35/kWh	10:00 PM to 06:00 AM: 85% of normal rate of energy charge. Energy Charge: Rs 4.35/kWh
7.	KERC	*Yes*	LT Industries	Normal tariff + 80 paise	Normal Tariff – 80 paise
			HT Water Supply	Normal tariff + 60 paise	Normal Tariff – 60 paise
			HT Industries	Normal tariff + 80 paise	Normal Tariff – 80 paise
8.	KSERC	For HT & EHT consumers already ToD tariff. For LT industrial consumers ToD tariff is optional.			
9.	MPERC	Yes, The ToD has already been introduced in the State for HT Categories	HV-2- Coal Mines HV-3- Industrial & Non-Industrial HV-4- Seasonal HV-5- Irrigation, Public Water Works & other than agriculture.	1. Evening peak load period (6:00 PM to 10:00 PM) 2. Off peak load period (10:00 PM to 6:00 AM next day)	15% of Normal rate of Energy Charge as Surcharge 7.5 % of Normal rate of Energy Charge as Rebate

<table>
<tr><th>S. No.</th><th>SERC</th><th>ToD introduced</th><th>Consumer Category</th><th>Peak Tariff</th><th>Off-Peak Tariff</th></tr>
<tr><td></td><td></td><td>of consumer since long except in case of Railway Traction, bulk supply to residential users and exemptees under Section 13 of the Act.</td><td></td><td></td><td></td></tr>
<tr><td>10.</td><td>PSERC</td><td>NO</td><td>NA</td><td>NA</td><td>NA</td></tr>
<tr><td>11.</td><td>RERC</td><td colspan="4">No, however the discoms have been directed to include the concept of ToD tariff in the next tariff petition for the consumers having contract demand of 1500 kVA or more to begin with.</td></tr>
<tr><td>12.</td><td>UERC</td><td>Yes</td><td>LT Industries above 25kW& all HT Industries.</td><td>Energy Charges at peak hours shall be as under:
LT Industry – Rs. 4.42/kVAh
HT Industry:</td><td>Energy charges at off-peak hours shall be as under:
LT Industry: Rs. 2.65/kVAh
HT Industry:</td></tr>
<tr><td></td><td></td><td></td><td></td><td>
<table>
<tr><th>Load Factor</th><th>Energy Charges</th></tr>
<tr><td>Less than 33%</td><td>Rs. 4.65/ kVAh</td></tr>
<tr><td>Above 33% and upto 50%</td><td>Rs. 4.65/ kVAh</td></tr>
<tr><td>Above 50%</td><td>Rs. 4.65/ kVAh</td></tr>
</table>
</td><td>
<table>
<tr><th>Load Factor</th><th>Energy Charges</th></tr>
<tr><td>Less than 33%</td><td>Rs. 2.34/ kVAh</td></tr>
<tr><td>Above 33% and upto 50%</td><td>Rs. 2.57/ kVAh</td></tr>
<tr><td>Above 50%</td><td>Rs. 2.79/ kVAh</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>S. No.</th><th>SERC</th><th>ToD introduced</th><th>Consumer Category</th><th>Peak Tariff</th><th>Off-Peak Tariff</th></tr>
<tr><td>13.</td><td>UPERC</td><td colspan="4">As per Tariff Order 2009-10 introduced in HV-2 category for large and heavy industries (75kW/100 HP & above).
<table>
<tr><th>Time</th><th>at 11kV</th><th>33 & 66 kV</th><th>132kV and above voltages</th></tr>
<tr><td>22 hrs – 06 hrs</td><td>(-) 7.5%</td><td>(-) 7.5%</td><td>(-) 7.5%</td></tr>
<tr><td>06 hrs – 17 hrs</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>17 hrs – 22 hrs</td><td>(+) 15%</td><td>(+) 15%</td><td>(+) 15%</td></tr>
</table></td></tr>
<tr><td>14.</td><td>J&KSERC</td><td colspan="4">Not yet introduced</td></tr>
<tr><td>15.</td><td>JERC MM</td><td colspan="4">Not yet introduced</td></tr>
<tr><td>16.</td><td>TERC</td><td>In Tariff Order of 2006-07 (Last Tariff Order)</td><td>Industrial, Tea, Coffee, Rubber, Garden, Bulk supply, Water works & Irrigation as optional</td><td>140% of the normal rates.</td><td>60% of the normal rate.</td></tr>
<tr><td>17.</td><td>OERC</td><td>Yes</td><td>All three-phase consumers having static meters.</td><td>Normal Tariff</td><td>The Commission has accepted the principle of time of day tariff since 01.04.2005 providing a rebate @ 10 P/U on consumption during the off-peak hour.</td></tr>
</table>

5. Renewable Sources of Energy

Provision in Tariff policy:

6.4 Non-conventional sources of energy generation including Co-generation:

(1) Pursuant to provisions of Section 86(1)(e) of the Act, the Appropriate Commission shall fix a minimum percentage for purchase of energy from such sources taking into account availability of such resources in the region and its impact on retail tariffs. Such percentage for purchase of energy should be made applicable for the tariffs to be determined by the SERCs latest by April 1, 2006.

