FORUM OF REGULATORS (FOR)

ANNUAL REPORT
2011-12

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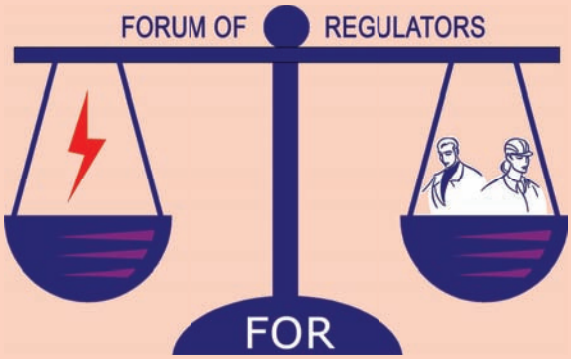

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FOREWORD

During the year 2011-12, the Forum of Regulators (FOR) continued to fulfil its objectives by holding discussions on key issues in the power sector and building consensus on the way forward on the critical issues. The Forum took significant measures for furtherance of reforms in power distribution and promotion of renewable energy.

The poor financial health of distribution utilities has become one of the key focus areas of the Forum. Based on the findings of the study on financial viability of distribution utilities of 10 States, the Forum evolved Model Tariff Regulations for Multi-Year Distribution Tariff for the State Electricity Regulatory Commissions (SERCs)/ Joint Electricity Regulatory Commissions (JERCs). The Model Tariff Regulations address all the critical issues highlighted in this study viz. non revision of tariff, absence of true-up mechanism, shortfall or delay in payment of subsidy by the State Governments and dis-allowance of the legitimate cost in the retail tariff. Initiation of suo-motu proceedings for tariff revision by SERCs/ JERCs and circle-wise differential tariffs for loss reduction are some of the highlights of model regulations. The Forum's initiatives to restore financial health of ailing power distribution sector in 2010-11 paved way for some fruitful results in the year 2011-12. Based on the issues highlighted in the FOR study, the Hon'ble Appellate Tribunal of Electricity directed all SERCs/JERCs to revised tariff every year and initiate suo-motu proceedings for tariff determination in case of delay or non-filing of tariff petition by the distribution licensee. The Forum is actively pursuing to comply with the directions of Hon'ble ATE on tariff revision as well as formation of Consumer Grievance Redressal Forum (CGRF) and Ombudsman in SERCs/ JERCs.

Another significant initiative of the Forum was in carrying out a study on implementation of pre-paid metering in the country. Due to lack of guidelines, many distribution utilities- both Govt. and private have been implementing pre-paid metering based on their own interpretation of the Act, policies and regulations and many States are refraining from adopting the technology primarily due to the obscurity surrounding pre-paid metering. The Forum examined all such issues including technical, operational and regulatory issues and recommended a way forward for implementation of pre-paid metering in the country.

The electrification of remote areas in the country through off-grid distributed generation may provide increased access to energy for the end consumers. Renewable energy is seen as the sustainable solution for providing off-gird generation to enhance rural electrification and meet people's aspiration for a good quality life. An important initiative during the year 2011-12 was the study report on "the viable business models for development of off-grid renewable energy generation projects". The study recommended franchisee model and Renewable Energy Certificate (REC) based model for large scale implementation of off-grid systems.

The Forum once again undertook to assess the achievable potential of Renewable Energy resources in different States during the 12th Plan Period, determination of RPO trajectory and its impact on Tariff. The study examined the renewable energy potential and tariff/cost scenarios and concluded that the incremental impact on power purchase cost on Pan India basis could be negative.

The Forum also discussed the legal, commercial, operational issues in implementation of Ministry of Power's office memorandum an Open Access for 1 MW and above consumers. The Forum also appreciated the Point of Connection (PoC) based new Transmission Pricing Framework implemented by the Central Commission for sharing of transmission charges and loses for the transmission systems of the inter-State transmission licensees and evolved consensus to initiate action to implement it at State level.

In the backdrop of the initiatives taken by the Forum, the responsibility primarily now rests with the SERCs/ JERCs to implement the recommendations. The Forum has been engaging in thread bare discussions with sector experts to identify implementable solutions on critical issues hampering the all round growth in the power sector. We look forward to the continued support from all the stakeholders in fulfilling the mandate of the Forum.

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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 the 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 inter-alia by 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 Regulatory Commissions (SERCs) were constituted under the ERC Act, 1998. However, some SERCs/ JERC's like Meghalaya State Electricity Regulatory Commission (MSERC), JERC-(Manipur & Mizoram) and JERC (Goa and Union Territories) were constituted after the enactment of 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 regulations in the power sector framed by the CERC, SERCs and JERCs. The Forum consists of Chairperson of CERC and Chairpersons of SERCs and JERCs. The Chairperson of CERC is the Chairperson of the Forum. The Central Government has made the following rules for the Forum of Regulators (FOR).

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

Functions of the Forum

The Forum shall discharge the following functions, namely:-

- Analysis of the tariff orders and other orders of the Central Commission and State Commissions, and compilation of data arising out of the said orders, especially highlighting the efficiency improvements of the utilities;
- Harmonization of regulation in power sector;
- Laying of 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.

Finances of the Forum

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

Mission Statement

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

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

The Year in Retrospect

The following studies were successfully conducted by the Forum in the last year:

"Policy and Regulatory Interventions for Promotions of Community level Off-Grid Projects".

The Forum commissioned the study to explore viable business models for development of off-grid renewable energy generation projects. The study has recommended two models for promotion of community level off-grid projects: (i) Off-grid distributed generation based distribution franchisee (ODGBDF) model (ii) REC based model. The models with public private partnership can generate profitable revenue stream or expand market access for private players, deliver services to the consumers, provide access to the consumers at the same price and serve social obligations.

Evolving Measures for the Effective Implementation of Prepaid Metering in the country

The Forum commissioned the detailed study to highlight the legal and regulatory issues involved in pre-paid metering and make recommendations for the large scale implementation of pre-paid metering in the country.

The study highlighted the merits of pre-paid metering by evaluating within the country as well as abroad. The legal and regulatory provisions specific to metering and their implications on pre-paid metering and interpretation of the provisions by distribution licensees were studied. The report also presented the cost-benefit analysis of pre-paid metering, evaluated efficacy of pre-paid as a concept and recommended target consumer groups, tariff regulations and operational issues for effective implementation of pre-paid metering in the country.

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.

This study was commissioned to project the RPO trajectories for the various States keeping in view the achievable potential of New and Renewable Energy resources in different States during the 12th Plan Period and its impact on tariff.

The study concluded that about 39,600 MW grid-connected renewable energy sources of generation could be added during the 12th plan based on the data provide by the State Nodal Agency (SNA), State Transmission Utility (STU) and developers. It also concluded that depending on the cost/tariff of RE sources, incremental impact on Power Purchase Cost (PPC) on pan-India basis could be negative.

Trainings & Capacity Building Programmes

One of the key responsibilities of the Forum is capacity building of personnel of the Electricity Regulatory Commissions (ERCs). The Forum conducted four Training and Capacity Building Programmes for the ERCs during the year. These included orientation programme at the Indian Institute of Management (IIM), Ahmedabad with international exposure for

three days for Chairpersons and Members of ERC, the Fourth capacity building programme at Indian Institute of Technology (IIT), Kanpur, four day training programme on "Demand Side Management Capacity Building at Indian Institute of Technology (IIT), Roorkee, residential Training Programme on "Protection of Consumer Interest" for officers of CGRF and Ombudsman, at National Power Training Institute (NPTI) and training on Legal aspects of power sector regulations at National Law School of India University (NLSUI), Bangalore.

Meetings and Key Outcomes

During 2011-12, six meetings of the Forum of Regulators were held. The key issues discussed during the meetings and the outcomes are as follows:

- "Minimum License Area Requirement for grant of distribution license": The Forum decided that the Ministry of Power may be requested to review the rules of defining minimum area of supply and also make suitable amendment in the Electricity Act, 2003 to make a clear provision on renewal of licence. Legal opinion may be sought on the issue as to whether on expiry of the licence term of licensee, the Regulatory Commission can grant extension or renew the existing licence under Section 18 of the Act.
- Implementation of open access: The Forum decided that the Ministry of Power may be requested to suitably amend Para 8.5 of the Tariff Policy to provide for broad principles for determination of Cross- Subsidy Surcharge.
- There was a consensus in the Forum regarding the need for a uniform approach for treatment of Average Pooled Power Purchase Cost (APPPC) for regulatory certainty and longer term visibility for APPPC.
- Model Regulations for Multi-Year Distribution Tariff: This was approved by the Forum with certain modifications.
- Transmission Pricing Framework based on the point of connection: The Forum decided to initiate action to implement the framework at the State level in line with the provisions of the Tariff Policy. The Forum also decided that a study may be initiated for evolving the framework for States keeping in view their specific requirements.
- The study on "Policy and Regulatory Interventions for Promotion of Community level Off-Grid Projects" and the recommended models in the report were discussed and endorsed by the Forum.
- The studies on implementation of pre-paid metering and assessment of renewable potential, determination of RPO trajectory and impact on tariff were discussed and approved by the Forum.
- There was a broad consensus in the Forum about the need to evolve procedures for ensuring RPO compliance by the CPPs/ Open Access consumers. It was felt that CEA needs to make in its Regulations on Technical Standard, provisions for technical standards of connectivity for such Off Grid generation.
- To address the adequacy of consultants/consulting firms to meet the requirements of all Regulatory Commissions in the country, the Forum recognized the need for creation of a national level institute of regulatory experts wherefrom the Regulatory Commissions can draw human resource to meet their specific job requirements.

Activities of the Forum during the year

3.1 Meetings of Forum of Regulators:

3.1.1. Twenty Third Meeting (29th-30th April, 2011 at Dehradun):

- Shri V.K. Shunglu, former CAG of India and the then Chairman of the Government Committee on Financial Position of Distribution Utilities, joined the meeting as a special invitee. Members highlighted the issues and challenges faced by the SERCs in fixing tariff at the State level. Unmetered supply especially to agriculture, unreasonable Transmission & Distribution (T&D) /Aggregate Technical & Commercial (AT&C) losses, non-payment of subsidies by the State Government were highlighted as some of the challenges which the State Regulators have to deal with regularly.

- A presentation was made by FOR Secretariat on the Status of Renewable Purchase Obligation (RPO) and the implementation of REC framework. The Forum members were apprised about Renewable Purchase Obligation (RPO) trajectory specified by the different State Electricity Regulatory Commissions (SERCs) vis-à-vis the RPO trajectory suggested in the RPO study report of Forum among some other issues including :

  - The status of framing REC regulations and notification of the State Nodal Agencies by the different SERC's.

  - Source wise and State wise status of RE generators who have got accreditation from State Agencies and projects registered by the Central Agency. The Forum was also briefed about the results of the last two REC trading sessions.

  - Deviations made by some SERCs in terms of eligibility criteria and definition of "Pooled Power Purchase Cost" from the FOR Model Regulation. Chairperson, RERC clarified the rationale behind the exclusion of short term power purchase cost while arriving at pooled cost of purchase.

It was suggested that for ease of implementation of REC framework the Average Power Purchase Cost (APPC) should be notified by all the Commissions.

FOR Secretariat also made a presentation on Solar

Specific Renewable Purchase Obligation and briefed the members on the amendment in Tariff Policy which mandates the SERCs to reserve Solar RPO up to 0.25% of total consumption by the end of 2013 and which may further go up to 3% by 2022. It was also informed that there was a need for setting (Solar) RPO keeping in mind availability of RE resources as a whole (and not limited to RE resources in the State) and to recognise REC (Solar) as a valid instrument for compliance of RPO by the obligated entities.

- The Forum agreed that RPO should be made applicable to co-generation based captive consumers as well, in line with the spirit of Section 86(1)(e) of the Electricity Act, 2003. It was agreed that Ministry of New and Renewable Energy (MNRE) and Ministry of Power (MOP) should be apprised of this development.
- The Forum agreed that a draft Model Regulation may be prepared and SERC's may be requested to intimate to FOR Secretariat about the actions taken by each SERC to enforce and execute their orders, if any.

3.1.2. Twenty Fourth Meeting (16th June , 2011 at New Delhi):

- The Forum decided that the issues of the variation in definition of Average Pooled Power Purchase Cost (APPPC) in different States and its impact on viability of the projects under REC Scheme, would be discussed in the next meeting of FOR.
- A presentation was made by Sh. V.P. Raja, Chairman, Maharashtra Electricity Regulatory Commission (MERC) on Minimum License Area Requirement for grant of distribution license. The Forum was briefed about the issues relating to expiry of licensee and legal opinion which was sought by MERC from Additional Solicitor General (ASG) in this regard. After discussion the Forum decided the following:
  - Ministry of Power may be requested to review the rules of defining minimum area of supply and also make suitable amendment in the Act to make a clear provision for renewal of licence.
  - Legal opinion may be sought on the issue as to whether on expiry of the licence term of licensee, the Regulatory Commission can grant extension or renew the existing licence under Section 18 of the Act.
- A presentation was made by Shri Shashi Shekhar, Joint Secretary, MNRE on renewable energy potential in the country and achievement so far. A brief summary of the discussion is as follows:
  - FOR appreciated the need for a separate RPO trajectory in line with the vision of the National Action Plan on Climate Change (NAPCC).
  - The Forum was apprised about the idea of differential tariff among consumer categories to recover additional charge for promotion of renewables. It was decided that a legal opinion may be sought on the question as to whether such differentiation can be covered under section 62 (3) of the Electricity Act, 2003.
  - The Forum decided to seek a legal opinion on the question of whether amendment, if made to the regulations on RE tariff by CERC/ SERC's can be extended to cover the PPAs of existing biomass projects.
  - The Forum noted the need for support of biomass projects because of wide variation in the fuel price. It was agreed that the provisions in the regulation of the Central Commission and of State Commissions regarding fuel price of biomass projects needs review.
- A presentation was made by FOR Secretariat on the Status of Implementation of Open Access. A brief summary of the discussion is as follows:
  - The Forum agreed that a reference may be made to the Ministry of Power to amend Para 8.5 of the Tariff Policy to provide for broad principles for determination of Cross- Subsidy Surcharge, as under:
    - SERCs to calculate Cross-Subsidy Surcharge based on the assumptions that the power available as a result of exit of open access consumers will be sold at the average revenue realization rate.
    - For a situation when there is no power cut, SERCs may calculate Cross-Subsidy

Surcharge based on the estimation that the DISCOMs will avoid purchase of the quantum of power for which open access has been sought. This principle of avoided cost method should be adopted in areas where there is no power shortage. This is the most practical scenario in a situation of shortage of power supply.

- Presentations were made by the Prayas Energy Group and Association of Power Producers (APP) on the matter of Competitive Bidding in the electricity sector. Prayas highlighted its findings on the governance related challenges in the competitive bidding regime. APP focussed on the key issues in the competitive bidding framework.

Prayas suggested that the methodology for bid evaluation should be more transparent and consistent. Need for a Central Information repository was also emphasized. The APP highlighted that there were no provisions either in the Standard Bidding Document (SBD) or in the Power Purchase Agreement (PPA) that take care of exigency/situations beyond the control of the developers e.g. fuel shortage. The need for a separate SBD for Gas based Power Projects was also emphasized

After discussions, it was agreed that the issues raised would be studied in detail by the CERC/FOR Secretariat and recommendations may be made to Ministry of Power for refinement of the bidding guidelines and Standard Bidding Documents.

3.1.3. Twenty Fifth Meeting (29th July , 2011 at Faridabad):

- As decided in the previous FOR meeting, a presentation was made by FOR Secretariat on the issues of APPPC in the context of REC. There was a general consensus on the need for a uniform approach for treatment of APPPC for the regulatory certainty.
- A presentation was made by Shri Devender Singh, Joint Secretary, MOP on the status of Distribution Sector Performance highlighting the key performance indicators and inferences based on the analysis of the data. After a detailed discussion on the issues raised by Ministry of Power, the Forum agreed to the following :
  - → The statistics presented by the MOP to reflect the current financial position of the State Utilities.
  - → The need for empowering the State Commissions to enforce their orders.
  - → The Government of India to work on measures to enforce financial disciplines in the State.

  - → Segregation of agricultural feeder should be resorted to by all distribution utilities.
  - → Non-performing distribution companies should be disincentivized/ penalized.
- FOR Secretariat made a presentation highlighting salient features of the Model Tariff Regulations and the comments received on the Model Tariff Regulations. The Forum approved the Model Tariff Regulations with certain modifications. It was also decided that the Ministry of Power may be requested to provide assistance for the proposed study for metered and unmetered sales estimation.

3.1.4. Twenty Sixth Meeting (09th-10th October, 2011 at Himachal Pradesh):

- The Forum was informed that a presentation was made before the Shunglu Committee on the "Model Tariff Regulations" evolved by the Forum of Regulators. The need for allowing the

costs incurred by the distribution company was reiterated by Shri Shunglu.

- The Forum was briefed about the objectives behind the National Transmission Pricing Framework. A presentation was made by FOR Secretariat highlighting the overarching philosophy behind the new Transmission Pricing. It was explained that the earlier Regional Postage Stamp method, was no longer adequate to meet the future challenges arising out of the developments like setting up of UMPPs, need for sharing of high capacity corridor charges, competitive bidding requirements, evolution of concept of National Grid and Open Access. Chief Executive Officer, Power System Operations Corporation Limited (POSOCO) made a detailed presentation on the National Transmission Pricing. After discussion the following emerged:

  - A comparative statement indicating the quantum/percentage of increase in charges as a result of issuance of Tariff Order for 2009-14 and the increase/ decrease as a result of PoC Pricing methodology may be indicated for each state.

  - It was decided to initiate action to implement the framework at the State level in line with the provisions of the Tariff Policy.

- The Secretary, Forum of Regulators explained the background of the study on "Policy and Regulatory Interventions for Promotion of Community level Off-Grid Projects". The study was conducted by M/s. ABPS Infrastructure Advisory Private Limited with the support of Shakti Sustainable Energy Foundation, under the guidance of FOR Secretariat. A presentation was made by M/s ABPS highlighting the recommendations of the study on "Policy and Regulatory Interventions for Promotion of Community level Off- Grid Projects". The study recommended the following two models for promotion of community level off-grid projects

  - Off Grid Distributed Generation Based Distribution Franchisee Model

  - REC for Off- Grid Generation Model

3.1.5. Twenty Seventh Meeting (16th December, 2011 at Raipur):

- The Secretary, FOR informed the members that Shunglu Committee has submitted its report on the "Financial Position of Distribution Utilities". He stated that the most important recommendation relates to creation of a Special Purpose Vehicle (SPV) for taking over the outstanding loans of State Government owned Discoms, subject to the condition that the States agree on reforms milestones and some other conditions.

- A presentation was made by the representative of M/s. Deloitte Touche Tohmatsu India Pvt. Ltd. on the study "Evolving measures for effective implementation of Prepaid Metering in the country". The draft report was discussed in detail and the following was decided:

  - FOR Secretariat to seek legal opinion from Attorney General of India or Solicitor General of India on the legality of the Prepaid Metering in the light of Section 56 of the Act.

  - The recommendation regarding Target Groups of Consumers (viz., Government/ PSU establishments, temporary connections, consumer's premises on rent etc.) for introduction of prepaid meter, to be tried by all States.

- A presentation was made by Joint Secretary and Director, MNRE on the status of implementation of National Solar Mission. After discussion, the following emerged:

  - The need to evolve procedures for ensuring RPO compliance by the CPPs/Open Access consumers.

  - CEA to make Regulations on Technical Standard, provisions for technical standards of connectivity for such Off Grid generation.

- The members were informed that Forum of Indian Regulators (FOIR) has commissioned a study for suggesting staffing pattern, compensation packages, and capacity building requirements of Regulatory Authorities in the infrastructure sector.

- The Forum recognized that there is a dearth of adequate number of consultants/consulting firms to meet the requirements of all Regulatory Commissions in the country. It was felt that there is a need for creation of a national level institute of regulatory experts from where the Regulatory Commissions can draw human resource to meet their specific job requirements.

- A presentation was made by FOR Secretariat highlighting the sequence of interpretations on Open Access and implications from legal, commercial, and operational angles. Pros and cons of various scenarios and implications were discussed in detail.

- The members were informed about the proposal for training of Regulatory Staff at IIT, Kanpur along with an international component to visit Thailand during March, 2012. The proposal was agreed in principle.

- The members were informed about the proposal received from the World Bank seeking technical support of FOR on various studies being conducted by them. The Forum endorsed the proposal of FOR extending technical support to the studies of the World Bank.

3.1.6. Twenty Eighth Meeting (03rd February, 2012 at Bihar):

- The Forum was briefed about the three studies undertaken for the promotion of renewable energy generation, namely :

  → 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.

  → Preparing incentive structure for States for fulfilling Renewable Purchase Obligation (RPO) targets

  → Transmission infrastructure development for the likely capacity addition of RE based power plants in the States rich in RE potential during 12th Plan

The Forum noted that the findings of the first study would feed the other two studies.

- M/s Crisil made a presentation on "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". The report was endorsed with the following observations:

  → An analysis of target versus achievement during the 10th and 11th Plan should be made to bring the desired confidence level for the projection for the 12th Plan.

  → Capacity addition target should also be validated based on the written communication from the Power Secretary of the States. Year-wise capacity addition of various technologies and their corresponding Capacity Utilization Factor (CUF) should be taken as the reference for arriving at the feasible generation availability and corresponding RPO level for each State.

  → Impact of factors like import of coal and invocation of Section 11 by States should also be considered while projecting the RE capacity and corresponding RPO level for States.

- A presentation was made on "Smart Grid" by Centre for Study of Science, Technology & Policy (CSTEP), Bangalore. The members of the Forum were apprised of the broad aspects and drivers for the Smart Grids, status of Smart Grids in India and its cost-benefit analysis.

- A presentation was made by M/s A2Z Powertech Limited on the road map for deployment of Smart Metering Solutions. The Forum was apprised about the Automated Meter Reading Instruments (AMI), various options available in smart meter server architecture and benefits to be realized with smart metering infrastructure solution with AMI vis-a-vis conventional meters.

3.2 Capacity Building Programmes

During the year 2011-12, FOR conducted the following four capacity building programmes:

(i) The orientation programme for the chairpersons and members of the Electricity Regulatory Commissions (ERCs) was conducted at IIM-Ahmedabad from 03rd June, 2011 to 11th June, 2011 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 03rd June, 2011 to 05th June, 2011.
- International visit to San Francisco from 06th June, 2011 to 11th June, 2011.

(ii) Fourth Capacity Building Programme for Officers of ERCs on various facets of Regulatory issues in Power Sector was conducted at IIT, Kanpur from 18th July to 23rd July, 2011.

(iii) Training programme on "Demand Side Management" was conducted at Indian Institute of Technology (IIT), Roorkee from 10th October, 2011 to 14th October, 2011.

(iv) Residential Training Programme on "Protection of Consumer Interest" for Officers of CGRF and Ombudsman was conducted at NPTI, Faridabad from 21st to 23rd March, 2012

3.3 Studies completed during FY 2011-12:

(i) Evolving measures for the effective implementation of Prepaid Metering in the country.

During the FY 2010-11, the Forum commissioned study on "The effective implementation of "Prepaid Metering in the country." M/s Deloitte Touche Tohmatsu India Private Limited was engaged for the same. The objective was to conduct detailed study and prepare report that elaborates the legal and regulatory issues in pre-paid metering and making recommendations for the effective implementation of the system in the country.

The Salient recommendations of the report can be summed up as:

- The outstanding arrears of several distribution utilities have been increasing over years due to the poor collection efficiencies. Prepaid metering offers significant commercial benefits over the conventional post paid regime and shall be of key significance in addressing the issue of poor collection efficiency and outstanding debtors against sale of power at its root.
- In view of the benefits already achieved by the utilities that have undertaken pilot implementation of prepaid metering in the select states elaborated in the report, the Commissions may enforce introduction of mandatory prepaid metering for several classes/groups of consumers like :
  - Government/PSU's establishments;
  - Domestic consumers in urban areas with a connected load of 5kW and above
  - All temporary connections;
  - Consumers premises where the owner has rented the house;
  - Govt. residential quarter where BSF/ defence personnel live for short duration;
  - Consumer premises where the occupants are old age/ retired people.
- To promote introduction of prepaid metering during the initial years, an overall tariff rebate of 4% to 6% may be given in view of the improvement of collection efficiency. Such rebate may be reviewed after a period of 5 to 6 years by the respective SERCs, as consumers would have experienced the benefits/convenience of prepaid metering by then.
- The problems of inadequate billing and low collection efficiencies, faced by the Indian Utilities, can be effectively addressed through adoption of standalone pre-paid meters in select consumer categories/ groups as outlined in the report.
- It is also recommended that the vendors may gear-up for meeting the demand expected to be generated through the accelerated implementation of pre-paid metering in the country. In addition to meeting the expected demand, passing on the benefits of the expected economies of scale to be achieved due to the increased demand for prepaid meters in the country shall hold key to the acceptability/ effectiveness of prepaid metering in the country.

(ii) Assessment of achievable potential of new and renewable energy resources in different states during 12th Plan period and determination of RPO trajectory and its impact on tariff.

India has 150 GW of known renewable energy potential, of which only about 14% has been developed. Renewable energy is considered to be an important part of the solution to India's energy shortage. The country's renewable energy potential is likely to be even greater than 150 GW, as sources with significant generation capacity have not yet been mapped. Developing renewable energy can help India increase its energy security, reduce the adverse impacts on the local environment, lower its carbon intensity, contribute to a more balanced regional development, and realize its aspirations for leadership in high-technology industries.

During the FY 2010-11, the Forum commissioned a study on "Assessment of achievable potential of new and renewable energy resources in different States during 12th Plan period and determination of RPO trajectory and its impact on tariff." M/s Credit Rating and Information Services of India Ltd (CRISIL) was engaged for the same. The study highlighted the key challenges and bottlenecks along with the enablers for development of renewable energy in India.

Pursuant to the provisions of the Electricity Act, the State Electricity Regulatory Commissions (SERCs) were mandated to fix a minimum percentage for purchase of power from renewable energy sources taking into account the availability of renewable sources in the region and its impact on the retail tariff. Almost all SERCs and JERCs have specified the renewable purchase obligations (RPO) for obligated entities in their States.

Further, the National Action Plan on Climate Change (NAPCC) recommended increasing the share of renewable energy to 10% by 2015 and 15% by 2020. A similar target was mentioned by the Forum of Regulators in its Policy on Renewables. In order to achieve these goals, India needs an order-of-magnitude increase in renewable energy growth in the next decade. Further, it is required to set the RPO trajectories for the coming years. Therefore, it becomes critical to assess the achievable renewable energy potential during the 12th Plan period and to address the various challenges in the development of renewable energy.

