Annual Report 2010-11

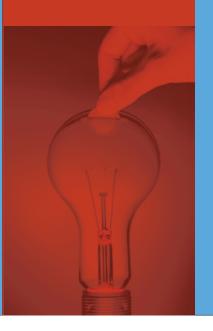






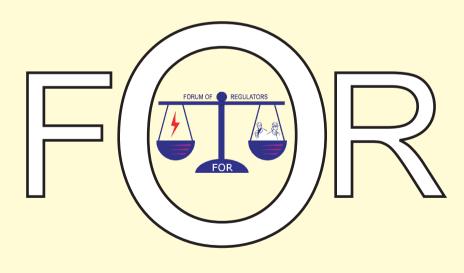








Annual Report 2010-11



FORUM OF REGULATORS

Published by

Forum of Regulators (FOR)

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Designed and Printed by : Abir Print Point

M.: 9810216074, 011-28520788



CHAIRPERSON'S STATEMENT

The Forum of Regulators (FOR) continued its endeavour to achieve harmonization of regulations in the power sector during the year 2010-11. Several issues facing the sector were discussed and a consensus evolved on the way forward.

Consumers remain the focus of reforms in the power sector. In pursuit of this objective, the Forum took important initiatives during the year in evolving model regulations on the Consumer Grievance Redressal Forum (CGRF), ombudsman and consumer advocacy. This resolved critical issues centred around operationalization of these institutional mechanisms envisaged in the Act for the protection of consumer's interests. A model consumer charter was also evolved for state commissions to adopt in their respective regulations.

Another important initiative was carrying out an in-depth study of financial viability of the distribution utilities. The distribution sector remains at the core of power sector reforms. It is important to restore the health of this segment in order to realize the objective of reforms in other constituents in the value chain, namely generation, transmission and trading. A detailed study carried out for ten states revealed that the revenue gap of utilities has been increasing due to non-revision of tariffs, absence of true-up mechanism, shortfall or delay in payment of subsidy by the state governments and disallowance of the legitimate cost in tariff. Based on the diagnosis of the problems facing the distribution sector, the Forum evolved consensus on the need for taking corrective measures to restore the health of this critical element in the distribution of electricity.

Open access is an important instrument for promoting competition in the power sector. While open access has been implemented at the inter-state level, there are issues on the implementation of open access at the state level. Apart from the intrinsic problems around independence of the State Load Dispatch Centre (SLDC) and availability of surplus power for sale through open access, there are other issues at the operational level that also need to be resolved. The Forum examined all such aspects and evolved model regulations on open access and crystallized an operational framework of metering, billing, imbalance statement eligibility, and implementation of open access under different conditions and circumstances.

Green energy has always been a focus area of discussion for the Forum of Regulators. An important achievement during the year involved completion of a detailed study on the "Assessment of Renewable Energy Potential" in the country and suggesting an renewable purchase obligation (RPO) trajectory for each state keeping in mind the source of availability and impact on power purchase cost. The study concluded that the incremental impact on power purchase cost to achieve the RPO trajectory in line with the National Action Plan for Climate Change (NAPCC) target would not be significant. The study for the first time



presented a scientific method of arriving at the RPO trajectory for promoting green energy in the country.

As a sequel to the initiative on green energy, the Forum also deliberated and evolved consensus on measures for encouraging Demand Side Management and Energy Efficiency (DSM & EE). The Forum endorsed the proposal from the Bureau of Energy Efficiency (BEE) for regulated Multi-State DSM programme.

In the backdrop of the initiatives taken by the Forum, the responsibility primarily now rests with the state regulators to take the recommendations forward by translating them into reality through their orders and regulations. The Forum has been engaging in discussion and consultations with all the relevant stakeholders in the 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 the future.

(Dr. Pramod Deo)

Pramod Oce



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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.
Functi	ions of the Forum
Tl F.	
Inerc	orum 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 Standards of Performance (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.	
Financ	ces 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		
and en	brum of Regulators was conceived with the mission of nurturing the growth of independent regulation appowerment of all having a stake in the electricity sector in India. In pursuit of this objective, the 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.	



The Year in Retrospect

The following studies were successfully conducted by the Forum in 2010-11:

☐ Standardization of the distribution franchisee model

The Forum identified the need to standardize the distribution franchise arrangement after examining the process of awarding a distribution franchise contract regarding termination policies followed by the utility and distribution franchisee. The study formulated the guidelines for input-based urban franchise along with the standard bidding documents.

Assessment of various potential renewable energy sources in different states, determination of the renewable purchase obligation trajectory and its impact on tariff

The study provided scenarios for a renewable purchase obligation (RPO) trajectory based on the availability of Renewable Energy (RE) sources target suggested by National Action Plan on Climate Change (NAPCC), operationalization of the renewable energy certificate (REC) mechanism and impact on tariffs. It concluded that the RE supply will not be a constraint in meeting the 2015 target even in a conservative scenario, and Pan-India targets could be achieved without a significant impact on tariffs.

☐ Financial viability of distribution utilities

The Forum commissioned the study with an objective of identifying the reasons for poor financial health of distribution utilities. The study was conducted in two phases and the performance of ten utilities was evaluated over a period of five years. The scope included the impact of increase in power purchase cost, treatment of regulatory assets, allowance of Return on Equity (ROE), subsidy disbursement, tariff vis-a-vis average cost of supply. In the second phase, a comparison of practice and methodology adopted for determination of tariffs was undertaken.

The study concluded that there is a significant gap between average cost of supply and average revenue realization for most of the distribution licensees. The revenue gaps of utilities have been increasing due to non-revision of tariffs, absence of true up mechanism, creation of regulatory assets, shortfall and delay in subsidy disbursement by the state government and disallowance of legitimate cost.

Training and capacity building programmes

One of the key responsibilities of the Forum is to build capacity of personnel of the electricity regulatory commissions (ERCs). The Forum conducted five training and capacity building programmes for the ERCs during the year. It included an orientation programme for chairpersons and members at the Indian Institute of Management, Ahmedabad with international exposure for three days. A capacity building programme for officers of ERCs on various facets of regulatory issues in the power sector was conducted at the Indian Institute of Technology, Kanpur. A three-day training programme on "DSM and Energy Efficiency" was held at the National Power Training Institute (NPTI), Faridabad. A residential training programme on "Protection of Consumer Interest" for officers of the Consumer Grievance Redressal Forum (CGRF), ombudsman and consumer organization, was conducted at NPTI. Training on legal aspects of the power sector regulation was also organized at National Law School of India University (NLSUI), Bengaluru for ERCs.



Meetings and key outcomes

In 2010-11, six meetings of the Forum of Regulators were held. The key issues discussed during the meetings and the outcomes are as follows:
The Forum approved model regulations on protection of consumer interest (CGRF, ombudsman and consumer advocacy) and intra-state open access to consumers.
The draft model regulations on compliance audit were discussed and approved with modification on the issues of payment to the consultant, procedure for initiating an audit and inspection of all the relevant documents during the audit.
The draft model demand side management regulations were discussed and approved with some modifications.
The standard model for distribution franchisee was discussed and approved by the Forum.
The Forum discussed the study on financial viability of discoms. It recognized the constraints faced by the regulators because of unmetered agricultural supply, non-availability of baseline data on sales, loss level etc. There was a consensus that the Forum and the electricity regulators should take the lead and commission a detailed study for addressing all such constraints.
The study on assessment of renewable potential, determination of RPO trajectory and impact on tariff was discussed and approved by the Forum.
While discussing the CAG's report on financial viability of distribution utilities, there was a consensus in the Forum that the ERCs should frame regulations, specifying the procedures to be adopted by the licensees, for procuring power on a short-term basis.
The Forum discussed the issues, regarding multiple and and parallel licensees in the distribution sector and determination of tariff for special economic zones (SEZs), and finalized the way forward to address the same.
There was a consensus in the Forum that State Electricity Regulatory Commissions (SERCs) should issue tariff orders without considering government subsidy so that the consumers may be charged with such tariff if the state government fails to pay the subsidy.
The Forum agreed to set up a working group to further study the various practices being followed by the SERCs regarding different aspects of tariff determination and to recommend the best practices.
The Forum approved the Bureau of Energy Efficiency's (BEE) proposal on the implementation of regulated multi-state DSM programme (RMSDP).



3. Activities of the Forum during the year

3.1 Meetings of Forum of Regulators:

new transmission lines. The Forum suggested that the model suggested could be first considered for urban areas like Ahmedabad and Greater Noida where separate distribution licensees are

functioning.

a.	Seventeenth Meeting (20-21 April, 2010 at Shillong):
	The draft Model Regulations on Compliance Audit were discussed and approved with modification on the issues of payment to the consultant, procedure for initiating an audit and inspection of all the relevant documents during the audit.
	Model Demand Side Management Regulations were discussed and approved with addition of provisions for mandatory consultation with Bureau of Energy Efficiency (BEE), inclusion of DSM programmes developed by BEE in DSM plan and modification in terms of periodicity of the reports on expenses.
	The study on "Assessment of various Renewable Energy Resources Potential in Different States, Determination of Renewable Purchase Obligation (RPO) Trajectory and its Impact on Tariff" was discussed and accepted with modifications in Capacity Utilization Factor(CUF), RPO data in various states and the incremental impact on average cost of service.
	The Forum discussed the implementation of section 65 of the Act. There was a consensus in the Forum that SERCs should issue tariff orders without considering government subsidy so that the consumers may be charged with such tariff if the State Government fails to pay the subsidy.
	Status of implementation of National Solar Mission was discussed. The FOR was also briefed about the recommendations of the 13th Finance Commission regarding incentives to the States who promote capacity addition based on renewable energy.
	• There was a broad consensus in the Forum that the transmission charges and losses for wheeling renewable energy on the state level transmission and distribution networks should either be exempted or kept at a minimal level keeping in view the fact that electricity from decentralized generation facilities based on renewable energy would in fact relieve the burden on the transmission and distribution networks.
□ mecha	Most of the SERCs present in the meeting felt that State Nodal Agencies should be designated as State Agency for the purpose of REC nism.
Power the pea	A presentation was made on Optimal Generation Mix for India highlighting that aking plants would not only result in higher necy even at part load but would also lead to s in land, water, CO2 emissions and cost of



b. Eighteenth Meeting (18th June, 2010 at New Delhi):

- The agenda of "Determination of Tariff for SEZ in its Capacity as Deemed Distribution Licensee" was discussed in the Forum. There was a consensus that individual SERCs may consider taking action accordingly in cases of SEZs. However, the proposed action of fixing only ceiling of tariff would not absolve the second licensee from fulfilling other obligations as required under the Electricity Act.
- A presentation was made by Secretary, Bureau of Energy Efficiency on Implementation of Regulated Multi-State DSM Programme (RMSDP) highlighting the key objectives, mechanics of RMSDP and the way forward. FOR agreed and provided in principle approval to the proposal of Bureau of Energy Efficiency.
- The Forum also approved the proposed modifications to the methodology of computing AT&C losses after discussion.
- ☐ The Forum agreed to set up a working group to study further the various practices being followed by the SERCs regarding different aspects of tariff determination and to recommend the best practices.
- A presentation was made by the FOR Secretariat on the key revisions in the study report regarding Assessment of various Renewable Energy Resources Potential in Different States, Determination of Renewable Purchase Obligation (RPO) Trajectory and its Impact on Tariff. After discussions, the Forum decided the following:
- The case of enhancing RPO at uniform rate was recommended.
- There was a need to support and encourage new capacity additions for exploiting the available potential without linking it with RPO in a host State, in view of the availability of REC mechanism.
- There was a general consensus that most of the RE based generation would be decentralized and building up transmission facilities for evacuation of the projected capacity addition would not be a barrier.





c. Nineteenth Meeting (30th July, 2010 at New Delhi):

The findings of the study on "Implementation and Impact Analysis of Time of Day (TOD) Tariff in
India" was presented before the Forum. The study report was approved with certain modifications.

- The issues regarding Multiple/ Parallel Licensees were discussed among the members of FOR and following was decided:
 - The Forum recalled the decision that individual SERCs may consider the retail tariff as ceiling in the new SEZs, such that, if the ceiling acts as an entry barrier in some cases then the SERC may resort to normal tariff determination.
 - FOR agreed that SERCs may also consider laying down simplified reporting and scrutiny requirements for the SEZ licensees.
 - It was agreed that a detailed study may be commissioned to suggest a transition path for movement from cost plus tariff regulation to price or revenue cap regulation, process of tariff determination during this transition phase, process of determination of wheeling charges and that of ceiling tariff for retail sale after the transition phase.
 - Ministry of Power to be requested to review the rule regarding the area for a second distribution licensee for incorporating discretion to the SERCs for granting licences for a smaller area where the incumbent licensee has no distribution network after consultation with the State Government.
- Discussion on issues regarding connectivity and evacuation under National Solar Mission (NSM) was held with the Secretary, MNRE. FOR's effort to promote RECs and steps taken by CERC for grid integration of renewable were appreciated by MNRE.
- The FOR Secretariat presented the agenda on issues regarding connectivity and evacuation under National Solar Mission (NSM). CEA explained the rationale behind the proposal of charging the transmission losses on cash basis. There was a consensus that the approach suggested in the agenda note should be followed only for the solar power plants being set up in phase-I of the NSM and accordingly the state transmission utilities should be compensated to the extent of incremental burden on their systems.





d. Twentieth Meeting (25th-26th September, 2010 at Kerala):

- CAG's report on Viability of Distribution Utilities was presented before the Forum by FOR Secretariat. The members of the Forum suggested that a more detailed analysis was required taking into account the grounds for various disallowances in the orders of the SERCs approving Annual Revenue Requirement and also the True-Up orders. There was a consensus that the ERCs should frame regulations specifying the procedures to be adopted by the licensees for procuring power on short-term basis.
- The model regulation on Open Access for Consumers was approved with certain modifications. Several members felt that a distribution licensee would be entitled to recover wheeling charges only in cases where open access electricity is actually wheeled over its network and such payment of wheeling charges would be governed by the conditions of supply, if there exists an agreement between the distribution licensee and the entity seeking open access.
- Standard Model for Distribution Franchisee was presented before the Forum and approved with modifications on the issues of payment security, approval of capex and provisions to ensure return of land and other assets to the distribution licensee.
- The Forum approved proposals for study on "Prepaid Metering Legal & Regulatory Issues", "Offgrid Renewable Power Generation" and "Open Access, Power Exchange and Transmission Pricing".
- The State Government of Assam had merged the two of the three existing distribution companies into third company. It was discussed that SERC's approval is required for merging of two utilities and any merger unless made with prior approval of SERC shall be void. It was suggested that the concerned SERC could also initiate suo-motu proceeding in such case.





e. Twenty First Meeting (27th-28th November, 2010 at Chennai):

- The Forum considered and approved in principle the model regulation on Protection of consumer interest (Consumer Grievance Redressal Forum, Ombudsman and Consumer Advocacy) with a few modifications.
- It was decided to evolve terms of reference for commissioning a study to evolve a model regulation under section 60 of the Act.
- A presentation was made on "Automated Demand Response A Critical System Resource for Power Sector" by M/s. Honeywell highlighting the features of a possible technological solution to mitigate peak power requirement in States. It was emphasized that there is a need for regulatory intervention to promote the automated demand response and DSM regulations at state level.
- A presentation was made on "Electricity for All: Ten Ideas towards Turning Rhetoric into Reality" by Prayas Energy Group. Prayas highlighted its findings on the measures/interventions required by various stakeholders in addressing the problems of the poorer sections of the society.



f. Twenty Second Meeting (14th February, 2011 at Mumbai):

- The Forum discussed the agenda of Common Guidelines for Licence condition including Tariff for SEZs. A presentation was also made by the representative of SEEPZ Association on SEEPZ's deemed licensee status. After discussion, the Forum felt that there was a need for detailed discussion on various issues relating to SEZ area. There could be different scenarios e.g. an SEZ would have come up in a virgin area, or in an area where multiple distribution licensees already exist. The licence conditions including tariff and related issues in each of such cases have to be evolved with due regard to the special conditions prevalent in such areas and the Supreme Court judgment in Mumbai licensees case in the suburban area mandating payment of cross-subsidy charge for using other licensee's wires over and above wire charges. The Forum, therefore, decided to constitute a Working Group to examine all such issues in detail and come out with the recommendations for consideration of the Forum.
- The Forum discussed and provided in principle approval to the draft Model Supply Code. After discussion, the Draft Model was endorsed in principle.