S. No.	SERC	Tariff	Power Procured From Renewables (%)
1.	BERC		After taking into consideration CERC's Renewable Regulations, tariff for purchase of power by distribution licensee from biomass and bagasse based cogeneration plants in Bihar has been re-determined in Review Petition No. 5/09, 5B/09 & 7/09 and Order passed on 29th June, 2010 by the Commission. Minimum percentage of total energy consumption to be purchased by a distribution licensee from renewable and cogeneration plants has also been fixed in compliance of section 86(1)(e) of Electricity Act, 2003 in the aforesaid order. Bihar Electricity Regulatory Commission (Terms and Conditions for Tariff Determination from solar Energy Sources) Regulations 2010 has been notified on 02.08.2010 and Generic Tariff for Solar Energy Sources for the year 2010-11 has been determined vide order dated 06.08.2010. Renewable Purchase Obligation, its Compliance and REC Framework Implementation Regulations, 2010 has also been notified by the Commission on 16th November, 2010. Notification designating Bihar Renewable Energy Development Agency (BREDA) as 'State Agency' for accreditation and recommending the renewable energy projects has also been issued on 23rd November, 2010.

S. No.	SERC	Tariff	Power Procured From Renewables (%)
2.	CSERC	1) Biomass plants – Fixed cost Rs.1.78/kWh in 1st year decreasing to Rs. 1.38 in 10th year. The variable cost of 2009-10 is Rs. 2.19 escalating to Rs. 2.79 in 2014-15. 2) Tariff for supply of power by small hydro generating stations to distribution licensee shall be determined on a project specific basis and as per terms and conditions of tariff determination regulations. 3) Tariff for solar power plants is:-5% from biomass, 3% from small hydro plants, 2% from solar energy, wind, bagasse based Solar PV-Rs. 15.84 per unit Solar Thermal - Rs. 13.26 per unit This tariff is applicable upto 31.08.2018 as per order dated 08.09.08.	5% from biomass, 3% from small hydro plants, 2% from solar energy, wind, bagasse based cogeneration etc. is fixed.
3.	DERC	a. Two waste management projects (Okhla & Gazipur) have already been approved. b. The Commission has specified that discoms should try to achieve 1% of total power purchase from the renewable sources during a year. c. Solar PV Projects Tariff Regulations have already been issued vide Order dated 9.7.2010.	
4.	GERC		The Commission has notified the regulations on Procurement of Energy from Renewable sources, 2010 and revised the percentage for Renewable Power Obligations (RPOs) mandatorily applicable for distribution licensees to purchase power from the renewable energy sources from 2% in FY 2008-09 to 5%

S. No.	SERC	Tariff	Power Procured From Renewables (%)
			6% and 7% for the years 2010-11, 2011-12 and 2012-13 respectively. The Commission has provided separate RPO provisions for wind, solar and other renewable energy sources based on the availability of such sources, nascent stage of Solar Power generation technology and expected energy available from them. Same will be applicable to those categories of persons and a separate notification will be issued by the Commission in this regard. The same will be applicable once REC mechanism comes into force. The Commission has made necessary provisions in the Procurement of Energy from Renewable Sources. Regulations, 2010 for REC. The tariff rates were also determined for purchase of power by distribution licensees from different renewable energy sources. While deciding the tariff interest of the project developers and protection of consumer interest, both taken into account. Following are the rates determined by the Commission in the respective orders: i. Wind Energy Tariff Order No. 1/2010 dated 30.01.2010 The Commission had determined Wind Energy Generation Tariff and passed order no. 30/01/2010 after considering the views expressed by the stakeholders, government policy, orders of various SERCs/CERC. This is the second order for Wind Tariff. The Commission has revised the tariff from Rs. 3.37 per unit to Rs. 3.56 per unit. The Commission has also allowed third-party sale without cross- subsidy. The project developers

S. No.	SERC	Tariff	Power Procured From Renewables (%)
			are also allowed to wheel power at lower transmission and wheeling charges as a promotional measure. However, utilities have been allowed higher transmission and wheeling charges in comparison to the earlier order. ii. Solar Energy Tariff Order No. 2/2010 dated 29.01.2010 The Commission has determined tariff for Solar PV and Solar thermal power projects established in the state for sale to the distribution licensee of the state. The Commission has passed an order for Solar PV and Solar Thermal power projects on 29/01/2010 based on the submissions made by the stakeholders, government Policy and CERC regulations. The Commission has also decided in this order that roof-top Solar Power projects established by any project developer and the energy fed to the grid are also entitled to get the same tariff. The Commission is, in consultation with utilities, GEDA, Chief Electrical Inspector, framing guidelines for measuring energy generation and for installation of meters and safety aspects as and when roof top projects are connected with the grid. The Government of India has in the National Action Plan on Climate Change emphasized promotion of Solar Energy. Government of India has under the Jawaharlal Nehru National Solar Mission declared various schemes for promotion of Solar Energy Generation. The Commission is the first SERC in the country to bring out a comprehensive tariff order for Solar Energy in the state. It will