The study has projected likely capacity addition during the 12th Plan period and suggested RPO trajectory for States after considering the impact on power purchase cost. Incremental impact on power purchase cost as a result of increasing level of RPO is not significant, the study has concluded.

Salient features of the study are as under:

- In the business as usual scenario, the capacity addition during the 12th Plan period could be 35,715 MW and if issues and constraints, especially the constraints of lack of evacuation infrastructure are addressed, the capacity addition could be to the tune of 40,659 MW during the 12th Plan period.
- Based on the likely capacity addition under both the scenarios and keeping in view the impact of RPO on the power purchase cost, a national level as well as State-wise RPO trajectory has been drawn. At pan India level, the achievable RPO trajectory estimated under the first scenario ranges from 6.1% in FY 2012 to 10.7% in FY 2017 and under the second scenario from 6.1% in FY 2012 to 11.4%. This is against the targets suggested by NAPCC, of 7% in FY 2012 to 12% in FY 2017.
- The pan India RPO trajectory has been further divided into state-wise RPO targets. The states with lower current level of RPO have been assigned an accelerated trajectory, and the states with high RPO targets (as per their current RPO target for FY 12) have been assigned a normalized trajectory.
- The incremental impact of varying levels of RPO on the power purchase cost (PPC) has been analyzed for each state as well as at the pan India level. The incremental time discounted impact on the Power Purchase Cost (PPC) is only 1.0 paise per unit for the first year, which gradually decreases to a negative value (- 0.5 paise per unit) in FY17. The impact of proposed RPO targets on PPC is, therefore, not much and can be easily accommodated by the state utilities.

The way forward now lies in SERCs' adopting the trajectory based on the consensus arrived in the Forum of Regulators and also enforcing compliance of RPO.

(iii) Policy and Regulatory Interventions for Promotion of Community level Off Grid Projects.

During the FY 2011-12, the Forum commissioned study on "Policy and Regulatory Interventions

for Promotion of Community level Off-Grid Projects" M/s ABPS Infrastructure Advisory Private Limited with the support of Shakti Sustainable Energy Foundation was engaged for the same. It was emphasized that in areas remote from the grid and low population density, off-grid energy solutions seem most practical and economical. The objective behind the study was to explore the viable business models for development of off-grid renewable energy generation projects. The study recommended the following two models for promotion of community level off-grid projects:-

- Off Grid Distributed Generation Based Distribution Franchisee (ODGBDF) Model: In this model, a project developer can set up an off-grid project and supply power to the consumers in the locality and recover SERC determined tariff for such consumer category. The project developer can act as a franchisee of the distribution company and the agreement between the distribution licensee and the off-grid project developer should guarantee recovery to the extent of feed in tariff byte project developer. Such generation and consumption of power from off-grid project should qualify towards renewable purchase obligation of the distribution licensee.
- REC for Off-Grid Generation model: Under this model, a project developer can set up off-grid project, distribute electricity to the consumer in the locality and recover from them charges as mutually agreed between the project developer and the consumer. In order to ensure recovery of cost for the project developer, RECs should be issued to such developer.

It was decided that necessary Model Regulations/ Guidelines may be formulated for implementation of the recommended options and suggestion(s) for refinement/change in the REC mechanism may also be made.

3.4 Model Regulations

Model Regulations for Determination of Adequacy of Tariff by SERCs/ JERCs.

The Model Tariff Regulations seek to address each of the major issues that the earlier FOR study on "Assessment of reasons for financial viability of utilities" has revealed. The Model Regulations aim to address the issue of financial viability of the distribution companies in the country by providing them with a clearly elucidated regulatory framework for allowing all the legitimate costs incurred by them. These regulations would also streamline the tariff determination process in the country. This would go a long way in restoring the confidence of investors and banks and other financial institutions that have a huge exposure in the distribution sector and consequently protecting the financial sector in general from any severe consequences. Salient features of Model Tariff Regulations are:

- A year long study for correct estimation of metered sales.
- A year long study (to be continued for 2 more years) for estimation of unmetered sales based on stratified random sampling method.
- Estimation of power purchase quantum based on the sales estimation done as above and after factoring in the T&D losses.
- Demand forecast based on statistical model and consequent long term/medium term planning for procurement of power to meet such demand.
- Benchmarking of other cost components, namely, O&M, interest on Working Capital, interest on loan etc.
- Circle-wise differential tariff to be implemented to mobilize support/push from the consumer on the Distribution Licensee to drive loss reduction.
- Recovery of Annual Revenue Requirement and incentive/disincentive linked to achievement of performance indices of Network and Supply availability.
- Regulation of short term power procurement and projection of short term procurement cost based on the weighted average price in the OTC market and Power Exchanges.
- Automatic pass through of incremental cost as a result of fuel price increase and increase in short term procurement over and above what has been approved, if such purchases are because of factors beyond the control of the DISCOM. Such pass through to be allowed on quarterly basis.
- Separate schedule of tariff with subsidy and without subsidy.
- Provision for allowance of carrying cost if regulatory assets are created.
- Detailed method of allocation of costs among consumer categories.

Activities of the Electricity Regulatory Commissions during FY 2011-12

4.1 Achievements of CERC

The Central Electricity Regulatory Commission (CERC), with due regard to the responsibilities entrusted on it by the Electricity Act, 2003, undertook a number of significant initiatives during the year to push reforms in the power sector.

A significant step taken by the Commission was towards bringing greater discipline in grid operation. 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 Commission tightened the permissible frequency band of operation from 50.2 Hz – 49.5 Hz to 50.2 Hz -49.7 Hz. Correspondingly, the charges for deviation from the schedule have also been enhanced.

In its efforts to promote Renewable energy, the Commission notified Renewable Energy tariff regulations for the control period 2012-17. The new regulations have brought necessary incentives for the investors and at the same time ensure benefits of cost reduction and efficiency improvement to the consumers. To exploit the wind power potential in the areas of low wind density, the Commission has provided tariff norms for projects proposed to be installed in the areas with Wind Power Density (WPD) less than 200. Capacity utilization factor has been revised considering technological advancement and increase in hub height of the wind mill. The revised norms for wind power are expected to harness wind power potential and encourage latest technology. The new RE tariff regulations also provide for tariff norms for Biomass Gasifier and Biogas based power plant to promote large scale implementation. It is expected that these technologies will encourage small capacity tail end connected power plants. Operational parameters, including fuel price, for biomass based power plants and tariff norms for solar plants including capital cost have been reviewed and revised according to the tariff discovered through competitive bidding route and change in cost in the renewable energy market. Financial norms have also been aligned to the prevailing market conditions. Return on Equity (ROE) has been revised keeping in view the increase in the Minimum Alternate Tax (MAT) rate. Another important initiative is in terms of ensuring long term tariff visibility. Unlike the earlier control period which was for three years, the control period has been revised for five years.

The Commission issued the order for REC Floor and Forbearance price for the next control period. To boost the confidence of investors and financial institutions, the Commission has provided visibility of five years for revenues under REC framework.

Through amendments in Grant of Connectivity, Long-Term Access and Medium-Term Open Access in inter-State Transmission Regulations, the Commission allowed a period of 6 months for injection of infirm power into the grid for the purpose of testing and commissioning of the units from the date of first synchronization of the unit. Time limit for injection of infirm power was provided to discourage wilful delay of declaring commercial operation of generating unit and earn UI. However, the amended regulations provided for grant of an extension under exceptional circumstances, if the generator files a petition 2 months in advance of the sate of completion period of 6 months.

By amending UI Regulations, the Commission introduced UI cap rates for injection of infirm power

for generating units for testing before COD. The generator would be paid at UI rates for such infirm power subject to ceiling of cap rates corresponding to the main fuel used for such generation.

The Commission monitors the Power market through its Market Monitoring Cell (MMC) which brings out monthly reports and an annual report on Short-Term Transactions of electricity. The report contains information on the electricity transacted through Trading Licensees (bilateral transactions), Power Exchanges, and Unscheduled Interchange. MMC also brings out a monthly report on bilateral contracts (OTC contracts) undertaken by the trading licensees.

The Commission approved detailed procedure for the implementation of Renewable Regulatory Fund mechanism under IEGC. This would encourage all the wind energy developers and forecasting service providers in the direction of scheduling of wind energy. In the long run, it will result in large scale integration of wind and solar energy.

The Commission amended Tariff Regulations for FY 2009-14 to align with certain aspects to market reality. Realizing that the MAT rate has increased from 10% in FY 2008-09 to 15% in FY 2009-10 and 18% in the FY 2010-11, the Commission acknowledged that this substantial change in the MAT rate has serious impact on the fund position of the generating company/transmission licensee and the beneficiaries. Accordingly, the regulations were amended to gross up the base rate with MAT rate instead of normal tax rate for determination of rate of return on equity. The regulations also provide for recovery or refund of excess annual fixed charge on account of Return on Equity due to change in applicable Minimum Alternate/ Corporate Income Tax Rate.

The inter-State sharing of transmission charges and losses regulations on Point of Connection (PoC) Transmission Charges, which were to come into force initially from January 2011, came into force from July 2011. Based on the problems encountered by the implementing agency and other stakeholders, the Commission amended the regulations twice in the year for smooth implementation of the Sharing regulations.

During the year the Commission rendered statutory advice to the Government of India on the need for setting up of peaking power plants to meet peaking demand in the country and for making specific provisions in the Electricity Act, 2003 for promotion of Renewable Energy Sources.

4.2 Achievements of SERCs/ JERCs during the FY 2011-12

1. Assam Electricity Regulatory Commission (AERC)

The following Regulations were notified by the Commission during the FY 2011-12:

- Demand Side Management Regulations, 2011
- Furnishing of Technical Details by Generating Companies Regulations, 2012.
- Terms and Conditions for Tariff Determination from Renewable Energy Sources Regulations, 2012.
- Compliance Audit Regulations, 2012.
- Amendment of Electricity Ombudsman Regulations, 2011
- Amendment to Fuel and Power Purchase Price Adjustment Formula Regulations, 2010.
- Multi Year Tariff orders were issued for generation, transmission and distribution utilities for the FY 2010-11 and ARR were determined for the FY 2011-12 and 2012-13. The Commission issued a number of important directives in these orders for compliance by the utilities within specified time frames.
- The Commission issued Tariff order for Adamtilla (9MW) and Banskandi (15.5 MW) Power plants of M/s EIPL at Barak Valley for FY 2008-09.

2. Arunachal Pradesh State Electricity Regulatory Commission (APSERC)

During the FY 2011-12, APSERC framed the following six Regulations:

- State Advisory Committee Notification
- Conduct of Business Regulation

- Redressal of grievances and ombudsman Regulation
- Fee Regulation
- Grant of intra-state trading license Regulation
- Terms and Conditions for determination of tariff and formats for tariff filing Regulation.

3. Bihar Electricity Regulatory Commission (BERC)

The Commission notified the following Regulations during the FY 2011-12:

- Delegation of Financial Powers Regulation, 2011 by repealing the 2005 Regulations
- Second amendment to the Fees, Fines and Charges Regulations, 2005
- Second amendment to Supply Code, 2007

The Commission issued the following orders during the FY 2011-12:

- Determination of ARR and Tariff Order of Bihar State Electricity Board (BSEB) for retail sale of electricity for FY 2011-12 and FY 2012-12 along with the Truing up order for FY 2010-11 and Annual Performance Review (APR) of FY 2011-12.
- Truing up order of the Aggregate Revenue Requirement (ARR) for the FY 2006-07, FY 2007-08, FY 2008-09 and FY 2009-10 of BSEB
- Order for review of the Tariff Order passed on 01st June, 2012.
- Approval of deviations from the Standard Bid Document (SBD) under Case-2 for the Coal based Thermal Power Projects proposed at Chausa (Buxar), Kajra (Lakhisarai) and Pirpainti (Bhagalpur).
- Adoption of the tariff for long-term procurement of 450 MW power by BSEB discovered under Case-I tariff based competitive bidding process by M/s Essar Power Limited (Jharkhand)

4. Chhattisgarh State Electricity Regulatory Commission (CSERC)

CSERC notified the following Regulations during the FY 2011-12:

- Compliance Audit Regulations, 2011
- Supply Code 2011 was notified on 28th November, 2011. With the notification of this Supply Code, the following Supply Code and Regulations ceased to operate from the date of publication of this Supply Code in Chhattisgarh Rajpatra.
  - → Chhattisgarh State Electricity Supply Code, 2005
  - → Security Deposit and Procedure for filing appeal before the appellate authority Regulations, 2005
- Chhattisgarh State Electricity Grid Code Regulation, 2011 was notified on 30th December, 2011
- Renewable Purchase Obligation and REC framework implementation Regulations, 2012 was notified on 29th February, 2012.

CSERC issued the following orders during the FY 2011-12:

- Approval of Annual Revenue Requirement (ARR) for the FY 2009-10, Multi- year ARR for Control Period FY 2010-11 to FY 2012-13 and retail tariff proposal for the FY 2011-12 for distribution licensee, Bhilai Steel Plant – TEED
- Approved Business Plan for the first Multi Year Control period FY 2010-11 to FY 2012-13 of distribution licensee namely, Town Electrical Engineering Department of Bhilal Steel Plant
- Approval of ARR of distribution licensee, Jindal Steel & Power Ltd. for the year 2010-11
- Determination of Annual Revenue Requirement for transmission licensee, JSPL for the year FY 2007-08 to FY 2011-12. Determination of Tariff for JSPL- Transmission Licensee for FY 2011-12
- Approval of additional business plan of Chhattisgarh State Power Generation Company Ltd. for Capital O&M, Capital Civil and New R&M Schemes for FY 2011-12 and FY 2012-13.
- Determination of tariff for the purchase of electricity generated by biomass based power

plants in Chhattisgarh by distribution licensee in Chhattisgarh

- Terms and conditions and pricing of power to be purchased in short term by Chhattisgarh State Power Distribution Company Ltd. for the year FY 2011-12
- Approved deviations from the Standard Bidding Document (RFP and PPA) for carrying out long term power procurement by Jindal Steel and Power Ltd. (JSPL) under case 1 bidding framework.

5. Delhi Electricity Regulatory Commission (DERC)

DERC had notified the following Regulations during the FY 2011-12:

- DERC (Terms and Conditions for Determination of Generation & Transmission Tariff) Regulations, 2011
- DERC (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2011
- First Amendment to State Grid Code Regulations, 2008.
- Corrigendum to DERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2011

The Commission issued Tariff orders in respect of the following licensee:

- Order on ARR and Generation Tariff for Indraprastha Power Generation Company Limited and Pragati Power Corporation Limited for FY 2011-12
- Order on ARR for Delhi Transco Limited for FY 2011-12
- Order on True-up for FY 2008-09 and FY 2009-10 and Aggregate Revenue Requirement for FY 2011-12 for BSES Rajdhani Power Limited, BSES Yamuna Power Limited, North Delhi Power Limited and New Delhi Municipal Council

6. Gujarat Electricity Regulatory Commission (GERC)

GERC notified the following Regulations/ issued orders during the FY 2011-12 :

- Draft Consumer Grievances Redressal Forum and Ombudsman (CGRF & Ombudsman) Regulation, 2011 were published in the official gazette on 7th April 2011.
- Terms and conditions of intra-State open access Regulation notified on 01st June, 2011.
- Tariff orders for the Gujarat State Electricity Corporation Ltd. (GSECL), Dakshin Gujarat Vij Company Ltd. (DGVCL), Paschim Gujarat Vij Company Ltd. (PGVCL), Uttar Gujarat Vij Company Ltd. (UGVCL), Madhya Gujarat Vij Company Ltd. (MGVCL), Torrent power Ltd., MPSEZ Utilities Private Ltd.(MUPL), Kandla Port Trust (KPT),Torrent Energy Ltd. (TEL) utilities operating in the State for the FY 2011-12 of the MYT control period of 2011-16.

7. Haryana Electricity Regulatory Commission (HERC)

The important achievements of HERC during FY 2011-12 are :

- Terms and Conditions for Grant of Connectivity and Open Access for intra State Transmission and Distribution System Regulations, 2012 was notified on 11th January, 2012 by repealing HERC (Terms and Conditions for Open Access for Intra State Transmission and Distribution System) Regulation, 2005.
- Orders on ARR of Haryana Vidyut Prasaran Nigam Limited (HVPNL), Haryana Power Generation Corporation Limited (HPGCL), and DISCOMs for FY 2012-13 were issued.
- Orders on Generic Tariff of renewable energy projects to be commissioned during FY 2011-12 were issued on 25th January, 2012.
- Quarterly FSA was allowed regularly.

8. Himachal Pradesh Electricity Regulatory Commission (HPERC)

HPERC notified the following Multi Year Tariff (MYT) Regulations during the FY 2011-12 :

- Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff Regulations, 2011
- Terms and Conditions for Determination of Hydro Generation Tariff Regulations, 2011.
- Terms and Conditions for Determination of Transmission Tariff Regulations, 2011.
- Levy and Collection of Fees and Charges by State Load Despatch Centre Regulation, 2011
- Demand Side Management Regulations, 2011
- First amendment to Distribution Performance Standards, Eligibility Conditions for being a Electricity Trader, Security Deposit, Renewable Power Purchase Obligation and its compliance Regulations, 2011

The following orders were issued by the Commission:

- Tariff Order (including True-Up of FY 2009-10) in respect of the Himachal Pradesh State Electricity Board Limited (HPSEBL) petition was issued on 19th July, 2011
- Tariff Order in respect of the M/s Jai Prakash Power Ventures Ltd (JPVL) petition for Baspa-II 300 MW HEP was issued on 15th July, 2011
- Tariff Order in respect of M/s Himachal Pradesh Power Transmission Corporation Ltd. (HPPTCL) was issued on 14th July, 2011
- Determined Open Access Charges Order, 2011
- Average Pooled Purchased Cost dated 14th June, 2011

9. Jammu & Kashmir State Electricity Regulatory Commission (JKSERC)

JKSERC notified the following Regulations during the FY 2011-12:

- Supply Code and Demand Side Management Regulation, 2011.
- Terms and Conditions for Determination of Hydro Generation Tariff Regulations, 2011
- Terms and Conditions for Determination of Distribution Tariff Regulations, 2011
- Consolidated Amendments Regulations, 2011
- Terms and Conditions for Determination of Hydro Generation Tariff (1 MW to 25 MW) Regulations, 2011
- The Commission issued the following Tariff Orders during the FY 2011-12
- ARR and Determination of Retail Tariff for the State Power Development Department (State transmission and Distribution Utility)
- Determination of Annual Fixed Charges and Generation Tariff for J&K State Power Development Corporation Ltd. (Generation Utility of the State)
- Adoption of tariff for supply of electricity from the 690 MW Rattle Hydroelectric Power Project discovered through a competitive bidding process.

The Commission also organized workshops/ seminars on important issues such as metering, Power Reforms, Electricity Act, 2010, Regulations issued by the Commission, redressal of consumer grievances, etc.

10. Joint Electricity Regulatory Commission for Manipur & Mizoram (JERC –M&M)

During the FY 2011-12, the Commission organized six meeting, three each for Manipur and Mizoram at the respective State Capitals. The Commission forwarded the recommendations of the meeting to both the State Governments and Departments for early compliance.

Under proviso (4) of the Section 166 of the Electricity Act 2003, two State Co-ordination Forum, one each for Manipur and Mizoram, were constituted by the respective State Governments for the smooth and co-ordinated development of Power Sector in the State.

The Commission organized series of interactive workshops on "Electricity Consumers Awareness" in Manipur and Mizoram in association with the Service Providers, Journalists, and Consumers' Union,

Intellectual circle, Senior Citizens and other voluntary organizations.

11. Joint Electricity Regulatory Commission (JERC – Goa & UTs)

The important achievement of JERC (Goa & UTs) during FY 2011-12 are :

- Distribution Code Regulations, 2010.
- CGRFs established by Distribution Licensees/ Electricity Departments in the State of Goa and UTs for redressal of grievances of electricity consumers, were made functional.
- Electricity Ombudsman has been appointed by the Commission for the State of Goa and UTs. The territorial jurisdiction of the Electricity Ombudsman extends to the whole State of Goa and UTs of Andaman & Nicobar Island, Chandigarh, Dadra and Nagar Haveli, Daman & Diu, Lakshadweep and Puducherry.
- Tariff Orders on ARR and Tariff Petitions for 2011-12, received from Electricity Departments of Dadra & Nagar Haveli and Daman & Diu, Chandigarh, Puducherry Power Corporation (PPCL) were issued.

12. Jharkhand State Electricity Regulatory Commission (JSERC)

The important achievements of JSERC during the FY 2011-12 are as follows:

- Established four new CGRFs under Jharkhand State Electricity Board (JSEB) namely, CGRF Hazaribagh, CGRF Chaibasa, CGRF Medininagar (Palamu) and CGRF Dumka.
- Notified Compliance Audit for Regulated Entities Regulations, 2011
- All the Tariff Orders for the FY 2011-12 pertaining to distribution companies and generators were issued.
- Constituted State Advisory Committee representing various stakeholders such as Consumer Groups, representatives from Chamber of Commerce and representatives from various other organisations.
- Formulated formats for inspection of Distribution Transformers, Transmission Lines and interruption pertaining to various areas of the distribution licensees.

13. Kerala State Electricity Regulatory Commission (KSERC)

The achievements of KSERC during the FY 2011-12 are as follows:

- 26 Orders on ARR, Truing up of accounts, tariff issues of the licensees and other issues on dispute, were issued.
- Standards of performance of the licensees were monitored
- The Supply Code, 2005 was under revision process

14. Karnataka Electricity Regulatory Commission (KERC)

KERC notified the following Regulations/ issued the Tariff Orders during the FY 2011-12:

- First amendment to Power Procurement from Renewable Sources by distribution Licensee and Renewable Energy Certificate Framework Regulations, 2011
- Tariff orders in respect of all Electricity Supply Companies (ESCOMs)
- Amendments to Tariff Regulations, 2000
- Amendment to Recovery of Expenditure for Supply of Electricity Regulations, 2004

In order to reduce the existing levels of distributions losses, the Commission directed the ESCOMs to introduce High Voltage Distribution System (HVDS) besides expediting the feeder separation works under the Nirantha Jyothi Yojana

15. Madhya Pradesh Electricity Regulatory Commission (MPERC)

MPERC notified the following Regulations during the FY 2011-12 :

- MPERC (Furnishing of Technical Details by Generating Companies) Regulations, 2011
- First Amendment to MPERC (Cogeneration and Generation of Electricity from Renewable Sources of Energy) (Revision-I) Regulations, 2010.
- Fourth Amendment to MPERC (Distribution Performance Standards) Regulations, 2004 (Revision-I, 2005)
- Fourth Amendment to MPERC (Terms and Conditions for Determination of Transmission and Generation Tariff) (Revision-I) Regulations, 2009
- Eighteenth Amendment to MPERC Supply Code, 2004

The Commission issued the following orders during the FY 2011-12:

- Retail Supply Tariff Order for FY 2011-12 and FY 2012-13.
- Collection of Fees and Charges by State Load Despatch Centre (SLDC) for FY 2011-12 and Levy of Fees and Charges by SLDC for FY 2012-13
- True-up of Transmission tariff for FY 2008-09
- Feed in tariff for Biomass and Solar Power Projects for FY 2011-12

16. Meghalaya State Electricity Regulatory Commission (MSERC)

MSERC notified the following Regulations during the FY 2011-12:

- Terms and Conditions of the License for deemed distribution and transmission licensees.
- Terms and Conditions of Open Access Regulations, 2012.
- Redressal of Grievances (Amendment) Regulations, 2011 incorporating additional provisions in the current regulations on non compliance of orders of the forum.
- Supply Code Regulation, 2012 incorporating several amendments in the existing supply code towards quality supply and consumer's interest.

Other activities of MSERC are as follows:

- Issued Tariff Order for 2012-13.
- Analysed the performance of the distribution licensee with regard to distribution losses in the State and set a trajectory for reduction of distribution losses and improvement in collection in the next four years.
- Set an action plan for improvement in meter reading, replacement of defective meters and 100% metering in next four years.
- Introduced rebate in the tariff for all consumers using solar-water-heaters and also power factor based tariff for EHT and HT consumers.
- Started monitoring on regular basis the status of major investments in transmission/distribution, generation and transfer of power through open access, distribution losses and revenue in each circle.

17. Nagaland Electricity Regulatory Commission (NERC)

NERC issued the following Tariff Orders during the FY 2011-12 :

- Tariff Order for FY 2011-12 vide Order dated 27th June, 2011
- Tariff order for FY 2012-'13 vide Order dated 29th March, 2012

NERC notified the following Regulations during the FY 2011-12:

- Standards of Performance in Distribution and Transmission of the Licensee Regulations, 2011
- CGRF and Electricity Ombudsman Regulations, 2012
- Terms and Conditions for intra-State Open Access Regulations, 2012

The Commission has advised Department of Power, Nagaland to constitute 3 CGRF namely under Electrical Circle, Dimapur; Electrical Circle, Mokokchung and in the Directorate office at Kohima.

18. Odisha Electricity Regulatory Commission (OERC)

OERC notified the following Regulations / issued orders during the FY 2011-12:

- Demand Side Management Regulations, 2011
- Amendment to Orissa Grid Code (OGC) Regulations, 2006
- Amendment to OERC Distribution (Conditions of Supply) Code, 2004
- Order for implementation of Renewable Purchase Obligation, Energy Conservation and Demand Side Management (DSM)

OERC published the following during the FY 2011-12:

- Annual Guaranteed and Overall Performance Report of DISCOMs
- Annual System Performance of transmission licensee (Odisha Power Transmission Corporation Limited) for the FY 2011-12

Other achievements/ activities of the Commission are as under:

- Implementation of intra-State ABT (Phase-I) covering GRIDCO and DISCOMs in real time mode
- Implementation of One Time Settlement (OTS)
- Implementation of Smart Grid Solutions (Automated Meter reading and Advanced Metering Infrastructure) in DISCOMs under BOOT Model
- Implementation of Roof-top Solar Photo Voltaic (SPC) units
- Introduction of input based franchisee in high AT&C loss area
- Constituted "Monitoring Committee" with three members of SAC for monitoring Quality of Power Supply and Standards of Performance for assessment of the present status of the distribution system and recommendation for improvement
- Monitored the recommendations of the Technical Enquiry Committees constituted for know the Status of Maintenance of Power House, Grid Sub-stations, Distribution Sub-stations and various Transmission and Distribution Elements
- SLDC to function as Independent System Operation (ISO)
- Approval of Truing up of DISCOMs up to year 2010-11 and impact of Truing up addressed in the ARR of 2012-13
- Initiated capital expenditure in distribution sector for loss reduction and quality power supply
- Approval of ARR and Tariff of State Generators, STU, Bulk Supplier and all the DISCOMs for the FY 2012-13

19. Punjab State Electricity Regulatory Commission (PSERC)

During the FY 2011-12, Punjab State Electricity Regulatory Commission issued the Tariff Orders for Punjab State Power Corporation Limited (PSPCL) and Punjab State Transmission Corporation Limited (PSTCL).