- A presentation was made by the representative of Bureau of Energy Efficiency highlighting the issues faced and subsequent financial implications during the implementation of Bachat Lamp Yojana (BLY). The members of FOR felt that the project developers should factor in the risk to the extent possible while designing the project itself.
- The FOR Secretariat discussed the report on DISCOM Viability / Tariff adequacy for ten states with the Forum. The study revealed various factors responsible for increasing losses of the distribution companies. Non-filing of petition for tariff revision and resultant non-revision of tariff, disallowance of costs, creation of regulatory assets, delay in and absence of true up exercise in some cases, disallowance of carrying costs/interest costs are some of the reasons for gap between cost and revenue realization for the distribution companies. It also concluded that there is an urgent need for tariff revision at regular intervals commensurate with the legitimate costs incurred by the discoms.
- The Forum recognized the constraints faced by the Regulators because of unmetered agricultural supply, non-availability of base line data on sales, loss level etc. It was felt that the Forum and the Electricity Regulators should take the lead and commission a detailed study for addressing all such constraints in each state separately.



3.2 Capacity Building Programmes

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

- An orientation programme was conducted for the chairpersons and members of the Electricity Regulatory Commissions (ERCs) at IIM-Ahmedabad from June 03, 2010 to June 10, 2010 to discuss the theory and practice of regulation in the Electricity Sector in India and abroad. The programme comprised of:
 - Three day module at IIM, Ahmedabad from June 03, 2010 to June 05, 2010.
 - International visit to San Francisco from June 07, 2010 to June 09, 2010.
- A residential training Programme on "Legal Aspects of Power Sector Regulation: Experiences and Enforcement Issues" for officers of Electricity Regulatory Commissions (ERC's) was held at NLSUI, Bangalore from June 28, 2010 to July 01, 2010.



	Third Capacity Building Programme for Officers of ERCs on various facets of Regulatory issues in Power Sector was conducted at IIT (Kanpur) from August 23 to August 28, 2010. A three day training programme on "DSM & Energy Efficiency" was held at National Power Training Institute (NPTI), Faridabad from November 16, 2010 to November 18, 2010. A two day Residential Training Programme on "Protection of Consumer Interest" for officers of CGRF, Ombudsman & Consumer Organization was conducted at (NPTI), Faridabad during November 24-25, 2010.
3.3	Studies completed during FY 2010-11:
a.	Standardisation of Distribution Franchisee Model
involve Reques	With an objective to standardize the entire process of the Distribution Franchise arrangement, the commissioned a study on Standardization of Distribution Franchisee Model. Critical elements ed in the process of distribution franchising were identified and analysed. Draft Standard Guidelines, at for Proposal and Distribution Franchise Agreement were formulated based on the discussions held akeholders. The key recommendations on the franchising process are as follows:
	To begin with, the target area considered should have an input energy of at least 2000 Million Units (MUs) per annum or more than 500 MW Load or more than 3 Lac Consumers. The Distribution Losses should be at least 20%.
	Subsequently, the utility may franchise other compact areas which have input energy of at least 400 MUs and Distribution Losses higher than 20%.
	If the franchised areas are at a distribution loss level of less than 20%, the objective of distribution franchising should be to increase customer satisfaction.
	Contract Period should ideally be 15 years. Areas with more than 20% losses and expected to come down at loss level less than 20% can be considered for 20 year contract period.
	Areas with distribution losses less than 20% where there could be a need to enter into long term power procurement agreements to meet the deficit of energy, the contract period should be 20 years. At least 5 years commercial data along with the technical and infrastructure details should be
	provided in RFP document. The utility should get a Third Party Audit of its commercial data of at least last one year including
	Input Energy, Energy Sales, Amount Billed and Collected, Distribution Losses and AT&C Losses. With the audited baseline data being available, the Average Billing Rate (net of Subsidy) for the Base Year should also be frozen.
	In order to avoid post-tender negotiation on important clauses of Franchise arrangement, the Franchise Agreement should be made a part of the tender document.
	The Bid Variable should be based on the combined input rate for HT & LT Consumers There should be no Minimum Benchmark rates since this would require making assumption regarding the business model of the franchisee which may not be true and could create ambiguity in the process.
	Loss reduction trajectory should be mentioned in the bid documents
b.	Assessment of Various Renewable Energy Resources Potential in Different States, Determination of RPO Trajectory and its Impact on Tariff

The Forum commissioned a study on "Assessment of Various Renewable Energy Resources Potential in Different States, Determination of RPO Trajectory and its Impact on Tariff". The study provided



scenarios for Renewable Purchase Obligation (RPO) trajectory based on availability (and likely capacity additions) of Renewable Energy (RE) sources, target suggested by NAPCC, operationalisation of REC mechanism and the impact on tariffs. The key messages from the study are:

RE Supply will not be a constraint in meeting 2015 target (even in conservative case).
Pan-India targets could be achieved without much impact on tariffs.

- RE supply enough to meet supply requirement under 3 scenarios
 - O Scenario-1: Higher increase in RPO levels in initial years
 - O Scenario-2: Same increase in RPO levels for all years
 - O Scenario-3: Slower increase in RPO levels in initial years
- Even with CERC tariff in all states assumed, incremental impact of RPO on tariffs is 1.5 to 4.1 paise/unit/year during 2011-2015.
 - O Higher RPO initially helps in reducing impact on tariff by investment in good sites during lower tariff periods.
- State segregated in three baskets-high, medium and low
 - Each State to contribute to RE (with own and through REC mechanism).
 - Impact of RE tariffs to be spread to different states.

c. Assessment of reasons for financial viability of utilities

The Forum was requested by the Ministry of Power to explore the possibility of a study on viability of Distribution Licensees. The Forum commissioned the study in two phases for ten states and the performance of the states was evaluated over a period of five years. In the first phase, the objective was to identify the reasons for poor financial health of the distribution licensee. In the second phase, the focus was on tariff revision assessment for financial viability of discom and comparison of approach adopted by different states for tariff determination. The key outcomes of the study are as follows:

Increase in gap between average cost of supply and average revenue realization for the licensees.
There is a need for considerable tariff hike in many states for utilities to break even.

- The revenue gap of the licensees have been increasing due to the following reasons:
 - Non revision of tariff in the states including absence of True-up mechanism.
 - Regulatory Asset has been created by the SERCs leading to gap in tariffs.
 - Shortfall and delay in subsidy disbursements by the State Government.
 - Actual power purchase quantum as well as cost are higher than approved levels
 - Actual sales is more than approved
 - Actual loss levels of the DISCOMs are higher than the approved loss levels
 - O Disallowance of interest cost on short-term borrowings for meeting the revenue deficit of previous year and carrying cost for time lag involved in recovery of FSA
 - Increase in short term loans.

3.4 Model Regulations

a. Model Regulations for Protection of Consumer Interest (Consumer Grievance Redressal Forum, Ombudsman and Consumer Advocacy Regulations)

The Regulations are aimed at bringing about uniformity in approach towards the issues of consumer



	protection across states and reduce discrimination between consumers of different states. The important provisions are as follows:
	Provision for multiple CGRFs in each revenue district for urban areas and single forum in 3-4 revenue districts in rural area. At least one sitting to be conducted in each revenue district each week.
	Provision for 3 members in each forum with two being appointed and remunerated by the licensee and one by the Commission.
	Licensee to meet all operating costs related to the Forum and can recover them through ARR. Cases regarding disconnection of supply shall be on top priority and have to be solved within 15 days.
	The Commission shall appoint Ombudsman. Multiple Ombudsman may be appointed. Retd. District Judge, Retd. Secretary to State Government and any person who was a member or chairperson of any statutory quasi-judicial body at state level for minimum three years to be eligible for the post of Ombudsman.
	Consumer Advocacy Cell to be constituted and funded by the Commission.
b.	Demand Side Management Regulation:
	These regulations aim to provide a guiding document to the States while preparing DSM Regulations. Modifications/additions may be required to incorporate State specific conditions/attributes. The salient features of the Regulations are:
	Regulations provide for DSM Objectives and targets to be set by the SERC for the Distribution Licensee. Provide for guidelines on various aspects of DSM processes:
_	
	 Load and market research, Implementation of DSM programmes,
	 Cost Effectiveness Assessment of DSM programmes,
	 Monitoring and Reporting and Evaluation, Measurement and Verification of savings through DSM programmes;
	• Eligibility criteria for DSM programmes,
	Guidelines for setting targets;Database development framework guidelines etc.
	Guidelines may be modified without modifying Regulations. Provide for various activities to be undertaken in the DSM framework
	• Load research and development of baseline data, formulation of DSM Plan, Commission review and approval of DSM plan, preparation and approval of DSM Programme Document, and implementation of DSM programmes
	Third party intervention in performing the most important task such as Evaluation, Monitoring and Verification is envisaged and responsibility has been kept with SERC Considering the reach of the Distribution Utility, most of the execution related tasks have been assigned to them. In addition, the responsibility of assessment of technical potential and market research has been placed on them.



SERC Compliance Audit Regulations for the Regulated Entities c. FOR evolved a model regulation for compliance audit by the Regulatory Commission. Following are the important provisions of the Regulation: The SERC may, any time, conduct audit of regulated entities for verifying their compliance with the Act, rules, regulations made there under, orders and directions issued by the Commission. The Commission may empanel consultants / auditors to conduct audit. The Commission may either appoint consultants/ auditors empanelled with it for an audit or go through the process of fresh selection, if required for a specific need. The consultant/auditor shall collect sufficient amount of evidence to document the work performed and to serve as the basis for the conclusions reached during the course of the audit. The Commission shall assign, through an Order, the specific task of audit to the consultant / auditor based on the terms of reference framed by it before the audit of the regulated entity starts. The SERC to give opportunity to the regulated entity to make a representation in connection with the All expenses of and incidental to any audit made under these regulations shall be paid by the Commission. d. **Intra-State Open Access Regulations:** The working group constituted by the Forum in the 19th FOR meeting evolved the Model Regulations for Open Access to the Consumers. These regulations shall apply to open access for use of intra-State transmission system and distribution systems in the State. General Provisions for Open Access are:

- Consumers with load of 10 MW and above or Generators having installed capacity of 10 MW and above are eligible to avail open access in intra-State transmission. Generators with capacity below 10 MW are eligible to avail open access in distribution system.
- Open Access shall be granted on payment of transmission, wheeling and other charges.
- ☐ Consumers for availing Open Access have to be
 - Connected to industrial feeder provided that all the consumers on such industrial feeder opt for Open Access.
 - Connected through an independent feeder.
 - Other consumers can avail Open Access subject to rostering restrictions.
- Criteria for granting long term access, medium-term open access or short term open access.
 - LTA with or without system augmentation.
 - MTOA only without system augmentation.



4. Activities of the Electricity Regulatory Commissions during FY 2010-11

4.1 Achievements of CERC

Continuing its proactive initiatives of the past, the Commission has taken a number of significant steps during the year to further reforms process in the power sector.

The most significant event during the year was issuance of regulations on Sharing of Inter-State Transmission Charges and Losses in June 2010. These regulations have brought about a paradigm shift in allocation of transmission charges amongst various users of the transmission system. True to the spirit of the National Electricity Policy (NEP) and Tariff Policy (TP), the new mechanism is sensitive to distance, direction and quantum of power flow. This addresses the emerging needs of power sector development and demands of competition and open access. The Inter-State Transmission Scheme (ISTS) users would now pay for the transmission system based on a scientific method that takes into account both usage and access. The distance of flow of electricity reflects the electrical distance as electricity flows by laws of physics and not by contract path. Direction sensitivity is captured in separation of generation and demand charges. The regulations are also expected to provide siting signals to locate the generating capacity, taking into account appropriate transmission charges. With the implementation of the New Pricing Transmission mechanism where transmission charges are locationally differentiated, the generators will have to take a view both on transmission charge and transportation cost of fuel. The Point of Connection (PoC) Transmission Pricing mechanism overcomes several shortcomings of the earlier regime, especially, the shortcomings of pancaking of charges and cross subsidization between regions.

Another important regulatory initiative during the year was issuance of regulations on Grant of Regulatory Approval for Execution of the ISTS to the Central Transmission Utility (CTU). With this initiative, an important vision of the National Electricity Policy has been fulfilled, namely, the requirement of CTU/STU to undertake network expansion after identifying the anticipated transmission needs that would be incident on the system. These regulations are also applicable to the ISTS for system strengthening/upgradation identified by the CTU to enable reliable, efficient, coordinated and economical flow of electricity within and across the region. In pursuance of these regulations, the Commission has also granted regulatory approval for execution of nine high capacity power transmission corridors involving investment to the extent of `58,000 crore. This regulatory approval is one of its kind and shows the will and conviction of the Commission to develop the integrated transmission system for independent power producers in a comprehensive manner.

Yet another significant step taken by the Commission was to bring greater discipline in operation of grid in the country. Through amendments in the Indian Electricity Grid Code (IEGC) and Unscheduled Interchange (UI) regulations, the message that UI should not be used as a route for trading in electricity, has been communicated all the more emphatically. The permissible frequency band of operation has been further reduced from the earlier range of 49.2 - 50.3 Hz to 49.5 - 50.2 Hz. Correspondingly, the charges for deviation from the schedule have also been enhanced with a further deterrence in the form of additional UI charges of 40 per cent for deviation when the frequency is below 49.5 Hz and additional UI charge of 100 per cent when the frequency is below 49.2 Hz. With these regulations in place, it is expected that the operation of the grid will become more stable, secure and economical.

The Commission has reiterated its commitment to promote green energy through several initiatives. Grid connectivity remains one of the major bottlenecks for mainstreaming renewable energy sources. To



address the issues related to grid integration, the Commission has amended its connectivity regulations to facilitate connectivity to the CTU for hydro generating stations and other generating stations using renewable energy source with capacity of 50 MW and above. Hydro or renewable energy generators individually or collectively with capacity of 50 MW and above can approach the CTU for connectivity.