S. No.	SERC	Tariff	Power Procured From Renewables (%)
			be helpful for the project developers to establish projects in the state and sell the energy generated from it to distribution licensee. Distribution licensees are under obligation to purchase energy generated from solar projects towards fulfillment of of RPO. iii. Biomass based power generation Tariff Order vide order dated 17/05/2010. The Commission has determined tariff for biomass based power generation vide its order dated 17.05.2010 after considering the views expressed by thestakeholders, orders of various SERCs/CERC. This is the second order for biomass based power generation. The Commission has revised tariff from Rs. 3.08 per unit to Rs. 4.54 per kWh without accelerated depreciation. The Commission has divided the above tariff in blocks of initial 10 years and 11th year to 20th year to match the incremental cost of fuel in the last part of the project. This order will encourage project developers to establish such plants and enhance energy generation from such non-conventional sources. It will also result in socio-economic benefits to people in rural areas. iv. Bagasse based Co-generation Tariff order vide order dated 31/05/2010 The Commission has determined tariff for bagasse based cogeneration vide its order dated 31.05.2010 after considering the views

S. No.	SERC	Tariff	Power Procured From Renewables (%)
			expressed by the stakeholders, orders of various SERCs/CERC. sion has revised tariff from Rs. 3.00 per unit to Rs. 4.65 per unit in the revised order with accelerated depreciation and Rs. 4.71 per kWh without accelerated depreciation. The Commission has divided the above tariff in blocks of initial 10 years and 11th year to 20th year to match the incremental cost of fuel in the last part of the project. This order will encourage project developers to establish such plants and enhance energy generation from such non-conventional sources.
5.	HPERC	(Power Procurement from Renewable Sources and Co-generation by Distribution Licensee) Regulations, notified in 2007 and RPO Regulation, Notified on 3rd May, 2010	Renewable Power Purchase Obligation and its Compliance, Regulations Notified on 3rd May, 2010 Under these Regulations, the percentage of RPO is fixed for solar and non-solar renewable generation.
6.	JSERC	Biomass and Cogeneration – regulations issued	Biomass and Cogeneration FY 2010-11: 1.50% FY 2011-12: 2.00% FY 2012-13: 2.50% FY 2013-14: 3.00% FY 2014-15: 3.50%
7.	KERC	(1) Mini hydel – Rs. 3.40/unit, without escalations (2) Wind – Rs.3.70/unit, without escalations (3) Biomass – Rs. 3.66/unit in 1st year increasing upto Rs. 4.13 in 10th year	As per the amended regulation, the maximum limit has been removed and ESCOM wise minimum percent fixed as indicated below: BESCOM,ESCOM & CESC... 10% HESCOM, & GESCOM and Hkeri Society---- 7.00%.

<table>
<tr><th>S. No.</th><th>SERC</th><th>Tariff</th><th>Power Procured From Renewables (%)</th></tr>
<tr><td></td><td></td><td>(4) Co-gen – Rs. 3.59/unit in 1st year increasing upto Rs. 4.14 in 10th year.</td><td></td></tr>
<tr><td>8.</td><td>KSERC</td><td colspan="2">Regulations issued on 24.06.2006 and 01.01.2009. As per the regulation, 5% of consumption has to be from renewable sources (2% from SHP, 2% from Wind and 1% from all other sources except Small Hydro and Wind). Tariff applicable to SHP - Rs. 2.44 pe r unit; Wind -Rs. 3.14 per unit; Solar - Rs. 15.08 per unit and co-generation - Rs. 2.55 per unit</td></tr>
<tr><td>9.</td><td>MPERC</td><td>Tariff Orders for procurement of Power from WEGs, Bio-mass based projects, Co-gen plants and small hydro Power plants issued.</td><td>Target 10%. Achievement less than 1%.</td></tr>
<tr><td>10.</td><td>PSERC</td><td><table><tr><td>Biomass, Wind, Urban/ Municipal/Industrial/ Liquid/Solid Waste</td><td>4.03</td></tr><tr><td>Mini/Micro Hydel, Bagasse/Biomass based on co-generation</td><td>3.81</td></tr><tr><td>Solar</td><td>8.11</td></tr></table></td><td>0846% (335.35 MU) of total consumption of electricity (39623 MU)</td></tr>
<tr><td>11.</td><td>RERC</td><td>Wind Power Plants The tariff for wind power plants to be commissioned during the FY 2009-10 specified by the Commission's order dated 16.07.2009 is as under:<table><tr><td></td><td>Jaisalmer, Barmer and Jodhpur District</td><td>Other Districts</td></tr><tr><td>Levelised Tariff</td><td>Rs. 4.28/kWh</td><td>Rs. 4.50/kWh</td></tr></table></td><td>Renewable Purchase Obligation.
The Commission has specified a minimum energy purchase percentage of 6% during FY 2009-10 from wind energy sources and 1.45% from biomass energy sources for FY 2009-10.
For solar power, the Commission has specified that minimum power percentage would be specified after commissioning of 50 MW capacity power plants in Rajasthan.</td></tr>
</table>