The Transmission Tariff was determined by the Commission as per PSERC (Terms and Conditions for Determination of Tariff) Regulations, 2005 which specifies that the transmission tariff will include SLDC operating charges, reactive energy charges and charges for use of Networks.

The Commission determined Open Access Transmission Charges as per the Open Access Regulations of the Commission

PSERC notified the following Regulations /orders during the FY 2011-12 :

- Generic levellised generation tariff for renewable energy power projects
- Determined the tariff for 15 MW independent power projects developed by A2Z Maintenance & Engineering Services Ltd. at Co-operative Sugar Milles at Morinda, Nakodar and Fazilka
- Determined the tariff for 12 MW biomass based power project at Village Bhagaura, Patiala, developed by Punjab Biomass Power Ltd.
- Determined the Average Pooled Cost of Purchase (APPC) applicable for the year FY 2011-12 for

purchase of power by the licensee, from the renewable energy project developers at APPC rates

- Renewable Purchase Obligation and its Compliance Regulation, 2011
- Terms and Conditions for intra-State Open Access Regulations, 2011
- Second amendment to Fee and Electricity Supply Code and Related Matters Regulations, 2011
- Third amendment to Consumer Grievance Redressal Forum and Ombudsman Regulations, 2011
- Demand Side Management Regulations, 2012

20. Rajasthan Electricity Regulatory Commission (RERC)

The important achievements of RERC during the FY 2011-12 are:

- ARR and Revision of retail supply tariff of Distribution Companies for FY 2011-12
- ARR and Generation tariff of Rajasthan Vidyut Utpadan Nigam Ltd. Power Stations
- Transmission charges, SLDC charges and charges for partnership projects for FY 2011-12.
- Provisional Tariff for Unites 1 & 2 of M/s Raj West Power Ltd.
- Finalised generic tariff for 1 MWp Tail end Grid Connected Demonstration Solar Photovoltaic Power Plant under Central Financial Assistance Scheme of MNRE
- Tariff for sale of electricity by Biomass and Wind power plants commissioned during FY 2011-12 in the State to Distribution Licenses
- "In Principle" approval of capital cost of 2 X 660 MW coal based Super Critical Thermal Power Project at Suratgarh (SSTPS-Stage-V Unit 7 & 8) as per RERC (Terms and conditions for determination of Tariff) Regulations, 2009.
- Disposal of various petitions relating to disputes between Generator and Discoms

21. Sikkim State Electricity Regulatory Commission (SSERC)

SSERC notified the following Regulations during the FY 2011-12 :

- Conduct of Business Regulations, 2012
- Terms and Conditions for Determination of Tariff Regulations, 2012
- Standards of Performance for the Distribution and Transmission of the Licensee Regulations, 2012
- Electricity Supply Code Regulations, 2012
- Redressal of Grievances of Consumers and Establishment of Forum and Electricity Ombudsman Regulations, 2012
- Terms and Conditions of Intra-State Open Access Regulations, 2012
- Terms and Conditions for Determination of Tariff for Generation from Renewable Energy Sources Regulations, 2012

22. Tripura Electricity Regulatory Commission (TERC)

The Commission notified the following Regulations during the FY 2011-12:

- State Electricity Grid Code Regulations, 2010
- Terms and Condition of Open Access Regulations, 2010
- Renewable Purchase Obligation and its Compliance Regulations, 2009
- Demand Side Management and Procurement of Energy from Renewable Sources Regulations, 2010
- Compliance Audit Regulations, 2010
- Electricity Supply Code Regulations, 2011
- Miscellaneous provisions relating to petitions, Fees Regulations, 2011
- Fuel and Power Purchase Price Adjustment Formula Regulations, 2011

The Commission prepared the following draft Regulations which are to be published in the Tripura Gazette

- Method of recruitment and conditions of Service of Officers and Staff, Regulations, 2009
- TERC (Delegation of Financial Power) Regulations, 2010.

23. Tamil Nadu Electricity Regulatory Commission (TNERC)

The Commission issued the following Orders during the FY 2011-12:

- Tariff Order for Generation and Distribution by Tamil Nadu Generation and Distribution Corporation Ltd (TANGECO) on 30th March, 2012, effective from 01st April. 2012
- Intra State Transmission Tariff and other related charges Order dated 30th March 2012, effective from 01st April, 2012
- Amendment (SC 7-28) to Tamil Nadu Electricity Supply Code, 2004 regarding payment of interest to the consumers who opt for advance payment of current consumption charges.

24. Uttarakhand Electricity Regulatory Commission (UERC)

UERC notified the following Regulations/ issued orders during the FY 2011-12:

- Terms and Conditions for Determination of Tariff Regulations, 2011 specifying the terms and conditions for determination of transmission, distribution and generation tariffs along with the SLDC charges under the MYT framework based
- Order on Fixation of Fees and Charges for Accreditation of Renewable Energy Generation Project approving the fee and charges for the Control Period of three years starting March 31, 2012 under the UERC (Compliance of Renewable Purchase Obligation) Regulation, 2010
- Issued Tariff Order for Uttarakhand Power Corporation Limited (UPCL), Uttarakhand Jal Vidyut Nigam (UJVN) Ltd and Power Transmission Corporation of Uttarakhand Limited (PTCUL)
- Approved Average Pooled Cost of Power Purchase (APPC) for the financial year 2011-12 under UERC (Compliance of Renewable Purchase Obligation) Regulations, 2010
- Issued Order fixing additional surcharge @ 15% of the applicable ToD rate of energy charge on the basis of prevalent Tariff Order, on embedded consumers who avail the continuous supply option and draw power through open Access for meeting their part/full load requirements

25. Uttar Pradesh Electricity Regulatory Commission (UPERC)

During the FY 2011-12, UPERC finalized the "Procedures for Scheduling, Despatch, Energy Accounting, UI Accounting and Settlement System of Open Access Transactions". The Commission directed the State Load Despatch Centre (SLDC) to develop procedure for energy accounting of electricity injected into or drawn from the grid by a generating station or for a consumer who is embedded in the distribution system.

The Commission directed Uttar Pradesh Power Transmission Corporation Limited (UPPTCL) to submit the following status of compliance:

- Constitution of State Power Committee and finalization of its rules and procedures for conduct of business
- Creation of database for implementation of open access and making operational and managerial decisions by UPPTCL
- Grant of long term open access and disposal of applications for use or access to the transmission system
- Signing of Bulk Power Transmission Agreement (BPTA)/ Supplementary BPTA with long term customer(s)
- Status of execution of connection agreements by

UPPTCL with all users connected to or seeking connection to the intra- State transmission system.

- Proceedings being adopted by UPPTCL for planned augmentation of intra-State transmission and distribution system to cater the requirements of generating companies and licensees.

During the FY 2011-12 , the Commission issued the following license

- Intra State Transmission License to M/s Western UP Power Transmission Company Ltd.
- Extension of license Term of Intra State Trading License to M/s Global Energy Ltd.
- Transmission License, 2011 to UPPTCL
- Intra State Trading License to M/s Mittal Processers Pvt. Ltd.

26. West Bengal Electricity Regulatory Commission (WBERC)

The following are the activities of WBERC during the FY 2011-12:

- The Commission made provisions for monthly adjustment of fuel cost or power purchase cost or variable cost known as Monthly Fuel Cost Adjustment (MFCA) or Monthly Variable Cost Adjustment (MVCA) to a generating company or to the distribution licensee on the basis of fuel surcharge formula specified in the WBERC (Terms and Conditions of Tariff) Regulations, 2011
- In order to reduce overall system Transmission and Distribution (T&D) Loss as well as to flatten the load curve, the Commission continued special emphasis in its Tariff orders issued during the year 2011-12 on voltage wise graded Load factor rebate and load factor surcharge if load factor falls below 50%. The Commission continued with the additional rebate on energy charge for taking supply at 33kV level or more.
- To curb commercial loss, pre-paid tariff scheme was continued by setting the tariff at uniform rate and for easy availability of vendors of the pre-paid meters
- Special tariff for the street lighting with LED
- To encourage Time of Day (TOD) tariff mechanism, the Commission, in its Tariff Orders issued during the year 2011-12, continued the rebate in power factor at a higher rate for the consumers under TOD tariff scheme especially during peak hours than that for the consumers under non-TOD Tariff scheme.
- The Commission also gave emphasis on the directives given in earlier Tariff Orders on other important matters viz. (a) installation of meters at the consumer premises now unmetered such as agriculture and street light connections (b) installation of power factor controller at the premises of low and medium voltage consumers having connected load of specified limit (c) Distribution transformer and 11kV Feeder metering etc.

Insight

5.1. Studies Commissioned during the year 2011-12

The following studies were commissioned during the FY 2011-12:

(i) **Study on preparing incentive structure for States for fulfilling Renewable Purchase Obligation (RPO) targets.**

The concept of REC Mechanism was introduced essentially to encourage the large scale deployment of renewable energy and to facilitate inter-State exchange of RE power irrespective of geographical constraints and to help RE constrained States to accomplish their RPO targets. However, the renewable energy rich states are reluctant to go for higher than the limit of RPO due to the consideration of extra cost to be incurred due to higher preferential tariff, cost of keeping spinning reserve and also associated transmission infrastructure development.

In order to encourage States to promote renewable energy generation in their states to achieve NAPCC target, an incentive scheme is necessary to encourage the States for higher RPO and procurement of renewable energy through open access and/or purchase of REC, to fulfil the renewable purchase obligation of the States. For this purpose it is decided by Forum to engage a consultant to study these issues with detailed analysis and come out with a comprehensive report preparing suitable incentive structure for states to encourage the procurement of renewable energy through open access and/or purchase of REC.

The report would provide the assessment of States in terms of their participation in the compliance of renewable purchase obligation either through purchase of renewable energy or through purchase of Renewable Energy Certificates (REC) mechanism. It will also highlight the additional burden on states due to incremental fulfilment of RPO through purchase of renewable energy and/or RECs and will help in preparing suitable incentive structure for these States to reduce the additional burden due to incremental RPO.

(ii) **Study on Model Regulation on Market Domination regarding discretionary power of regulators under section 60 of the Electricity Act, 2003.**

FOR in its 21st meeting decided to commission study to evolve model regulation on Market Domination, based on which the Appropriate Commission could exercise the discretionary power under Section 60 of Electricity Act, 2003.

The electricity as a commodity cannot be stored on large scale in a cost effective manner, and must be consumed at instant at which it is produced. In the short run, the elasticity of demand of electricity is very low due to the essential nature of the commodity. Electricity is differentiated from classic commodities and hence competition in electricity must be managed carefully. The Act recognises these traits of electricity as a commodity and hence entrust the Appropriate Commission with role of ensuring that electricity markets are adequately competitive. Section 60 of the Electricity Act, 2003 mandates that "*The Appropriate Commission may issue such directions as it considers appropriate to a licensee or a generating company if such licensee or generating company enters into any agreement or abuses its dominant position or enters into a combination which is likely to cause or causes an adverse effect on competition in electricity industry*".

With the growth of electricity market in India, Forum of Regulators (FOR) recognized the need for regulations under sector 60 of the Act which will enable the Appropriate Commission to issue directions in case competition and hence consumer welfare is infringed. Mercados Energy Markets India Pvt. Ltd. was selected to formulate regulations under section 60 of the Act.

(iii) **Preparing plan for transmission infrastructure development for the likely capacity additions of RE based power plants in the states rich in RE potential.**

Renewable energy resources are generally located in remote locations in certain pockets in the

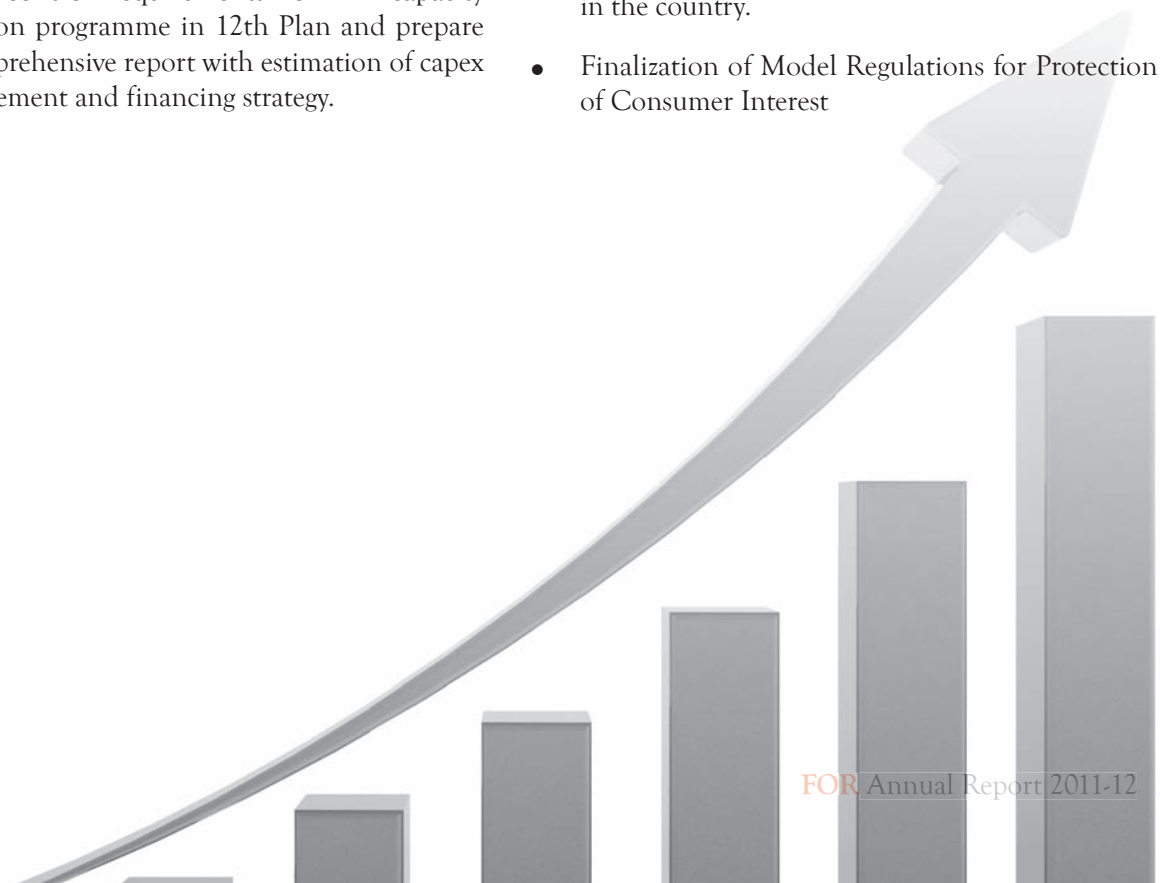
country and adequate grid infrastructure is needed to be sufficient to transmit the renewable energy to the load centres. Constructions of new long distance transmission lines to meet the need of large scale renewable energy development are thus extremely necessary, and the lack of adequate evacuation capacity is one of the major bottleneck that needs to be addressed in transmission network planning. It is essential for the transmission capacity planning process to incorporate a long term vision of renewable energy based generation addition.

Considering the same, the Forum of Regulators (FOR) has decided to carry out a detailed Study on "Preparing plan for transmission infrastructure development for the likely capacity additions of RE based power plants in the States rich in RE potentials". The Forum of Regulators (FOR) approved the proposal to commission study in the twenty third FOR meeting.

According to Section 38 of the Electricity Act, 2003, it is the function of the Central Transmission Utility (CTU) to discharge all functions of planning and co-ordination relating to inter-state transmission in order to ensure development of an efficient, co-ordinated and economical system of inter-State transmission lines for smooth flow of electricity from generating station to the load centres. Therefore, Forum of Regulators (FOR)/CERC entrusted POWERGRID to carry out studies to identify transmission infrastructure and other control requirements for RE capacity addition programme in 12th Plan and prepare a comprehensive report with estimation of capex requirement and financing strategy.

5.2. Agenda for FY 2012-13

- CERC was requested to notify separate preferential tariff for biomass gasifier based power projects. The idea of differentiation of tariff between consumer categories to recover additional charge for promotion of renewable was appreciated and it was decided that a legal opinion be sought on whether such differentiation can be covered under section 62 (3) of the Electricity Act, 2003.
- The Forum agreed that the issues relating to need for a Separate Bidding Document (SBD) for gas based projects, to be studied by CERC and recommendations be made to Ministry of Power for refinement of the bidding guidelines and SBD.
- The Model Tariff Regulations to be finalized and Ministry of Power may be requested to provide assistance for the proposed study for metered and unmetered sales estimation.
- Finalization of the study on effective implementation of Pre-paid Metering in the country.
- Finalization of the study on Assessing the Capacity Building Requirement of Regulatory Staff.
- Setting up of a National level institute of regulatory experts where from the Regulatory Commissions can draw human resource to meet their specific job requirements, considering the dearth of adequate number of consultants/consulting firm to meet the requirements of all Regulatory Commissions in the country.
- Finalization of Model Regulations for Protection of Consumer Interest



FOR Annual Statements of Accounts-2011-12

To

The Secretary,
Forum of Regulators,
Sectt.: C/o Central Electricity Regulatory Commission,
3rd & 4th Floor, Chanderlok Building,36 Janpath,
New Delhi - 110 001.

AUDITORS REPORT

We have audited the attached Balance Sheet of the Forum of Regulators as on 31st March, 2012 and also the income and expenditure Account for the year ended on that date. These financial statements are primarily the responsibility of the Forum of Regulators. Our responsibility is to express an opinion on these financial statements based on our audit.

We have conducted our audit in accordance with the Accounting Standards Generally Accepted in India. These standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial Statement are free from material mis-statement. An audit includes examining on test basis evidence supporting the amount and disclosure in the financial Statement. It also includes evaluating the overall Financial Statement presentation.

The income under the head Interest Accrued from Auto Sweep FDRs was over estimated during the previous financial year. On proper reconciliation with the bank certificates, an amount of Rs. 6,533.00 has been written-off from the books of the current financial year.

Further, the financial assistance received by Forum of Regulators from Ministry of Power for Capacity Building & availing Consultancy Services has been spent during the year 2011-12 only for the purpose/ object for which it was sanctioned.

In our opinion and to the best of our information and according to explanation given to us, the financial statements give a true and fair view in conformity with the accounting principle generally accepted in India:

a) In the case of the Balance Sheet, of the state of the affairs of the Forum as at 31st March, 2012, and

b) In the case of the income and expenditure account, of the surplus for the year ended on that date.

For A.K. Awasthi & Co.
Chartered Accountants
-Sd/-
(A.K. Awasthi) Partner

Membership No.: 072519
Place : New Delhi
Date : 23/05/2012

FORUM OF REGULATORS

3rd & 4th Floor, Chanderlok Building, 36, Janpath, New Delhi - 110 001

Balance Sheet As on 31-03-2012

Amount (in ₹)

PARTICULARS	SCHEDULE	AS ON 31.03.2012	AS ON 31.03.2011
SOURCES OF FUND			
Corpus Fund		37,010,643	37,010,643
Plan Fund (Capacity Building & Consultancy)	1	-	-
MNRE FUND (Implementation of REC Framework)	2	9,639,056	16,045,051
Surplus Fund (transferred from Income & Expenditure A/c)	3	23,542,323	18,082,719
Current Liabilities			
Expenses Payable	4	37,112	469,596
Total		**70,229,134**	**71,608,009**
APPLICATION OF FUND			
Fixed Assets	5		
Gross Fixed Assets		282,115	383,967
Less: Depreciation		141,388	129,677
Net Fixed Assets		**140,727**	**254,290**
Investment in FDR	6	57,416,697	52,241,303
Current Assets			
Loans & Advances	7	3,498,598	2,771,660
Security Deposit (MTNL)		3,000	-
Bank Account	8	9,167,612	16,338,256
Cash Account - Imprest		2,500	2,500
Total		**70,229,134**	**71,608,009**

As per our report on the even date appended hereto

For A.K. AWASTHI & CO.
Chartered Accountants

F.R.N : 03405C

-Sd/-

A.K. AWASTHI (Partner)

M.No. 072519

Place : New Delhi

Date : 23.05.2012

-sd/-
Secertary

FORUM OF REGULATORS

3rd & 4th Floor Chanderlok Building, 36, Janpath, New Delhi-110001

Income And Expenditure Account for the Year Ended 31-03-2012

Amount (in ₹)

PARTICULARS		As on 31.03.2012	As on 31.03.2011
INCOME			
Membership Subscription		8,100,000	5,700,000
Interest on Saving Account		2,286	2,791
Interest on Corpus Fund FDR		3,496,610	2,460,354
Interest on Auto Sweeps		186,501	493,220
Interest on FDRs		1,146,971	186,532
Interest Accrued (Prior Period Adjustments)		-	49,428
Total - A		**12,932,369**	**8,892,325**
EXPENDITURE			
Meeting & Seminar Exprenses		2,428,901	1,115,675
Salary Expenses		2,658,768	2,183,072
Capacity Building & Consultancy		12,410	748,203
AutoSweep & interest accrued written-off		6,533	-
Secretariat Expenses:			
Advertising & Publicity Expenses	276,355	375,437	375,437
Audit Fees	19,800	19,800	19,800
Bank Charges	1,663	2,510	2,510
Computer Repair & Maintenance Expenses	71,916	92,406	92,406
Depreciation	141,388	129,677	129,677
Legal & Professional Charges	495,000		186,000
Other Expenses	636,275	369,119	369,119
Telephone Expenses	53,028	46,898	46,898
Printing & Stationery Expenses	6,063	15,167	15,167
Prior Period Expenses	-	3,864	3,864
Travelling Expenses (TA)	174,665	281,233	281,233
Administrative Expenses	**490,000**		
Total - B		**7,472,765**	**5,994,061**
Surplus/(Deficit) earned during the year (A- B)		5,459,604	2,898,264

As per our report on the even date appended hereto

For A.K. AWASTHI & CO.
Chartered Accountants
F.RN: 003405C
-sd/-

A.K. AWASTHI (Partner)
Place : New Delhi

Date: 23.05.2012

-sd/-
SECRETARY

FORUM OF REGULATORS

3rd & 4th Floor Chanderlok Building, 36, Janpath, New Delhi-110001

Schedule- 1

Plan Fund (Consultancy & Capacity Building)

Amount (in ₹)

PARTICULARS	F.Y. 2011-2012	F.Y. 2010-2011
OPENING BALANCE	-	-
Add:		
Interest Received	65,877	125,284
Fund Received during the year from Ministry of Power	16,000,000	20,000,000
Total	**16,065,877**	**20,125,284**
Less: Utilization during the year:		
Study & Consultancy Charges	5,323,179	10,000,000
Capacity Building	9,697,725	9,999,825
Bank Charges	255	175
Refund to MOP on account of interest earned	65,877	125,284
Refund to MOP on account of savings/ unspent amount	978,841	-
Total	**16,065,877**	**20,125,284**

As per our report on the even date appended hereto

For A.K. AWASTHI & CO.

Chartered Accountants
F.RN: 003405C

-sd/-

A.K. AWASTHI (Partner)
M. No. 072519

-sd/-
SECRETARY

Place : New Delhi

Date: 23.05.2012

FORUM OF REGULATORS

3rd & 4th Floor Chanderlok Building, 36, Janpath, New Delhi-110001

Schedule- 2

MNRE FUND (Implementation of Renewable Energy Certificate Framework)

Amount (in ₹)

PARTICULARS	F.Y. 2011-2012	F.Y. 2010-2011
OPENING BALANCE	16,045,051	-
Add:		
Interest Received	580,280	405,772
Fund Received during the year from Ministry of New and Renewable Energy	-	30,000,000
Total	16,625,331	30,405,772
Less: Utilization during the year:		
Study & Consultancy Charges	709,757	2,558,540
Implementation of Renewable Energy Certificate Framework	6,274,690	11,801,656
Bank Charges	1,828	525
Total	6,986,275	14,360,721
Balance	9,639,056	16,045,051

As per our report on the even date appended hereto

For A.K. AWASTHI & CO.

Chartered Accountants
F.RN: 003405C

-sd/-
A.K. AWASTHI (Partner)
M.NO. 072519

-sd/-
SECRETARY

Place : New Delhi

Date: 23.05.2012

FORUM OF REGULATORS

3rd & 4th Floor Chanderlok Building, 36, Janpath, New Delhi-110001

Schedule- 3

SURPLUS FUND

Amount (in ₹)

PARTICULARS	F.Y. 2011-2012	F.Y. 2010-2011
OPENING BALANCE	18,082,719	15,184,455
Add: Surplus/(Deficit) earned during the year (as per Income & Expenditure Account)	5,459,604	2,898,264
Total	23,542,323	18,082,719

As per our report on the even date appended hereto

For A.K. AWASTHI & CO.

Chartered Accountants
F.RN: 003405C

-sd/-

A.K. AWASTHI (Partner)

M.NO. 072519

-sd/-

SECRETARY

Place : New Delhi
Date: 23.05.2012

FORUM OF REGULATORS

3rd & 4th Floor Chanderlok Building, 36, Janpath, New Delhi-110001

Schedule - 4

Expenses Payable

Amount (in ₹)

PARTICULARS	AS AT 31-03-2012	AS AT 31-03-2011
OPENING BALANCE	469,597	18,000
Add: Audit Fees Payable	19,800	19,800
Add: Akal Information Systems Limited	-	5,791
Add: Advertising & Publicity Expenses Payable	2,369	-
Add: Canteen Expenses Payable	3,678	-
Add: Computer Repair & Maintenance Expenses Payable	4,297	-
Add: Telephone Expenses Payable	6,968	-
Add: Neelam Sundriyal	-	9,658
Add: OYNX Management Services Pvt. Ltd.	-	6,418
Add: RCIL A/c RIS500000606523	-	999
Add: RCIL A/c RIS500000646636	-	827
Add: Sh. Sushil Arora (MTNL Bill)	-	552
Add: Smt. Sushma Ahuja (MTNL Bill)	-	552
Add: CERC (Administrative Cost)	-	425,000
Less: Paid During the Year	469,597	18,000
Less: Provision written off	-	-
Total	**37,112**	**469,597**

As per our report on the even date appended hereto

For A.K. AWASTHI & CO.