The Commission had issued regulations on Renewable Energy Certificate (REC) in January, 2010. The REC mechanism is seen as a major initiative towards the promotion of renewable energy and encouraging competition in this segment. It addresses the twin objectives of harnessing renewable energy sources in areas with high potential and compliance with Renewable Purchase Obligation (RPO) by resource deficit States. This important framework was formally launched in November 2010, heralding a new era in the development of green energy in India. The first ever trading session on REC was held on 31-03-2011. The implementation of this framework is being witnessed with keen interest by stakeholders around the world.

The regulations concerning the REC were also amended during the year to address the concerns arising out of the perverse incentive for the generator to breach the PPA for earning profits in the REC market. The amendments also defined the scope of participation of captive generators based on the renewable energy source in the REC mechanism.

The Commission also issued an important regulation specifying the Rates, Charges and Terms and Conditions for Use of Intervening Transmission Facility in exercise of its powers under the Act. With these regulations in place, use of the intervening transmission facility would be easier and settlement of terms and conditions including rates and charges for use of the intervening system would also be facilitated. In the long run, this will facilitate seamless flow of power across the States and regions.

The Terms and Conditions of Tariff issued by the Commission for the year 2009-14 provided for issuance of guidelines for vetting the capital cost for hydroelectric projects. The investors had expressed apprehension that in the absence of a provision for approval of capital cost in advance by the Commission, financial closure of projects might become uncertain. To allay this fear, the Commission issued guidelines for vetting of the capital cost of hydroelectric projects and also empanelled independent agencies for vetting their capital cost.

In a cost plus regime, capital cost plays the most important role. In order to bring robustness in the process of regulatory approval of capital cost, therefore, the policies as well as the regulations framed by CERC envisage evolving the benchmark of capital cost for the purpose of tariff determination. During the year, the Commission also evolved the benchmark capital cost for transmission.

The Empowered Committee headed by Member, CERC has been playing a crucial role in facilitating competitive bidding in transmission. During this year, the Empowered Committee facilitated bidding for important projects where prices were discovered through competition. In all these cases, the discovered prices were found to be more efficient than the cost plus tariff.

The Electricity Act, 2003 has mandated the Commission to provide statutory advice to Government of India on issues critical to promotion of investment in the sector. During the year, the Commission tendered advice on a number of issues ranging from open access, need for peaking power plants, promotion of renewables, need for competition and competitive procurement in transmission for public as well as private sector etc.



4.2 Achievements of SERCs

1. Meghalaya State Electricity Regulatory Commission (MSERC)

	C issued Retail Supply Tariff Order for FY 2010-11 on August 23, 2010. MSERC notified the ing Regulations:
	Power Purchase & Procurement Regulation, 2011. State Grid Code Regulation, 2011. Determination of Tariff for Transmission & Wheeling of Electricity Regulation, 2011. Terms & Conditions for Open Access Regulations, 2011. The Commission notified grant of License for Transmission, Distribution & Trading of Electricity Regulation, 2011.
2.	Uttar Pradesh Electricity Regulatory Commission (UPERC)
In FY 2	2010-11, the Commission granted
	Transmission license to U.P. Power Transmission Corporation Ltd. and distribution licenses to four state Discoms.
	Distribution license to National Thermal Power Corporation (NTPC) (Rihandnagar rehabilitation area)
	Intra state trading license to Knowledge Infrastructure Pvt. Ltd and Mittal Processors Pvt. Ltd. National.
In the l	FY 2010-11, UPERC notified the following Regulations:
	Fees and Fines Regulations, 2010 Captive and Non- Conventional Energy (CNCE) Regulations, 2009 Promotion of Green Energy Regulation, 2010 Terms and Conditions of Generation Tariff, 2009 Electricity Supply Code, 2005 Grant of Connectivity to Intra-state Transmission System Regulations, 2010
3.	Assam Electricity Regulatory Commission (AERC)
AERC	notified regulations/ issued orders for the following:
	Procurement of Electricity from projects covered under Rooftop PV and Small Solar Power Generation Programme, RPSSGP, category I projects under Jawaharlal Nehru National Solar Mission on October 31, 2010.
	Renewable Purchase Obligation & its Compliance and Fuel and Power Purchase Price Adjustment Formula. In respect of the petition submitted by Assam Power Generation Corporation Ltd. (APGCL) on November 23, 2009 regarding additional charges, the Commission announced that the fuel surcharge of 13 paisa/unit shall be made applicable to all consumers w.e.f. July 01, 2010 onwards.
	The Commission also issued Tariff Orders for Rupahi Hydroelectric project of 0.4 MW in Baksa District, Assam and Pahumara Small Hydro-Electric Power Project of 2 MW in Barpeta District, on September 15, 2010.



4. Joint Electricity Regulatory Commission for Manipur & Mizoram (JERC-M & M)

The Joint Commission notified the following regulations/orders during the year:		
	Terms and conditions for grant of Distribution Licence, Terms and conditions for Tariff Determination from Renewable Energy Sources, Terms and conditions for Grant of Intra- State Trading License, Open Access, payment of fees and charges to State Load Despatch Centre (SLDC) & Determination of Tariff. Tariff orders of Mizoram and Manipur for FY 2010-11. Both the states have started the process of regularisation of unauthorised consumers. Determined generic tariffs for Solar PV, SHP and Wind Power generations in the interest of perspective investors.	
Other a	activities are as follows:	
	As per the JERC Regulations 2010, meetings of the State Advisory Committee's are to be held once in every quarter of each state. During 2010-11, quarterly meetings of the State Advisory Committee of both the States were conducted at Aizwal and Imphal respectively. State Coordination Forum Meetings were held at Imphal, Manipur and Aizwal.	
	The Electricity Supply Code Review Panel was constituted for both the states of Manipur and Mizoram. The Commission has issued necessary order for re organising the panel of Mizoram, permitting the induction of one more member to represent the HT Consumers into the panel.	
	The Commission conducted a Workshop on Electricity Consumers' Awareness-cum-Public Hearing at Mizoram and Manipur. Public Hearing for determination of Tariff for Mizoram and Manipur were conducted.	
	Against the RPO of 5 %, the Power & Electricity Department Mizoram has achieved during a target of 5.14 % of the total requirement of the state in FY 2010-11 from Small Hydro Power alone. Both the integrated utilities of Manipur and Mizoram have set up one Consumer Grievance Redressal Forum (CGRF) for each of the states and made them functional.	
5.	Punjab State Electicity Regulatory Commission (PSERC)	
PSERO	C notified regulations/ issued orders for the following:	
	Regulations for amendments in Electricity Supply Code & Related Matters and Punjab State Grid Code in FY 2010-11. The Forum & Ombudsman Regulations.	
	The Commission circulated the draft Regulations for Multi Year Tariff and Services and invited comments from various stakeholders including Govt. of Punjab, Punjab State Power Corporation Ltd. (PSPCL) and Punjab State Transmission Corporation Limited (PSTCL).	
	Tariff Order for FY 2010-11 on April 23, 2010. Orders in response to petitions pertaining to determination of Tariff, levy of fuel surcharge, allowing of Open Access, approval of Power Purchase Agreements, fixation of transmission/wheeling charges etc.	
6.	Jammu & Kashmir State Electricity Regulatory Commission (JKSERC)	
In the F	In the FY 2010-11, JKSERC notified regulations/issued orders for the following:	
	Regulations for Electricity Ombudsman.	



	Regulations for Establishment of Forum for Redressal of Grievances of Consumers. Regulations for Renewable Power Purchase Obligation, its Compliance and REC Frame work Implementation.
	Circulated Regulations on State Electricity Supply Code, Demand Side Management, Terms & Conditions for determination of Transmission Tariff and Uniform recording maintenance and reporting of information and Recovery of Expenditure for Supply of Electricity for public comments.
	Aggregate Revenue Requirement (ARR) & Determination of Generation Tariffs for J&K State Power Development Corporation Ltd, (the generation Utility of the state) for FY 2009-10 and FY 2010-11.
	Determination of Capital Cost and Provisional Tariff for 45 MW Baglihar Stage-I Hydro Electric Project of J&K State Power Development Corporation for FY 2009-10 and FY 2010-11.
	ARR & Determination of Retail Tariffs for the State Power Development Department (the Transmission & Distribution Utility of the State) for FY 2010-11.
	Tariff Orders for projects covered by Jawaharlal Nehru National Solar Mission. Order related to review petition filed by J&K state Power Development Corporation on the ARR & Generation Tariffs passed by the Commission for the FY 2009-10 and FY 2010-11.
	Determination of Generic Tariff for Procurement of Power from Wind Energy Generators in the State of Jammu & Kashmir.
7.	Haryana Electricity Regulatory Commission (HERC)
on Oct	ERC granted the first transmission license to a private party, M/S Jhajjar KT Transco Private Limited, ober 26, 2010, for evacuation of power through 400 KV Jhajjar Power Transmission system from MW thermal power plant at Jhajjar. The project was awarded under PPP mode.
The Co	ommission notified regulations/issued orders for the following:
	Regulations for Terms and Conditions for determination of Tariff from Renewable Energy Sources, Renewable Purchase Obligation and Renewable Energy Certificate.
	Tariff orders in respect of projects registered under Jawaharlal Nehru National Solar Mission and Poultry Litter based Power Project at Barwala.
	Order for designation of "Haryana Renewable Development Agency" as "State Agency" for accreditation and recommending the renewable energy projects for registration on October 06, 2010.
8.	Jharkhand State Electricity Regulatory Commission (JSERC)
	undertook two important steps in the FY 2010-11, namely, Multi Year Tariff and Promotion of able Energy. The following regulations have been notified by the Commission:
	Regulations for Terms and Conditions for Determination of Tariff for Generation, Transmission and Distribution.
	Terms & Condition for Tariff Determination for Biomass and non-fossil fuel based co-generation projects.
	Determination of Tariff for procurement of power from Solar PV Power Project, Solar Thermal
	Power Project and Wind Electric Generators. Renewable purchase obligation and its compliance.
	Demand Side Management Regulations. Regulations for Utilization of Surplus Capacity of Captive Power Plants Based on Conventional Fuel, with an intent to encourage CPPs to generate more power which can be used in the State of
	Ever when an injent to encourage it epo to denergie more nower which can be liced in the State of



Jharkhand and outside.

9. Madhya Pradesh Electricity Regulatory Commission (MPERC)

The M	PERC issued the Tariff Orders for the following:
	Solar Energy Based Power Generation in Madhya Pradesh. Control period for Solar PV Power Plant shall be up to March 31, 2013 and for Solar Thermal Power Plant and Roof Top and other small Solar Power Plant shall be up to March 31, 2014. Procurement of Power from Wind Electric Generators for the control period up to March 31, 2013 was also issued in FY 2010-11. Distribution and Retails Supply and for True-up of ARR of Discoms for the year FY 2007-08. MPERC also notified the following regulations: MPERC (Compliance Audit) Regulations, 2010. Notified amendments in the Regulations for Terms and conditions for Determination of Transmission Tariff, Electricity Supply Code, Recovery of Expenses and other Charges for providing Electric Line or Plant used for the purpose of giving supply, Cogeneration and Generation of Electricity from Renewable Sources of Energy, Terms and Conditions for Determination of Generation Tariff, Guidelines for Reporting of Regulatory Compliance and Terms and Conditions for Determination of Tariff for Supply and Wheeling of Electricity and Methods and Principles for Fixation of Charges.
10.	Karnatka Electricity Regulatory Commission (KERC)
	The Commission issued Multi Year Tariff Order for the period 2011-13 for KPTCL, BESCOM, MESCOM, CESC, HESCOM and GESCOM on December 07, 2010. Regulations on REC's were issued and published in the official gazette during the FY 2010-11. KERC issued the Tariff Order for Solar Power Plants on July 13, 2010.
11.	Maharashtra Electricity Regulatory Commission (MERC)
MERC	C notified the following regulations:
	Multi Year Tariff Regulations on February 04, 2011. Terms and Conditions for Determination of RE Tariff. Renewable Purchase obligation- its compliance and implementation of REC Framework, Demand Side Management Implementation Framework and Demand Side Management Measures and Programmes' Cost Effectiveness Assessment.
12.	Chhattisgarh State Electricity Regulatory Commission(CSERC)
The Co	ommission notified regulations/issued order for the following:
_ _ _	Regulations for Connectivity and Intra State Open Access. Regulations for Redressal of grievances of consumers. Regulations for Renewable Purchase Obligation & REC framework implementation and Fees and Charges of State Load Dispatch Centre. Multi Year Tariff Order for Chhattisgarh State Power Distribution Company Ltd., Chhattisgarh State Power Transmission Company Ltd., Chhattisgarh State Power Generation Company Ltd, State Load Dispatch Centre, for the control period FY 2010-11 to FY 2012-13.



	The Commission also issued retail tariff order for the year FY 2011-12 for Chhattisgarh State Power Distribution Company Ltd.
	For the purpose of accreditation and recommending the Renewable Energy Projects in the State of Chhattisgarh, an order regarding nomination of "State Agency" was issued.
13.	Tripura Electricity Regulaotry Commission (TERC)
	TERC has issued Fuel & Power purchase Adjustment Cost (FPPCA) Order against the Petition submitted by the Sole Utility, Tripura State Electricity Corporation Limited (TSECL) on Gas price hike.
	The Commission has passed two tariff orders on receipt of Tariff Petition and Annual Revenue
	Requirement from the Licensee i.e. TSECL for the year FY 2005-06 & FY 2006-07. No legal dispute/disputes were encountered by the Commission during the FY 2010-11.
14.	Uttarakhand Electricity Regulaory Commission (UERC)
	In the FY 2010-11, the UERC issued regulations for Terms & Conditions of Intra State Open Access
	and Compliance of Renewable Purchase Obligation. UERC had issued Tariff Orders of the Distribution licensee, Transmission licensee and Generating Company. The Commission had issued directions to the licensee for 100% metering against which the distribution licensee attained a level of 98.24% metering.
	In order to address the grievances of consumers in the state in an effective manner, the Commission
	has amended the regulation for Consumer Grievance Redressal Forum. The Commission has introduced a culture of billing analysis of all the key consumers of the State.
15.	Rajasthan Electricity Regulatory Commission (RERC)
	The Commission notified Tariff for Sale of Power by Captive Power Plants to Distribution
	Licensees Regulations 2010. The Commission determined Multiyear ARR of Distribution Companies for the control period FY 2009-10 To FY 2013-14 and also true-up of ARR for FY 2007-08 of Jaipur and Jodhpur Vidyut Vitran Nigam Ltd.
	RERC determined the generic tariff for sale of electricity, in the State to the Distribution Licensees
	from Solar Power Plants including roof top SPV system and small solar power plants. Order on Wheeling Charges and Cross subsidy surcharge for the year FY 2011-12 to FY 2013-14. The Commission adopted the tariff discovered through the process of competitive bidding under Case-1 as per competitive bidding exercise under taken by Rajasthan Rajya Vidyut Prasaran Nigam Limited (RVPNL).



5. **Insights**

5.1. **Studies Commissioned during the year**

The following studies were commissioned during the year:

1. Evolving measures for the effective implementation of Prepaid Metering

The Forum approved the proposal to commission a study on Prepaid Metering – Legal & Regulatory Issues in the twentieth FOR meeting. The legal framework in place in the country recognizes pre-paid metering in all its guiding legal/policy documents. Despite this recognition, there is a dearth of guidelines/procedures for adoption of the technology.