<table>
<tr><th>S. No.</th><th>SERC</th><th>Tariff</th><th>Power Procured From Renewables (%)</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>Year of operation</td><td colspan="3">Water Cooled Fixed charges for normal Commissioning – Rs. 2.14/kWh Fixed charges for incentivized early commissioning – Rs. 2.31/ kWh</td><td colspan="3">Air Cooled Fixed charges for normal commissioning Rs. 2.37/kWh Fixed charges for incentivized early commissioning – Rs. 2.56/kWh</td></tr>
<tr><td rowspan="2"></td><td rowspan="2">Variable Charges Rs. /kWh</td><td colspan="2">Total tariff Rs. /kWh.</td><td>Variale charges Rs./ kWh</td><td colspan="2">Total tariff Rs. /kWh.</td></tr>
<tr><td>Normal Commissioning</td><td>Incentivised early commissioning</td><td></td><td>Normal Commissioning</td><td>Incentivised early commissioning</td></tr>
<tr><td>1st (2009-10)</td><td>1.73</td><td>3.87</td><td>4.04</td><td>1.86</td><td>4.23</td><td>4.42</td></tr>
<tr><td>2nd (2010-11)</td><td>1.79</td><td>3.93</td><td>4.10</td><td>1.93</td><td>4.30</td><td>4.49</td></tr>
<tr><td>3rd (2011-12)</td><td>1.88 escalating 5% p.a upto 20th year</td><td>4.02</td><td>4.19</td><td>2.03 escalating 5% p.a. upto 20th year</td><td>4.40</td><td>459</td></tr>
<tr><td>Levelised (Rs./kWh)</td><td>2.30</td><td>4.44</td><td>4.61</td><td>2.48</td><td>4.86</td><td>5.04</td></tr>
</table>

Solar Power : cz
As per RERC Tariff Regulations, 2009 (First Amendment) the total tariff, inclusive of Generation Based Incentive (GBI) payable by GoI to solar power producer is as under : All conditions of GoI Policy shall be applicable on them
<table>
<tr><th>S. No.</th><th>Particular</th><th>SPV Technology</th><th>CSP Technology</th></tr>
<tr><td>1.</td><td>Solar power plant eligible for full GBI as per GoI scheme</td><td>Rs. 15.78/kWh</td><td>Rs. 13.78/kWh</td></tr>
<tr><td>2.</td><td>Solar power plants eligible for reduced GBI as per GoI scheme</td><td>Rs. 15.18/kWh</td><td>Rs. 13.18/kWh</td></tr>
</table>
</td><td></td></tr>
<tr><td>12.</td><td>UERC</td><td>As per UERC (Tariff and Order Terms for Supply of Electricity from RE Sources and non-fossil fuel based co-generating Stations) Regulations, 2010, the tariffs are:
(a) Projects commissioned before 01.04.2007
(i) SHP (upto 25 MW) Projects</td><td>The Commission specified targets for 2010-11 of 4%, 2011-12 of 4.50% and for 2012-13 of 5% per annum. Further, the targets stipulated above includes a target of 0.025% for FY 2011-12 and 0.05% for FY 2012-13. Entire 100% power from renewable sources including cogeneration projects are purchased ahead of the merit order.</td></tr>
</table>

S. No.	SERC	Tariff	Power Procured From Renewables (%)
		Upto 5 MW Rs. 2.65/unit 5 to 10 MW Rs. 2.65/unit 10 to 15 MW Rs. 2.60/unit 15 to 20 MW Rs. 2.55/unit 20 to 25 MW Rs. 2.50/unit (ii) Bagasse based co-generation Projects Fixed Charges of Rs. 2.00 per unit. In addition, the normative fuel price is admissible which is Rs. 1.77/ unit for FY 2009-14 with 5% escalation per annum. **(b) Projects commissioned on or after 01.04.2007 upto 31.03.2009.** (i) SHP/Solar Projects (upto 25 MW) Upto 5 MW Rs. 3.11/unit 5 to 10 MW Rs. 2.95/unit 10 to 15 MW Rs. 2.95/unit 15 to 20 MW Rs. 2.85/unit 20 to 25 MW Rs. 2.80/unit (iii) Biomass/Biogas Projects: Fixed Charges of Rs.1.65/unit. In addition, the normative fuel price is admissible which is Rs. 1.90/unit for FY 2009-10 with 5% p.a. escalation. **(c) Projects commissioned on or after 01.04.2009** (i) SHP Projects (upto 25 MW) Upto 5 MW Rs. 3.50/unit 5 to 10 MW Rs. 3.40/unit 10 to 15 MW Rs. 3.25/unit 15 to 20 MW Rs. 3.15/unit 20 to 25 MW Rs. 3.00/unit	