Chartered Accountants
F.RN: 003405C

-sd/-
A.K. AWASTHI (Partner)
M.NO. 072519

-sd/-
SECRETARY

Place : New Delhi

Date: 23.05.2012

FORUM OF REGULATORS

3rd & 4th Floor Chanderlok Building, 36, Janpath, New Delhi-110001

Schedule- 5

Fixed Assets Schedule as per Income Tax Act as at 31st March 2012

Amount (in ₹)

Particulars	WDV as on 01-04-2011	Additions during the year (< 180 days)	Additions during the year (> 180 days)	Sales/ Transfers	Total	Depreciation for the year	WDV as on 31-03-2012
Printers	**24,171**	-	-	-	24,171	**3,626**	**20,545**
Computers	**192,332**	-	-	-	192,332	**115,399**	**76,933**
Laptop	-	27,825	-	-	27,825	**16,695**	**11,130**
Heat Blowers	**14,985**	-	-	-	14,985	**2,248**	**12,737**
Microwave	**6,660**	-	-	-	6,660	**999**	**5,661**
UPS	**16,142**	-	-	-	16,142	**2,421**	**13,721**
Total	**254,290**	**27,825**	-	-	**282,115**	**141,388**	**140,727**
Figures for the previous year	**114,983**	6,600	262,384	-	383,967	**129,677**	**254,290**

As per our report on the even date appended hereto

For A.K. AWASTHI & CO.

Chartered Accountants
F.RN: 003405C

-sd/-
A.K. AWASTHI (Partner)
M.NO. 072519

-sd/-
SECRETARY

Place : New Delhi

Date: 23.05.2012

FORUM OF REGULATORS

3rd & 4th Floor Chanderlok Building, 36, Janpath, New Delhi-110001

Schedule - 6

Investments in FDRs

Amount (in ₹)

PARTICULARS	AS AT 31-03-2012	AS AT 31-03-2011
FIXED DEPOSIT (AUTO SWEEPS)		
- xxxxxxxxxx7691	-	35,000
- xxxxxxxxxx7702	-	55,000
- xxxxxxxxxx7707	-	131,000
- xxxxxxxxxx7723	-	187,000
- xxxxxxxxxx7747	-	785,000
- xxxxxxxxxx7753	-	311,000
- xxxxxxxxxx7767	-	600,000
- xxxxxxxxxx7789	-	383,000
- xxxxxxxxxx7800	-	394,000
- xxxxxxxxxx7807	-	200,000
- xxxxxxxxxx7820	-	4,000
- xxxxxxxxxx10475	24,000	-
- xxxxxxxxxx10563	1,448,000	-
- xxxxxxxxxx12971	325,000	-
- xxxxxxxxxx12993	81,000	-
FDR with Corp. Bank - Corpus Fund - FD/01/120048	37,010,643	37,010,643
FDR with Bank of India - xxxxxxxxxx2803	-	5,000,000
FDR with Bank of India - xxxxxxxxxx2804	-	5,000,000
FDR with Corp. Bank - KCC/01/110215	-	2,145,660
FDR with BOI - xxxxxxxxxx2883	2,000,000	-
FDR with BOI - xxxxxxxxxx2944	2,500,000	-
FDR with BOI - xxxxxxxxxx2945	2,500,000	-
FDR with BOI - xxxxxxxxxx2946	2,500,000	-
FDR with BOI - xxxxxxxxxx2947	2,500,000	-
FDR with Corp. Bank - CSSKC/01/120028	2,100,000	-
FDR with Corp. Bank - CSSKC/01/120029	2,100,000	-
FDR with Corp. Bank - KCC/01/120205	2,328,054	-
Total	57,416,697	52,241,303

As per our report on the even date appended hereto

For A.K. AWASTHI & CO.

Chartered Accountants
F.RN: 003405C

-sd/-
A.K. AWASTHI (Partner)
M.NO. 072519
Place : New Delhi
Date: 23.05.2012

-sd/-
SECRETARY

FORUM OF REGULATORS

3rd & 4th Floor Chanderlok Building, 36, Janpath, New Delhi-110001

Schedule - 7

Loans and Advances

Amount (in ₹)

PARTICULARS	AS AT 31-03-2012	AS AT 31-03-2011
TAX DEDUCTED AT SOURCE		
Tax Deducted at Source F.Y. 2005-2006	22,073	22,073
Tax Deducted at Source F.Y. 2006-2007	261,060	261,060
Tax Deducted at Source F.Y. 2007-2008	453,260	453,260
Tax Deducted at Source F.Y. 2008-2009 - BOI	98,840	98,840
Tax Deducted at Source F.Y. 2008-2009 - CB	402,430	402,430
Tax Deducted at Source F.Y. 2009-2010 - BOI	315,090	315,090
Tax Deducted at Source F.Y. 2009-2010- CB	17,509	17,509
Tax Deducted at Source F.Y. 2010-2011	313,954	313,954
Tax Deducted at Source F.Y. 2011-2012	483,006	-
Telephone Advance	-	7,500
Total (A)	2,367,222	1,891,716
Prepaid Expenses (Repair & Maintenance - Microwave)		
For the F.Y. 2012-13	441	-
For the F.Y. 2013-14	441	-
For the F.Y. 2014-15	368	-
Total (B)	1,250	-
Susbcription Outstanding		
Opening Balance	500,000	500,000
Less: Received during the year	200,000	-
Balance (c)	300,000	500,000
Interest Accrued		
Interest accrued on FDRs with Corp. Bank	13,211	9,683
Interest accrued on FDRs with Bank of India	661,774	48,387
Interest accrued on Corpus Fund FDR with Corp. Bank	155,140	167,443
Interest accrued on Auto Sweep FDRs with Bank of India	-	154,431
Total (D)	830,126	379,944
Grand Total (A+B+C+D)	3,498,598	2,771,660

As per our report on the even date appended hereto

For A.K. AWASTHI & CO.

Chartered Accountants
F.RN: 003405C

-sd/-
A.K. AWASTHI (Partner)
M.NO. 072519

Place : New Delhi

Date: 23.05.2012

-sd/-

SECRETARY

FORUM OF REGULATORS

3rd & 4th Floor Chanderlok Building, 36, Janpath, New Delhi-110001

Schedule - 8

Bank Balances as on 31-03-2012

Amount (in ₹)

PARTICULARS	AS AT 31-03-2012	AS AT 31-03-2011
Bank of India - 121	(471,444)	293,205
Bank of India - 2258	-	-
Bank of India - 2806	9,639,056	16,045,051
Total	9,167,612	16,338,256

As per our report on the even date appended hereto

For A.K. AWASTHI & CO.

Chartered Accountants
F.RN: 003405C

-sd/-
A.K. AWASTHI (Partner)
M.NO. 072519

Place : New Delhi

Date: 23.05.2012

-sd/-
SECRETARY

FORUM OF REGULATORS

3rd & 4th Floor Chanderlok Building, 36, Janpath, New Delhi-110001

Statement of Accounts of the Government's Financial Assistance for the year 2011-12

Amount (in ₹)

PARTICULARS	F.Y. 2011-2012	F.Y. 2010-2011
OPENING BALANCE		
Add:	-	-
Interest Received	65,877	125,284
Fund Received during the year from Ministry of Power	16,000,000	20,000,000
Total	**16,065,877**	**20,125,284**
Less: Utilization during the year:		
Study & Consultancy Charges	5,323,179	10,000,000
Capacity Building	9,697,725	9,999,825
Bank Charges	255	175
Refund to MOP on account of interest earned	65,877	125,284
Refund to MOP on account of savings/ unspent amount	978,841	-
Total	**16,065,877**	**20,125,284**

-sd/-

SECRETARY

The financial assistance received by FOR from MoP for Capacity Building & availing Consultancy Services has been spent during the year 2011-12 only for the purpose/ object for which it was sanctioned.

For A.K. AWASTHI & CO.

Chartered Accountants
F.RN: 003405C

-sd/-
A.K. AWASTHI (Partner)
M.NO. 072519

Place : New Delhi

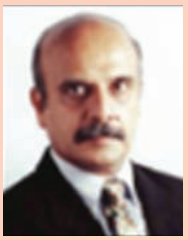
Date: 23.05.2012

SECRETARY

Annexure - I

Members of the Forum of Regulators

Sl. No. Photograph Name & Designation of Electricity Regulatory Commissions

S. No.		Chairperson, 'FOR'
1		**Dr. Pramod Deo** Chairperson Central Electricity Regulatory Commission
		Members, 'FOR'
2		**Shri A. Raghotham Rao** Chairperson Andhra Pradesh Electricity Regulatory Commission
3		**Shri Jayanta Barkakati** Chairperson Assam Electricity Regulatory Commission
4		**Shri Umesh Narayan Panjiar** Chairperson Bihar Electricity Regulatory Commission
5		**Shri Manoj Dey** Chairperson Chhattisgarh State Electricity Regulatory Commission
6		**Shri P.D. Sudhakar** Chairperson Delhi Electricity Regulatory Commission

7		**Dr. P.K. Mishra** Chairperson Gujarat Electricity Regulatory Commission
8		**Shri R.N. Prasher** Chairperson Haryana Electricity Regulatory Commission
9		**Shri Subhash Chander Negi** Chairperson Himachal Pradesh Electricity Regulatory Commission
10		**S. Maria Desalphine** Chairperson J&K State Electricity Regulatory Commission
11		**Shri Mukhtiar Singh** Chairperson Jharkhand State Electricity Regulatory Commission
12		**Shri M.R. Sreenivasa Murthy** Chairperson Karnataka Electricity Regulatory Commission
13		**Shri K.J. Mathew** Chairperson Kerala State Electricity Regulatory Commission
14		**Shri Rakesh Sahni** Chairperson Madhya Pradesh Electricity Regulatory Commission

15		**Shri V.P. Raja** Chairperson Maharashtra Electricity Regulatory Commission
16		**Shri Satya Prakash Nanda** Chairperson Orissa Electricity Regulatory Commission
17		**Smt. Romila Dubey** Chairperson Punjab State Electricity Regulatory Commission
18		**Shri D.C. Samant** Chairperson Rajasthan Electricity Regulatory Commission
19		**Shri S. Kabilan** Chairperson Tamil Nadu Electricity Regulatory Commission
20		**Shri Rajesh Awasthi** Chairperson Uttar Pradesh Electricity Regulatory Commission
21		**Shri Jag Mohan Lal** Chairperson Uttarakhand Electricity Regulatory Commission

22		**Shri Prasad Ranjan Ray** Chairperson West Bengal Electricity Regulatory Commission
23		**Shri V.K. Garg** Chairperson Joint Electricity Regulatory Commission for UTs Except Delhi
24		**Shri C. Hmingthanzuala** Chairperson Joint Electricity Regulatory Commission for Manipur & Mizoram
25		**Shri Manoranjan Karmarkar** Chairperson Tripura Electricity Regulatory Commission
26		**Shri Anand Kumar** Chairperson Meghalaya State Electricity Regulatory Commission
27		**Shri S.I. Longkumer** Chairperson- cum- member Nagaland Electricity Regulatory Commission
28		**Shri Digvijay Nath** Chairperson Arunachal Pradesh State Electricity Regulatory Commission
29		**Shri. T.T. Dorji** Chairperson Sikkim State Electrricity Regulatory Commission

Annexure - II

Address and contact details of Electricity Regulatory Commissions

Sl. No.	Logo	Electricity Regulatory Commissions	Address	Contact No./E-mail
1.		Central Electricity Regulatory Commission	3 rd & 4 th Floor, Chanderlok Building, 36, Janpath, New Delhi- 110001	Ph: 91-11-23353503 Fax: 91-11-23753923 E-mail : info@cercind.gov.in
2.		Andhra Pradesh Electricity Regulatory Commission	4th & 5th Floors 11-4-660, Singareni Bhavan Red Hills Hyderabad - 500 004	Ph: 23397381, 23397399 Fax: 23397378 & 23397489 E-mail: commn-secy@aperc.gov.in
3.		Assam Electricity Regulatory Commission	ASEB Campus, Dwarandhar, G.S. Road, Sixth Mile, Guwahati - 781022	Ph: 0361-2234442 / 2234472 Fax: 0361-2234432 Email:aerc_ghy@hotmail.com
4.		Arunachal Pradesh State Electricity Regulatory Commission	Sector-A, Opp. Industrial Area, Naharlagan, PIN – 791 110 (Arunachal Pradesh)	Ph: 0360-2350586 Fax: 0360-2350985 Email: apserc_75@yahoo.com
5.		Bihar Electricity Regulatory Commission	Ground Floor, Vidyut Bhawan-II, B.S.E.B. Campus, Jawahar Lal Nehru Marg (Bailey Road), Patna - 800021 Bihar (India)	Phone : 091-612-6526749, 2504489, 2504488 Fax : 0612-2504488 Email: bercpat@berc.co.in
6.		Chhattisgarh State Electricity Regulatory Commission	Civil Lines, G.E Road, Raipur (CG.) Pin 492001	Phone : 91-771-4073555, Fax : 4073553 Email : cserc.sec.cg@nic.in
7.		Delhi Electricity Regulatory Commission	Viniyamak Bhavan, C-Block Shivalik, Malviya Nagar New Delhi -110017	Telefax : 91-11-26673608 Email : secyderc@nic.in

Sl. No.	Logo	Electricity Regulatory Commissions	Address	Contact No./E-mail
8.		Gujarat Electricity Regulatory Commission	1st Floor, Neptune Tower Opposite Nehru Bridge Ashram Road Ahmedabad - 380 009 Gujarat - India	Phone: 079-26580350, 26580359 Fax: 079-26584542 Email : gerc@gercin.org
9.		Haryana Electricity Regulatory Commission	Bays 33-36, Sector 4,Panchkula-134112 Haryana	Phone: +91(172)2582531 Fax:+91(172)2572359 E-Mail: herc@chd.nic.in
10.		Himachal Pradesh Electricity Regulatory Commission	Keonthal Commercial Complex, Khalini Shimla-171 002 Himachal Pradesh	Phone: + 91 - 177 - 2627262 / 2627263 Fax.: + 91 - 177 - 2627162 E-Mail : hperc@rediff.com
11.		J&K State Electricity Regulatory Commission	PDC Complex, Ashok Nagar Satwari, Jammu	Telephone : 0191-2457899 Fax: 0191 -2454420 E-mail: jkserc@hotmail.com
12.		Jharkhand State Electricity Regulatory Commission	2nd floor, Rajendra Jawan Bhawan-cum-Sainik Bazar Main Road, Ranchi-834001	Ph.: 0651-2330926 Fax: 0651-2330924 E-mail: jserc@sancharnet.in
13.		Karnataka Electricity Regulatory Commission	No. 9/2, Mahalaxmi Chambers, 6th & 7th Floor, M.G.Road, Bangalore-560001	Ph: 080-25320355, 25320213,25320214 Fax: 080-25320338 E-mail: kerc@vsnl.com
14.		Kerala State Electricity Regulatory Commission	K.P.F.C.Bhavanam C.V.Raman Pillai Road Vellayambalam Thiruvananthapuram 695 010	Ph: 0471-2735588 Fax: 0471-2735599 E-mail: kserc@erckerala.org
15.		Madhya Pradesh Electricity Regulatory Commission	"Metro Plaza", 3rd & 4th Floor, E-5 Arera Colony, Bittan Market, Bhopal – 462 016	Ph: 0755-2463585 Fax: 0755-2430158 Email:secmperc@sancharnet.in

Sl. No.	Logo	Electricity Regulatory Commissions	Address	Contact No./E-mail
16.		Maharashtra Electricity Regulatory Commission	World Trade Centre,Center No.1,13th Floor, Cuffe Parade, Colaba, Mumbai-400005	Tel:091-22-22163964/65/69 Fax:091-22-22163976 Email:mercindia@mercindia.org.in
17.		Odisha Electricity Regulatory Commission	Bidyut Niyamak Bhavan, Unit-VIII, Bhubaneswar - 751 012	Ph.:+91-674-2396117, 2393097, 2391580, 2393606 Fax.:+91-674-2393306, 2395781 E-mail- orierc@rediffmail.com, info@orierc.org
18.		Punjab State Electricity Regulatory Commission	SCO: 220-221, Sector-34-A, Chandigarh	Ph: (0172) 2645164 - 65 - 66 Fax: (0172) 2664758, 2645163 E-mail: percchd8@hotmail com
19.		Rajasthan Electricity Regulatory Commission	Shed No. 5, Vidhyut Bhawan, Vidhyut Marg, Jyoti Nagar, Jaipur 302 005.	Ph: 2741181, 2741016 Fax: 2741018 Email : rercjpr@yahoo.co.in
20.		Tamil Nadu Electricity Regulatory Commission	19-A, Rukhmani Lakshmipathy Salai (Marshalls Road), Egmore, Chennai – 600 008.	Ph:044-28411378 / 28411379 E-mail: tnerc@vsnl.net
21.		Uttar Pradesh Electricity Regulatory Commission	Kishan Mandi Bhawan, 2nd Floor, Gomti Nagar, Lucknow – 226010.	Phone:2720424, Fax: 2720423 Email: secretary@uperc.org
22.		Uttarakhand Electricity Regulatory Commission	The Institute of Engineers (India), 1st Floor, Near ISBT, Majra, Dehradun (Uttarakhand)	Tel:0135-2763441 Fax: 0135-2641314 E-mail: uerc@indiatimes.com
23.		West Bengal Electricity Regulatory Commission	FD-415A, Paura Bhavan, (3rd Floor), Sector – III, Bidhannagar, Kolkata – 700091.	Ph: 2359-2189,2359-3397 Fax:(033)2359-3397 E-mail: wberc@cal3.vsnl.net.in

Sl. No.	Logo	Electricity Regulatory Commissions	Address	Contact No./E-mail
24.		Joint Electricity Regulatory Commission for UTs Except Delhi	2nd Floor, HSIIDC Office Complex, Udyog Vihar, Phase-V, Gurgaon (Haryana)	Ph: 0124-2343302, 23714168 Fax: 0124-2342853 Email: sec_jerc@hotmail.com
25.	JERC	Joint Electricity Regulatory Commission for Manipur & Mizoram	D-31, Mahatma Gandhi Road, Upper Khatla, Aizawl, Mizoram-796001.	Ph: 0389-2301926 Fax: 0389-2301299/2344301 E-mail: jerc.mm@gmail.com
26.		Tripura Electricity Regulatory Commission	Buthoria, Choumuhani, Agartala – 799 001	Ph: 0381-2326372 Fax: 0381-2326372 Email: ssctercom@yahoo.com
27.	MSERC	Meghalaya State Electricity Regulatory Commission	Lower Lachumiere, New Administrative Bldg., 1st Floor, East Khasi Hills District, Shillong – 793 001 (Meghalaya)	Ph: 91-364-2500142 / 2500069 Fax: 91-364-2500062 Email : mmserc@gmail.com secy.mserc-meg@nic.in
28.	NERC	Nagaland Electricity Regulatory Commission	Old MLA Hostel Complex, Kohima – 797 001 (Nagaland)	Ph : 0370-2292101 Fax: 0370-2292104 Email : nerc_kohima@yahoo.com
29.	SSERC	Sikkim State Electricity Regulatory Commission	Sikkim State Electricity Regulatory Commission (SSERC) P.O. Deorali Sikkim - 737 102	Ph : 03592-202539 Fax: 03592-202928 Email : sikkim.serc@gmail.com

Annexure - III

(2011-12) Status Report on Issues Pertaining to National Electricity Policy

Contents

1. GRID Codes

Provision in NEP

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.	SERCs/ JERCs	Date of Notification	Status
1.	Arunachal Pradesh		Under preparation
2.	Assam	07.08.2004	Implemented
3.	Bihar		Notified
4.	Chhattisgarh	30.12.2006	First notified on 30.12.2006 and subsequently repealed by the new grid code notified on 31.12.2011
5.	Delhi	22.04.2008	Notified
6.	Goa & Union Territories	04.08.2010	Notified
7.	Gujarat	25.08.2004	Notified
8.	Haryana	12.05.2009	Notified
9.	Himachal Pradesh	11.08.2008	Notified
10.	Jammu & Kashmir	20.11.2007	Notified
11.	Jharkhand	04.02.2009	JSERC(State Grid Code) Regulations, 2008
12.	Karnataka	26.01.2006	Notified. Proposed to modify in line with IEGC, 2010.
13.	Kerala	20.01.2006	Effective from 01.04.2006
14.	Madhya Pradesh	20.08.2004	Revised on 24/10/2005. Last amended on 05.12.2008
15.	Manipur & Mizoram	02.07.2010	In Force
16.	Meghalaya	27.04.2012	Notified
17.	Odisha	01.05.2006	Orissa Grid Code (OGC) Regulation, 2006 is already in force.
18.	Punjab	09.03.2006	Effective since 01.04.2006
19.	Sikkim		Not yet notified
20.	Tamil Nadu	19.10.2005.	Notified
21.	Tripura	15.07.2011	In force
22.	Uttarakhand	09.04.2007	Notified
23.	Uttar Pradesh	14.7.2007	Notified. Proposed to modify in line with IEGC, 2010.
24.	West Bengal	12.01.2006	First notified on 12.01.2006 and subsequently replaced by a new Regulation vide notification no. 34/WBERC dated 04.04.2007 with amendments on 22.05.2009

2. Technology Up-gradation

Provision in NEP:

The Regulatory Commissions need to provide facilitative framework for non-discriminatory open access. This requires load despatch 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.	SERCs/ JERCs	Status
1.	Arunachal Pradesh	Action not yet taken
2.	Assam	Works related to Supervisory Control and Data Acquisition System (SCADA) at State Load Despatch Centre (SLDC) completed.
3.	Bihar	SLDC is functioning at BSEB Headquarters under the control of Integrated Utility BSEB, and considerable upgradation has been made.
4.	Chhattisgarh	SCADA system is in operation and RTU have been installed to ensure monitoring of real time data
5.	Delhi	SLDC has the necessary software for scheduling and despatch of power for Open Access consumers, besides mechanism for ABT metering.
6.	Goa & Union Territories	No Open Access application in UTs & Goa till date. However, Suo Moto hearing No. 78 has been initiated by JERC.
7.	Gujarat	Full-fledged SLDC and three sub SLDCs are in operation in the State with proper communication and data acquisition system.
8.	Haryana	Under the process of implementation
9.	Himachal Pradesh	Load Dispatch facilities with SCADA on real time basis exists in SLDC and is functional prior to June 2006. However, the facilitative framework that requires matching facilities with technology upgrades for non discriminatory open access at the generator and at the consumer levels respectively is yet to be ensured by the Commission. In Tariff Order for FY 2008-09, the Commission had issued Directions to the HPSEBL to carry out a pilot Study on implementation of SCADA for Large Industrial consumers and unmanned sub-stations.
10.	Jammu & Kashmir	J&K SERC (Open Access in Intra State Transmission & Distribution) Regulations 2006 are in place, allowing Open Access to consumers in Jammu with a sub load despatch centre at Srinagar. Both are equipped with communication and data acquisition capability on real time basis.
11.	Jharkhand	The Licensees JUSCO &TSL has upgraded their technology in all the activities such as Transmission, Distribution and consumer services etc. JSEB is under going technology upgradation under R-APDRP schemes. SAIL – Bokaro & DVC are also in the process of Technology upgradation.
12.	Madhya Pradesh	State Load Dispatch Centre Tariff Orders (including Capex for SCADA, etc) is being approved since FY 2005.Latest SLDC Tariff Order for FY 2012-13 was issued on 16/03/2012.
13.	Manipur & Mizoram	Regulation on Procedure, Terms and Conditions for payment of fees and charges to SLDC and other related provisions notified. Upgradation of the SLDC being undertaken and still in progress.
14.	Meghalaya	MSERC has facilitated framework for non-discriminatory open access which specifies load despatch facilities with state of art communication and data acquisition capability on a real time basis.
15.	Karnataka	KPTCL has completed implementation of SCADA up to 220 kV level. The implementation at lower voltages is under progress. KPTCL has taken up the up gradation of SCADA under integrated SCADA scheme.
16.	Kerala	Matching facilities with RLDC are provided at SLDC. Technology up gradation program for 2013-14 approved by SERC

S. No.	SERCs/ JERCs	Status
17.	Odisha	OERC (Terms and Conditions of Open Access) Regulation, 2005 and OERC (Determination of Open Access Charges) Regulation, 2006 have already been published respectively on 21.06.2005 and 18.07.2006. Consumers seeking Open Access for power exceeding 1 MW from generator has been allowed from January 1, 2009 whereas from any licensee has been allowed from April 1, 2008. The Commission has taken steps for separation of SLDC from STU. SLDC is fully organized to process Open Access application. SLDC has started filing ARR and tariff application with the Commission starting from FY 2009-10. OERC has formulated the OERC (Fees and Charges of SLDC and other Related matters) Regulations, 2010 for implementation of levy of annual fee and charges for SLDC functions in Odisha. The Commission directed that Energy Accounting & Settlement System Centre (EASSC) of SLDC should function from 01.04.2011 and should prepare & issue the monthly Energy Account, weekly UI Account and weekly Reactive Energy Account to all the stakeholders.
18.	Punjab	PSTCL has already established a State of the art EMS/SCADA (Energy Management System/ Supervisory Control and Data Acquisition) system in association with Power Grid Corporation India Ltd. under ULDC (Unified Load Despatch and Communication) Scheme, commissioned in 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 sub-stations connected with inter-State tie-lines as well as important 220 kV sub-stations. 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. Installation work of 10 No. RTUs, out of procurement and installation of additional 42 No. RTUs at 220 kV sub-stations are in progress by Punjab State Transmission Corporation Limited.
19.	Sikkim	Under implementation in phased manner.
20.	Tamil Nadu	One SLDC at Chennai and three sub SLDCs at Chennai, Madurai and Erode were established by the SLDC to collect data from 94 stations including Thermal, Hydro, Gas Power station and Grid substations under the unified Load Despatch and Communication (ULDC) scheme of SRLDC
21.	Tripura	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.
22.	Uttarakhand	Directions have been issued on 06.04.2010 for segregation of SLDC, its ring fencing and development of necessary infrastructure & Filing a separate ARR. It is reported that SLDC has separated its account and further action is being taken. The work is in progress.
23.	Uttar Pradesh	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. SLDC is functioning and carrying out energy accounting under ABT. The ABT monitoring software is functional. Ring fencing and manpower of SLDC is under implementation, as per guidelines. Remote Console for availability of data of power houses has been commissioned. Links have been established between STU and other utilities for automatic and real time transfer of information. All the entities 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 on interface points.
24.	West Bengal	West Bengal Electricity Regulatory Commission (Open Access) Regulations, 2007 published under Notification No. 35/WBERC dated 12.04.2007 as amended. Technology up gradation through SCADA and Data Base Management is under implementation in West Bengal State Electricity Distribution Company Ltd., & CESC Ltd.