Due to lack of specific guidelines, many Govt, and private distribution utilities have been implementing prepaid metering based on their own interpretation of the Act, policies and regulations. Furthermore, many states are refraining from adopting the technology primarily due to the obscurity surrounding pre-paid metering.

It is imperative that the merits of pre-paid metering should first be evaluated, within the country as well as overseas, and all expected impediments to its large scale implementation should be streamlined. There is also a need to understand the various legal and regulatory provisions specific to metering and their implications on pre-paid metering and also how the various distribution utilities are interpreting the same. In case it is felt that large-scale adoption of pre-paid metering can be beneficial to the power sector utilities, there is a need to adopt a uniform and pre-planned approach for pre-paid implementation in the country. To achieve the said objectives the study on 'Evolving measures for the effective implementation of Prepaid Metering' has been commissioned during the year.

5.2. Agenda for FY 2011-12

Finalization of study on 'Evolving measures for the effective implementation of Prepaid Metering'.			
The following studies have been planned for FY 2011-12			
Policy and regulatory interventions to support community level off-grid projects.			
Assessment of achievable potential of New and Renewable Energy resources in different States during the 12th Plan Period, determination of RPO trajectory and its impact on Tariff.			
Model Tariff Guidelines for Multi Year Distribution Tariff.			
Preparing incentive structure for RE resource deficient states for fulfilling Renewable Purchase Obligation (RPO) targets.			
Preparing plan for transmission infrastructure development for the likely capacity additions of RE based power plants in the states rich in RE potential.			
Standardization of Regulatory Accounts.			
Market domination related to Section 60.			
Standard Procedures for Open Access for Utilities.			
Distribution license conditions and tariff guidelines for the SEZ developers.			
Studies evolve principles for price cap regulation for determination of tariff ceiling two or more distribution licensees operate in same scenario.			
Model Regulations for Powers of ERCs to enforce orders.			

Model Regulations for Powers of ERCs to enforce orders.



6. FOR Annual Statements of Accounts 2010-11

Income and expenditure account for the year ended 31-03-2011

Amount (in `)

PARTICULARS	As on 31	.03.2011	As on 31.03.2010	
INCOME				
Membership Subscription		57,00,000	52,00,000	
Interest on Saving Account (BOI A/c 121)		2,791	32,00,000	
Membership Subscription-Prior Period -				
2008-09		-	7,00,000	
Interest from Corpus Fund FDR (BOI)		24,60,354	27,67,895	
Interest from Auto Sweep (BOI) Interest from FDR (BOI & Corporation		4,93,220	3,83,028	
Bank)		1,86,532	1,74,603	
Provision Written-off		-,,	350	
Interest Accrued (Prior Period Adjustments)		49,428	-	
Total - A		88,92,325	92,25,876	
EXPENDITURE				
- Meeting & Seminar Exprenses		11,15,675	10,94,530	
Salary Expenses		21,83,072	12,45,400	
Capacity Building & Consultancy		7,48,203	35,78,849	
Secretariat Expenses:				
Travelling Expenses - Prior				
Period 2008-09 (Reimbursed by Ministry of	-		(2,92,877)	
Powers)				
Advertising & Publicity Expenses	3,75,437		_	
Audit Fees	19,800		18,000	
Bank Charges	2,510		16,286	
Computer Repair & Maintenance Expenses	92,406		34,746	
Depreciation	1,29,677		1,40,762	
Legal & Professional Charges	1,86,000		6,48,600	
Other Expenses	3,69,119		32,401	
Telephone Expenses	46,898		40,149	
Printing & Stationery Expenses	15,167		15,286	
Prior Period Expenses	3,864		1.01.201	
Travelling Expenses (TA) Administrative Expenses	2,81,233 4,25,000	19,47,111	1,01,391 5,49,089	
Administrative Expenses	7,43,000	1 2,4 /,111	3,43,003	
Total - B		59,94,061	72,22,613	
Surplus/(Deficit) earned during the year (A-B)		28,98,264	20,03,264	



Annexure

I. Members of the Forum of Regulators

Sl. No.	Photograph	Name & Designation	Electricity Regulatory Commissions				
	Chairperson, 'FOR'						
1.	Control of the contro	Dr. Pramod Deo Chairperson	Central Electricity Regulatory Commission (CERC)				
		Members, 'FO	R'				
2.		Shri A. Raghotham Rao Chairperson	Andhra Pradesh Electricity Regulatory Commission (APERC)				
3.	6	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 Subhash Chander Negi	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 M.R. Sreenivasa Murthy	Karnataka Electricity Regulatory Commission (KERC)
13.	Shri K .J. Mathew Chairperson	Kerala State Electricity Regulatory Commission (KSERC)
14	Shri Rakesh Sahni	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)



28.	501	Mr. Digvijay Nath	Arunachal Pradesh State Electricity Regulatory Commission (APERC)
27.		Shri S.I. Longkumer	Nagaland Electricity Regulatory Commission (NERC)
26.		Shri P.J. Bazeley Chairperson	Meghalaya State Electricity Regulatory Commission (MSERC)
25.	(Jx 3)	Shri Manoranjan Karmarkar Chairperson	Tripura Electricity Regulatory Commission (TERC)
24.		Shri C. Hmingthanzuala Chairperson	Joint Electricity Regulatory Commission for Manipur & Mizoram (JERC-M&M)
23.	(10)	Shri V.K. Garg Chairperson	Joint Electricity Regulatory Commission for UTs Except Delhi (JERC-UTs)
22.		Shri Prasad Ranjan Ray Chairperson	West Bengal Electricity Regulatory Commission (WBSERC)
21.	(1) (1) (1) (1) (1)	Shri V.J. Talwar Chairperson	Uttarakhand Electricity Regulatory Commission (UERC)
20.	(B-1)	Shri Rajesh Awasthi Chairperson	Uttar Pradesh Electricity Regulatory Commission (UPERC)
19.		Shri S. Kabilan Chairperson	Tamil Nadu Electricity Regulatory Commission (TNERC)



II. Address and contact details of Electricity Regulatory Commission

Address and contact details of Electricity Regulatory Commissions					
Sl. No.	Logo	Electricity Regulatory	Address	Contact No./E-mail	
1.	To Ga. Ga. Str. Str. C. E. R. C.	Central Electricity Regulatory Commission	3 rd & 4 th Floors, Chanderlok Building, 36, Janpath, New Delhi-110001.	Tel. No.23353503 Fax No.23753923 Email: info@cercind.gov.in	
2.		Andhra Pradesh Electricity Regulatory Commission	D.No.11-4-660, 4 th & 5 th Floors Singareni Bhavan, Red Hills, Khairatabad, Hyderabad 500 004	Tel No. 23397381/399/556/656 /684 Email:commn- secy@aperc.gov.in	
3.	RERC	Assam Electricity Regulatory Commission	Assam Electricity Board Complex 6 Mile Dwarandar G.S. Road Guwahati – 781 022	Phone: 0361- 2224807/2224808 FAX NO.: 0361- 2234432. E-Mail: aerc_ghy@hotmail.co m	
4.	Party Property And Andrews Commission	Bihar State Electricity Regulatory Commission	Ground Floor Vidyut Bhavan-II BSEB Complex Bailey Road Patna – 800021. (Bihar).	Tel No. 0612-2556749 Fax: 0612-2504488 Email: halderbk@yahoo.co.in	
5.	CSERC	Chhattisgarh State Electricity Regulatory Commission	Irrigation Colony, Shanti Nagar, Raipur – 492 001 (Chhattisgarh)	Ph.:0771-4048788; Fax:0771-4073553; Email:cserc.sec.cg@ni c.in	
6.	DERC	Delhi Electricity Regulatory Commission	Viniyamak Bhawan, C- Block, Shivalik, Near Malviya Nagar, New Delhi-l 10 017.	Tele: 011- 26673610/26673605 Email : secyderc@nic.in	



7.		Gujarat Electricity Regulatory Commission	1 st Floor, Neptune Tower, Opp. Nehru Bridge, Ashram Road, Ahmedabad - 380 009	Phone:079-26580350 Fax:91-079-26584542 Email: gerc@gercin.org
8.	HERC PROPERTY OF THE PROPERTY	Haryana Electricity Regulatory Commission	Bays No.33-36, Sector - 4 Panchkula (Haryana) - 134112.	Phone: +91(172)2582531 Fax:+91(172)2572359 Email: herc@chd.nic.in
9.		Himachal Pradesh Electricity Regulatory Commission	Keonthal Commercial Complex, Khalini, Shimla – 171002 (HP).	Phone: 91-177- 2627263 Email: hperc@rediffmail.com
10.	THE COUNTY OF TH	J&K State Electricity Regulatory Commission	PDC Complex Ashok Nagar, Satwari Jammu – 180003.	Phone: 0191-2457899 Email: jkserc@hotmail.com
11.	विज्ञा रिक्ति में से	Jharkhand State Electricity Regulatory Commission	2 nd Floor, Rajendra JawanBhavan-cum-Sainik Bazar, Main Road, Ranchi 834 001 (Jharkhand)	Phone: 0651-2330926 Fax: 0651-2330924 Email: jserc@sancharnet.in
12.		Karnataka Electricity Regulatory Commission	No. 9/2, Mahalaxmi Chambers, 6 th & 7 th Floor, M.G.Road, Bangalore-560001.	Phone: 080-25320213 Email: Kerc@vsnl.com
13.	A STATE OF THE STA	Kerala State Electricity Regulatory Commission	K.P.F.C. Bhavanam C.V. Raman Pillai Road Vellayambalam Thiruvananthapuram 695010	Phone:0471-2735544 Email: kserc@erckerala.org
14.	MPERC	Madhya Pradesh Electricity Regulatory Commission	Metro Plaza, 3 rd & 4 th Floor, E-5, Arera Colony, Bittan Market, Bhopal – 462 016.	Tele:0755- 2463585/2464643 Fax:0755-2766851 Email secmperc@sancharnet. in



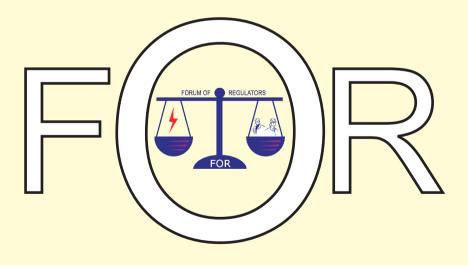
15	MERC	Maharashtra Electricity Regulatory Commission	World Trade Centre, Centre No. 1, 13 th Floor, Cuffee Parade, Mumbai – 400 005. MERC Board Nos:	Phone: 22163964/22163965/ 22163969 Email: Mercindia@mercindia. com
16.		Orissa Electricity Regulatory Commission	Bidyut Niyamak Bhavan, Unit – VIII, Bhubaneshwar – 751 012.	Phone: 0674-2396117 /2393097 Fax: 0674-2393306/ 2395781 Email: orierc@sancharnet.in
17.		Punjab State Electricity Regulatory Commission	SCO 220 – 221, Sector 34A Chandigarh	Phone: 0172-2664758 Fax: 0172-2645163 E-Mail: percchd8@hotmail.co m
18.	RERC - S	Rajasthan Electricity Regulatory Commission	Vidyut Viniyamak Bhawan, (Near State Motor Garage) Sahakar Marg, Jaipur – 302 005.	Phone: 0141- 2741181/2741016 Fax: 0141-2741018 Email: rercjpr@yahoo.co.in
19.	TO REGULATORS OF THE PARTY OF T	Tamil Nadu Electricity Regulatory Commission	19-A, Rukhmani Lakshmipathy Salai (Marshalls Road), Egmore, Chennai – 600 008.	Phone: 91-044- 28411378 / 28411379 Email: Em: tnerc@vsnl.net
20.	THE PARTY OF THE P	Uttar Pradesh Electricity Regulatory Commission	Kishan Mandi Bhawan, 2 nd Floor, Gomti Nagar, Lucknow – 226010.	Phone:2720424, Fax: 2720423 Email: secretary@uperc.org
21.	Uttrakhand Electricity Regulatory Commission	Uttarakhand Electricity Regulatory Commission	The Institute of Engineers (India) 1 st Floor, Near ISBT, Majra Dehra Dun (Uttarakhand)	Phone:0135-2763441 Fax:0135-2641314 Email: uerc@indiatimes.com



22.		West Bengal Electricity Regulatory Commission	FD-415A, Paura Bhavan, (3 rd Floor), Sector – III, Bidhannagar, Kolkata – 700091.	Phone: 033 23593553/3397 Email: wberc@.cal3.vsnl.net.in
23.		Joint Electricity Regulatory Commission (JERC) for UTs except Delhi	2 rd Floor, HSIIDC Office Complex, Udyog Vihar, Phase-V, Gurgaon (Haryana)	Phone: 0124-2343302 Fax: 0124-2342853 Email: secretaryjerc@gmail.c om
24.	JERC	Joint Electricity Regulatory Commission for Manipur & Mizoram	D-31, Mahatma Gandhi Road, Upper Khatla, Aizawl, Mizoram-796001.	Phone No.:0389- 2301926 Fax No.:0389-2301299 / 0389-2344301 Email: jerc.mm@gmail.com
25.	STATE OF THE STATE	Tripura Electricity Regulatory Commission,	Buthoria, Choumuhani, Agartala – 799 001	Phone: 0381-2326372 Email: mrk.terc@rediffmail.co m
26.	MSERC	Meghalaya State Electricity Regulatory Commission	Lower Lachumiere, New Administrative Bldg., 1 st Floor, East Khasi Hills Disttrict Shillong – 793 001 (Meghalaya)	Phone: 0364-2500142 / 144 Fax: 0364-2500062 Email: secy.mserc- meg@nic.in
27.		Nagaland Electricity Regulatory Commission	Old MLA Hostel Complex, Kohima – 797 001 (Nagaland)	Phone: 0370-2292101 Fax: 0370-2292104 Email: nerc_kohima@yahoo.c om
28.	A SOUL ATOM	Arunachal Pradesh State Electricity Regulatory	Sector- A, Naharlagan, PIN – 791110 Arunachal Pradesh	Phone: 0360-2350586 Fax: 0360-2350985 Email: apserc_75@yahoo.com

III. Status Report on Issues Pertaining to National Electricity Policy

Annual Report 2010-11



FORUM OF REGULATORS

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1. GRID Codes

Provision in NEP	(National	Electricity	Policy)
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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	07.08.2004	Implemented
2.	CSERC	30.12.2006	First amendment in Sept.09, 2008. Now it is again being revised.
3.	GERC	25/08/2004	Notified
4.	HERC	12.05.2009	Grid Code notified.
5.	HPERC	11.08.2008	HP Grid Code is in force in the state of HP
6.	JSERC	4.2.2009 Notification No.35	Notified
7.	J&K SERC	20.11.2007	J&K State Electricity Grid Code Regulation, notified vide notification No. 8/JKSERC/2007, is in place.
8.	KERC	26.01.2006	Notified. Proposed to be modified to comply with IEGC-2010.
9.	JERC (M &M)	02.07.2010	In force
10.	MPERC	24.10.2005	Last amended on 5.12.2008
11.	MERC	15.02.2006	Maharashtra Electricity Regulatory Commission (State Grid Code) Regulations 2006 has come into force with effect from April 01, 2006.
12.	PSERC	09.03.2006	The State Grid Code effective from April 01, 2006, was notified vide No.PSERC/Secy.Regu26 dated 9.3.2006 and published in the State Gazette dated March 24, 2006.
13.	TERC	Under Gazette Publication	All the formalities like paper publication, Comments, Suggestion/Objection already compiled and ready for gazette print.
14.	UERC	09.04.2007	Notified
15.	UPERC	14.07.2007	Revised Grid Code notified on 14.07.2007.