<table>
<tr><th>S. No.</th><th>SERC</th><th>Tariff</th><th>Power Procured From Renewables (%)</th></tr>
<tr><td>13.</td><td>UPERC</td><td>Bagasse – Rs. 4.21/kWh
Biomass – Rs. 4.38/kWh
Small hydro –
Rs. 3.21 to Rs.3.83/kWh
Solar – Rs. 4.65/kWh
Others – Rs. 3.21/kWh</td><td>About 3% to 4% of the total consumption</td></tr>
<tr><td>14.</td><td>J&KSERC</td><td>(Small Hydel Projects) Rs. 0.987 per unit.</td><td>1.77% during 2009-10</td></tr>
<tr><td>15.</td><td>JERC (M&M)</td><td colspan="2">As per prevailing JERC Regulations.
Renewable Purchase Obligation of Licensee
<table><tr><th>Year</th><th>RPO for Manipur</th><th>RPO for Mizoram</th></tr><tr><td>2010-11</td><td>2%</td><td>5.0%</td></tr><tr><td>2011-12</td><td>3%</td><td>6.0%</td></tr><tr><td>2012-13</td><td>5%</td><td>7.0%</td></tr></table></td></tr>
<tr><td>16.</td><td>OERC</td><td>The Commission has floated a consultative paper on Harnessing of Power from Renewable Energy Sources including Co-generation. The Commission has also engaged a consultant to prepare an approach paper on RE Tariff determination and RPS fixation. In the meantime the consultant has submitted its final report. After considering all the comments/objections
on this report, the Commission will finalize the price at which renewable power will be procured by the utilities. At present, power from renewable sources is being procured through the PPA route.</td><td>The Commission has fixed a target of 3% of total power to be procured from renewable sources for the FY 2007-08 which will go at the step of 0.5% each year till it reaches 5% in the year 2011-12. The year-wise target vis-à-vis the achieved is given below:**</td></tr>
</table>

****Renewable Energy Procurement as per OERC order by GRIDCO**

Year	Total Power Procurement by discoms (MU)	Power procured from Renewable/ Co-generation sources (MU)	Actual % of procurement	Target %
2007-08	17211.00	285.08	1.60	3.0
2008-09	18787.51	339.37	1.80	3.5
2009-10	18921.00	827.30	4.25	4.0
2010-11 (Appr)	20154	829	4.11	4.5

6. Status of Determination of Open Access Surcharge

6.4 Cross-subsidy Surcharge and Additional Surcharge for Open Access

6.5 Non-conventional sources of energy generation including Co-generation:

8.5.1 The National Electricity Policy lays down that the amount of cross-subsidy surcharge and the additional surcharge to be levied from consumers who are permitted open access should not be so onerous that it eliminates competition, which is intended to be fostered in generation and supply of power directly to the consumers through open access.

A consumer who is permitted open access will have to make payment to the generator, the transmission licensee whose transmission systems are used, distribution utility for the wheeling charges and, in addition, the cross-subsidy surcharge. The computation of cross-subsidy surcharge, therefore, needs to be done in a manner that while it compensates the distribution licensee, it does not constrain introduction of competition through open access. A consumer would avail of open access only if the payment of all the charges leads to a benefit to him. While the interest of distribution licensee needs to be protected it would be essential that this provision of the Act, which requires the open access to be introduced in a time-bound manner, is used to bring about competition in the larger interest of consumers.

S. No.	SERC	Utility	Cross-Subsidy Surcharge (Paise/kWh)	Methodology Adopted	
			2009-10		
1.	BERC	BSEB	Determined vide order dated 02.11.2007 for the year 2006-07 till it's revised. Subsequently this has been revised in the Tariff Order dated 26.08.2008 for the year 2007-08 till it's revised.		
2.	CSERC	CSEB	EHT -71	HT -30	Average Cost Method
3.	DERC		a. It may be noted that 132kV network does not exist in Delhi. b. The open access power transmission is provided by SLDC, Delhi. Adequate arrangements have been made for non-discriminatory open access to all power utilities with wheeling charges in line with the CERC guidelines. c. In this regard, Open Access Regulation vide Notification No. F.11(133)/2003/Power/12 & No. F.8(18)/DERC/2005-06/3635, dated 3.1.2006 has been issued by DERC mentioning the various charges for open access. However, in Delhi, no consumer of any voltage level has availed the facility of open access. Further, DERC Order dated 29.8.2008 provides illustration of open access charges for the three discoms.		

<table>
<tr><th>S. No.</th><th>SERC</th><th>Utility</th><th>Cross-Subsidy Surcharge (Paise/kWh)
2009-10</th><th>Methodology Adopted</th></tr>
<tr><td>4.</td><td>GERC</td><td>GEB
DGVCL
MGVCL
PGVCL
UGVCL
TPAL</td><td colspan="2">The Commission has examined the provisions of the National Electricity Policy and Tariff Policy which are notified by the Govt. of India under the provisions of the Electricity Act, 2003. The Commission has also considered various provisions of the Electricity Act, 2003 relating to open access in distribution and transmission and has come to the conclusion that if open access is to be encouraged, then such cross-subsidy surcharge has to be reduced so that the ultimate cost of power to the consumer is affordable. The Commission had adopted the formula as prescribed in the Tariff Policy.