3. Open Access Transmission Charges & Distribution networks Charges

Provision in NEP:

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.	SERCs/JERCs	Utility (Discom)	Term (LTOA/ STOA)	Unit of Measurement	Voltage levels			
1.	Assam	Assam Power Distribution Company Ltd. (APDCL)	(LTOA/ STOA)	MWh	33 kV Wheeling charges @ 27 paise/ kWh Cross subsidy charges payable by the HT Industries-II (above 150 kVA) opting open access at 33 kV voltage level is 23 paise/kWh			
2.	Bihar	The Commission has been notifying Open Access Charges in its tariff orders and have notified the Open Access charges also in its Tariff Order for FY 2012-13 which are as follows: LTOA: ₹ 53,310/MW/month STOA: ₹ 438/MW/day						
3.	Chhattisgarh	State Discom (wheeling charges)	18 paise per unit			33 kV	11 kV	LT
		STU	1. STOA charge 27 paise per unit 2. LTOA charge net ARR will be shared by all LTOA customer proportionately		400 kV	220 kV	132 kV	66 kV
4.	Delhi	The annual transmission charges for calculation of Open Access Transmission Charges are applicable as per MYT Order issued for Delhi Transco Ltd. for FY 2012-13 to FY 2014-15. MYT orders also specify the wheeling charges and supply margin for all Discoms. The Wheeling charges shall be used for non-discriminatory open access for the Consumers.						

<table>
<tr><th>S. No.</th><th>SERCs/JERCs</th><th>Utility (Discom)</th><th>Term (LTOA/ STOA)</th><th>Unit of Measurement</th><th>Voltage levels</th></tr>
<tr><td>5.</td><td>Gujarat</td><td>Gujarat Electricity Transmission Comp. Ltd.
[GETCO]</td><td>Both LTOA & STOA</td><td colspan="2">GERC has notified Intrastate Open Access Regulation on 01.06.2011 as notification no. 3 of 2011, in which, long term Open Access for a period exceeding 12 years but not exceeding 25 years, medium term Open Access for a period exceeding three months but not exceeding three years and short term Open Access for a period up to one month at a time, but not exceeding a period of six months in a calendar year is provided. The regulations provide for intra-state open access in the state transmission network as well as the distribution system of licensees</td></tr>
<tr><td>6.</td><td>Haryana</td><td>HVPN, UHBVNL and DHBVNL</td><td>Both LTOA & STOA</td><td>Transmission charges/ wheeling charges @ 23 paise/unit for STOA (for HVPNL)
Wheeling charges @ 49 paise/unit (for Discoms)</td><td>Same rate at all the voltage levels</td></tr>
<tr><td>7.</td><td>Jammu & Kashmir</td><td>J&K PDD</td><td colspan="3">Wheeling charges applicable for FY 2011-12 is ` 914.00/MW/day</td></tr>
<tr><td>8.</td><td>Karnataka</td><td colspan="3"><table><tr><th></th><th>132 kV</th><th>33/66 kV</th><th>11 kV</th><th>LT</th></tr><tr><td>BESCOM</td><td></td><td></td><td>10</td><td>22</td></tr><tr><td>MESCOM</td><td></td><td></td><td>21</td><td>48</td></tr><tr><td>CESC</td><td></td><td></td><td>19</td><td>44</td></tr><tr><td>HESCOM</td><td></td><td></td><td>19</td><td>44</td></tr><tr><td>GESCOM</td><td></td><td></td><td>22</td><td>51</td></tr></table>- For Renewable sources wheeling energy within the State, the wheeling charges is in kind and is equal to 5% of the energy injected.
- Actual charges depend upon the point of injection and point of drawal
- In addition to above charge, losses as applicable has to be borne.</td></tr>
<tr><td>9.</td><td>Manipur & Mizoram</td><td>Electricity Department, Manipur; Power and Electricity Department, Mizoram</td><td colspan="3">Yet to be fixed.</td></tr>
<tr><td>10.</td><td>Goa & UTs</td><td colspan="4">Under implementation. Charges shall be decided after public hearing on 25.10.2012, 30.10.2012 and 5.11.2012.</td></tr>
<tr><td>11.</td><td>Jharkhand</td><td colspan="4">JSERC (Open Access Intra-State Transmission and Distribution) Regulations, 2005 have been notified. There is no Open Access consumer in the State of Jharkhand. The issue of Open Access was discussed in the State Advisory Committee meeting and all the stake holders were informed about provisions of Open Access but none of the consumers have approached the Commission.</td></tr>
<tr><td>12.</td><td>Madhya Pradesh</td><td colspan="4">As per MPERC Retail Tariff order dated 31.03.2012
<u>Wheeling Charges</u>
33 kV: 15 paise/ Unit; EHT- NA</td></tr>
<tr><td>13.</td><td>Odisha</td><td colspan="4"><table><tr><th>DISCOMs</th><th>Wheeling charge paise/unit</th></tr><tr><td>WESCO</td><td>56.97</td></tr><tr><td>NESCO</td><td>69.53</td></tr><tr><td>SOUTHCO</td><td>97.72</td></tr><tr><td>CESU</td><td>72.50</td></tr></table></td></tr>
</table>

<table>
<tr><th>S. No.</th><th>SERCs/JERCs</th><th>Utility (Discom)</th><th>Term (LTOA/ STOA)</th><th>Unit of Measurement</th><th>Voltage levels</th></tr>
<tr><td>14.</td><td>Punjab</td><td colspan="4">Notified amended Open Access Regulations, 2011 which provide for determining of Transmission charges and wheeling charges for the consumers availing open access. The transmission charges and wheeling charges for FY 2011-12 are:
<table>
<tr><th>Utility</th><th>Voltage Level</th><th>LTOA (Rs. /MW/ Month)</th><th colspan="2">STOA (Paise/Unit)</th></tr>
<tr><td rowspan="3">PSPCL</td><td rowspan="3">66 kV
33 kV
11 kV</td><td rowspan="3">₹ 169629</td><td>1.4.2011 to 5.7.2011</td><td>23.2</td></tr>
<tr><td>6.7.11 – 31.03.12
Wheeling charges at 33/66 kV</td><td>17.4</td></tr>
<tr><td>Wheeling charges at 11kV</td><td>34.8</td></tr>
<tr><td>PSTCL</td><td>220 kV
132 kV</td><td>₹ 16273</td><td>Transmission charges
220 kV
132kV</td><td>11</td></tr>
</table></td></tr>
<tr><td>15.</td><td>Tamil Nadu</td><td colspan="4">Transmission charges
• Long Term Open Access Consumer : ₹ 6483/MW/day of the capacity allotted
• Intra State short term open access consumer and inter State open access consumer using Intra state network: ₹ 270.11/MW/hr
• Composite scheduling and system operating charges for long term and short term open access customers: ₹ 2000/ day</td></tr>
<tr><td>16.</td><td>Uttarakhand</td><td>UPCL</td><td colspan="3">In absence of voltage wise data, the Commission was constrained from determining voltage wise wheeling and transmission charges. However, the average wheeling charges is ₹ 9561.87/ MW/Day. For embedded open access consumers, the wheeling charges calculated in accordance with the methodology specified in the Regulation and the work out to ₹ 2329.00/MW/ for HT industry consumers and ₹ 8904.34/MW/Day for non-domestic consumers.</td></tr>
<tr><td>17.</td><td>Uttar Pradesh</td><td colspan="4">As per Tariff order for 2009-10 for four discoms :
Parallel operation charges: Zero
Contract demand charges: Zero
Wheeling Charges (₹/KWh)
LTOA - 0.297 (connected above 11 kV Voltage level)
0.475 (connected at 11 kV voltage level)
STOA - 0.07 (connected above 11kV voltage level)
0.11 (connected at 11kV voltage level)
For KESCO the rates are 1 paise less.</td></tr>
<tr><td>18.</td><td>Sikkim</td><td>EPDS</td><td colspan="3">Not under implementation</td></tr>
<tr><td>19.</td><td>West Bengal</td><td colspan="4">The Commission also determines wheeling charges and cross subsidy surcharges for all the distribution licensees every years. The data related to wheeling charges and cross subsidy surcharges for the year 2010-11 are as follows:-
<table>
<tr><th>Year – 2010-11</th><th>WBSEDCL</th><th>CESC Ltd</th><th>DPL</th><th>DPSC Ltd</th></tr>
<tr><td>Wheeling Charge</td><td>85.91 Paise/kWh</td><td>46.88 Piase/kWh</td><td>28.39 Paise/kWh</td><td>46.88 Paise/kWh</td></tr>
<tr><td>Avoidable Cost</td><td>237.43 Paise/kWh + wheeling charges</td><td>361.51 Paise/kWh + wheeling charges</td><td>169.31 Paise/kWh + wheeling charges</td><td>361.51Paise/kWh + wheeling charges</td></tr>
</table></td></tr>
<tr><td>20.</td><td>Meghalaya</td><td colspan="4">MSERC (Terms and Condition of open access) Regulations, 2012 notified on 27.04.2012. This regulations apply to open access for user of intra-state transmission and Distribution systems in the State of Meghalaya including such system as used in consumption with inter-state transmission system.
Utilities are Meghalaya Power Transmission Corporation Ltd and Meghalaya Power Distribution Corporation Ltd and their charges has been specified in these regulations for different voltage level.</td></tr>
</table>

<table>
<tr><th>S. No.</th><th>SERCs/JERCs</th><th>Utility (Discom)</th><th>Term (LTOA/ STOA)</th><th>Unit of Measurement</th><th>Voltage levels</th></tr>
<tr><td>21.</td><td>Kerala</td><td colspan="4">
<table>
<tr><th rowspan="2">Utility</th><th rowspan="2">TERM (LTOA/ STOA)</th><th rowspan="2">Unit of Measure-ment</th><th colspan="6">Voltage levels</th></tr>
<tr><th>110 kV</th><th>66 kV</th><th>Railway</th><th>HT I Industrial</th><th>HT II Non Industrial</th><th>HT IV Commercial</th></tr>
<tr><td rowspan="3">Notification dated 02.11.2005 of KSERC</td><td rowspan="3">LTOA equal to and more than 5 years/ STOA less than 5 years</td><td>Subsidy charge</td><td>Nil</td><td>11</td><td>24</td><td>Nil</td><td>49</td><td>255</td></tr>
<tr><td rowspan="2">Wheeling charge (Paise/ Unit)</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td>26</td><td>26</td><td>26</td></tr>
</table>
</td></tr>
<tr><td>22.</td><td>Himachal Pradesh</td><td>HPSEB</td><td colspan="3">
<table>
<tr><td></td><td>Wheeling charges</td><td>≥ 66 kV</td><td>≥11kV</td><td><11 kV</td></tr>
<tr><td>STOA</td><td>Paise/ Unit</td><td>47</td><td>110</td><td>231</td></tr>
<tr><td>LTOA</td><td>Paise/ Unit</td><td>47</td><td>110</td><td>231</td></tr>
</table>
</td></tr>
<tr><td>23.</td><td>Tripura</td><td>TSECL</td><td colspan="3">
<table>
<tr><td>Term (LTOA/STOA)</td><td>Unit of Measurement</td><td>Voltage Levels</td></tr>
<tr><td>Regulation for Open Access operationalisation has been notified in the Tripura Gazette. Till date no O.A. customer approached seeking O.A. Moreover there is only single licensee in Tripura.</td><td>MWH</td><td>66 kV and above.</td></tr>
</table>
</td></tr>
<tr><td>24.</td><td>Arunachal Pradesh</td><td></td><td>Under process</td><td colspan="2"></td></tr>
</table>

LTOA – Long Term Open Access
STOA – Short Term Open Access

Transmission Charges

S. No.	SERC	LTOA (₹/MW/Month)	STOA (₹/MW/Day)
1.	Assam	2,65,740	8,736.65
2.	Bihar	53, 310	438
3.	Chhattisgarh	Net ARR will be shared by all LTOA/ MTOA customers proportionately in ratio of reserved capacity	STOA charge 27 paise per unit
4.	Delhi	The annual transmission charges for calculation of Open Access Transmission Charges are applicable as per MYT Order issued for Delhi Transco Ltd. for FY 2012-13 to FY 2014-15. MYT order also specifies the wheeling charges and supply margin for all Discoms. The Wheeling charges shall be used for non-discriminatory open access for the Consumers.	
5.	Gujarat	2,780	695
6.	Haryana	4,74,000	23 paise/kWh
7.	Jammu & Kashmir		455
8.	Karnataka	1,12,224	922.39
9.	Manipur & Mizoram	Yet to be determined	Yet to be determined
10.	Goa & UTs		
11.	Jharkhand		
12.	Madhya Pradesh	1,23,000 for FY 2012-13	1025
13.	Odisha	6,000	1,500
14.	Punjab	1,69,629	As mentioned above
15.	Tamil Nadu	6,483/MW/day	270.11/MW/hr
16.	Uttarakhand	69,684.90	2,322.83
17.	Uttar Pradesh	0.094 (connected above 132 kV voltage level) 0.126 (connected at 132 kV voltage level)	0.04 (connected above 132 kV voltage level) 0.05 (connected at 132 kV voltage level)
		SLDC charges embedded in Transmission charges. SLDC fee- ₹ 1 Lakh (annual fee of term five years or more)	
18.	Sikkim	Yet to be determined	Yet to be determined
19.	West Bengal	1,33,329	1,111.08
20.	Meghalaya		
21.	Kerala	EHT: 22paise/unit	EHT: 22paise/unit
22.	Himachal Pradesh	11,157	2.15 paise/unit
23.	Tripura	No Transmission Charge finalized till date. No customer applied for Open Access supply	
24.	Arunachal Pradesh	Under process	

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. No.	SERCs/ JERCs	Utility	Year (%)						
		Discom	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
1	Assam	APDCL	28.84	27.36	25.05	24.24	22.65	21.60	20.60
		The above trajectory is for 'Distribution loss' only. The AERC loss road map could not be fixed due to non-availability of adequate information/ energy audit report of the utility.							
2	Bihar					38	35	32	29
3	Chhattisgarh	State Discom	35.81	33.81	32.54	37.15	34.32	34	
4	Delhi	BRPL	36.70	31.1	26.69	23.46	20.23	17.00	
		BYPL	45.50	39.95	34.77	30.52	26.26	22.00	
		TPDDL (formerly NDPL)	35.35	31.10	22.03	20.35	18.68	17.00	
		NDMC	-	-	11.13	10.75	10.38	10.00	
5	Gujarat	DGVCL							12.35
		UGVCL							13.5
		MGVCL							12.75
		PGVCL							29.00
		TPL-A							8.50
		TPL-S							5.15
		Kandla Port Trust							9.00
		Mundra Port SEZ							8.00
		Torrent Energy Ltd. (TEL)							3.00
6	Haryana	UHBVNL	31.04	28.67	28.56	27.02	25.92	24.00	
		DHBVNL	30.90	29.65	27.54	25.19	26.97	22.95	
7	Jammu & Kashmir	J&K PDD					67.60	60	55.99

S. No.	SERCs/ JERCs	Utility	Year (%)						
		Discom	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
8	Karnataka	BESCOM	24.20	23.73	19.99	16.70	15.09	14.55	
		GESCOM	39.10	35.52	26.03	26.01	25.53	22.06	
		HESCOM	28.18	27.82	25.03	25.15	20.86	19.85	
		MESCOM	15.51	15.29	13.71	12.95	12.64	11.92	
		CESC	27.04	25.80	22.62	17.35	16.42	15.48	
		Hukeri RECS	15.04	15.41	15.37	15.38	15.19	15.15	
9	Manipur & Mizoram	1. Electricity Department, Manipur					50.77	46.34	40.87
		2.Power and Electricity Department, Mizoram					41.40	39.02	35.35
10	Goa & UTs	Chandigarh	NA	19.29	18.67	17.89	17.79	17	16
		Puducherry	NA	NA	14.80	14.41	14.00	13	12.50
		Andaman & Nicobar Islands	NA	NA	NA	NA	NA	19.47	19.16
		Dadra & Nagar Haveli	NA	NA	NA	6.41	7.37	5.69	6.00
		Daman Diu	NA	NA	NA	11.48	11.25	9.75	9.25
		Goa	NA	NA	NA	NA	14.34	13.48	12.50
		Lakshadweep	NA	NA	NA	NA	NA	26.50	26.00
11	Jharkhand	JSEB							19.0
		JUSCO							5.0
		SAIL-Bokaro							17.0
		TSL							7.0
12	Madhya Pradesh	M.P. Paschim Kshetra VVCL	30	28.5	27	25.5	26	24	
		M.P. Madhya Kshetra VVCL	43	40	37	34	33	29	
		M.P. Poorv Kshetra VVCL	34.5	32.5	29.5	26.5	30	27	
13	Odisha	CESU					39.43	38.30	38.20
		NESCO					32.52	32.75	34.28
		WESCO					35.09	38.89	38.89
		SOUTHCO					48.03	48.22	46.43
		ALL ODISHA					37.37	38.34	38.56
14	Punjab	PSEB/ PSPCL & PSTC	22.00	20.75	19.50	19.50	22.00	20.00	19.00
15	Tamil Nadu					19.30	18.90	18.50	18.10
16	Uttarakhand	UPCL							19.61
17	Uttar Pradesh	UPPCL							34.2
		KESCO							37.72
18	Sikkim	EPDS						72	67

<table>
<tr><td>19.</td><td>West Bangal</td><td colspan="8">Norms of Distribution Losses for Different Distribution Licensees
<table><tr><th>Distribution Licensees</th><th>2011-12</th><th>2012-13</th><th>2013-14</th></tr><tr><td>WBSEDCL</td><td>17.75</td><td>17.50</td><td>17.50</td></tr><tr><td>CESC</td><td>14.60</td><td>14.45</td><td>14.30</td></tr><tr><td>DPL</td><td>5.5</td><td>5.3</td><td>5.2</td></tr><tr><td>DPSCL</td><td>5.25</td><td>5.25</td><td>5.25</td></tr><tr><td>DVC</td><td>2.4</td><td>2.3</td><td>2.2</td></tr></table>
NOTE: If any licensee owns and runs any generating station located outside its area of supply and transmits any energy generated by such a generating station to its area of supply through a dedicated transmission line, the transmission loss associated with such transmission shall be determined by the Commission separately and the same shall not governed by the distribution loss shown in the above table. In case the licensee sources electricity using its EHV system through any transmission system in the areas beyond the area of supply of the licensee, the Commission shall also determine the loss associated with the EHV system separately and the same shall not be governed by the distribution loss shown in the above table</td></tr>
<tr><td>20</td><td>Meghalaya</td><td>-</td><td>41.54</td><td>36.80</td><td>35.62</td><td>31.29</td><td>30.12</td><td>28.73</td><td></td></tr>
<tr><td>21</td><td>Kerala</td><td>KSEB</td><td>22.96</td><td>21.47</td><td>20.02</td><td>18.83</td><td>17.71</td><td>16.09</td><td></td></tr>
<tr><td rowspan="2">22</td><td rowspan="2">Himachal Pradesh</td><td colspan="8">T & D loss reduction trajectory is being specified by the Commission for the multi years control period. Directions for reduction of T&D losses in the tariff order for FY 07 have also been imparted, which have been reiterated in subsequent orders of the Commission</td></tr>
<tr><td>HPSEBL</td><td>16.03</td><td>17.00</td><td>13.49</td><td>13.40</td><td>14.58</td><td>12.66</td><td>12.55</td></tr>
<tr><td>23</td><td>Tripura</td><td>TSECL</td><td></td><td>41.45</td><td>35.96</td><td>33.16</td><td>34.99</td><td>30.82</td><td>27.71</td></tr>
<tr><td>24</td><td>Arunachal Pradesh</td><td colspan="8">Commission created recently</td></tr>
</table>

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	SERCs/ JERCs	Metering Plan
1.	Assam	Prepaid meters are used in pilot projects and TOD meters are encouraged in higher HT categories.
2.	Bihar	The Commission has directed BSEB for cent percent metering and for arranging third party testing of meter. The progress is monitored by the Commission from time to time and BSEB has submitted that by 31st March, 2013 they will provide meters to all consumers.
3.	Chhattisgarh	100% metering has been done by State Discom
4.	Delhi	100% consumer metering has been achieved
5.	Gujarat	All categories of consumers except Agriculture consumers are 100% metered.
6.	Haryana	Except agriculture sector, 100% metering has been reported to be achieved by the distribution licensees.
7.	Jammu & Kashmir	As per J&K Electricity Act, 2012, the Distribution Licensee (State Power Development Department) is required to complete 100% metering by the end of April 2012. The Utility is focusing on 100% metering in the areas covered under R-APDRP The dead line for achieving 100% metering has been extended till June, 2013. The Commission has already directed the Utility to come up with the TOD tariff proposal in its next tariff petition.
8.	Karnataka	Discoms have installed meters for all the installations except IP sets and Bhagya Jyothi (BJ)/ Kutir Jyothi (KJ). Specific metering plan is yet to be furnished by Discoms.
9.	Manipur & Mizoram	100% Metering Plan (Tentative Date of Implementation) Manipur: March, 2013 Mizoram: March, 2012
10.	Goa & UTs	Metering plan is under preparation. Suo moto proceeding has been initiated.
11.	Jharkhand	The Commission directed the licensee, JSEB to submit Metering Plan.
12.	Madhya Pradesh	The directions given by the Commission after recent review are as under: i. All un-metered domestic connections in urban areas should be provided with the meters by end of March, 2013. ii. All un-metered domestic connections in rural areas should be provided with meters by end of March, 2014. iii. Specific metering plan for distribution transformers having pre-dominantly agriculture load spread over the entire area of the state has not been provided by the Distribution Companies. Presently, out of total 1.83 lakh such locations the meters have been provided on 25,272 (i.e. 13.81%) locations. The matter is being pursued.
13.	Odisha	OERC has been monitoring the metering status and metering plan of DISCOMs in each half yearly Performance Review Meeting. The Commission has allowed DISCOMs to install pre-paid meters if the consumer so desires. The Commission has further directed that all the Govt. consumers should preferably be provided with pre-paid meters to avoid default in payment by them. The Commission in their successive tariff order has directed that all three-phase consumer should be allowed TOD benefit if they are fitted with requisite meters irrespective of their contract demand. For the purpose of independent third party meter testing arrangement accredited test laboratories are used as per CEA (Installation and Operation of meters) Regulation 2006.