2. Technology Up-gradation

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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	Under implementation in phased manner.
2.	CSERC	Installation of RTU is in progress. RTU has been provided in the injection point to the grid.
3.	GERC	Implementation on SCADA has been started by the Distribution Licensees. HVDS implementation has already been taken up in MGVCL, UGVCL, DGVCL and PGVCL for effective reduction in losses.
4.	HERC	Under implementation.
5.	HPERC	The HP, SLDC is capable of handling the open access cases, having all requisite capabilities.
6.	J&K SERC	J&K State Electricity Regulatory Commission (Open Access in intra State Transmission & Distribution) Regulation, 2006, notified vide No. 6/J&KSERC/2006 dated 25 th January, 2006 is in place, allowing Open Access to consumers from 1MW and above. SLDC is already established in Jammu with a sub-load dispatch centre at Srinagar and is equipped with communication and data acquisition capability on real time basis.
7.	KERC	KPTCL has taken up the up gradation of SCADA under integrated SCADA scheme. KPTCL has completed implementation of SCADA up to 220 kV level. The implementation at lower voltages is under progress.
8.	JERC (M &M)	 Regulations on Procedure, Terms & Conditions for payment of Fees and Charges to State Load Dispatch Centre and other related provisions framed. Consolidated scheme for Technical up gradation has been prepared for both Manipur and Mizoram.
9.	MPERC	The State Load Dispatch Centre in M.P. is equipped with State-of-art communication and data acquisition capability on real time basis. The SCADA and wideband communication system besides several other technology upgrades matching with RLDC facilities are also provided with State LDC. Regulation for SLDC fee and charges was notified on 19th May, 2006. SLDC tariff orders (including approval of five year rolling Capex expenditures) are being issued regularly since 2006. 50% of O&S charges are kept separately as Capex fund.



10.	MERC	 i. Maharashtra Electricity Regulatory Commission (Distribution Open Access) Regulations, 2005 notified on superseding the "Maharashtra Electricity Regulatory Commission (Distribution Open Access) Regulations, 2004". ii. The database in respect of Open Access Users is maintained and a Software for online processing of open access applications is under development. iii. Technology upgradation i.e. installation of intrastate ABT meters, 90% metering at all G>>T and T>>D interface has been done and 80% of the total meters are working satisfactorily with communication link.
11.	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 (Unified 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 KV out of 57 nos. and 78 nos. respectively) covering all 220 kv and 132 kv Generating Stations, 220 kv and 132 kv substations 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. Procurement of 42 no. additional RTUs is in advanced stage and the LOI is likely to be issued after the qualifying firm successfully implements installation of a pilot RTU at a selected 220 kv sub-station within one month from LOI and properly integrate the same with existing SCADA/EMS system and shows continuous availability of on-line data in control center for one month. The LOI for the installation of the pilot RTU is under process and likely to be issued shortly.
12.	TERC	In Tripura No Intra State Open Access has been introduced. SLDC functioning under the Licensee i.e. TSECL. Up gradation of the SLDC being undertaken & still in progress.
13.	UERC	Directions have been issued on 06.04.2010 for segregation of SLDC, its ring fencing and development of necessary infrastructure & filing of separate ARR. It is reported that SLDC has separated its account and further action is being taken.
14.	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. 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 with UI implications. The Commission has also specified ABT provisions in Generation Regulations 2009. The interface points G-T and T-D have ABT compatible metering.

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3. Open Access Transmission Charges & Distribution networks charges

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5.3.2

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.

S.No	SERC	Utility (Discom)	Term(LTOA/ STOA)	Unit of Measurement	Volta	ge level	S
1.	AERC	APDCL	(LTOA/STOA)	MWH	66 KV	132 KV	220 KV
2.	HERC	UHBVNL & DHBVNL	Cross Subsidy		voltag Same voltag 72 75 = 78	Same rate at all the voltage levels. Same rate at all the voltage levels.	
3.	JSERC	JSEB	LTOA - Rs 0.18/Unit	/unit	Rs 0.18/ Unit	1	14/Unit regate)
4.	J&KSE RC	J&K PDD	 i) J&K SERC has issued notifications regarding charges payable by Open Access Customers, latest revision having been issued vide notification No. 05/J&KSERC/2010 dated 06.10.2010 fixing the wheeling charges of Rs. 914.00/MW/Day. ii) Open Access Regulation being revised as per the model Regulations circulated by FOR. 				
5.	KERC						
		B M C H	•	7 39 7 39 4 57			



6.	JERC (M &M)	1.P&E Department, Mizoram 2.ElectricityDepartment, Manipu			No consumer has applied so far for open access				
7.	MPERC	As per MPERO Wheeling Cha 33 kV - Rs 0.2/ EHT – NA		2011.					
8.	MERC	MSEDCL	Rs./kwh	0.36)	0.04	0.21		
		TPCD	Rs./kwh	0.19		0.38			
		RinfraD	Rs./kwh	0.88		0.46			
		BEST		by the (Dissection specification)	T has been recogne Hon'ble ATE attribution Open Aifically exempted Open Access Reg	and also ccess) F I BEST	o, the ME Regulation from the	RC ns, also	
9.	TERC	TSECL	No Open Access Consumer is available. Regulation for Open Access has been prepared and handed over to concerned wing for gazette notification.	MW	Н	66 KV	and abo	ve	
10.	UERC	UPCL	STOA	Rs./I	MW/Day	data, the construction of the Resame v. Rs. 967. HT in and Rs.	he Commained from ained from ained from ained from ained from aine & transes. However, the second ance with dology special gulation works out 7.35/MW dustry cons.7542/M	Itage wise Insmission ver, the Ing charges MW-Day. Itage access wheeling ted in In the Itage wise Itage wise Ing Itage wise Itage It	



11.	UPERC	As pe	er the Tariff Orde	r for 2009-10) for four Disc	coms:
			sidy Surcharge: Z			
		Additional S	Surcharge: Z	ero		
		Parallel Suro	charge: Ze	ro		
		Contact dem	nand Surcharge: Z	Zero		
		Wheeling Cl	harges (Rs. / KW	h)		
		LTOA - 0.29	97 (connected abo	ove 11 kV vo	oltage level)	
		- 0.	475 (connected a	t 11 kV volta	ige level)	
		STOA - 0.07	7 (connected above	e 11 kV volt	tage level)	
		- 0.	11 (connected at	11 kV voltag	e level)	
		Note: Dor K	lesco the values a	re 1 paise les	SS.	
		LTOA-period of five years or more, STOA- period of one year or less				
		As per T.O.'	s for 2008-09			
				LTOA	STOA	
		KESCO	Above 11 kV	0.25	0.6	
			At 11 Kv	0.40	0.10	
		NPCL	Above 11 kV	0.32	0.8	
		INFCL	At 11 Kv	0.51	0.13	

LTOA - Long Term Open Access

STOA - Short Term Open Access

Transmission Charges

S. No.	SERC	LTOA (Rs./MW/Month)	STOA (Rs./MW/Day)
1.	AERC	Rs 265740/MW/Month	Rs 8736.65/MW/Day
2.	CSERC	Rs.72115 /MW/M onth (5% in kind which will be deducted from the energy input)	Rs.593/MW/Day (5% in kind which will be deducted from the energy input)
3.	GERC	2720	680
4.	HERC	6.06 lakh	0.28 paise/unit
5.	HPERC	Rs. 649 67.43/MW/Month	Rs. 64967.43/MW/Month
6.	JSERC	As mentioned above	
7.	J&KSERC	-	Rs. 455.0/MW/Day
8.	KERC	95646	786.13
9.	JERC (M &M)	Yet to be determined	Not yet determined
10.	MPERC	Rs. 2554/ MW / day	Rs. 638.38/ day
11.	MERC	Rs. 164.68/ K W/ month Rs. 5414 / MW/ Day	Rs. 1353.50/ MW/ Day
12.	PSERC	5238*	3143*
13.	TERC	No Transmission charges have been fina applied for Open Access supply.	lized as till date. No customer
14.	UERC	Rs. 51924.60	Rs. 1730.82
15.	UPERC	0.094 (connected above 132 kV voltage level) 0.126 (connected at 132 kV voltage level) SLDC charges embedded in Transmissi SLDC fee - Rs.1 lac (annual fee of term	

^{*}Transmission & Wheeling charges

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4. Time-Bound Program 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.

			Loss Reduction Trajectory					
S.	CEDC	Utility			Ye	ar (%)		
No.	SERC	Discom	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
1.	AERC	APDCL	28.84%	27.36%	25.05%	24.24%	22.65%	21.60%
2.	CSERC	CSPDCL	43.96%	41.92%	39.32%	41.52%	35.28%	34.0%
3.	HERC	UHBVNL & DHBVNL	32.3%	30.5%	28.05%	26%	23%	23%
5.	JSERC	JSEB (T&D) Target	38.66%	36.66%	32.66%	28.66%	24.66%	20.66%
		Achievement	47.62%	42.86%	42.73%	42.79%	36.51%	34.62%
6.	J&K SERC	J&K PDD	-	-			67.60%	60%
7.	KERC	BESCOM				16.72%	15.09%	14.55%
		GESCOM				26.01%	25.53%	22.06%
		HESCOM				25.15%	20.86%	19.85%
		MESCOM				12.95%	12.64%	11.92%
		CESC				17.35%	16.42%	15.48%
		Hukeri RECS				15.38%	15.19%	15.15%
8.	JERC (M &M)	Elect. Dept.: Manipur	-	-	-	-	50.77%	47.00%
		P&E Dept.: Mizoram	-	-	-	-	41.40%	35.00%
9.	O. MPERC	M.P. Poorv Kshetra VVCL		34.5%	32.5%	29.5%	26.5%	30%
		M.P. Paschim Kshetra VVCL		30%	28.5%	27%	25.5%	26%
		M.P. Madhya Kshetra VVCL		43%	40%	37%	34%	33%



10.	MERC	MSEDCL	Target	31.7%	26.2%	22.2%	18.2%	17.2%
	(Dist.		Achieved	30.2%	24.09%	21.98%	20.60%	-
	losses)	RinfraD	Target	12.10%	11.00%	10.75%	10.50%	10.25%
			Achieved	11.85	11.04%	10.16%	10.08%	-
		BEST	Target	11.50%	11.00%	10.50%	10.00%	9.50%
			Achieved	11.90%	10.27%	9.29%	9.21%	-
		TPCD	Target	2.93%	2.93%	0.66%	0.66%	0.66%
			Achieved	-	2.21%%	0.67%	0.59%	1.13%
11.	PSERC	PSEB*	22.00%	20.75%	19.50%	19.50%	22.00%	20.00%
12.	TERC	TSECL	41.45%	40.90%	38.03%	34.99%	31.49%	27.71%
13.	UERC	UPCL	32.32%	28.32%	24.32%	22.32%	20.32%	19.00%
		Note: The Comm	Commission approves distribution losses for UPCL instead of AT&C loss.					
14.	14. UPERC UPPCL Against target of 23.9%, 34.2% was achieved.							
		KESCO	The target	was 30.47	% against w	hich, 37.72%	6 was achiev	ed.

^{*}Now bifurcated into PSPCL (for Generation and Distribution functions) and PSTCL(for Transmission function)



5. Metering Plans

Provision in NEP:

5.4.9 The Act requires all 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	Prepaid meters are used in pilot projects and TOD meters are encouraged in higher HT categories.	
2.	CSERC	100% Metered.	
3.	GERC	All categories of consumer are 100% metered except Agriculture consumers.	
4.	HERC	Distribution licensees have been directed to provide meters in accordance with CEA metering regulation. Except agriculture sector 100% metering has been reported to be achieved in Haryana by the distribution licensees.	
5.	HPERC		
6.	JSERC	The Commission in the Tariff Order for FY 2010-11 of JSEB has issued direction to the licensee to prepare and submit the 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 licensee shall ensure that the metering plan is synchronized with the T&D loss reduction plan. The third-party meter testing arrangements has already been put in place by	
		the Commission. In response JSEB has established a metering plan which includes the	
		following elements:	
		(A) Metering of un-metered connections:	
		- Connections to BPL consumers under the Kutir Jyoti category under the RGGVY scheme are being released only with meters.	
		- The JSEB has released 4,36,106 connections under the scheme so far . All connections have been released with meters.	
		- The JSEB has also purchased 50,000 meters for replacement of defective meters. Out of the same 5,000 meters have been allotted for installation in rural areas against Kutir Jyoti connections in the first phase.	
		- The JSEB is targeting metering of all consumers including domestic/commercial and the Irrigation & Agricultural categories by March, 2012.	
		(B) Replacement of defective meters:	
		- The JSEB has approximately 80,000 defective meters in the urban areas which are planned to be replaced by December, 2011.	
		- The JSEB has launched incentive schemes for encouraging consumers to get burnt/ defective/ stopped meters replaced. In response to the same, 3806 meters were received from consumers, which have already been replaced.	



7.	J&KSERC	As per the J&K Electricity Act. 2010, PDD (Utility) is required to complete 100% metering by end of April, 2012. In the meantime 100% metering of installations falling in 30 towns of the State, including capital cities of Jammu & Srinagar, covered under R-APDRP Scheme are targeted for completion by end of June, 2011. Utility has also proposed to introduce TOD tariffs which is being examined by the Commission.			
8.	KERC	Bhagya Jyothi(BJ)/Kı	tir Jyothi(KJ). Spec. Status of % of meters	installations except IP sets and ific metering plan is yet to be ering of BJ/KJ installations & IP	
			$\mathrm{BJ/KJ}$	IP Sets	
		BESCOM	95.12%	9.31%	
		MESCOM	90.84%	93.43%	
		CESC	100.00%	20.65%*	
		HESCOM	83.41%	30.02%	
		GESCOM	72.89%	25.65%	
		* IP set data for CESC	is for FY10		
9.	JERC (M	100% Metering Plan (Γentative Date of Con	npletion)	
	&M)	Manipur: March 2013			
		Mizoram : March 2012	2		
10.	MPERC	The Commission has already took up this issue with the Discoms and directed the Discoms that: i. All unmetered domestic connections in urban areas should be provided with the meters by end of Sept., 2011. ii. All un-metered domestic connections in rural areas be provided with meters in a phased manner and meterization be completed in following manner: a. 25% of un-metered consumers by end of September, 2011 b. 60% of un-metered consumers by end of March, 2012. iii. Distribution transformers having pre-dominantly agriculture load spread over the entire area of the Company be provided with the meter in a phased manner and meterization be completed in following manner: a. 25% of total such DTRs by end of September, 2011 b. 60% of total such DTRs by end of December, 2011 c. 100% of total such DTRs by end of March, 2012.			
11	MERC	 i. All the electricity connections in Maharashtra are metered except in case of Agricultural connections in MSEDCL Area where approx. 15 lakh agricultural consumers are still remaining to be metered. ii. The Commission has approved the proposal of MSEDCL for installing Prepaid Energy Meters on pilot basis vide its Order dt 26th April, 2010 in Case 76 of 2009. The proposed sample size of 25000 prepaid meters is approved and it will cover LT single phase residential consumers, LT Commercial category consumers and LT temporary category consumers. 			