The cross-subsidy surcharge for HT-EHT Category works out to Rs. 0.51 per kWh, (which is 28% of the opening level of cross-subsidy surcharge) and Rs. 0.96 per kWh for Railway traction based on the methodology provided in the Tariff Policy. As per the provisions made in the Electricity Act, 2003 and the National Electricity Policy, it is essential to encourage open access and reduce the cross-subsidy surcharge in gradual manner to facilitate consumers to adopt open access. Therefore, the Commission has decided that cross-subsidy surcharge for both the HT/EHT industrial category as well as for the Railway Tractions be the same amount Rs. 0.51 per kWh.</td></tr>
<tr><td>5.</td><td>HPERC</td><td>HPSEB</td><td colspan="2">Cross-subsidy surcharge: -
<table><tr><th></th><th>(Rs/Unit) FY 09-10</th><th>(Rs/Unit) FY 09-10</th></tr><tr><td>Cross-subsidy Surcharge for LS EHT Category</td><td>Nil</td><td>0.12</td></tr><tr><td>Cross-subsidy Surcharge for LS HT Category</td><td>Nil</td><td>Nil</td></tr><tr><td>Cross-subsidy Surcharge for BS HT Category</td><td>Nil</td><td>Nil</td></tr></table></td></tr>
<tr><td>6.</td><td>JSERC</td><td>JSEB (2010-11)</td><td>• HTS 33 kV (Above 100 kVA) – Rs. 0.47/ Unit
• HTS- 132 kV (Above 100 kVA)- Rs. 0.38/Unit</td><td>Calculated with respect to the average cost of supply</td></tr>
</table>

<table>
<tr><th>S. No.</th><th>SERC</th><th>Utility</th><th>Cross-Subsidy Surcharge (Paise/kWh)
2009-10</th><th>Methodology Adopted</th></tr>
<tr><td>7.</td><td>KERC</td><td>BESCOM
GESCOM
HESCOM
MESCOM
CESC</td><td>Nill for all ESCOMs</td><td>In order to encourage open access, the Commission has made surcharge zero in its tariff order dated 25.11.2010</td></tr>
<tr><td>8.</td><td>KSERC</td><td>KSEB</td><td colspan="2">Cross-subsidy surcharge for EHT (110 kV) consumers-119Ps per unit; EHT (66kV) consumers-130Ps per unit; for HT Industrial - 81Ps per unit; HT IV Commercial - 117Ps per unit. Methodology adopted for calculating Cross-subsidy surcharge is as per the Tariff Policy.</td></tr>
<tr><td>9.</td><td>MPERC</td><td>MP Madhya Kshetra VVCL</td><td colspan="2"><table>
<tr><td>1</td><td>Generator is conconnected to Transmission network (EHT voltages), while the consumer is connected to the distribuion network (33kV and below) of a Distribution Licensee)</td><td>Not Applicable</td><td>1.56</td><td>0.62</td><td>1.09</td></tr>
<tr><td>2</td><td>Generator is connected to Transmission network (33kVor below) of Distribution Licensee, while the consumer is connected to the transmission network (132 kV or above)</td><td>0.96</td><td>1.36</td><td>0.84</td><td>1.56</td></tr>
<tr><td>3</td><td>Both Generator and consumer are connected to the transmission network (132 kV or above)</td><td>0.96</td><td>1.36</td><td>0.84</td><td>1.56</td></tr>
<tr><td>4</td><td>Both Generator and consumer are connected to the Distribution system of any Distribution Licensee</td><td>Not Applicable</td><td>2.08</td><td>1.14</td><td>1.61</td></tr>
</table>
As per methodology specified in the Tariff Policy.</td></tr>
<tr><td>10.</td><td>PSERC</td><td>PSEB</td><td>Nil</td><td>Nil</td><td>As per NTP</td></tr>
<tr><td>11.</td><td>RERC</td><td colspan="3">The cross-subsidy charges for open access consumers is being reduced by 20% each year from the opening level of cross-subsidy surcharge. The rate for 2009-10 are as under:</td></tr>
</table>