<table>
<tr><th>S. No</th><th>SERCs/ JERCs</th><th>Metering Plan</th></tr>
<tr><td>14.</td><td>Punjab</td><td>All the consumers, except Agricultural Pumpset (AP) category consumers, are metered. However, the consumption of AP category has been determined on the basis of consumption recorded by sample meters installed on approximately 10% consumers.
The pre-paid metering has not been introduced in the State as yet.
TOD metering in the State of Punjab has not been introduced because the Utility has not submitted the comprehensive proposal for the TOD tariff as per the directions of the Commission. The utility has engaged the consultants for the same and the proposal is yet to be submitted to the Commission.</td></tr>
<tr><td>15.</td><td>Tamil Nadu</td><td>All the services of the consumers are metered except Agricultural and Hut services. Regarding installation of meters in Agricultural and Hut services, Commission approved the request of the Government of Tamil Nadu and the distribution licensee (TANGEDCO) to install the meters from 01/10/2012. The metering plan of TANGEDCO is awaited.</td></tr>
<tr><td>16.</td><td>Uttarakhand</td><td>Directions issued for 100% metering. TOD implemented on LT industries above 25 kW and all HT Industrial consumers.
The percentage of consumer metering as on 31.03.2012 is 98.39.</td></tr>
<tr><td>17.</td><td>Uttar Pradesh</td><td>All 11k V Feeders hane 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 25 kW/HP. Directives issued for prepaid meters on all Government and public institutions having above 45 kW</td></tr>
<tr><td>18.</td><td>Sikkim</td><td>Directive issued for 100% metering.</td></tr>
<tr><td>19.</td><td>West Bengal</td><td>FY : 2011-12
WBSEDCL: 100% for all category except Agricultural consumers:
Agriculture: 92.75% CESC Ltd. – 100%
DPSCL: 100% DPL – 100%</td></tr>
<tr><td>20.</td><td>Meghalaya</td><td>92% consumers are metered as on date.</td></tr>
<tr><td>21.</td><td>Kerala</td><td>All consumers metered, TOD meters for all HT/EHT consumers with effect before enactment of Electricity Act, 2003. TOD Meters for all LT Industrial above 30 kVA who opt for TOD with w.e.f 01.01.2010.</td></tr>
<tr><td>22.</td><td>Himachal Pradesh</td><td>11 kV feeders, Distribution Transformers and all consumers are metered. Provision exists in the HPERC Tariff Orders for prepaid metering. Two part tariff and time differentiated tariff exists for consumers of all categories having connected load of more than 20 kW except Domestic and Street lighting categories. Direction in Tariff Orders are issued for implementation of Automatic Meter Reading (AMR).</td></tr>
<tr><td>23.</td><td>Tripura</td><td>The licensee, TSECL started its commercial; functioning w.e.f April 2005. During last 5 years, the Corporation purchase the following meters in order to ensure 100% consumer metering:
<table><tr><td>2005-06</td><td>1,25,000 Nos.</td></tr><tr><td>2006-07</td><td>30,000</td></tr><tr><td>2007-08</td><td>1,00,000</td></tr><tr><td>2009-10</td><td>43,000 Nos</td></tr><tr><td>2010-11</td><td>Nil</td></tr><tr><td>2011-12</td><td>Tender for 1,00,000 Nos.</td></tr></table>As on 21-03-2011, the total number of consumer is 4,87,742. out of which 54,704 Consumer are in Kutirjyoti category. All the Kutirjyoti consumers are provided with meter. If the consumer of Kutirjyoti exceeded more than what is sanctioned (21 kWh per month) will be charged at appropriate regular tariff. There are very few consumer having minimum load of 1 MVA. 1,400 Nos of TOD meter has been procured during the FY 2009-10 for HT Consumer like Tea Garden etc.</td></tr>
<tr><td>24.</td><td>Arunachal Pradesh</td><td>No any plan prescribed by the commission as yet as it is constituted recently</td></tr>
</table>

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

Provision in NEP:

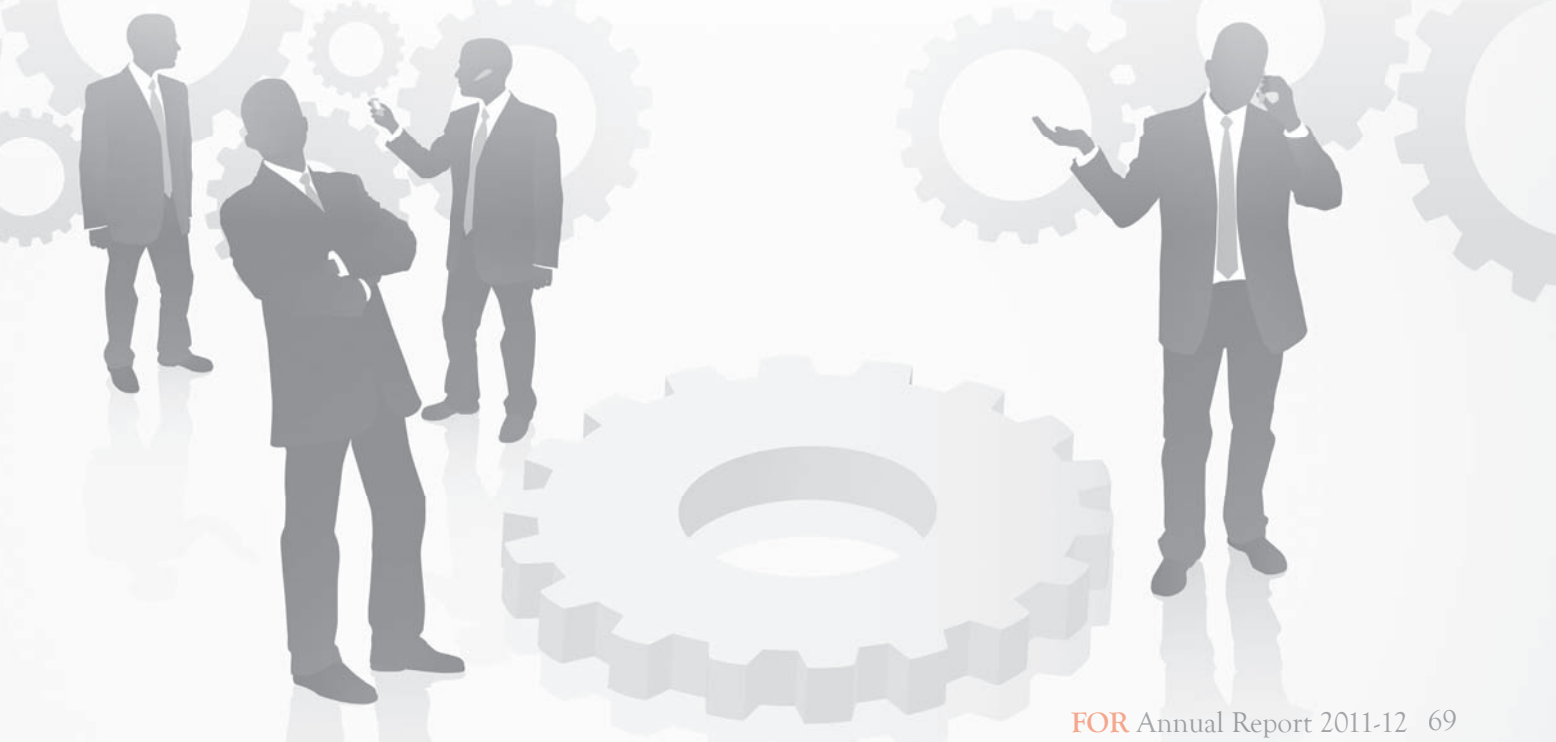
5.4.11 High Voltage Distribution System is an effective method for reduction of technical losses, prevention of theft, improved voltage profile and better consumer service. It should be promoted to reduce LT/HT ratio keeping in view the techno economic considerations.

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	SERCs/ JERCs	HVDS	SCADA & Data Base Management
1.	Assam		Works related to SCADA completed.
2.	Bihar		The electrification in rural areas under RGGVY is being done by installing 16 kVA transformers which will reduce LT/HT ratio. SCADA has started functioning at Patna. Data Base Management is gradually being computerised. Improvement in Data Base Management is being done in 71 towns under R-APDRP.
3.	Chhattisgarh	State discom has taken up converting LT system to HVDS. More schemes are being prepared for execution on REC-loan fund basis	Automatic meter reading has been implemented for all HT and EHT consumers. Similar arrangements for LT load of 50 H.P. and above are in process. Data base management is being done with help of SAP package.
4.	Delhi	HVDS has been implemented in some areas, whereas LT Arial Bunch Conductors (ABC) was implemented in larger part due to its cost effectiveness.	SAP has been implemented by BRPL, BYPL & TPDDL for database management.
5.	Gujarat	HVDS implementation has already been taken up in MGVCL, UGVCL, DGVCL and PGVCL for effective reduction in losses.	Implementation on SCADA has been started by the Distribution Licensees.
6.	Haryana	HVDS is under the process of implementation	Phase – II of SCADA under implementation by HVPNL
7.	Jammu & Kashmir	The Utility has already completed 2 pilot projects in Srinagar city under APDRP and have taken up two more areas, one in Srinagar and another in Katra (Jammu). Other areas are being covered under Part B of R-APDRP for which a Management Consultant is being appointed by the Utility.	SCADA and DBM systems are being provided under R-APDRP scheme (Part A) covering 30 towns including two capital cities of Jammu and Srinagar. Works under the scheme have already been taken up and are nearing completion.
8.	Karnataka	KERC has been monitoring LT/HT ratio. Further, ESCOMs have taken up segregation of feeders supplying to IP sets throgh "Nirantara Jyothi Scheme"	KPTCL has taken up the upgradation of SCADA under integrated SCADA scheme. For data base management, ESCOMs have taken up computerization for implementation of MIS and the Commission is monitoring the status.
9.	Manipur & Mizoram	Yet to be initiated by the State Government in both the States	

S. No	SERCs/ JERCs	HVDS	SCADA & Data Base Management
10.	Goa & UTs	HVDS implementation depends upon length of 11 kV feeders, consumer profile, loss levels etc. It is upto Electricity Departments to implement HVDS based on the requirement. However, JERC has not issued any guidelines in this regard.	SCADA is under implementation in the State of Goa and UTs. Directions have been given/ issued to implement Management Information system for effective Database Management.
11.	Jharkhand	JUSCO and TSL had already implemented SCADA and Data base management system. The JSEB in the process of implementing these systems. The other Licensees SAIL-Bokaro and DVC are also in the process of implementing the same.	
12.	Madhya Pradesh	Capital expenditure plans approved and are under execution, which also include HVDS in identified areas	To be taken up by Discoms.
13.	Odisha	The Commission has directed that all future RE works shall be made through HVDS only as far as possible.	As per Orissa Grid Code, provision has been made for installation of SCADA and communication facilities in all 220 kV Grid S/S. All the EHT sub-stations load data are being captured and analyzed online. It provides Dash board displaying 15-minutes load data of each DISCOMs as well as that of Orissa on a continuous basis. If R-APDRP fund is made available to the DISCOMs then SCADA/DMS can be operational in distribution sector.
14.	Punjab	The Commission has directed the utility to prepare technically and financially viable schemes to convert all AP connections to HVDS. The utility has converted 1,80,066. AP, Low Voltage Differential Signaling (LVDS) connections to HVDS ending 31.03.2012. The directions have been issued to the utility to extend the HVDS scope to Urban and Sub urban consumers.	Under the R-APDRP Scheme, for 3 towns - Ludhiana, Jalandhar and Amritsar, work order-cum-contract agreement for installation of SCADA/DMS has been awarded to M/s NDPL, New Delhi for implementation of SCADA/DMS projects. Tendering process for implementing 3 SCADA/DMS Part-A, DPRs sanctioned and approved by PFC taken in hand by Punjab State Power Corporation Limited.
15.	Tamil Nadu	TANGEDCO reported that they are studying the feasibility of introducing HVDS in selective areas.	Around 95 Sub-Stations in Chennai have been reported to be connected to Chennai Distribution Control Centre and are in service. Similar system is envisaged for Madurai, Coimbatore, Trichy, Thirunelveli, Salem and Thiruppur area. TANGEDCO is planning to implement SCADA in all its sub-stations in the above area under R-APDRP scheme
16.	Uttarakhand	The Commission has directed all loads above 75 kW on HT.	Centralised commercial Database MIS has been implemented at licensee and integration to divisional MIS is under progress. The DISCOM has taken up the project for AMR and data logging for high value consumers above 10 kW in accordance with the directions of the Commission. Consumer indexing and GIS mapping has been completed in few circles and is under progress in other circles.
17.	Uttar Pradesh	HT tariff rates are fixed so as to encourage the consumers to opt for supply at a higher voltage. HVDS has been adopted for rural network.	SCADA and Database Management are available at all thermal and hydro Power stations, 400 KV and 220 KV Transmission System, and at a few grid 132 KV substations. However, effforts are being made to cover all the 132/33 substations under the scope of real time SCADA.

S. No	SERCs/ JERCs	HVDS	SCADA & Data Base Management
18.	Sikkim	Yet to be initiated	
19.	West Bengal		WBSEDCL : Under implementation phase through R-APDRP (Part A) Scheme CESC Limited : Work-in-progress
20.	Meghalaya	Meghalaya Power Distribution Corporation Ltd has implemented HVDS in theft prone and high loses areas to improve voltage profits and better consumer services.	Meghalaya Power Distribution Corporation Ltd has also introduced SCADA and Data Management System keeping in view the techno-economic consideration.
21.	Kerala	LT/HT ration of KSEB is 5.23:1	Pilot implementation under R-APDRP scheme is in progress
22.	Himachal Pradesh	HPSEBL was directed in the Tariff Order for FY 2006 to study the feasibility and the cost benefit analysis of implementing HVDS and submit the report. The direction was complied by HPSEBL and the measures taken in this regard are adequate. HPERC in its Tariff Orders has specified Standard Supply Voltages and accordingly High Voltage Supply rebates (HVSR) are available to consumers seeking supply at higher voltages and correspondingly Low Voltage Supply Surcharge (LVSS) is levied on consumers seeking supply at lower voltages. This provides incentives and disincentives to consumers to voluntarily opt for high voltages, thus naturally evolving a HV distribution system. APDRP/ RAPDRP schemes are also ongoing to address High Voltage Distribution. A large number of distribution transformers were installed by HPSEBL under RGGVY scheme to improve HT/LT ratio.	Load Dispatch facilities with SCADA on real time basis exists in SLDC and is functional prior to June 2006. However the facilitative framework that requires matching facilities with technology upgrades for non discriminatory open access at the generator and at the consumer levels respectively is yet to be ensured by the commission. The Commission is in process of obtaining from the distribution licensee a time bound program for implementation of SCADA and DBMS keeping in mind the techno economic considerations. In Tariff Order for FY08, the Commission had issued Directions to the HPSEB to carry out a pilot Study on implementation of SCADA for Large Industrial consumers and unmanned substations.
23.	Tripura	239.07 km 11 kV line, 448 Nos. Distribution Transformer, 5 Nos 33/11 kV sub–stations, 4 km 11 kV underground cable has been completed under APDRP scheme.	70% works of SCADA–DMS covering West Tripura District has been completed.
24.	Arunachal Pradesh		Not done yet



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 (SoP).

S. No.	SERCs/ JERCs	SoP – Date of Notification	Summary
1.	Assam	5.8.2004	Standards of Performance in distribution of electricity have been specified in the regulations and compensation is required to be paid to consumers in case of default which are also specified in the Regulations. For implementing the Regulations, the Commission has directed the licensees to give adequate publicity though the electricity bills and display on the modality of payment in bill collection/ consumer care centers for general awareness of the consumers. The Commission reviewed the actual SOPs with the specified SOPs and data are being sought in his regard from the utility. In pursuance of the discussions in the State Advisory Committee Meeting on 17.02.2012, the Commission constituted Monitoring Committees separately for generation, transmission and distribution sectors for monitoring the improvement in quality of power supply and the Standards of Performance of the utilities.
2.	Bihar		Compliance of BERC (Standards of Performance) Regulations, 2007 is being monitored by the Commission on quarterly basis.
3.	Chhattisgarh	14.7.2006	SOP along with provision for penalties for delay in consumer services, has been notified.
4.	Delhi	18.4.2007	These regulations are currently under revision.
5.	Gujarat	31.03.2005	The Commission obtains quarterly reports as well as Annual reports with details required under provisions of the SoP regulations for the Distribution.
6.	Haryana	16.7.2004	As per regulations
7.	Jammu & Kashmir	19.06.2006	J&K SERC (Distribution Performance Standards) Regulations 2006 lay guidelines for maintenance of certain critical distribution system parameters for providing efficient, reliable, coordinated and economical system of electricity distribution and retail supply.
8.	Karnataka	10.6.2004	Regulations notified
9.	Manipur & Mizoram	25.06.2012	Payment of Compensation and penalties for delay in consumer services are stipulated in the Regulations. The Commission is pursuing the Licensee to submit the performance report quarterly.
10.	Goa & UTs	18.12.2009	Notified
11.	Jharkhand	17.08.2005	JSERC (Distribution Licensees' Standards of Performance) Regulations, 2005 notified.
12.	Madhya Pradesh	26.09.2005	Last amended vide notification dated 22.7.2011
13.	Odisha	28.05.2004	The Commission has specified OERC (Licensees Standards of Performance) Regulation, 2004 specifying Standards of Performance such as frequency and duration of interruption etc. of licensees. Compensation to the consumers for non-adherence to some of the standards has been made effective from the date of notification of the Regulation.
14.	Punjab	29.6.2007 published in the State Gazette dated 27.72007	Standards of Performance (SOP) have been specified in the PSERC (Electricity Supply Code and Related Matters) Regulations, 2007 with effect from 1st January, 2008. Compensation in case of failure to meet Standards of Performance by the Utility has been implemented w.e.f. 1.1.2012.

S. No.	SERCs/ JERCs	SoP – Date of Notification	Summary
15.	Tamil Nadu		The norms for various parameters prescribed in the National Electricity Policy have been specified in the Tamil Nadu Electricity Regulatory Commission (Tamil Nadu Electricity Distribution Standards of Performance) Regulations, 2004 and being monitored
16	Uttarakhand	17.4.2007	Payment of compensation and penalties for delay in consumer services are notified in the regulation. Quarterly report is being submitted by the distribution licensee on SoP. UERC also spreading awareness in consumers about SoP.
17	Uttar Pradesh		SoP has been included in the Electricity Supply Code since February 2005. 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.
18	Sikkim	14.03.2012	Gazette notified on 23/03/2012
19	West Bengal	05.02.2004 replaced by notification dated 18.10.2005 and again replaced by notification dated 31.05.2010	WBERC (Standard of Performance of Distribution Licensees Relating to Consumer Services) Regulations as amended time to time specifies benchmarks relating to frequency and duration of interruption, voltage parameters, failure rates, time for restoration of supply etc.
20	Meghalaya		MSERC has amended the MSERC (Standard of Performance) Regulations, 2006 by notifying MSERC (Standard of Performance) Regulations, 2012. Since 15.01.2013 this regulations include parameters like, frequency and duration of interruption, voltage, harmonics, transformer failure rate, time required for restoration of power supply, procedure for new connection, replacement of defective meters etc.
21	Kerala	09.05.2006	KSERC (Licensee's Standard of Performance) Regulations 2006 notified with effect from 01.11.2006. First amendment in 2009
22.	Himachal Pradesh	12.10.2010	HPERC (Distribution Performance Standards) Regulations, 2010 (repealing the SOP regulation notified in year 2005, inter alia include frequency and duration of interruption, voltage, harmonics, transformer failure rates, waiting time for restoration of supply, percentage defective meters and waiting list of new connections. In addition to above, HPERC (Licensee's Duty for Supply of Electricity on Request) Regulations, 2004 specify the time duration for giving connections to consumers.
23.	Tripura	22.06.2004	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.
24	Arunachal Pradesh	11.01.2005	Under process of preparation

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.	SERCs/ JERCs	CGR Regulation	Summary
1.	Assam	22.12.2003	Four CGR Forums are functioning at present and these CGRFs are required to submit quarterly and Annual reports to the Commission regarding details of cases received and disposed of. Full time Ombudsman functioning since November 2009 and quarterly reports on details of cases received and disposed are being submitted to the Commission regularly.
2.	Bihar		CGRF and Ombudsman both are functioning and the Commission is monitoring their progress.
3.	Chhattisgarh	15.2.2005 and revised on 22.12.07	CGR established at four regional headquarters. Ombudsman appointed, and both are functional.
4.	Delhi	March 2004	The Commission notified the DERC (Guidelines for establishment of Forum for redressal of grievances of the consumers and Ombudsman) Regulations 2003. As per these regulations, one CGRF in each of the four utilities has been set up and has been functional since 2004. The institution of Electricity Ombudsman has also been set up under section 42(6) of the Electricity Act 2003.
5.	Gujarat	25.08.2004. Revised 08.04.2011	There are 8 CGRFs functional in the State of Gujarat. The Commission has appointed independent Ombudsman with effect from 01.06.2010. The Commission reviews their performance through quarterly reports and periodic review meetings.
6.	Haryana	12.4. 2004	Grievances Redressal Forums have been set up by both the Discoms and they are functioning as per regulations. Electricity Ombudsman has also been appointed by the Commission and is discharging its duties as per regulations.
7.	Jammu & Kashmir	06.10.2010	J&K SERC (Electricity Ombudsman) Regulation, 2010 and J&K SERC (Guidelines for establishment of Forum for Redressal of Grievances of Consumers) Regulations, 2010 have been notified on 06.10.2010 and 06.10.2010 respectively.
8.	Karnataka	10.6.2004	CGR constituted in all five discoms and Ombudsman appointed
9.	Manipur & Mizoram	18.06.2010	CGRF has been constituted in both the States. Ombudsman also designated for both the States
10.	Goa & UTs		CGRF set up in all 7 UTs and in the State of Goa.
11.	Jharkhand	09.11.2011	JSERC(Guidelines for establishment of Forum for Redressal of Grievances of the Consumers and Electricity Ombudsman) Regulations, 2011 and accordingly the CGRF were established
12.	Madhya Pradesh	30.04.2004 Revised 28.08.2009	Forums & Ombudsman functioning since FY 2004-05

S. No.	SERCs/ JERCs	CGR Regulation	Summary
13.	Odisha		OERC (Grievance Redressal Forum and Ombudsman) Regulation, 2004 notified. There are 12 GRFs and two Ombudsmen offices are operating in the State. One Ombudsman office covers NESCO, WESCO and SOUTHCO and the other Ombudsman office covers CESU only. The Ombudsmen are directly appointed by the Commission whereas the President and Finance Members of the GRFs are nominated by the Commission from a panel of name submitted by the concerned DISCOMs. The Commission nominates the Co-opted Member
14.	Punjab		PSERC (Forum & Ombudsman) Regulations, 2005 notified. CGRF with headquarters at Patiala functioning since 1.8.2006 Ombudsman (Electricity Punjab) appointed by PSERC and functioning since 11.9.2006
15.	Tamil Nadu		Regulations for Consumer Grievance Redressal Forum and Electricity Ombudsman, 2004 laying down the guidelines for redressal of the consumer grievance before the CGRF and Ombudsman and also for setting up of CGRF and the appointment of Ombudsman framed. The total number of CGRF established by the Distribution Licensee, TANGEDCO as of now is 42. The office of the Ombudsman has been functioning since 03-06-2005.
16.	Uttarakhand	17.01.2007	Two CGRFs and one Ombudsman functional.
17.	Uttar Pradesh	2003 Amendments notified in 2007	CGRFs made functional since 2003 in district HQ towns on basis of regulations. Ombudsman has been appointed and is functional. State Govt. requested to expedite sanction of staff for the office of Ombudsman. Now CGRFs are in operation in 20 Commissionaires as per new regulations.
18.	Sikkim	27.04.2012	Regulations published vide Sikkim govt.Gazette No. 219, Gangtok, Dated. 30/04/2012
19.	West Bengal	8.10.2003 Amended on 17.1.2006	Commission has appointed Ombudsman. At present there are three Ombudsmen. Four Distribution Licensees has appointed 44 GROs. [CESC Ltd: 10, Durgapur Projects Ltd (DPL): 06, DPSC Ltd: 09 and West Bengal State Electricity Distribution Company Ltd (WBSEDCL): 19.]
20.	Meghalaya	Amended on 29.09.2011	CGRF and Ombudsman Regulation, MSERC (Consumer's Grievances Redressal Forum) Regulations, 2007 notified as per the guidelines formulated by Forum of Regulators. The CGRF and Ombudsman are in operation.
21.	Kerala	14.10.2005	KSERC (CGRF and Electricity Ombudsman) Regulations, 2005 notified. First amendment in 2007, Second amendment in 2008, Third amendment in 2010, Fourth amendment in 2010 and Fifth amendment in 2011
22.	Himachal Pradesh	24.10.2003	HPERC (Guidelines for Establishment of Forum for redressal of grievances of the consumers) Regulations, 2003 published. Forum for Redressal of Consumer Grievances (FRCG) started functioning w.e.f. 21.06.2005 in accordance with the regulations.
		19.4.2004	HPERC (Electricity Ombudsman) Regulations, 2004 published. Office of Electricity Ombudsman started functioning w.e.f. 08.12.2004 regulations.
23.	Tripura	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
24.	Arunachal Pradesh	November, 2011	

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.	SERCs/ JERCs	Summary
1.	Assam	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. Any query received from consumers is urgently taken up for reply and complaints received from consumers in any electricity related matter are forwarded to the licensee with a direction for immediate redressal and action taken reports are sought.
2.	Bihar	The Commission has ensured the participation of consumer groups in its most of the important hearings like Tariff order, issue of regulation and other orders by giving opportunities of public hearing through advertisement in newspapers.
3.	Chhattisgarh	Consumer Advocacy Cell has already been set up in the Commission.
4.	Delhi	The Commission is to promote capacity building among consumers by issuing "Public Awareness Bulletins" from time to time in various newspapers. These bulletins essentially deal with important issues pertaining to distribution of electricity for the larger understanding and benefit of the consumers.
5.	Gujarat	The Commission invites the consumer groups to participate in multiyear tariff process and solicit their valuable suggestions for improving services to the consumer.
6.	Haryana	Under consideration of the Commission
7.	Jammu & Kashmir	The Commission regularly organizes workshops on provisions of J&K Electricity Act, 2010, Distribution Performance Standard Regulation, Electricity Supply Code & General Consumer Awareness at District Head quarters of State & encourages consumer organisations and Utility officers to organize such seminars/ workshop.
8.	Karnataka	Capacity building for consumer groups is being done through Office of Consumer Advocacy by conducting workshops, training, Seminars and issue of quarterly magazines/leaflets. The Commission in its Tariff Orders has been providing due provision towards expenditure for consumer capacity building.
9.	Manipur & Mizoram	1. Citizen Charter notified. 2. Consumers' awareness Meetings/ Workshops held from time to time, through the empanelled organisations. 3. Consumers are well represented in the State Advisory Committee in both the States.
10.	Goa & UTs	Under consideration of the Commission.

S. No.	SERCs/ JERCs	Summary
11.	Jharkhand	Under section 37 of JSERC (Conduct of Business) Regulations, 2011, the Commission has laid recognition for Consumer Association. Accordingly, the following consumer groups/ societies been registered and recognized as consumer groups: 1. Dhanbad Zila Flour Mill Association, Dhanbad 2. Laghu Udyog Bharti, Jamshedpur 3. All India Chamber of Consumers, Jamshedpur 4. Adityapur Small Industries Association, Jamshedpur 5. Santhal Pargana Small Industries Association, Deoghar. 6. Jharkhand Small Industries Association, Ranchi & 7. Bokaro Employees Leased House Welfare Society, Bokaro.
12.	Madhya Pradesh	About 126 NGOs are registered with Commission. They are involved in tariff hearing and representing in SAC also. Workshops conducted for NGOs from time to time
13.	Odisha	• In various regulatory decision making process, the Commission takes the views and opinions of the consumers and permits them to participate in its hearings. • As per Sec. 94 (3) of the Electricity Act, 2003, OERC in its Tariff hearings has been engaging 'Consumer Counsel' for analyzing and putting its independent views on the ARR and Tariff Application of the Licensees/ Generating Company. • The Commission had also engaged NGOs and Consumer Activists as Consumer Counsel, to collect necessary feed-back on Distribution Licensees' Performance and consumer satisfaction on the services provided by the Distribution Licensees. • The Officers of the Commission undertook interactive training of various district government and utility functionaries through the ISRO's GRAMSAT programme in collaboration with the energy department. Three such sessions were organized. • Annual interactive meetings with GRFs and Ombudsman • Bilingual tariff compendiums published annually • Booklet (Frequently Asked Questions) titled "What should You Do?" published & distributed to electricity consumers • Book on comprehensive overview of Orissa Power Sector published every year • Performance Standards published annually • Public awareness campaign based on FAQ in all major Oriya & English dailies • Phone-In Programmes to educate consumers broadcast on All India Radio • Participation in consumer Fairs & Festivals • In 1998, the Commission set up its website, the first of its kind in the country's power sector The OERC website has been upgraded into a portal which will be much more consumer friendly and interactive in future.
14.	Punjab	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
15.	Tamil Nadu	CGRFs have been formed in all the distribution circles of the TANGEDCO and the Commission is monitoring their activities. Commission is also publishing and circulating the consumer related magazine called "Min Nugarvour Thunaivan" to educate the consumers

S. No.	SERCs/ JERCs	Summary
16.	Uttarakhand	The Commission has established State Advisory Committee including Members to represent the interest of various categories of consumers. Before finalisation of regulations and important Orders including Tariff Orders, the Commission conducts structured consultation with the Committee after proper circulation of the agenda along with the proposals much in advance of such consultation/meeting. The Commission conducts public hearing throughout the State and based on the Commission's directives, distribution utility has been putting up camp outside the venue of the hearing for receiving and disposal of consumer complaints under superintendence & control of the GM/Chief Engineer of respective zone of the utility. As part of the information dissemination and for creating awareness among the consumers, the Commission also publishes in the newspapers from time to time and distributes pamphlets with regard to quality of supply and services to the consumers required to be provided by the distribution utility in accordance with the Regulations.
17.	Uttar Pradesh	Commission had initiated creation of a Cell for Consumer Education and Advocacy (CCEA) on public – private partnership basis initially and the MoU was signed with VOICE, New Delhi, w.e.f. 14th November, 2007, and worked for two years. Due to non performance of CCEA it has been disbanded. The Commission is managing the consumer education and advocacy through participation of various consumers group in its all public hearings, tariff hearings, meeting of State Advisory Committee and direct correspondence, placing important Orders/ Regulations/ notifications on its website.
18.	Sikkim	To be initiated
19.	West Bengal	WBERC has notified regulations called the West Bengal Electricity Regulatory Commission (Guidelines for Establishment of Forum for Redressal of Grievances of Consumers and Time and Manner of Dealing with such Grievances by the Ombudsman) Regulations, 2006 for redressal of consumers' grievances at different levels. Leaflets containing salient features of Standard of Performance Regulations, Grievance Redressal Mechanism were directed by the Commission to circulate with electricity bill among consumers. Representative of consumer group has been included in the Advisory Committee of the Commission for prioritizing the issue.
20.	Meghalaya	MSERC has introduced consumer Groups to facilitate the capacity building of Consumer Group such as representative of Industries, Headmen, Pensioners' Association etc for effective representation before the Commission.
21.	Kerala	Consumer Advocacy Cell (CAC) under the KSERC is working towards creating awareness among the consumers in regulatory mechanism by conducting classes. Pamphlets distributed on the Standards of Performance of the Licensees, CGRF, Electricity Ombudsman, Tips on energy savings etc. Action to publish a News letter of the Commission on a tri monthly basis has been initiated.
22.	Himachal Pradesh	Consumer representative has been nominated by the Commission under section 94 of the Electricity Act 2003.
23.	Tripura	Not yet adopted
24.	Arunachal Pradesh	Action being taken

Annexure - IV

(2011-12) Status Report on Issues pertaining to National Tariff Policy

Contents

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 State Electricity Regulatory Commissions (SERCs) and Joint Electricity Regulatory Commissions (JERCs) also. The rate of return notified by CERC for transmission may be adopted by the SERCs for distribution with appropriate modification taking into view the higher risks involved. For uniform approach in this matter, it would be desirable to arrive at a consensus through the Forum of Regulators.