12.	PSERC	All the connections, except AP are metered in the State of Punjab. Consumption by AP Consumers is being assessed on the basis of readings recorded by sample meters. The Licensee is reluctant to install meters against AP connections on the plea that providing 100% metering of AP connections involves heavy initial investment and also requiring expenditure for monthly recording of readings of more than 11 lac AP consumers. The Commission is issuing directives in every Tariff Order to provide 100% metering in view of the mandate in Electricity Act, 2003.			
13.	TERC	'2005. Dui	ring last 5 (fiv	L started its commercial; functioning w.e.f. April (ve) years, the Corporation purchase the following 100% consumer metering:	
			2005-06	1,25,000 Nos.	
			2006-07	30,000 Nos.	
			2007-08	1,00,000	
			2009-10	43,000 Nos.	
			2010-11	Nil	
			2011-12	Tender for 1,00,000 Nos.	
		As on 31-03-2011, the total number of Consumer is 4, 87,742 Nos. ou which 54,704 Nos. Consumer is in Kutirjyoti category. All the Kutirjy consumers are provided with meter. If the consumer of Kutirjyoti exceed more than what is sanctioned (21 kwh per month) will be charged appropriate regular tariff. There are very few consumer having minimuload of 1 MVA. However, 1400 Nos. of TOD meter has been procuduring FY 2009-10 for HT Consumer like Tea Garden etc.			
14.	UERC	Directions issued for 100% metering. ToD implemented on LT loads above 25 kW and all HT consumers. %age of Consumer metering as on 30.06.2010: 98.24%			
15.	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 on all consumers. Provisions in tariff order for TVM/TOD meters for all connections above 25KW/HP. Commission directives for prepaid meters on all Government and public institutions above 45 KW.			



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

Provision in NEP:

- 5.4.11 High Voltage Distribution System 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 Management
1.	AERC		Data acquisition completed and control is in progress.
2.	CSERC	Under implementation.	
3.	GERC	Licensees. HVDS implementatio	been started by the Distribution n has already been taken up in PGVCL for effective reduction in
4.	HERC	HVDC, SCADA & Data-Base Mathe process of implementation.	anagement are reported to be under
5.	J&K SERC	The utility has already completed 2 pilot projects in Srinagar city under APDRP and are executing two more, one in Srinagar and another at Katra (Jammu) at present. Other areas are being covered under part B of R-APDRP for which schemes are under preparation by the utility.	SCADA & DBM system is being provided under R-APDRP scheme (Part-A) covering 30 towns/cities of the State. Works under the scheme have already been take up and are expected to be completed in 18 months.
6.	KERC	KERC has been monitoring LT/HT ratio. Further, ESCOMs have taken up segregation of feeders supplying to IP sets through "Nirantara Jyothi Scheme".	gradation of SCADA under integrated SCADA scheme. For data base management, ESCOMs
7.	JERC (M &M)	Yet to be initiated in both the State	S.
8.	MPERC	Capex plans approved, which also include HVDS in identified areas	To be taken up by Discoms.
9.	MERC	HVDS implementation is being carried out in MSEDCL Area through APDRP/R-APDRP-B/Infrastructure Schemes for effective reduction in losses.	Implementation of SCADA/ DMS and Data base management is being carried out R-APDRP in MSEDCL Area. SCADA/DMS system has already been implemented in BEST and Rinfra-D licensee area, while in TPC-D area nearly 50% consumer substations have SCADA and 100% distribution substations are being automated in the present year.



10.	PSERC	The Licensee in the State of Punjab has initiated steps for implementation of HVDS for AP category. A total of 150347 AP connections have been converted from LT distribution system to HVDS ending March, 2011, The Licensee plans to convert a total of 189037 AP connections by June, 2011. For the balance AP connections, the schemes are under finalization.	Under the R-APDRP Scheme, 3 towns in the State of Punjab (Ludhiana, Jalandhar and Amritsar) qualify for implementation of SCADA/DMS projects. Bidding process for the same has been completed and work order-cum- contract agreement for installation of SCADA/DMS has been awarded to M/s NDPL, New Delhi by PSPCL.	
11.	TERC	239.07 KM 11 KV line, 448 Nos. Distribution Transformer, 5 Nos. 33/11 KV Sub-stations, 4 KM 11 KV UG cable has been completed under APDRP scheme. 70% works of SCADA-DMS covering West Tripura District has been completed.		
12.	UERC	The Commission has directed all loads above 75kW on HT	Centralized commercial database MIS has been implemented at licensee and integration of divisional MIS is in progress. The Discom has taken up the project for AMR and Data logging for high value consumers above 10kW in accordance with the direction of the Commission. Consumer indexing and GIS mapping has been completed in few Circles and is under progress in other Circles.	
13.	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.		



7. Norms for Standard of Performance

Provision in NEP:

5.13.1 Appropriate Commission should regulate 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 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	05.08.2004	The Commission reviews the performance against the standards prescribed in the regulations.
2.	CSERC	05.07.2006	Standards of Performance in distribution of electricity have been laid down by the Commission through regulations. Under these regulations, compensation is required to be paid to the consumers by the license in case of default. This has also been specified in the regulations. The utility has designated officers who acknowledge consumers' claims. Adequate powers have been delegated by the utility to different levels for settlement of payment of compensation. The Commission has been giving adequate publicity to these
			provisions and has advised the utility to display the scheme and the modality of payment of compensation on posters in each distributing centre for general awareness of the consumers.
3.	GERC	Vide notification No. 10 of 2005 dated 31/03/2005.	The Commission reviews the performance of various DISCOMs against the standards prescribed in above notification. The Commission obtains quarterly reports with details required under provisions of the SoP regulations for the Distribution.
4.	HERC	16.07.2004	As per regulations.
5.	HPERC	08 th October, 2010 (By repealing the SOP regulation notified in year 2005)	The Commission is monitoring the reports of utility on quarterly/ annual basis of standards notified i.e operational circle wise T&D Losses, reliability indices, DTR failures, percentage defective meters and service performance standards like time for restoration of supply, Voltage problem etc.
6.	JSERC	Notification No.438 dated 17.8.2005	The norms for Standards of Performance and level of compensation to consumers for default in each case have been specified as required under the NEP.
7.	J&K SERC	19.06.2006	J&K SERC (Distribution performance Standards) Regulations 2006, laying guidelines for maintenance of certain critical distribution system parameters for providing efficient, reliable, coordinated and economical system of electricity distribution and retail supply, are in place.



8.	KERC	June 10, 2004	Regulations issued.
9.	JERC (M&M)	25.06.2010 (by the Commission)	Published on 26 th August, 2010 in Manipur Gazette Published on 2 nd July, 2010 in Mizoram Gazette
10.	MPERC	26.09.2005	Last amended on 18.9.2006
11.	MERC	20.01.2005	Parameters like SAIDI, SAIFI, CAIDI, on annual basis, are being furnished by all the four Distribution Licensees for their areas of operations and published by MERC in every year. Level of compensation payable to consumer by the Distribution Licensee for failure to meet standards of performance is specified in Appendix A of Maharashtra Electricity Regulatory Commission (Standards of Performance of Distribution Licensees, Period for Giving Supply and Determination of Compensation) Regulations, 2005. Provisions are made for level of compensation payable to the consumers for failure to meet the standards such as provision of time period required for releasing supply, restoration of supply, quality of supply w.r.to variations in LT/HT voltages, restoration of supply in case of burnt meter, reconnection of consumer who has been disconnected for a period of less than 6 months, reading of meter, change of name & change of tariff category, payments of final dues to consumer. Also provision for violation of wearing of name tag by employees of licensee & producing identity and authorization on demand.
12.	PSERC	29.06.2007	Standards of Performance (SOP) 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.
13.	TERC	11-01-2005	The State Commission has issued SOP Regulation in 2005 for Licensee in Distribution sector in which compensation for non compliance of this Regulation is also stipulated. Keeping the mind the Commission time to time is pursuing the Licensee to submit the performance report quarterly.
14.	UERC	17.04.2007	Payment of compensation and penalties for delay in consumer services also notified in the Regulation. Quarterly report is being submitted by distribution licensee on SoP. UERC also spreading awareness in consumers about SoP.
15.	UPERC	Feb. 2005	SoP 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 made effective in phases. Implementation issues and systems and processes are being put in place in all discoms.



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	Notified on 22.12.2003 and Implemented.	Three CGR Forums are functioning at present. Full time Ombudsman functioning since November 2009.
2.	CSERC	Notified 2004 & amended in 2007	The Commission has notified the Redressal of Grievances of Consumers and Establishment of Forum and Electricity Ombudsman Regulations in 2004 which have been comprehensively amended and replaced by the Redressal of Grievances of Consumers Regulations in 2007. Under these Regulations grievance redressal forums have been set up by the licensee at Raipur, Bilaspur and Jagdalpur. Also two other distribution licensee i.e. M/s Bhilai Steel Plant and M/s Jindal Steel & Power Ltd. has also set up forums in their areas. Forums are required to submit to the Commission and Ombudsman details of the cases received and disposed off. Both the Commission and Ombudsman monitor the progress of the complaints filed in the Forums. The Commission at regular intervals holds meeting with the Forums to discuss their functioning, the type of complaints being received and their disposal. The Electricity Ombudsman has been appointed by the Commission and is functional since 2005.
3.	GERC	Vide notification No. 04 of 2004 dated 25/08/2004.	The Commission reviews their performance through quarterly reports and periodic review meetings.
4.	HERC	12.04.2004	As per regulations.
5.	HPERC	2003 and 2004	HPERC (Electricity Ombudsman) Regulations, 2004 and HPERC (Guidelines for Establishment of Forum for Redressal of Consumers) Regulations, 2003 are in force and as per regulations the office were established are functioning.
6.	JSERC	CGR Regulation has been notified vide Notification No. 172 dated 6.4.2005	The CGR Forums of all the licensees in Jharkhand have been established and are functional. The Ombudsman has also been appointed.



7.	J&KSERC	06.10.2010	J&K SERC (Electrical Ombudsman) Regulation, 2010 & J&K SERC (Guidelines for Establishment of Forum for Redressal of Grievances of Consumers) Regulation 2010, notified vide Notification No. 03/JKSERC/2010 dated 06.10.2010 and No. 04/JKSERC/2010 dated 06.10.2010 respectively.	
8.	KERC	June 10, 2004	CGR constituted in all five discoms. Commission has appointed Ombudsman	
9.	KSERC			
10.	JERC (M &M)	CGRF Notified on 18.06.2010	Two CGRF, one each for Manipur and Mizoram are Constituted	
		Ombudsman: Notified on 02.07.2009	Ombudsman was designated on 2 nd July, 2009 for both the States of Manipur and Mizoram	
11.	MPERC	First Notified on 30.4.2004 Subsequently revised on 28.08.2009	Forums & Ombudsman functioning since FY 2004-05	
12.	MERC	20.04.2006	 a) In pursuance to Section 42(5) & 42(6) of the Electricity Act, 2003, MERC has formed "Maharashtra Electricity Regulatory Commission (Consumer Grievance Redressal Forum & Electricity Ombudsman) Regulations, 2006, which superseded the Regulations formed in 2033, known as Maharashtra Electricity Regulatory Commission (Consumer Grievance Redressal Forum & Ombudsman) Regulations, 2003. b) The Regulations provide for a three tier grievance redressal mechanism wherein a consumer of the Distribution Licensee, aggrieved due to deficiency in service provided to him by the Licensee, may first approach the IGR Cell of his area, and if not satisfied, then file grievance with CGRF of his Zone, and, if not satisfied by the decision of CGRF, can approach the Ombudsman. c) Accordingly, each Discom has constituted its CGRF(s). The three Discoms, viz. BEST, RInfra and TPC have one CGRF each, while the MSEDCL due to its wide area of operations, has 11 CGRF's. Thus, presently, there are total 14 CGRF's in State of Maharashtra. d) The Office of the Electricity Ombudsman was constituted on 27th December, 2004 u/s 42(6) of the EA, 2003 and started functioning from 25th January, 2005. MERC is considering provision of one more Ombudsman in the State, which will avoid consumers having to travel long distances for making representations before the Ombudsman. e) After completion of the tenure of the earlier Ombudsman, the new Ombudsman has been appointed on 20th January, 2011. f) The Electricity Ombudsman and all the CGRFs are working effectively in the State. 	



13.	PSERC	PSERC (Forum & Ombudsman) Regulations, 2005 framed	 CGRF, Shakti Sadan, The Mall, Patiala functioning since 1.8.2006 Ombudsman, Electricity Punjab, Chandigarh appointed by PSERC and functioning since 11.9.2006
14.	TERC	Regulation already notified.	The Regulation is Published in Tripura Gazette on 19-09-2006. As per provision of the Regulation the Licensee established a Forum for Redressal of Grievances of the Consumers in 3 Tier systems. One Ombudsman also appointed at TERC for redressal of the Grievances of the Consumers.
15.	UERC	Notified on 17.01.2007	Tow CGRFs and one Ombudsman functional.
16.	UPERC	2007	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



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 regulatory process.

S. No.	SERC	Summary		
1.	AERC	The Consumer Advocacy Cell established by the Commission in February 2005 has been carrying out different activities for consumer awareness. The Cell has been empanelling members of consumer groups with the Cell, organizing meetings between the consumer groups, licensee and Commission to facilitate interaction among the participants and voice their concerns. The Cell has recently empanelled two new members and proposes to empanel more members and hold awareness meets.		
2.	CSERC	The CSERC has recognized JP Memorial Centre Kirandul and Socieity of Energy Engineers and Managers (SEEM) Chhattisgarh Chapter as consumer association. The Commission is further in the process of identifying suitable NGO, consumer association of dissemination of knowledge, consumer interest related to development in the sector.		
3.	GERC	The Commission invites the consumer groups to participate in multiyear tariff process and solicit their valuable suggestions for improving services to the consumer.		
4.	HERC	Under consideration of the Commission.		
5.	HPERC	Commission has appointed a consumer representative under section 94 of EA 2003.		
6.	JSERC	 Coordination Forum – 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 has 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 regularly organizes workshops and encourages consumer organisations to organize seminars/workshops.		
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.	JERC (M &M)	 Consumer Awareness Meetings are held regularly in both the States Consumers are well represented in the State Advisory Committee. 		