<table>
<tr><td></td><td></td><td>
<table>
<tr><td></td><td>EHV</td><td>33 kV</td><td>11 kV</td></tr>
<tr><td>LIP</td><td>36</td><td>25</td><td>11</td></tr>
<tr><td>ML</td><td>30</td><td>18</td><td>4</td></tr>
<tr><td>NDS</td><td>98</td><td>87</td><td>72</td></tr>
</table>
</td></tr>
<tr><td>12.</td><td>UERC</td><td>UPCL</td><td>Nil</td><td>It is nil for 2010-11. For subsequent years as per the formula given in the Tariff Policy.</td></tr>
<tr><td>13.</td><td>UPERC</td><td colspan="3">- Open access surcharge is zero
- As per Distrubution & Transmission Tariff Regulations the Commission has adopted same formula as notified in Tariff Policy</td></tr>
<tr><td>14.</td><td>J&KSERC</td><td></td><td>No cross-subsidy surcharge, since the tariff for all categories of consumers was less than the cost of supply and the deficit is made good by the State Government</td><td></td></tr>
<tr><td>15.</td><td>JERC MM</td><td colspan="3">Not yet fixed</td></tr>
<tr><td>16.</td><td>OERC</td><td colspan="3">OERC has fixed Cross-Subsidy Surcharge for open access for FY 2009-10 as follows:
Cross-Subsidy Surcharge for FY 2009-10 for HT Consumers
<table>
<tr><td>Wheeling charge p/u</td><td>Load Factor %</td><td>100%</td><td>90%</td><td>80%</td><td>70%</td><td>60%</td><td>50%</td><td>40%</td><td>30%</td><td>20%</td></tr>
<tr><td></td><td>Effective Tariff (HT) p/u</td><td>291</td><td>299</td><td>309</td><td>321</td><td>338</td><td>361</td><td>376</td><td>401</td><td>452</td></tr>
<tr><td></td><td>Surcharge P/U</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>50.73</td><td>WESCO</td><td>51</td><td>59</td><td>69</td><td>82</td><td>99</td><td>121</td><td>136</td><td>162</td><td>212</td></tr>
<tr><td>64.16</td><td>NESCO</td><td>64</td><td>72</td><td>81</td><td>94</td><td>111</td><td>134</td><td>149</td><td>174</td><td>225</td></tr>
<tr><td>81.27</td><td>SOUTHCO</td><td>111</td><td>119</td><td>129</td><td>142</td><td>159</td><td>181</td><td>197</td><td>222</td><td>273</td></tr>
<tr><td>73.62</td><td>CESU</td><td>85</td><td>93</td><td>103</td><td>115</td><td>132</td><td>155</td><td>170</td><td>196</td><td>246</td></tr>
</table>
Surcharge for FY 2009-10 for EHT Consumers
<table>
<tr><td>Trans-mission Charge p/u</td><td>Load Factor %</td><td>100%</td><td>90%</td><td>80%</td><td>70%</td><td>60%</td><td>50%</td><td>40%</td><td>30%</td><td>20%</td></tr>
<tr><td></td><td>Effective Tariff (EHT) p/u</td><td>276</td><td>285</td><td>295</td><td>308</td><td>326</td><td>351</td><td>366</td><td>391</td><td>442</td></tr>
<tr><td></td><td>Surcharge P/U</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>21</td><td>WESCO</td><td>101</td><td>110</td><td>120</td><td>133</td><td>151</td><td>176</td><td>191</td><td>216</td><td>267</td></tr>
<tr><td>21</td><td>NESCO</td><td>125</td><td>134</td><td>144</td><td>157</td><td>175</td><td>200</td><td>215</td><td>240</td><td>291</td></tr>
<tr><td>21</td><td>SOUTHCO</td><td>185</td><td>194</td><td>204</td><td>217</td><td>235</td><td>260</td><td>275</td><td>300</td><td>351</td></tr>
<tr><td>21</td><td>CESU</td><td>154</td><td>162</td><td>173</td><td>186</td><td>204</td><td>228</td><td>244</td><td>269</td><td>320</td></tr>
</table>
A linear approach for determining the exact rate in steps of 1% between 20 to 30 or 30 to 40 etc. can be worked out. For Load Factor below 20%, the surcharge at 20% shall apply. The status of Open Access in case of Orissa is enclosed in Annexure-II.</td></tr>
</table>

7. Harnessing of Surplus Captive Generation

Provision in Tariff Policy:

6.3 Harnessing captive generation

Captive generation is an important means to making competitive power available. Appropriate Commission should create an enabling environment that encourages captive power plants to be connected to the grid.

Such captive plants could inject surplus power into the grid subject to the same regulation as applicable to the generating companies.

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Wheeling charges and other terms & conditions should be determined in advance by the SERC ensuring that the charges are reasonable and fair.

1. There should be no penalty for reduction of contracted demand by a consumer having CPP.
2. In view of little justification for levy of parallel operations charges/ Grid Support Charges, these charges are to be kept at the lowest level.
3. There should be no minimum guarantee charges.
4. Charges for start-up/stand-by power should be reasonable and should not exceed the charges fixed for temporary connection.

S. No.	SERC	Penalty for reduction of contracted demand by consumer having CPP	Parallel operation charges/ Grid Support Charges	Minimum Guarantee Charges	Start-up / Stand-by Charges	Wheeling Charges
1.	BERC	As per information submitted by BSEB (deemed licensee) there is no captive power plant connected to the grid in the state.				The Commission has last determined charges vide order dated 26.08.2008.
2.	CSERC	Nil	Rs. 21/kVA/ month on the captive and non-captive load of CPP	Nil	Separate tariff (i) Demand charge- Rs. 150 per kVA per m onth, which is 50% of demand	33 KV (i) 17 paise per unit (ii) 6% in kind to be deducted

S. No.	SERC	Penalty for reduction of contracted demand by consumer having CPP	Parallel operation charges/ Grid Support Charges	Minimum Guarantee Charges	Start-up / Stand -by Charges	Wheeling Charges
					(ii) charges of industrial consumer. (iii) Energy charge – Rs. 3.20 per unit.	(iii) from energy input at 33 kV.
3.	DERC	Hardly significant captive generation in Delhi.				
4.	GERC	Harnessing of captive generation is also very important to reduce the gap between demand and supply (by using the sunk investment). The State Government earlier followed a forward-looking policy for promotion of captive generation and as a result, Gujarat is one of the front-runner States to have a large capacity of CPPs. The cross-subsidy surcharge is also reduced to encourage open access and ultimately to make available affordable power to the consumers. There is no penalty for reduction of contract demand by a consumer having CPP. The parallel operations charges are at present applied as per the judgment/order of the Hon'ble High Court in Special Civil Application (SCA) No. 26376 of 2006 and Misc. Civil Applicant No. 2844 of 2008, wheeling charges are applicable as determined by the Commission.				
5.	HPERC	Utility asked to assess the surplus captive generation potential Wheeling Charges already notified in the Tariff Orders.				
6.	KERC	KERC has issued orders for harnessing the surplus captive power from CPPs in the state by specifying the rates linked to UI rates. KERC has not prescribed any penalty for reduction of CD, parallel operation charges, minimum guarantee charges etc.				
7.	KSERC	Regulation on supply of power from captive generating plants was issued on 06.08.2007.				