S. No.	SERCs/ JERCs	RoE (%)	Summary
1.	Arunachal Pradesh		Not exceeding 14%
2.	Assam	14%	
3.	Bihar	-	The Commission considered entire assets funded through grant and accordingly only interest was allowed. No equity allowed.
4.	Chhattisgarh	15.5%	This is for control period FY 2010-13. Provision for 0.5% additional return on equity is kept for timely completed projects commissioned on or after 01.04.2010.
5.	Delhi	14%	For Generation/ Transmission licensee (post tax)
		16%	For distribution licensees (post tax)
6.	Gujarat	14%	For Generation, Transmission and Distribution based on GERC Regulations.
7.	Haryana	14%	ROE is allowed on equity component of CAPEX.
8.	Himachal Pradesh	15.5%	For generation and transmission business on pre tax basis
		16%	For wheeling and retail supply business –post tax
9.	Jammu & Kashmir	14%	As per JKSERC (Terms & Condition for Determination of Hydro- Generation Tariff) Regulations 2011 and Determination of Distribution Tariff Regulations 2011.
10.	Karnataka	15.5%	The Commission specified RoE of 15.5.% for all the Licensees in the State
11.	Kerala	14%	ROE with effect from 2005-06, prior to that 3% of RONFA
12.	Manipur & Mizoram	16%	
13.	Goa & Union Territories	3%	Return on capital base @ 3% of NFA is given (till such time audited annual accounts are made available)
14.	Jharkhand	15.5%	Post tax return in accordance with the JSERC Distribution Tariff Regulations, 2010
15.	Madhya Pradesh	16%	Generation, Transmission and Distribution
16.	Meghalaya	14%	
17.	Odisha	15.5%	For Generating and Transmission Companies
		16 %	For DISCOMs.
18.	Punjab	15.5%	In addition to RoE, the PSERC Tariff Regulations also provide for allowing all obligatory taxes on income from the core/ licensed business of the licensee.
19.	Sikkim	14%	
20.	Tamil Nadu	14%	Tariff Regulations, 2005 specify ROE post tax.
21.	Tripura		TSECL being the only Utility of Tripura has claimed for ROE Rs. 30.44 Crore considering 15.55% on their investment. Rs. 15.52 Crore (Lump- Sum) was approved by TERC during 2011-12.

S. No.	SERCs/ JERCs	RoE (%)	Summary
22.	Uttarakhand	14 %	As per MYT Regulations for the first control period 2013-16. Licensees and Generating companies were directed to evolve benchmark norms based on studies and prepare a business plan for next 5 years.
23.	Uttar Pradesh	15.5%	Generation
		14%	Transmission
		16%	Distribution
24.	West Bengal		Generation and Transmission - as per Tariff Regulations of CERC Distribution -1% higher than the ROE allowed for generation

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 adopted	Suggestions for separate Depreciation Rates
1.	Assam		The rates of depreciation are notified in the AERC (Terms and conditions of determination of tariff) Regulations 2006.
2.	Bihar		The rate of depreciation as notified by CERC is being considered to determine the depreciation amount.
3.	Chhattisgarh	Yes	
4.	Delhi	Yes	
5.	Gujarat	Yes	
6.	Haryana	Yes	
7.	Jammu & Kashmir		2.57% for Generation Utility & 3% for Distribution Utility.
8.	Karnataka	Yes	
9.	Manipur &Mizoram	Yes	
10.	Goa & Union Territories	Yes	
11.	Jharkhand		The rates of depreciation for various heads as notified by JSERC.
12.	Madhya Pradesh	Yes	Separate depreciation rates need to be evolved keeping in view the difference of distribution assets vis-à-vis Generation/Transmission assets.
13.	Odisha	No	OERC adopted depreciation as per orders of Hon'ble High Court and in accordance with DoE notification No.1068/E dated 29.01.2003 at pre-92 rates as notified by GOI. For State owned hydro generation projects, depreciation was allowed at rate of 2.57%. However, for hydro projects where principal loan repayment was more than the depreciation arrived at 2.57%, in those cases depreciation was allowed to the extent of principal repayment of loan. For transmission utility additional depreciation in the form of special appropriation was allowed as per the CERC Notification over and above the depreciation computed at pre-92 rate. For distribution business the depreciation was allowed at pre-1992 rate as per orders of Hon'ble High Court.
14.	Punjab	Yes	
15.	Tamil Nadu		Tariff Regulations 2005 provide for Depreciation Schedule for various kinds of assets.
16.	Uttarakhand	Yes	
17.	Uttar Pradesh	Yes	
18.	Sikkim	Yes	
19.	West Bengal		The depreciation shall be calculated annually, based on straight line method at the rates prescribed in the West Bengal Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2011.
20.	Kerala	Yes	CERC rates followed w.e.f. 2003-04
21.	Himachal Pradesh		Depreciation Rates specified in HPERC MYT Tariff Regulations for Generation, Transmission and Distribution and Wheeling Regulations 2011.

S. No.	SERC	CERC Rates adopted	Suggestions for separate Depreciation Rates
22.	Tripura		In last Tariff order during 2006-07, Rs. 10 Crore depreciation approved as lump sum.
23.	Meghalaya		Depreciation rate has been fixed for Generation, Transmission and Distribution assets as per Standards of Performance Regulations, 2011
24.	Arunachal Pradesh	Yes	

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 SERCs/JERCs).

S. No.	SERCs/ JERCs	Intra-State ABT	Summary
1.	Assam	No	
2.	Bihar	No	
3.	Chhattisgarh	No	It is under draft stage
4.	Delhi	Yes	Implemented w.e.f. 01.04.2007
5.	Gujarat	Yes	Implemented w.e.f. 05.04.2010
6.	Haryana	No	Under finalization.
7.	Jammu & Kashmir	No	
8.	Karnataka	Yes	Order issued on 26.12.2006. At present mock exercise is being followed by the ESCOMs.
9.	Manipur &Mizoram	No	The utilities in Manipur and Mizoram are unbundled.
10.	Goa & UTs	No	Integrated utility and only one distribution entity in one UT.
11.	Jharkhand	No	
12.	Madhya Pradesh	Yes	Implemented w.e.f. 01.11.2009
13.	Odisha	Yes	Intra-State ABT Regulations notified on 14.02.2008. In view of the preparedness of the utilities, OERC decided to implement intra-State ABT in two phases. Under Phase-I between GRIDCO and the DISCOMs and under Phase-II to extend it to the generators. After Mock Exercises in hourly mode and 15-minutes mode, intra-State ABT (Phase-I) in real time more with commercial implications is implemented with effect from 01.04.2012. The Mock exercise for Phase-II covering generators and CGPs would be conducted from 01.04.2012.
14.	Punjab	No	Introduction of ABT at this stage is not desirable.
15.	Tamil Nadu	No	Commission issued Staff Consultative Paper on intra-State ABT. Final order to be issued after considering the views of the stake holders.
16.	Uttarakhand	Yes	Order issued on 04.01.2005 for completing the requirement for intra-State ABT by 01.11.2005.
17.	Uttar Pradesh	Yes	All the entities have come under the purview of ABT since 01-07-09 with UI implications..
18.	Sikkim	No	
19.	West Bengal	Yes	ABT implemented w.e.f. 01.01.2008 All other forthcoming generation stations(s) above 50 MW of any generating company synchronized with the State Grid subsequently
20.	Kerala	No	
21.	Himachal Pradesh	No	
22.	Tripura	No	
23.	Meghalaya	Yes	
24.	Arunachal Pradesh	No	

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.

<table>
<tr><th>S. No.</th><th>SERCs / JERCs</th><th>Time of Day (ToD) Tariff introduced</th><th>Consumer Category</th><th>Peak Tariff</th><th>Off-Peak Tariff</th></tr>
<tr><td>1.</td><td>Assam</td><td>Yes</td><td colspan="3">Three tier ToD was introduced in four categories of HT consumers in 2005-06 namely HT-I, HT-II, Tea, Coffee & Rubber and Oil & Coal Categories as detailed:
<table>
<tr><th rowspan="2">Category</th><th colspan="3">TOD Tariff</th></tr>
<tr><th>Peak</th><th>Normal</th><th>Night</th></tr>
<tr><th></th><th>17-22 Hrs</th><th>06-07 Hrs</th><th>22-06 Hrs</th></tr>
<tr><td>HT Industries, 50 to 150 kVA</td><td>6.25/kWh</td><td>4.00/ kWh</td><td>3.35/ kWh</td></tr>
<tr><td>HT Industries, 150 kVA above</td><td>5.55/ kWh</td><td>4.10/ kWh</td><td>3.60/ kWh</td></tr>
<tr><td>HT Tea, Coffee, Rubber</td><td>6.25/ kWh</td><td>4.45/ kWh</td><td>4.20/ kWh</td></tr>
<tr><td>HT Oil and Coal</td><td>6.25/ kWh</td><td>4.50/ kWh</td><td>4.35/ kWh</td></tr>
</table></td></tr>
<tr><td>2.</td><td>Bihar</td><td>Yes</td><td colspan="3">The Commission provided TOD tariff optional to all HT consumers having contract demand below 200 kVA and mandatory for the HT consumers having contract demand of 200 kVA and above and have fixed differential rates for peak and off-peak hours.</td></tr>
<tr><td>3.</td><td>Chhattisgarh</td><td>Yes</td><td>HV & EHV, Industrial Consumers</td><td>130% of normal rate of energy charge (6.00 pm to 11.00 pm)</td><td>85% of normal rate of energy charge (11.00 om to 5.00 am of next day)</td></tr>
<tr><td>4.</td><td>Delhi</td><td>Yes</td><td colspan="3">Vide tariff order for FY 2012-13,the Commission introduced Time of Day (TOD) Tariff to be applicable on all consumers (other than domestic) whose sanctioned load/MDI (whichever is higher) is 300 kVA and above as shown below:
<table>
<tr><th>Month</th><th>Peak Hours (Hrs)</th><th>Surcharge on Energy Charges (%)</th><th>Off-Peak Hours</th><th>Rebate on Energy Charges</th></tr>
<tr><td>April- Sept</td><td>1500-2400</td><td>10</td><td>0000-0600</td><td>10%</td></tr>
<tr><td>October-March</td><td>1700-2300</td><td>5</td><td>2300-0600</td><td>10%</td></tr>
</table></td></tr>
<tr><td>5.</td><td>Gujarat</td><td>Yes</td><td colspan="3">ToD Tariff rates as applicable to UGVCL, DGVCL, MGVCL & PGVCL was notified by GERC with respect to Tariff Orders dated 06.09.2011</td></tr>
<tr><td>6.</td><td>Haryana</td><td>No</td><td></td><td></td><td></td></tr>
<tr><td>7.</td><td>Jammu & Kashmir</td><td>No</td><td></td><td></td><td></td></tr>
</table>

S. No.	SERCs / JERCs	Time of Day (ToD) Tariff introduced	Consumer Category	Peak Tariff	Off-Peak Tariff
8.	Karnataka	Yes (optional)	LT Industries	Normal tariff plus 100 paise	Normal tariff minus 125 paise
			HT Water Supply	Normal tariff plus 100 paise	Normal tariff minus 125 paise
			HT Industries including commercial less than 500 kVA	Normal tariff plus 100 paise	Normal tariff minus 125 paise
		Compulsory	HT Industries, contract demand of 500 kVA & above	Normal tariff plus 100 paise	Normal tariff minus 125 paise
			HT Commercial with a contract demand of 500 kVA above	Normal tariff plus 100 paise	Normal tariff minus 125 paise
9.	Manipur &Mizoram	No			
10.	Goa & UTs	No			
11.	Jharkhand	Yes	H.T. Industrial	120% of Normal rates	85% of normal rates
12.	Madhya Pradesh	Yes	H.T.	115% of normal tariff (1800-2200 Hrs)	92.5% of normal tariff (2200 Hrs to 0600 Hrs)
13.	Odisha	Yes	All three-phase consumers having static meter	Normal Tariff	The time of day tariff approved since 01.04.2005 provided a rebate @ 10 Paise/ Unit on consumption during the off-peak hour. Further drawal by Industries during off-peak hours upto 120% of contract demand without levy of any penalty has been allowed.
14.	Punjab	No	The utility did not submit the comprehensive proposal. The utility engaged the consultant for the same.		
15.	Tamil Nadu	Yes	HT Tariff I A applicable to industrial establishments charged Demand charges of Rs 300/kVA/ month and energy charges of 550 paise/ unit. They are billed at 20% extra on the energy charges for the energy recorded during peak hours (6.00 A.M to 9.00 A.M and 6.00 P.M to 9.00 P.M.) and allowed a reduction of 5% on the energy charges for the consumption during 10.00 P.M to 5.00 A.M as an incentive for night consumption. This is in vogue since 1997		

<table>
<tr><th>S. No.</th><th>SERCs / JERCs</th><th>Time of Day (ToD) Tariff introduced</th><th>Consumer Category</th><th>Peak Tariff</th><th>Off-Peak Tariff</th></tr>
<tr><td>16.</td><td>Uttarakhand</td><td>Yes</td><td>LT Industries above 25 kW & all HT Industries</td><td>Energy Charges at peak hours shall be as under:
LT Industry: Rs. 4.50/kVAh
HT Industry:<table><tr><th>Load Factor</th><th>Energy Charge</th></tr><tr><td>Less than 33 %</td><td>Rs. 4.80/ kVAh</td></tr><tr><td>Above 33 % and upto 50 %</td><td>Rs. 4.80/ kVAh</td></tr><tr><td>Above 50%</td><td>Rs. 4.80/ kVAh</td></tr></table></td><td>Energy Charges at off-peak hours shall be as under:
LT Industry: Rs. 2.70/kVAh
HT Industry:<table><tr><th>Load Factor</th><th>Energy Charge</th></tr><tr><td>Less than 33 %</td><td>Rs. 2.43/kVAh</td></tr><tr><td>Above 33% and upto 50 %</td><td>Rs. 2.66/kVAh</td></tr><tr><td>Above 50%</td><td>Rs. 2.88/kVAh</td></tr></table></td></tr>
<tr><td>17.</td><td>Uttar Pradesh</td><td>No</td><td colspan="3">As per Tariff order 2009-10 introduced in HV-2 Category for large and Heavy Industry (75 KW/ 100 HP & above)<table><tr><th>Time</th><th>At 11kV</th><th>33 & 66 kV</th><th>132 kV and above voltages</th></tr><tr><td>22 hrs – 06 hrs</td><td>(-) 7.5%</td><td>(-) 7.5%</td><td>(-) 7.5%</td></tr><tr><td>06 Hrs- 17 Hrs</td><td>0</td><td>0</td><td>0</td></tr><tr><td>17 Hrs- 22 Hrs</td><td>(+) 15 %</td><td>(+) 15%</td><td>(+) 15%</td></tr></table></td></tr>
<tr><td>18.</td><td>Sikkim</td><td>No</td><td></td><td></td><td></td></tr>
<tr><td>19.</td><td>West Bengal</td><td>Yes</td><td colspan="3">The Commission regularly determines normal, peak and off peak tariff in the tariff orders of different distribution licensees as per the West Bengal Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2011</td></tr>
<tr><td rowspan="2">20.</td><td rowspan="2">Kerala</td><td rowspan="2">Yes</td><td>HT / EHT Consumers</td><td>150% of Demand
140% of Energy</td><td>80% of Demand
85% of Energy</td></tr>
<tr><td>LT IV Industrial (Optional)</td><td>125% of Normal Charge</td><td>80% of Normal Charge</td></tr>
<tr><td>21.</td><td>Himachal Pradesh</td><td>Yes</td><td colspan="3">As per HPERC Tariff order dated 24.04.2012 – Two part tariff and time differentiated tariff exists for consumers of all categories except Domestic and Street Lighting categories</td></tr>
<tr><td>22.</td><td>Tripura</td><td>Yes</td><td>Industrial, Tea/ Coffee/ Rubber Garden, Bulk supply, water works & irrigation</td><td>140% of the normal rate</td><td>60% of the normal rate</td></tr>
<tr><td>23.</td><td>Meghalaya</td><td>No</td><td colspan="3">Since 100% metering is yet to be achieved, so TOD metering is yet to be introduced</td></tr>
<tr><td>24.</td><td>Arunachal Pradesh</td><td>No</td><td></td><td></td><td></td></tr>
</table>

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/ JERCs latest by April 1, 2006.

S. No.	SERCs/ JERCs	Tariff	Power Procured From Renewables (%)
1.	Assam	AERC (Co-generation and Generation of Electricity from Renewable Sources of Energy) Regulations, 2009 notifies the following capped prices: (i) Biomass: ₹ 4.00 per kWh (ii) Small Hydro: ₹3.20 per kWh (iii) Cogeneration: ₹ 3.20 per kWh (iv) Municipal Solid Waste (MSW): ₹ 4.40 per kWh (v) Solar PV (Grid Connected) (a) commissioned upto 2009-10: ₹11.00 / kWh (b) commissioned after 2009-10: 10/ kWh The Commission also notified the AERC (Terms and Conditions for Tariff Determination from Renewable Energy Sources) Regulations, 2012 which will replace the rates stated above. These Regulations have been sent for Gazette Notification.	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.	Bihar	The Commission notified the regulation for Renewable Purchase Obligation by the Distribution Licensees from Renewable Sources Energy, and has also issued clarification in respect of Solar Purchase Obligation (SPO).	
3.	Chhattisgarh	(i) Hydro Tariff for FY 2011-12: ₹ 3.30/kWh as approved for Savitri Power Pvt. Ltd. (ii) Tariff for Biomass Plant; (a) Energy Charges: ₹ 2.64/kWh (b) For fixed charges: as per orders	(i) Solar- minimum 0.25% (ii) 2.Biomass- minimum 3.75% (iii) Other RE – minimum 1.25% (hydel, wind etc) (iv) Total – minimum 5%

<table>
<tr><th>S. No.</th><th>SERCs/ JERCs</th><th>Tariff</th><th>Power Procured From Renewables (%)</th></tr>
<tr><td>4.</td><td>Delhi</td><td>The Commission notified DERC (Renewable Purchase Obligation and Renewable Energy Certificate Framework Implementation) Regulations, 2012.</td><td>The RPO target for the year 2012-13 is 3.4%</td></tr>
<tr><td>5.</td><td>Gujarat</td><td>The tariffs for various Renewable energies are as per the regulations notified by the Commission.</td><td>The details of RPO prescribed by the Commission are:
<table>
<tr><th rowspan="2">Year</th><th colspan="4">Minimum Quantum of purchase (in %) from renewable energy sources (kWh)</th></tr>
<tr><th>Total</th><th>Wind</th><th>Solar</th><th>Biomass, bagasse and others</th></tr>
<tr><td>2010-11</td><td>5%</td><td>4.5%</td><td>0.25%</td><td>0.25%</td></tr>
<tr><td>2011-12</td><td>6%</td><td>5.0%</td><td>0.5%</td><td>0.5%</td></tr>
<tr><td>2012-13</td><td>7%</td><td>5.5%</td><td>1.0%</td><td>0.5%</td></tr>
</table></td></tr>
<tr><td>6.</td><td>Haryana</td><td>Wind (200-250 W/m2): ₹ 5.68/ kWh
Wind (250-300 W/m2): ₹ 4.56/ kWh
Wind (300-400 W/m2): ₹ 3.8/ kWh
Wind (> 400 W/m2): ₹ 3.56/ kWh
Biomass (water cooled): ₹ 5.92/ kWh
Biomass (air cooled): ₹ 6.04/ kWh
Cogeneration: ₹ 3.74/ kWh
Solar PV: ₹ 10.69/ kWh
Solar Thermal: ₹ 12.16/ kWh</td><td>Overall RPO 1.5% for FY 2011-12.
Solar RPO 0.25% of overall RPO for FY 2010-11 with an annual increase of 25%</td></tr>
<tr><td>7.</td><td>Jammu & Kashmir</td><td>₹ 1.15/kWh</td><td>2.54% against a target of 35</td></tr>
<tr><td>8.</td><td>Karnataka</td><td>1.Mini hydel: ₹ 3.40/unit, without escalation
2.Wind: ₹ 3.70/unit, without escalation
3.Biomass: ₹ 3.66/unit in 1st year going up to ₹ 4.13/unit in 10th year
4. Co-gen: ₹ 3.90/unit in 1st year going up to ₹ 4.37/unit in 10th year
5.Solar PV: ₹ 14.50/unit & Solar Thermal ₹ 11.35/unit
6. Rooftop Solar PV and other Small solar power plants connected to distribution network at voltage levels of below 33 kV: ₹ 14.50/unit</td><td>
<table>
<tr><td>BESCOM</td><td>12.46%</td></tr>
<tr><td>MESCOM</td><td>13.83%</td></tr>
<tr><td>CESC</td><td>13.43%</td></tr>
<tr><td>HESCOM</td><td>8.79%</td></tr>
<tr><td>GESCOM</td><td>9.36</td></tr>
</table></td></tr>
</table>

S. No.	SERCs/ JERCs	Tariff	Power Procured From Renewables (%)
9.	Manipur &Mizoram	Rates yet to be fixed	Manipur: NIL Mizoram: 7.76%
10.	Goa & UTs		Solar: 0.3% Non Solar 1.7%
11.	Jharkhand	Project specific tariff	2010-11: Solar: 0.25%, Non Solar: 1.75% 2011-12: Solar: 0.50%, Non Solar: 2.50% 2012-13: Solar: 1.00%, Non Solar: 3.00%
12.	Madhya Pradesh	Wind: ₹ 4.35/ kWh (for 25 years) Biomass: ₹ 4.77/ kWh for FY 2012-13 upto Feb. 2013 Solar PV: ₹ 10.44/kWh (25 years) Solar Thermal: ₹ 12.64/ kWh (25 years) Co-generation: ₹ 2.80- 3.84/kWh (for 20 years) Small Hydro: ₹ 5.40 to ₹ 3.54/kWh (for 20 Years)	RPO: 0.4 % (Solar) RPO- 2.1 % (Non-Solar)
13.	Odisha	Generic tariff for Renewable Energy fixed by the Commission for the FY 2011-12 is as follows: Wind Energy: ₹ 5.31/ kWh (₹ 4.48/kWh with accelerated depreciation benefit) SHP < 5 MW- ₹ 3.91/kWh (₹ 3.31 / unit with accelerated depreciation benefit). SHP between 5 to 25 MW – ₹ 3.64/ Unit (₹ 3.09/unit with accelerated depreciation benefit). Solar PV: ₹ 17.80/kWh (` 14.77/unit with accelerated depreciation benefit) Solar Thermal: ₹ 14.73/ kWh (Rs.12.32/ kWh with accelerated depreciation benefit) Bio-mass: ₹ 4.87/kWh (Rs.4.66 / unit with accelerated depreciation benefit) Non-fossil based Co-generation- ₹ 4.50/ kWh (₹.4.22 / kWh with accelerated depreciation benefit)	The RPO fixed by the Commission for the FY 2011-12 and the percentage of actual renewable energy purchase by GRIDCO, on behalf of all DISCOMs of the state is given below: RPO Actual Solar: 0.10% 0.01% Non-Solar: 1.20% 1.29% Co-generation: 3.70% 3.75% The implementation of RPO Regulations, by other obligated entities is industries having CGPs and OA consumers are being monitored by OREDA.