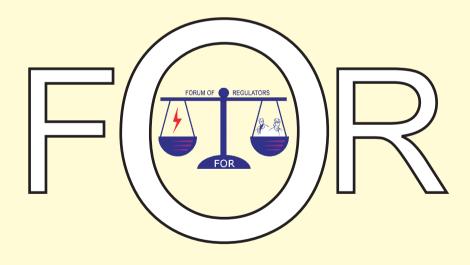


10.	MPERC	About 126 NGOs registered with Commission. They are involved in tariff			
		hearings and representing in SAC also. Workshops conducted for NGOs from time to time.			
11.	MERC	 i. In accordance with Sec 86 (4) and 94(3) to achieve the purpose of representation of the electricity consumers' interests, MERC, by its Order dated 19th December, 2003 -on the basis of interest shown by the Consumer Protection Organistions (CPOs) and their experience/ expertise found as matching the requirements- had authorised four authorised Consumer Representatives organizations, namely; (a) Mumbai Grahak Panchayat, Vile Parle(West), Mumbai (b) Prayas Energy Group, Pune (c) Thane Belapur Industries Association, Navi Mumbai (d) Vidarbha Industries Association, Nagpur ii. Recently, the Commission has also authorised the four individual persons as specialist in different fields, as the CRs to represent the consumers interest on 			
		'case-to-case' basis . The Consumer Groups participate and present their views and suggestions on behalf of the Consumers in hearings on determination of ARR/ Tariff for Generating Company, Transmission Licensee, Distribution Licensee and Trading Licensee, etc.			
		iii. Including the above Consumer Representatives, the Comments/suggestions of the consumers/stakeholders and general public is also invited vide Public Notice on the matter relating to tariff determination and finalization of the regulations.			
		iv. Annual One day conference of the Members of the CGRF's, Electricity Ombudsman, the Consumer Representatives and the Distribution licensees, is organized by the Commission (MERC), a platform where the review of the consumer grievances redressed by various CGRFs is done alongwith sharing of ideas for improving the service to the consumers.			
		v. MERC is in the process of forming Regulations for identifying and authorizing the organizations and individual persons suitable to represent in the interests of electricity consumers.			
12.	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			
13.	TERC	Not yet adopted.			
14.	UERC	The Commission has appointed a consumer advocate to represent domestic and petty consumers' interest in making the Regulations and other related issues. Further, the Commission held various meetings/Jan-Goshthies across the State wherein consumers were told of their rights and duties under the Act and the Regulations.			
15.	UPERC	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. 14 th November, 2007, and worked for two years. Due to non-performance of CCEA it has since been disbanded. Commission is in the process of identifying suitable options for setting up Cell.			

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IV. Status Report on National Tariff Policy

Annual Report 2010-11



FORUM OF REGULATORS

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1. Return on Equity

Provision in Tariff Policy:

5.3 (a) Return on Investment

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 State Electricity Regulatory Commissions (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.	AERC	14%	The Commission has approved RoE of Rs 22.79 Cr for FY 2010-11.		
2.	CSERC	Pre Tax 15.5%	As per CSERC (Terms and conditions of determination of tariff according to Multi-Year tariff Principles) Regulations, 2010, pretax ROE for Generation, Transmission, SLDC and Distribution companies.		
3.	GERC	14%	RoE is granted to Generation, Transmission and Distribution of the state based on GERC Regulations.		
4.	HERC	14%	The Capex is allowed in the ratio of 70% debt and 20% equity. RoE is allowed on equity component.		
5.	HPERC		a) Distribution: 16% per annum (post tax) as per Regulation 20 of Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2007. b) Transmission: 14% per annum (post tax) as per Regulation 15 of Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2007. c) Generation: 14% per annum (post tax) as per Regulation 15 of Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Hydro Generation Tariff) Regulations, 2007.		
6.	JSERC	15.5%	For Generation, Transmission, Distribution – 15.5%		
7.	J&K SERC	14%	As per Regulation 25 of JKSERC (Terms and Conditions for Determination of Hydro-Generation Tariff) Regulations 2011 and Regulation 16 of Determination of Distribution Tariff Regulations 2011.		



8.	KERC	15.5%	The Commission has specified a RoE of 15.5% for all the Licensees in the State.		
9.	JERC (M &M)	16.0%	As per CERC Norms		
10.	MPERC	16% (Distrib ution)	Generation and Transmission - As per CERC norms.		
11.	MERC	-	MERC vide its Regulation namely Maharashtra Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2005, has specified the following: RoE for Generation - 14% RoE for Transmission - 14% RoE for Distribution - 16% Note: The Commission has issued Maharashtra Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2011and these Regulations shall be applicable for determination of tariff in all cases covered under these Regulations from April 1, 2011 and onwards up to FY 2015-16 [i.e., till March 31, 2016]		
12.	PSERC	14%	From 1.4.2009, 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.		
13.	TERC		TSECL being single bundled Utility have not initiated cost based Tariff except ARR. In respect of Return on Investment, TSECL has applied for return on equity on ARR at the time of last Tariff petition to TERC, but it was not granted.		
14.	UERC	14%	Presently Regulation 14.05.2004 is in force, however, the present Tariff Regulations are being reviewed in line with National Tariff Policy and CERC Regulations.		
15.	UPERC		Gen: 15.5% Dist: 16% Trans:14%		



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.

S. No.	SERC	CERC Rates	Suggestions for separate Depreciation Rates			
1.	AERC		The rates of depreciation are notified in the AERC (Terms and conditions of determination of tariff) Regulations 2006.			
2.	CSERC	Adopted	CERC rates of depreciations is followed.			
3.	GERC	Depreciation allowed for various assets as per CERC rates.	Depreciation Rates Gujarat State Electricity Corporation Ltd. (Generation) Gujarat Electricity Transmission Company Ltd. (Transmission) Uttar Gujarat Vij Company Ltd. (Dist.) Dhakshin Gujarat Vij Company Ltd. (Dist.) Madhya Gujarat Vij Company Ltd. (Dist.) Paschim Gujarat Vij Company Ltd. (Dist.) State Load Dispatch Center (Dispatch center) Torrent Power Ltd. (Generation) Torrent Power Ltd. (Ahmedabad) (Dist.) Torrent Power Ltd. (Surat)(Dist.)	5.11% 5.07% 5.31% 5.27% 5.26% 5.27% 4.41% 3.62% 3.57% 3.43%		
4.	HERC	As per CERC rates.	No suggestion.			
5.	HPERC	NIL	As per notified regulations			
6.	JSERC		Depreciation Rates Land 0% P&M 5.28% Buildings 3.34% Civil Works 3.34% Hydraulics 5.28% Lines, Cables, Networks 5.28% Vehicles 9.5% Furniture & Fixture 6.33% Office Equipments 6.33%			
7.	J&K SERC		2.57% for Generation Utility & 3% for Distribut	ion Utility.		



8.	KERC	Adopted	The Commission has adopted the depreciation rates as per CERC Tariff Regulations.		
9.	JERC (M &M)		CERC Rates shall be adopted.		
10.	MPERC	CERC rates adopted	Separate depreciation rates need to be evolved keeping in view the difference of distribution assets to that of Generation/Transmission assets.		
11.	MERC	Yes	The Commission has adopted the depreciation Rates of CERC.		
12.	PSERC	As per CERC (Terms & Conditions of Tariff) Regulations, 2009.	The utilities, namely, PSPCL and PSTCL claimed depreciation at the rates prescribed by Govt. of India vide its notification No.SO-226(E) dated 29.3.1994 which were allowed by the Commission for the year 2010-11.		
13.	TERC		In last Tariff Order during 2006-07, Rs.10 Cr. Depreciation has been approved as lump-sum basis.		
14.	UERC	Adopted	CERC specified rates are adopted by the UERC.		
15.	UPERC		Gen: As per CERC Tariff Regulations, 2009. Distribution: As per CERC Tariff Regulations, 2009 . 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%.		



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 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.	AERC		Not yet implemented			
2.	CSERC	Not notified	Process of implementation is in progress. Instructed to power companies for mock billing in MYT tariff order dated March 31, 2011.			
3.	GERC	The intrastate frame work came into force w.e.f 5.4.2010	Intra-State ABT introduced for Generating stations, grid connected CPP, Open Access Consumers & Distribution licensee in the state.			
4.	HERC	Intrastate ABT re	gulations are under the process of finalization.			
5.	HPERC		Intra-State ABT has not been introduced in the State of Himachal Pradesh.			
6.	JSERC		Balancing and settlement mechanism regulation for open access consumers (including CPP) was notified by the Commission in FY 2009-10.			
7.	J&K SERC		Intra-State ABT not introduced so far.			
8.	KERC	Notified	Order for implementation of ABT issued on 26.12.2006. Implementation of ABT to be started shortly.			
9.	JERC (M &M)	Yet to be impleme	ented in both the States.			
10.	MPERC	Intra-State ABT implemented from 1.11.2009	-			
11.	MERC	Yes	The Commission has introduced Availability Based Tariff Regime at State level within Maharashtra through its Order dated May 17, 2007 in Case Nos. 42 of 2006.			
		Note: Implementation of FBSM from IBSM has been commenced from August, 2011				



12.	PSERC	Not introduced	The Generation and Distribution functions in the State of Punjab are being performed by one company i.e. PSPCL. As such, the PSERC does not feel the necessity of introducing ABT in the State at present.
13.	TERC		TSECL being sole unbundled Utility in the State have not introduced yet the Intra-State ABT
14.	UERC	Order issued on 4.01.2005	Direction was issued on 04.01.2005 for completing requirement of intra-state ABT by 01.11.2005.
15.	UPERC		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 with UI implications. 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., however SLDC has been notified vide Notification No 78/24-U.N.N.P11-525/08 dated 24-01-2011 and State Power Committee (SPC) been constituted vide order dated 29-01-2011.

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4. TOD Tariff

Provision in Tariff Policy:

6.2 Tariff structuring and associated issues

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.	AERC	Yes	ToD introduced for HT Industrial consumers (50 to 150 kVA and above150 kVA), HT (Tea, Coffee, rubber) and HT (Oil and Coal categories). Peak tariff varies from of Rs 5.55/unit to Rs 6.25/unit and Off Peak Tariff is in the range of Rs 3.35/unit to Rs 4.5/unit depending on the consumer category.			
2.	CSERC	Yes	All EHT & HT	6 PM – 11 PM 130% of Normal tariff	11PM – 5 AM (of next day) 85% of Normal tariff	
3.	GERC	It has introduced in the state of Gujarat	 LTP-IV (A)- M HTP-I and II - HTP III- suppl 	VA) 46 VA) 48 VA) 49 VA) 49 Ve power load not exceed finimum CD of 15 kW are Regular supply with CI	MkWh) (Paise/kWh) 0 200 5 200 5 390 5 410 95 420 95 630 - 200 dding 125 BHP and up to 100 kW at low voltage D or actual demand for not less than 500 kVA.	
4.	HERC	Not yet introduced	-	-	-	
5.	HPERC	Two part ToD Tariff applicable to Water and Irrigation pumping, Small, Medium and large Industries. Separate Demand and Energy Charges during peak and off peak period. Peak Violation charges are also levied on the consumers.				



6.	JSERC	Yes	HT consumers	120% of normal rate of energy charge Energy Charge: Rs 4.35/kWh	85% of normal rate of energy charge. Energy Charge: Rs 4.35/kWh
7.	J&KSE RC	Not yet introduced			
8.	KERC	Yes [optional]	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
9.	JERC (M &M)	Not yet introduced in both the States.			
10.	MPERC	Already in vogue for H.T. consumers (Even before establishme nt of MPERC)	H.T	115% of normal tariff (1800-2200 Hrs)	92.5% of normal tariff (2200 Hrs to 0600 Hrs next day)
11.	MERC	Yes	MSEDCL Timings Rs/kWh 0900 to 1200 hours 0.8 1800 to 2200 hours 1.1 2200 to 0600 hours -0.85 Applicable to the following categories 1. LT-II Non-Residential or Commercial (b) and (c) category, (optional for LT-II (a) having ToD meter installed) 2. LT III- PWW and Sewage Treatment Plants 3. LT V: LT Industry (Optional for 0-20 kW) 4. HT I: HT-Industry 5. HT II: HT- Commercial 6. HT IV: PWW and Sewage Treatment Plant		
12.	PSERC	State of Punja	nission has issued a directive to the Distribution Licensee in the njab to expedite the submission of proposal for introduction of and TOD Tariff.		



13.	TERC	Has been Introduced	Industrial, Tea/Coffee/ Rubber Garden, Bulk supply, Water works & Irrigation.	140% of a Normal ra		60 % of the nor	mal rate.
14.	UERC	Yes LT Industries above 25kW and all HT Industries	Present Energy hour are as und LT Industry: HT Industry: Load Factor Less than 33% Above 33% and upto 50 % Above 50%	der:	Ah Arge /Ah /Ah	Present Energy peak hour are as LT Industry: 2.70/kVAh HT Industry: Load Factor Less than 33% Above 33% and upto 50% Above 50%	s under:
15.	UPERC	*	At 11kV (-) 7.5% 0) 132k		rge and



5. Renewable Source 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.	AERC	The AERC (Co-generation and Generation of Electricity from Renewable Sources of Energy) Regulations, 2009 notifies the following capped prices: 1) Biomass: Rs. 4.00 per kwh ii) Small Hydro: Rs. 3.20 per kwh iii) Cogeneration: Rs. 3.20 per kwh iv) Municipal Solid Waste (MSW): Rs. 4.40 per kwh v) Solar PV (Grid Connected) a) commissioned up to 2009-10 : Rs. 11.00 / kWh b) commissioned after 2009-10 Rs. 10/ kWh	As per the AERC (Renewable Purchase Obligation and its Compliance) Regulations, 2010 "Every obligated entity shall purchase not less than 1.4%, 2.8%, 4.2%, 5.6% and 7% of its total energy handled during 2010-11, 2011-12, 2012-13, 2013-14 and 2014-15 respectively from renewable energy sources under the Renewable Purchase Obligation or until reviewed by the Commission. Provided that 0.05 percentage point out of the renewable purchase obligation so specified in the year 2010-11 shall be procured from generation based on solar as renewable energy source and shall be increased at a rate of 0.05 percentage every year thereafter till 2014-15 or until reviewed by the Commission."
2.	CSERC		5% (including 0.25% of solar purchase obligation)
3.	GERC	Levelised Tariff Rs./kWh (with accelerated depreciation) Wind 3.56 Solar Thermal 9.29 Solar PV 12.54 Bagasse 4.65 Biomass 4.70 (Water Cooled Condenser) Biomass (Air 4.49 Cooled Condenser)	5 %



	HEDC	W' 1 400	O 11 PPO 1 70/		
4.	HERC Wind = 4.08 Mini Hydel = 3.67		Overall RPO 1.5% Solar RPO 0.25% of overall RPO.		
		Biomass = 4.00	Solar RPO 0.25% of overall RPO.		
		Bagasse = 3.74 Solar tariff as per CERC for			
		Solar tariff as per CERC for projects covered under JNNSM.			
5.	HPERC	SHP Tariff Rs. 2.95 /unit and for	Renewable purchase obligation and its		
J. III EKC		REC mechanism the APPC cost for FY 11-12 is Rs. 2.23 unit	compliance Regulation notified on 3 rd May 2010 and the targets given as following:		
			Year Minimum Quantum of purchase (in %) from renewable sources (in terms of energy in kWh) of total consumption		
			(1) Total Non Solar		
			(2) Solar (4)		
			(3)		
			2010-11 10.0% 10 % 0%		
			2011-12 11.1% 11% 0.1%		
			2012-13 12.1% 12% 0.1%		
6.	JSERC	Biomass and Cogeneration- regulations issued	FY 2010-11 : 2%		
			FY 2011-12 : 3%		
			FY 2012-13 : 4%		
7.	J&K SERC	Rs. 1.13/unit	1.6% during 2010-11.		
8.	KERC	(1) Mini hydel – Rs.3.40/unit, without escalation	As per the new Regulation ESCOM wise minimum % fixed as indicated below:		
		(2) Wind – Rs.3.70/unit, without escalation (3) Biomass – Rs.3.66/unit in 1st year going up to Rs. 4.13/unit in	BESCOM, MESCOM & CESC 10% Non-Solar and 0.25% Solar		
		10th year. (4) Co-gen – Rs.3.59/unit in 1st year going up to Rs. 4.14/unit in 10th year.	HESCOM, GESCOM and Hukeri Society7.00% Non-Solar and 0.25% Solar		
		(5) Solar PV-Rs.14.50/unit & Solar Thermal Rs.11.35/unit	5% RPO for Captive & OA Consumers		
	(6) Rooftop Solar PV and other Small solar power plants connected to Distribution network at voltage levels of below 33KV: Rs.14.50/unit				