S. No.	SERC	Penalty for reduction of contracted demand by consumer having CPP	Parallel operation charges/ Grid Support Charges	Minimum Guarantee Charges	Start-up / Stand-by Charges	Wheeling Charges
8.	MPERC	Nil	-	Nil	Commitment charges for Stand-by support Rs. 31 and Rs 25 per kVA per month or part thereof for 33 kV and 132 kV respectively in addition to fixed and Energy charges equivlent to Temporary Connection for corresponding Category	In terms of % of units exported based on State Captive Power Policy
9.	PSERC	No penalty.	No parallel operation charges. However, one time permission fee @ Rs. 50/ kVA on the total capacity less capacity earmarked for sale of power to the licensee.	Nil. However, monthly minimum charges are applicable as per Schedule of Tariff.	As per Tariff applicable to LS (General Industry) i.e. 458 paise/unit during 2010-11 and Rs. 20/ kVA/month as commitment charges to be adjusted against the bill for electricity drawal.	i) Transmission plus wheeling charges for Long -Term Open Access customers Rs. 5238/MW/ day (2010-11). ii) Trans-mission plus wheeling charges for Short-Term Open Access Customers Rs. 3143/ MW/day for the year 2010-11
10.	RERC	The "RERC (Tariff for Captive Power Plants) Regulations, 2007" was notified on 17th February, 2007.				

S. No.	SERC	Penalty for reduction of contracted demand by consumer having CPP	Parallel operation charges/ Grid Support Charges	Minimum Guarantee Charges	Start-up / Stand-by Charges	Wheeling Charges
11.	UERC	Nil	Nil, however, the responsibility of synchronization and providing synchronizing equipments conforming to requisite standards and import/export meters shall lie with the captive generators.	Nil	As per the tariff specified under the Schedule for temporary supply i.e., Rate of charge in appropriate rate schedule +25% with no minimum charges and demand charges for the number of days the supply is taken.	On a case to case basis. No case reported
12.	UPERC	No penalty	NA	NA	NA	As per tariff Orders
13.	WBERC				**Energy Charges –** 1.5 times of HT industrial consumers energy charges at corresponding voltage and demand (or as per the order of the Commission as specified from time to time) for energy equivalent to stand-by demand. **Fixed Charges –** 35 kVA/Month	

S. No.	SERC	Penalty for reduction of contracted demand by consumer having CPP	Parallel operation charges/ Grid Support Charges	Minimum Guarantee Charges	Start-up / Stand-by Charges	Wheeling Charges
14.	JSERC	Nil	Nil	-	**Usage Charges –** Prorated HT industrial consumer contract demand tariff at corresponding voltage and demand (or as per the order of the commission specified from time to time). For stand-by demand contracted, the prorata shall be done on the basis of usage.	15.6 Paise/ Unit
15.	J&KSERC	There is no surplus captive generation in the state				
16.	JERC-M & M	Nil				
17.	OERC	No penalty. This shall be governed by Regulation 66-71 of OERC Distribution (Conditions of Supply) Code, 2004. There is no special provision for reduction of contract demand by a consumer having CGP	Nil	Nil	Nil	WESCO-50.73 NESCO–64.16 SOUTHCO–81.27 CESU-73.62

Annexure V

V. Acronyms list

S. No.	Acronym	Detail
1.	ABT	Availability Based Tariff
2.	AMC	Annual Maintenance Contract
3.	ARR	Annual Revenue Requirement
4.	ATE	Appellate Tribunal For Electricity
5.	AT & C loss	Aggregated Transmission And Commercial Losses
6.	BEE	Bureau Of Energy Efficiency
7.	CEA	Central Electricity Authority
8.	CERC	Central Electricity Regulatory Commission
9.	CGRF	Consumer Grievances Redressal Forum
10.	CPP	Captive Power Plant
11.	Discoms	Distribution Company
12.	DSM	Demand Side Management
13.	EE	Energy Efficiency
14.	FOR	Forum Of Regulators
15.	GBI	Generation Based Incentive
16.	GoI	Government Of India
17.	JERC-M & M	Joint Electricity Regulatory Commission-Manipur And Mizoram
18.	JERC-UTs	Joint Electricity Regulatory Commission- Union Territories
19.	MoP	Ministry Of Power
20.	MNRE	Ministry Of New And Renewable Energy
21.	MsERC	Meghalaya State Electricity Regulatory Commission-
22.	MYT	Multi Year Tariff
23.	NDC	National Development Corporation.
24.	NPTI	National Power Training Institute
25.	REC	Renewable Energy Certificate
26.	RGGVY	Rajiv Gandhi Gramin Vidyutikaran Yojana
27.	SCADA-EMS	Supervisory Control And Data Acquisition- Environment Management System
28.	SEB	State Electricity Board
29.	SERC	State Electricity Regulatory Commission
30.	SLDC	State Load Despatch Centre
31.	T & D loss	Transmission And Distribution Loss
32.	UI	Unscheduled Interchange
33.	WIP	Work In Progress