<table>
<tr><th>S. No.</th><th>SERCs/ JERCs</th><th>Tariff</th><th>Power Procured From Renewables (%)</th></tr>
<tr><td>14.</td><td>Punjab</td><td colspan="2">Tariff for 2011-12
<table>
<tr><th>RE Category</th><th>RE projects covered under Commission's Order 13.12.2007 (Rs./kWh)</th><th>RE projects covered under Commission's order of 31.10.2011 (Rs./kWh)</th><th>Electricity from Renewable Energy Projects (%)</th></tr>
<tr><td>Biomass</td><td>4.44</td><td>5.31</td><td rowspan="5">1.69% (702.50 MU) of total consumption of electricity (41599MU) (RPO for 2011-12: Overall 2.4%) (Non Solar: 2.37% Solar 0.03%</td></tr>
<tr><td>Bagasse/ Biomass based co-generation</td><td>4.04</td><td>4.79</td></tr>
<tr><td>Mini/Micro Hydel</td><td>4.04</td><td>4.49 (below 5 MW)
3.84 (5 to 25 MW)</td></tr>
<tr><td>Solar</td><td>8.95</td><td>15.39 (Solar PV)
15.04 (Solar thermal)</td></tr>
<tr><td>Wind</td><td>4.44</td><td>5.33</td></tr>
</table></td></tr>
<tr><td>15.</td><td>Tamil Nadu</td><td>The Commission fixed Renewable Purchase Obligation of 9% for 2011-12 out of which Solar Renewable Purchase Obligation is 0.05%.</td><td>Power Procured from Renewables by the Distribution Licensee for the year 2011-12 is 9.53%.</td></tr>
<tr><td>16.</td><td>Uttarakhand</td><td>Projects commissioned on or after 01.04.2009
(i) SHP Projects (upto 25MW) :
Upto 5 MW ₹ 3.50 /unit (3.75)
5 to 10 MW ₹ 3.40/unit (3.65)
10 to 15 MW ₹ 3.25/unit (3.50)
15 to 20 MW ₹ 3.15/unit (3.40)
20 to 25 MW ₹ 3.0/unit (3.25)
(ii) Baggase based:
Co-generation projects fixed charges of ₹ 2.60/unit (2.75). In addition, the normative fuel prices of ₹ 1.77/unit for FY 2009-10 with 5% p.a. escalation allowed.
(iii) Biomass based projects:
Fixed charges of ₹ 1.80/ unit (1.90). In Addition, the normative fuel prices ₹1.90/unit allowed for FY 2009-10 with 5% p.a. escalation.
(iv) Wind Projects:
Zone 1: ₹ 4.75/unit (5.15)
Zone 2: ₹ 4.00/unit (4.35)
Zone 3: ₹ 3.35/unit (3.65)
Zone 4: ₹ 2.90/unit (3.20)
(v) Solar PV : ₹ 16.05/unit (17.70)
Solar Thermal : ₹ 11.80/unit (12.95)</td><td>The Commission has specified RPO targets for 2011-12 of 4.5%. Further, besides the targets stipulated above Solar Purchase target of 0.025% for FY 2011-12 has also been specified. Entire 100% power from renewable sources including cogeneration projects are purchased ahead of the merit order</td></tr>
</table>

<table>
<tr><th>S. No.</th><th>SERCs/ JERCs</th><th>Tariff</th><th>Power Procured From Renewables (%)</th></tr>
<tr><td>17.</td><td>Uttar Pradesh</td><td>Preferential Tariff as per UPERC Regulations (2010-11)
Bagasse: ₹ 4.24/ kWh
Biomass: ₹ 4.50/kWh
Small hydro: ₹ 2.81 to `3.94/ kWh
Solar: ₹ 4.65/ kWh
Others: ₹ 3.21/ kWh</td><td>About 3% to 4 % of the total consumption
<table>
<tr><th rowspan="2">Year</th><th colspan="3">Renewable Purchase Obligation</th></tr>
<tr><th>Non Solar</th><th>Solar</th><th>Total</th></tr>
<tr><td>2010-11</td><td>3.75</td><td>0.25</td><td>4</td></tr>
<tr><td>2011-12</td><td>4.50</td><td>0.5</td><td>5</td></tr>
<tr><td>2012-13</td><td>5.0</td><td>1.0</td><td>6</td></tr>
</table></td></tr>
<tr><td>18.</td><td>Sikkim</td><td>Notification No. 07/SSERC/TGRE/2012 Dated. 28/06/2012</td><td>Regulation yet to be notified in Sikkim Government Gazette</td></tr>
<tr><td>19.</td><td>West Bengal</td><td colspan="2">(i) Solar specific RPO specified in draft West Bengal Electricity Regulatory Commission (Cogeneration and Generation of Electricity from Renewable Sources of Energy) Regulations, 2012 which is under process of finalization.
(ii) The distribution licensee can decide the terms and conditions for purchase of power from non-conventional and renewable sources of energy subject to price cap as specified by the Commission for each type of sources as mentioned thereto.</td></tr>
<tr><td>20.</td><td>Kerala</td><td></td><td>3% of its total consumption from renewable energy sources and out of this 0.25% shall be from solar based plants, 10% increase in subsequent years up to 10%.</td></tr>
<tr><td>21.</td><td>Himachal Pradesh</td><td>SHP Tariff ₹2.95/kWh and for REC mechanism the APPC cost for FY 2011-12 is ₹2.23 per kWh.</td><td>Renewable purchase obligation and its compliance Regulation notified on 3rd October 2011 and the targets given as following:
<table>
<tr><th rowspan="2">Year</th><th colspan="2">Minimum quantum of purchase (%*) from renewable sources (in terms of energy in kWh) of total consumption</th></tr>
<tr><th>Total RPPO %age</th><th>Minimum Solar RPPO %age of the total purchase</th></tr>
<tr><td>2011-12</td><td>10.01</td><td>0.01</td></tr>
<tr><td>2012-13</td><td>10.25</td><td>0.25</td></tr>
<tr><td>2013-14</td><td>10.25</td><td>0.25</td></tr>
<tr><td>2014-15</td><td>10.25</td><td>0.25</td></tr>
<tr><td>2015-16</td><td>11.25</td><td>0.25</td></tr>
<tr><td>2016-17</td><td>12.25</td><td>0.25</td></tr>
<tr><td>2017-18</td><td>13.50</td><td>0.50</td></tr>
<tr><td>2018-19</td><td>14.75</td><td>0.75</td></tr>
<tr><td>2019-20</td><td>16.00</td><td>1.00</td></tr>
<tr><td>2020-21</td><td>17.50</td><td>2.00</td></tr>
<tr><td>2021-22</td><td>19.00</td><td>3.00</td></tr>
</table></td></tr>
<tr><td>22.</td><td>Tripura</td><td>Such type of generation yet not been developed in Tripura</td><td>As per provision of the Regulation the purchase obligation fixed for Licensee, i.e. TSECL:
1st year: 1%
2nd year: 1%
3rd year: 2%</td></tr>
<tr><td>23.</td><td>Meghalaya</td><td colspan="2">REC Regulation notified in 2009 fixing minimum percent of purchase of energy.</td></tr>
<tr><td>24.</td><td>Arunachal Pradesh</td><td colspan="2">Under final stages of preparation</td></tr>
</table>

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.

<table>
<tr><th>S. No.</th><th>SERCs / JERCs</th><th>Utility/ Discom</th><th>Cross-Subsidy Surcharge (Paise/KWh)</th><th>Methodology Adopted</th></tr>
<tr><td>1.</td><td>Assam</td><td>APDCL</td><td>Cross subsidy surcharge for FY 2010-11
<table>
<tr><th>S. No.</th><th>Particulars</th><th>Unit</th><th>Amount</th></tr>
<tr><td>1</td><td>T</td><td>Rs./kWh</td><td>4.82</td></tr>
<tr><td>2</td><td>C</td><td>Rs./kWh</td><td>3.82</td></tr>
<tr><td>3</td><td>D</td><td>Paise/kWh</td><td>27</td></tr>
<tr><td>4</td><td>L</td><td>%</td><td>13.04</td></tr>
<tr><td>5</td><td>S= cross subsidy surcharge</td><td>Paise/kWh</td><td>23</td></tr>
</table>
The Cross subsidy surcharge as given above, payable by the HT Industries – II (above 150 kVA) opting open access at 33 kV voltage is 23 Paise/kWh</td><td>Average Cost of Supply</td></tr>
<tr><td>2.</td><td>Bihar</td><td></td><td>The Commission has determined the transmission and wheeling charges and cross subsidy surcharge in its tariff order for FY 2012-13 and in earlier tariff orders also. The cross subsidy surcharge has been reduced to fifty percent compared to the value calculation as per Tariff Policy.</td><td></td></tr>
<tr><td>3.</td><td>Chhattisgarh</td><td>State Discom</td><td>1. HT Consumers ₹ 0.31 per kWh
2. For EHT Consumers ₹ 0.85 per kWh</td><td>In line with methodology defined in tariff policy.</td></tr>
</table>

S. No.	SERCs / JERCs	Utility/ Discom	Cross-Subsidy Surcharge (Paise/KWh)	Methodology Adopted
4.	Delhi		The annual transmission charges for calculation of Open Access Transmission Charges are applicable as per MYT order issued for Delhi Transco Ltd. for FY 2012-13 TO FY 2014-15. MYT order also specifies the wheeling charges and supply margin for all Discoms. The wheeling charges shall be used for non-discriminatory open access to the Consumers	
5.	Gujarat		For the year 2011-12 the Commission determined the cross-subsidy surcharge at the following rates, (1) For State DISCOMs: 39 paise/ kWh (2) For TPL, (i) Ahmedabad-Gandhinagar area: nil (ii) Surat Area: nil	The methodology adopted for cross –subsidy is as per Tariff policy.
6.	Haryana	UHBVNL and DHBVNL	HT industry: 58 Street Lighting: 30 Railway Traction: 60 Cross subsidy charge (paise/unit): 1. HT industry:58 2. Street lighting: 30 3. Railway traction: 60 4. Bulk supply: 78	Cross subsidy surcharge is determined in accordance with the provisions of the NTP
7.	Jammu & Kashmir	J&K PDD	No surcharge levied	As specified in the Open Access Regulation
8.	Karnataka		**Category**	**2012-13**
			HT2(a) (Industrial) 66 kV and above	43 paise per kWh
			HT level – 11 kV/33kV	11 paise per kWh
			HT2(b) (commercial) 66 kV and above	205 paise per kWh
			HT level -11 kV/ 33 kV	173 paise per kWh
9.	Manipur &Mizoram	1. Electricity Department, Manipur 2. Power and Electricity Department, Mizoram	-	Formula given in Tariff Policy to be adopted
10.	Goa & Union Territories	JERC (UTs) is conducting public hearing consultation on 25.10.12, 30.10.12 and 5.11.2012. Draft document is on the website for stakeholders comments.		173 paise per kWh
11	Jharkhand	JSEB	To be estimated; petition filed by JSEB	As per section 6.56 of JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2010
12.	Madhya Pradesh	M.P. Paschim Kshetra VVCL, M.P. Madhya Kshetra VVCL & M.P. Poorv Kshetra VVCL	As per detailed Order dated 31.03.2012 For example for 132 kV Railways: 114 paise/kWh For 33 kV Industries: 55 paise/kWh	As per Tariff Policy

S. No.	SERCs/ JERCs	Utility/ Discom	Cross-Subsidy Surcharge (Paise/KWh)	Methodology Adopted
13.	Odisha	CESU NESCO WESCO SOUTHCO	**For EHT Consumers at 100% load factor** 179 paise/kWh 141 paise/kWh 142 paise/kWh 246 paise/kWh	The methodology adopted for Cross subsidy is as per Tariff Policy. However, the Commission has adopted higher rate of cross subsidy surcharge for lower load
		CESU NESCO WESCO SOUTHCO	**For HT Consumers at 100% load factor** 95 paise/kWh 57 paise/kWh 71 paise/kWh 142 paise/kWh	factor.
14.	Punjab	From 1.4.2011 to 5.7.2011: Cross subsidy surcharge is charged to the various categories of open access customers calculated as per the formula specified by the Commission (mentioned below in the methodology adopted) in the Regulations. From 6.7.2011 to 31.3.2012: Large Supply 74.48 paisa Domestic Supply 79.41 paisa Non Residential Supply 120.41 paisa Bulk Supply 62.41 paisa Railway Traction 142.42 paisa		From 1.04.2011 to 5.07.2011 The cross subsidy surcharge calculated as per the following formula: S= T – [C (1+L/100) +D] S is the surcharge T is tariff payable by the relevant category of consumers. C is weighted average cost of power purchase at Punjab boundary of top 5% at the margin excluding liquid fuel based generation & renewable power. D is transmission and wheeling charge L is the T&D losses for applicable voltage level, expressed as a percentage From 6.07.201 to 31.3.2012 The cross subsidy surcharge calculated as per the following formula S= T- C Where, S is the cross subsidy surcharge T is the average per unit realization from the relevant category of consumers. C is the combined average cost of supply of distribution licensee
15.	Tamil Nadu	The cross subsidy surcharge varies from 166 paise / kWh to 207 paise / kWh depending upon the injection / drawal voltage for HT industrial category as specified in the Commission's Tariff Order No.1 dated 30-03-2012.		
16.	Uttarakhand	UPCL	50 paise/ kWh	For FY 2011-12, 19% pooled average system distribution loss shall be applicable to open access consumers

<table>
<tr><th>S. No.</th><th>SERCs / JERCs</th><th>Utility/ Discom</th><th>Cross-Subsidy Surcharge (Paise/KWh)</th><th>Methodology Adopted</th></tr>
<tr><td>17.</td><td>Uttar Pradesh</td><td colspan="3">Open Access surcharge is Zero
Cross subsidy surcharge is Zero
Additional surcharge is Zero
As per distribution & Transmission Tariff Regulations the Commission has adopted same formula as notified in Tariff Policy.</td></tr>
<tr><td>18.</td><td>Sikkim</td><td>EPDS</td><td colspan="2">Not determined</td></tr>
<tr><td>19</td><td>West Bengal</td><td colspan="3">West Bengal Electricity Regulatory Commission (Open Access) Regulations, 2007 published under Notification No. 35/WBERC dated 12.04.2007 as amended has been promulgated containing cross subsidy and other incremental charges as applicable.
Cross subsidy surcharge: It is the difference of the applicable tariff for the category of the consumers being allowed open access an the cost avoided by the licensee.</td></tr>
<tr><td rowspan="6">20.</td><td rowspan="6">Kerala</td><td>EHT: 110 kV</td><td>Nil</td><td rowspan="6">As per tariff policy</td></tr>
<tr><td>EHT: 66 kV</td><td>11 paise/kWh</td></tr>
<tr><td>Railway</td><td>24 paise/kWh</td></tr>
<tr><td>HTI: Industrial</td><td>Nil paise/kWh</td></tr>
<tr><td>HT II: Non Industrial</td><td>49 paise/kWh</td></tr>
<tr><td>HT IV: Commercial</td><td>255 paise/kWh</td></tr>
<tr><td>21.</td><td>Himachal Pradesh</td><td>HPSEB Ltd.</td><td colspan="2"><table><tr><th>Category</th><th>For Non peak load hours</th><th>For Peak load hours</th></tr><tr><td>Large Supply EHT Category (`/Unit)</td><td>Nil</td><td>2.37</td></tr><tr><td>LS HT</td><td>Nil</td><td>2.11</td></tr><tr><td>Bulk Supply HT Category</td><td>Nil</td><td>Nil</td></tr><tr><td>Water & Irrigation Pumping Supply</td><td>0.11</td><td>2.36</td></tr></table></td><td>The Methodology adopted as per the HPERC (Cross Subsidy surcharge, additional surcharge and phasing of cross subsidy) Regulations, 2006</td></tr>
<tr><td>22.</td><td>Tripura</td><td>TSECL</td><td colspan="2">No Intra State Open Access is in force. Such type of charge will be calculated as on when required.</td></tr>
<tr><td>23.</td><td>Meghalaya</td><td colspan="3">Open Access Regulation notified in 2012 and is in operation.</td></tr>
<tr><td>24.</td><td>Arunachal Pradesh</td><td colspan="3">Under preparation</td></tr>
</table>

7. Harnessing of Surplus Captive Generation

Provision in Tariff Policy:

6.3 Harnessing captive generation

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

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

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

Review of 'FOR' recommendations.

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. No.	SERCs/ JERCs	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.	Arunachal Pradesh	No action taken as yet. No such stations in the State as of now.				
2.	Assam	Captive generators are allowed to operate as demanded by consumer in lieu of energy charges. The distribution licensee is procuring 5 MW captive power from IOCL (AOD), Digboi @ ₹ 3.49/ unit.				
3.	Bihar	There is no captive power plant generating energy significantly. Only some of the Bagasse based cogeneration plants are supplying surplus power to the Board and banking of energy is allowed to those cogeneration plants.				
4.	Chhattisgarh	Nil	₹ 21.00 per kVA (For captive and non captive load of CPP)	NIL	(i) Startup power ₹170/kVA/ Month as demand charge and ₹ 3.70/kWh as energy charges for consumers having contract demand (ii) Startup power ₹ 13.60/ kWh unit for consumers who have no contract demand (iii) Standby charges ₹ 6.43/ kWh for energy upto open access limit and ₹ 8.58/ kWh for energy beyond open access limit	(i) Wheeling charge- 18 paise/unit upto 33kV (ii) 27paise/unit above 33 kV for STOA (iii) LOTA & MTOA Customer shall bear net ARR in proportion to their reserved capacity

S. No.	SERCs/ JERCs	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	
5.	Delhi	NA	NA	NA	NA	NA	
6.	Gujarat	No penalty	₹ 26.50/ kVA			For DISCOMs (PGVCL, MGVCL, DGVCL & UGVCL) Wheeling charges are as follows: 11 kV: 11 paise/kWh 400 V (LT): 39 paise/ kWh For TPL Wheeling charges 11 kV: Ahmedabad and Surat: 21 and 18 paise/ kWh respectively. 400 V (LT): Ahmedabad and Surat 67 and 47 paise/ kWh respectively.	
7.	Haryana	Not determined	Not determined				
8.	Himachal Pradesh	No Regulations have been framed					
9.	Jammu & Kashmir	No surplus captive Power Generation available in the State. Moreover, captive power plants in State are diesel engine driven which may not be an economical option.					
10.	Karnataka						
11.	Kerala					5% of wheeled energy	
12.	Manipur &Mizoram	No captive generation available in the States. Other charges are not yet determined.					
13.	Goa & UTs	There are hardly any Grid injectable captive power plants in UT.					
14.	Jharkhand	As per JSERC (Utilization of surplus capacity of captive power plants based on conventional fuel) Regulations, 2010					
15.	Madhya Pradesh	No penalty	Study conducted through ERDA and report under finalization	NIL for CPP (For consumers Minimum charges as per prevailing Tariff Order)	Commitment charges 132 kV: ₹ 25/ kVA/ month 33 kV: ₹ 31/kVA/month Temporary connection charges (presently 1.3 times normal charges) applicable for Fixed & Energy Charge in case standby power is availed.		
16.	Meghalaya	There are a few captive Generating Plants in the State. Surplus power is being injected to the grid from Captive Generation as per requirement.					
17.	Odisha	No penalty. This shall be governed by OERC Distribution (Conditions of Supply) Code 2004.	NIL	NIL	NIL	Discoms	Wheeling Charges (paise/ kWh)
						WESCO	56.97
						NESCO	69.53
						SOUTHCO	97.72
						CESU	72.50

S. No.	SERCs/ JERCs	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
18.	Punjab	No penalty	No parallel operation charges. However, one time permission fee @ ₹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. 495 paise/ unit during 2011-12 and `20/kVA/ Month as commitment charges to be adjusted against the bill for electricity drawal.	1. Wheeling charges Voltage level (66 kV, 33 kV and 11 kV) (a) For LTOA (₹/MW/ Month) `169629 (b) for STOA From 1.4.2011 to 5.7.2011 = 23.2 paisa/ unit From 6.7.2011 to 31.3.2012 Wheeling charges at 33/66 kV = 17.4 paisa/ unit wheeling charges at 11 kV = 34.8 paisa/unit 2. Transmission Charges Voltage Level (220 kV, 132 kV) (a) LTOA (₹/MW/Month) ₹ 16273 (b) STOA = 11 paisa/ unit Wheeling charges for wheeling of power for NRSE project @ 2% of energy injected to State Grid irrespective of distance.
19.	Sikkim	Not yet determined				
20.	Tamil Nadu	Nil	Parallel Operation Charges: Nil Grid Support charges: As applicable to that category of consumer	As per the tariff order in force, the applicable minimum demand charge is the actual recorded maximum demand or 90% of the sanctioned demand (quota demand during R&C period), whichever is higher.	(i) If a generator is an open access customer, the startup power shall be provided by the Distribution Licensee for a maximum period of 42 days in a year, subject to the limitation of demand not exceeding the auxiliary consumption norms as specified by the Commission in the regulation or order for a particular type of generator. (ii) The generator shall pay the Distribution Licensee for the supply of startup power at the rates as applicable for the temporary supply of that voltage category.	

S. No.	SERCs/ JERCs	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
					However if the generator who has availed open access, happens to be a NCES Generator/ Independent Power Producer (IPP) and desires to avail start up power from the Grid, the transaction shall be governed by the respective NCES Regulations/ Orders of the Commission in force/ Power Purchase Agreement. (iii) If adequate generation by the open access generator does not materialize or if the drawal by the captive/ third party user exceeds the generation, the Distribution Licensee shall provide standby power to the user at the rates as applicable to that category of consumer subject to the terms and conditions of supply applicable to normal consumers as specified or ordered by the Commission.	
21.	Tripura	Grid injectable captive power plant not available in Tripura				
22.	Uttarakhand	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
23.	Uttar Pradesh	No penalty	NA	NA	NA	As per tariff orders.
24.	West Bengal	Methodology for fixing Penalty for reduction of contracted demand by consumer having CPP, Parallel operation charges/Grid Support Charges, Minimum Guarantee Charges, Start-up/Stand by Charges and Wheeling Charges have been provided in West Bengal Electricity Regulatory Commission (Open Access) Regulations, 2007, as amended.. Commission passes orders regularly for Transmission Charges, Wheeling Charges & Cross subsidy Surcharges for Open Access/Captive consumers. Other charges are consumer specific and determined by the Commission at the time of approval of open access to a consumer.				

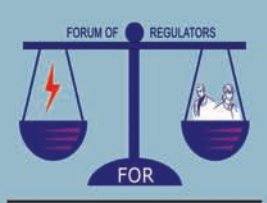
Annexure - V

Acronyms list

S.No.	Acronym	Detail
1.	ASG	Additional Solicitor General
2.	APP	Association of Power Producers
3.	APTEL/ ATE	Appellate Tribunal of Electricity
4.	APPPC	Average Pooled Power Purchase Cost
5.	AMI	Automated Meter Reading Instruments
6.	ARR	Aggregate Revenue Requirement
7.	ABT	Availability Based Traiff
8.	APR	Annual Performance Review
9.	APPC	Average Pooled Cost of Purchase
10.	BPTA	Bulk Power Transmission Agreement
11.	BSF	Border Security Force
12.	CERC	Central Electricity Regulatory Commission
13.	CGRF	Consumer Grievances Redressal Forum
14.	CAG	Comptroller and Auditor General
15.	CUF	Capacity Utilization Factor
16.	CEA	Central Electricity Authority
17.	CPP	Captive Power Plants
18.	CSTEP	Centre for Study of Science, Technology & Policy
19.	DSM	Demand Side Management
20.	DISCOMs	Distribution Company
21.	DGVCL	Dakshin Gujarat Vij Company Ltd
22.	ERC	Electricity Regulatory Commission
23.	ESCOMs	Electricity Supply Companies
24.	EA	Electricity Act
25.	FOR	Forum of Regulators
26.	FOIR	Forum of Indian Regulators
27.	GRIDCO	Grid Corporation of Orissa Limited
28.	GSECL	Gujarat State Electricity Corporation Ltd
29.	HVPNL	Haryana Vidyut Prasaran Nigam Limited
30.	HPGCL	Haryana Power Generation Corporation Limited
31.	HPSEBL	Himachal Pradesh State Electricity Board Limited
32.	HPPTCL	Himachal Pradesh Power Transmission Corporation Ltd
33.	HVDS	High Voltage Distribution System
34.	IIT	Indian Institute of Technology
35.	IIM	Indian Institute of Management
36.	IEGC	Indian Electricity Grid Code
37.	ISO	Independent System Operation
38.	JERC-M&M	Joint Electricity Regulatory Commission- Manipur And Mizoram
39.	JERC –UTs	Joint Electricity Regulatory Commission- Union Territories

S.No.	Acronym	Detail
40.	JPVL	Jai Prakash Power Ventures Ltd
41.	JSPL	Jindal Steel and Power Ltd
42.	JSEB	Jharkhand State Electricity Board
43.	JSERC	Jharkhand State Electricity Regulatory Commission
44.	KPT	Kandla Port Trust
45.	MUPL	MPSEZ Utilities Private Ltd.
46.	MSERC	Meghalaya State Electricity Regulatory Commission
47.	MNRE	Ministry of New and Renewable Energy
48.	MERC	Maharashtra Electricity Regulatory Commission
49.	MMC	Market Monitoring Cell
50.	MFCA	Monthly Fuel Cost Adjustment
51.	MVCA	Monthly Variable Cost Adjustment
52.	MYT	Multi Year Tariff
53.	MOP	Ministry of Power
54.	MGVCL	Madhya Gujarat Vij Company Ltd
55.	NDC	National Development Council
56.	NAPCC	National Action Plan on Climate Change
57.	NPTI	National Power Training Institute
58.	NLSUI	National Law School of India University
59.	ODGBDF	Off Grid Distributed Generation Based Distribution Franchisee
60.	OTC	Over the Counter
61.	OGC	Orissa Grid Code
62.	OTS	One Time Settlement
63.	PPCL	Puducherry Power Corporation
64.	PoC	Point of Connection
65.	PPA	Power Purchase Agreement
66.	POSOCO	Power System Operations Corporation Limited
67.	PSU	Public Sector Undertaking
68.	PTCUL	Power Transmission Corporation of Uttarakhand Limited
69.	PSPCL	Punjab State Power Corporation Limited
70.	PSTCL	Punjab State Transmission Corporation Limited
71.	PGVCL	Paschim Gujarat Vij Company Ltd
72.	RE	Renewable Energy
73.	REC	Renewable Energy Certificate
74.	RPO	Renewable Purchase Obligation
75.	ROE	Return on Equity
76.	RERC	Rajasthan Electricity Regulatory Commission
77.	SEB	State Electricity Board
78.	SERC	State Electricity Regulatory Commission
79.	SOP	Standards of Performance
80.	SEZ	Special Economic Zone
81.	STU	State Transmission Utility
82.	SLDC	State Load Despatch Centre
83.	SBD	Standard Bidding Document
84.	SPV	Special Purpose Vehicle

S.No.	Acronym	Detail
85.	TOD	Time of Day
86.	T&D	Transmission and Distribution
87.	TOD	Time of Day
88.	TANGECO	Tamil Nadu Generation and Distribution Corporation Ltd
89.	TEL	Torrent Energy Ltd.
90.	UPCL	Uttarakhand Power Corporation Limited
91.	UJVN	Uttarakhand Jal Vidyut Nigam
92.	UPPTCL	Uttar Pradesh Power Transmission Corporation Limited
93.	UGVCL	Uttar Gujarat Vij Company Ltd
94.	UMPP	Ultra Mega Power Projects
95.	UI	Unscheduled Interchange
96.	UT	Union Territories
97.	WPD	Wind Power Density



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