9.	JERC (M &M)	Regulations for determination of tariff have been framed.	Not Available
		(Rate fixed by the Commission for few REs)	
10.	MPERC	Wind - Rs.4.35 / Unit (for 25 years) Biomass - Rs.3.33 to Rs. 5.14 / U (for 20 years) Solar PV - Rs. 15.35 / U (25 year) Solar Thermal - Rs. 11.26/U(25 years) Co-generation Rs. 2.80 - Rs. 3.84 /U for 20 years. Small Hydro - Rs. 5.40 to Rs.3.54/U (for 20 Years)	Total Renewable Power Procured during 2010-11 -264.43 MU
11.	MERC	Levellised Tariff for Different RE Projects Commissioned during F.Y 2010-11 1. Wind Power: a. Wind Zone -1: Rs.5.07/kwh b. Wind Zone -2: Rs.4.41/kwh c. Wind Zone -3: Rs.3.75/kwh d. Wind Zone -4: Rs.3.38/kwh 2. Small Hydro Power: a. 1 MW & below : Rs.4.76/kwh b. Above 1 MW & up to and including 5 MW: Rs.4.26/kwh c. Above 5 MW & up to and including 25 MW: Rs.3.65/kwh 3. Solar Power: a. Solar PV : Rs.17.91/kwh b. Solar Thermal : Rs.15.31/kwh c. Solar Rooftop PV and Other small solar power: Rs.18.41/kwh 4. Biomass Power: Rs.4.98/kwh 5. Non-fossil fuel Based Cogeneration: Rs.4.79/kwh 6. Non-Qualifying Non-fossil fuel based Co-generation Proejcts: Rs. 2.14/kwh	MERC Vide Its Maharashtra Electricity Regulatory Commission (Renewable Purchase Obligation, Its Compliance And Implementation Of Rec Framework) Regulations, 2010 Dt. 7 th June, 2010 stipulated the minimum quantum of purchase (in %) from rene wable energy sources (in terms of energy equivalent in kwh): RPO for FY 2010-11: 6% (SOLAR RPO - 0.25% + NON-SOLAR RPO - 5.75%)
		Determination of Generic Tariff under R	ly, 2010 in Case No 20 of 2010 in the matter of egulation 8 of the Maharashtra Electricity ditions for Determination of Renewable Energy



12.	PSERC					
12.		RE Category	RE projects covered under Commission's order 13.12.2007 (Rs./kWh)	RE projects covered under Commission's order of 7.7.2010 (Solar) and 30.9.2010 (other than solar) (Rs./kWh)	Electricity from Renewable Energy Projects (%)	
		Biomass	4.23	5.05		
		Bagasse/Biomass based co-generation	3.92	4.57	2.16% (911.62	
		Mini/Micro Hydel	3.92	4.26 (below 5 MW) 3.65 (5 to 25 MW)	MU) of total consumption of electricity (42226MU)	
		Solar	8.52	17.91 (Solar PV) 15.32 (Solar thermal)	(RPO for 2010-11: 3%)	
		Wind	4.23	5.07		
13.	TERC	Such type of Generation yet not been developed in Tripura.		As per provision of the Regulation the purchase obligation has been fixed for Licensee i.e. TSECL- 1st year 1%, 2nd year 1% & 3rd year 2%.		
14.	UERC	Projects commissioned on or after 01.04.2009 (i) SHP Projects (upto 25 MW) Upto 5 MW Rs. 3.50/unit (3.75) 5 to 10 MW Rs. 3.40/unit(3.65) 10 to 15 MW Rs. 3.25/unit (3.50) 15 to 20 MW Rs. 3.15/unit (3.40) 20 to 25 MW Rs. 3.00/unit (3.25) (ii) Baggase based co-generation Projects Fixed Chargers of Rs. 2.60 /unit (2.75). In addition, the normative fuel price is admissible which is Rs. 1.90/unit for FY 2009-10 with 5% p.a. escalation. (iii) Wind Projects: Zone 1: Rs. 4.75/unit (5.15) Zone 2: Rs. 4.00/unit (4.35) Zone 3: Rs. 3.35/unit (3.65) Zone 4: Rs. 2.90/unit (3.20) (iv) Solar PV: Rs. 16.05/unit (17.70) Solar Thermal: Rs. 11.80/unit(12.95)		for 2010-11 of 4%, for 2012-13 of 5% pthe targets stipulate. Solar Purchase targe 2011-12 and 0.05% ENTIRE 100% pow	d above includes a et of 0.025% for FY for FY 2012-13. Ver from renewable ogeneration projects	

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15.	UPERC	Bagasse – Rs. 4.24/kwh Biomass – Rs. 4.50/kwh Small hydro – Rs. 2.81 to Rs.3.94/kwh Solar – Rs. 4.65/kwh Others – Rs. 3.21/kwh About 3% to 4% of the total consumption.

Year	Renewable Purchase Obligation			
	Non-Solar	Solar	Total	
2010-11	3.75	0.25	4	
2011-12	4.50	0.5	5	
2012-13	5.0	1.0	6	



6. Status of Determination of Open Access Surcharge

Provision in Tariff Policy:

- 8.5 Cross-subsidy surcharge and additional surcharge for open access
- 8.5.1 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/ Discom	Cross-Subsidy Surcharge (Paise/KWh)	Methodology Adopted
1.	AERC	APDCL	-	Average Cost of Supply
2.	CSERC	CSPDCL	EHV consumers – 71 paise/kWh HV consumers – 30 paise/kWh	In accordance with Chhattisgarh Electricity Regulatory Commission (Intra-State Open Access in Chhattisgarh) Regulations, 2005 average cost calculated.
3.	GERC		For the year 2010-11 the Commission determined the cross-subsidy surcharge at the following rates, (A) For State DISCOMs: 51 Ps/kWh (B) For TPL, (i) Ahmedabad- Gandhinagar area: 52 Ps/kWh (ii) Surat Area: 73.65 Ps/kWh	The methodology adopted for cross –subsidy is as per Tariff policy.
4.	HERC	UHBVNL & DHBVNL	HT = 72 Railway = 75 Bulk Supply = 78 Street Lighting = 30	Difference between cost of supply and tariff.



5.	HPERC	HPSEB Ltd.	a) Cross-Subsidy Surcharge for 0.20 LS EHT Category b) Cross subsidy Nil Surcharge for LS HT Category c) Cross Subsidy Nil Surcharge for BS HT Category	The Methodology adopted as per The HPERC (Cross Subsidy Surcharge, Additional Surcharge and Phasing of Cross Subsidy) Regulations, 2006.
6.	JSERC	JSEB	HTS 33 kV (Above 100 kVA) - Rs. 0.47/ Unit HTS- 132 kV (Above 100kVA)- Rs. 0.38/Unit	Calculated with respect to average cost of supply
7.	J&KSER C	JKPDD	No surcharge being levied.	
8.	KERC	BESCOM GESCOM HESCOM MESCOM CESC	Surcharge made zero in all ESCOMs	
9.	JERC (M &M)	1.P&E Department, Mizoram 2.Electricity Department, Manipur	Not yet determined	-
10.	MPERC	M.P. Madhya Kshetra VVCL M.P. Paschim Kshetra VVCL M.P. Poorv Kshetra VVCL	As per detailed Order dated 3.3.2011 (For example for 132 KV Industries 28 paise/Units) & for 132 KV Railways 46 paise / unit) (Copy of Order enclosed)	As per Tariff Policy



11.	MERC	MSEDCL, TPC-D and RInfra-D	Nil	As per Tariff Policy Formula With certain assumptions		
		Note: The Commission has initiated the study on Open Access for 1 MW and above and the same was considered while drafting Open Access regulation. The MSEDCL filed a Petition in Case 43 of 2011 seeking review in the matter for determination of cross subsidy surcharge and for determination of additional surcharge on the charges of wheeling to be recovered from a consumer and/ or person who has been granted open access, the Commission is in process of redetermination of cross subsidy surcharge.				
12.	PSERC	PSPCL	NIL	As per formula given in the tariff policy.		
13.	TERC	TSECL	No Intra State Open Access is be calculated as on when requ	in force. Such type of charge will ired.		
14.	UERC	UPCL	38 paise/kWh	For FY 2011-12, 19% pooled average system distribution loss shall be applicable to open access consumers.		
15.	UPERC	- Open access surcharge is zero - As per Distribution & Transmission Tariff Regulations The Commission has adopted same formula as notified in Tariff Policy.				



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 generating companies.

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

- 1. There should be no penalty for reduction of contracted demand by consumer having CPP.
- 2. In view of little justification for levy of parallel operations charges/ Grid Support Charges these charges 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. N o.	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.	AERC	Captive gene charges.	rators are allowed	d to operate a	s demanded by consum	er in lieu of energy
2.	CSERC	NIL	Rs.21 /KVA on captive and non captive load.	Nil	Start Power – Rs. 150/KVA/month and Rs.3.20/kWh. Standby charges-NA	(i) 6% in kind, which shall be deducted from the energy input at 33 KV (ii) 17 paise / kWh
3.	GERC	No penalty				
4.	HERC	Not determined	Not determined	MMC as per table enclosed.	Tariff applicable to temporary connection of the relevant consumer category.	46 paise/kWh



5.	JSERC	Nil	Nil		Energy Charges: 1.5 times of the HT industrial consumer 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 kV A/ month 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 Pro- rata shall be done on	15.6 Paise/Unit
					the basis of the usage.	
6.	J&K SERC		•		le in the State. Moreover, ot be an economic option.	captive power plants
7.	KERC	specifying tl	ne rates linked to	UI rates. KERC	urplus captive power from C has not prescribed any per arantee charges etc.,	
8.	JERC (M &M)	Not yet dete	rmined. As on da	te there is no ca	ptive generation.	
9.	MPERC	No penalty	Study being conducted through ERDA	NIL as CPP. (For consumers Minimum charges as per prevailing Tariff Order)	Commitment charges 132 KV - Rs. 25 / KVA / month 33 KV - Rs. 31 / KVA / month Temporary connection charges (presently 1.3 times normal charges) applicable for Fixed & Energy Charge in case standby power is availed.	



10.	MERC							
		No		No	*Rs. 20/ kVA/ month	DISCOM MSEDCL TPCD RinfraD BEST**	Voltage Level 33kV 22 kV/11kV LT Level HT level LT level HT level LT level	Rs. /kWh 0.04 0.21 0.36 0.19 0.38 0.46 0.88
		* (pg 253-0 2. TPC-D - 3. Rinfra-L **4. BEST and also,	Case 111 of 2009) - Cl. 6.7 of Order of Clarifi - BEST has been the MERC (Distri	dt. 12 th Septer catory Order recognized a bution Open	mber, 2010 in Case No dt. 22 nd July, 2009 in Case Access) Regulations, a Open Access Regulation	98 of 20 Case No 1 the Hon Iso speci	09 121 of 2 'ble AT	
11.	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.	wheelifor Loronger Acustom Rs.523 (2010-ii) Traiplus wheelifor the 11. iii) Wheeliform N project energy State Company	ners 18/MW/ 11) 1 smission 1 heeling 1 s for Sh 1 Open Address 13/MW/ 1 year 20 1 heeling 1 s for 1 ng of poor 1 RSE 1 s @ 2% 1 injecte 1 of of or 1 ctive of	day on ort ccess day 010-
12.	TERC	Grid inject	able Captive Powe	er Plant not a	vailable in Tripura.			



13.	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 case to case basis. No such case reported.
14.	UPERC	No Penalty	N.A.	N.A.	N.A.	As per tariff orders



8. Acronyms list

S.No.	Acronym	Detail
1.	NDC	National Development Council
2.	SEB	State Electricity Board
3.	ERC	Electricity Regulatory Commission
4.	EA	Electricity Act
5.	CERC	Central Electricity Regulatory Commission
6.	MSERC	Meghalaya State Electricity Regulatory Commission
7.	JERC-M&M	Joint Electricity Regulatory Commission- Manipur And Mizoram
8.	JERC –UTs	Joint Electricity Regulatory Commission- Union Territories
9.	SERC	State Electricity Regulatory Commission
10.	MOP	Ministry of Power
11.	FOR	Forum of Regulators
12.	SOP	Standards of Performance
13.	DF	Distribution Franchisee
14.	RE	Renewable Energy
15.	NAPCC	National Action Plan on Climate Change
16.	REC	Renewable Energy Certificate
17.	RPO	Renewable Purchase Obligation
18.	ROE	Return on Equity
19.	DSM	Demand Side Management
20.	NPTI	National Power Training Institute
21.	CGRF	Consumer Grievances Redressal Forum
22.	NLSUI	National Law School of India University
23.	CAG	Comptroller and Auditor General
24.	RMSDP	Regulated Multi-State DSM Programme
25.	BEE	Bureau of Energy Efficiency
26.	CUF	Capacity Utilization Factor
27.	MNRE	Ministry of New and Renewable Energy
28.	SEZ	Special Economic Zone
29.	AT & C Loss	Aggregated Technical And Commercial Losses
30.	TOD	Time of Day
31.	APTEL	Appellate Tribunal of Electricity



32.	NSM	National Solar Mission			
33.	CEA	Central Electricity Authority			
34.	PPA	Power Purchase Agreement			
35.	SEEPZ	Santacruz Electronics Export Processing Zone			
36.	BLY	Bachat Lamp Yojana			
37.	Discoms	Distribution Company			
38.	ARR	Anual Revenue Requirement			
39.	LTA	Long Term Access			
40.	MTOA	Medium Term Open Access			
41.	CNCE	Captive and Non Conventional Energy			
42.	NTPC	National Thermal Power Corporation			
43.	UPSERC	Uttar Pradesh State Electricity Regulatory Commission			
44.	APGCL	Assam Power Generation Corporation Limited			
45.	SLDC	State Load Despatch Centre			
46.	SHP	Small Hydro Power			
47.	PSPCL	Punjab State Power Corporation Limited			
48.	PSTCL	Punjab State Transmission Corporation Limited			
49.	CPP	Captive Power Plants			
50.	KPTCL	Karnataka Power Transmission Corporation Limited			
51.	BESCOM	Bangalore Electricity Supply Company Limited			
52.	MESCOM	Mangalore Electricity Supply Company Limited			
53.	CESC	Calcutta Electricity Supply Corporation			
54.	HESCOM	Hubli Electricity Supply Company Limited			
55.	GESCOM	Gulbarga Electricity Supply Company Limited			
56.	FPPCA	Fuel and Power Purchase Cost Adjustment			
57.	TSECL	Tripura State Electricity Corporation Limited			
58.	RVPNL	Rajasthan Rajya Vidyut Prasaran Nigam Limited			
59.	ISTS	Inter-State Transmission Scheme			



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