

Forum of	Regulators			
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Forum of Regulators (FOR)				

ANNUAL REPORT

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#### Forum of Regulators (FOR)

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## Foreword

During the year 2013-14, 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 Forum identified the need to understand the existing realities of distribution in India and examine the suitability of a competitive retail supply model for India with due regard to the crucial bottlenecks in the implementation of retail competition in India etc. Accordingly, the Forum commissioned a study on "Introduction of Competition in Retail Electricity Supply in India". The study identified the economic, financial, technical and institutional pre-conditions for opening up the retail market to competition. The report recommended feasible market structure including segregation of network and supply businesses, ownership separation after 3 years; onset of second supply licensee and suggested a hybrid model wherein only one segment of consumers (1 MW & above load) would be initially open to competition. The study recommended phased approach with clear milestones over a 6 year period along with clear identification of enablers which will facilitate this transition.

The Forum felt that accurate calculation of AT&C loss levels through a scientific study would facilitate the Regulators as well as the utilities to identify the future course of action for achieving loss reduction through a trajectory. Accordingly, the Forum commissioned study on "Assessment of Component-wise AT&C Losses" for the States of Tamil Nadu, Rajasthan, Uttar Pradesh, Madhya Pradesh, Maharashtra and Karnataka" with the objective to identify the specific components of the AT&C losses, computing the overall AT&C losses followed by calculation of component wise AT&C losses. The study made separate recommendations in the short, medium and long terms for high energy loss areas, in the short and medium terms to reduce commercial loss, for AT&C losses reduction in the low energy losses areas. Apart from these, the report made component wise analysis of AT&C losses and suggestion for the future AT&C losses reduction studies.

The Forum commissioned a study on "Impact Assessment of Plan Assistance to the Forum of Regulators by the Ministry of Power during the 11th Plan Period" with the objective to prepare a comprehensive report on impact assessment of the Capacity Building Programmes and Studies undertaken by FOR during the 11th Plan. The report made suggestions to enhance the impact of Studies and Capacity Building Programmes (CBPs) conducted by the Forum, by deepening the focus on specific aspects as well as taking up a wider range of programmes. Based on the impact scores and the qualitative discussions with stakeholders, the overall impact of the Studies and CBPs was assessed as being highly satisfactory and is also found to be in line with the objectives of FOR.

In the backdrop of the initiatives taken by the Forum, the responsibility primarily now rests with the SERCs/ JERCs to adopt the recommendations of various studies for implementation. 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.

Chairperson, FOR

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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 (NDĆ) 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 interalia 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
- 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;
- Such other functions as the Central Government may assign to it

#### Finances of the Forum

The Central Commission, being Secretariat of the Forum, 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

- 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.

## **Activities of the Forum**

#### 2.1 Meetings of the Forum of Regulators

The Forum organized four meetings during the year and evolved consensus on many critical issues. The most significant initiative of the Forum was in the area of retail sale competition where the Forum conducted a study on "Introducing Competition in Retail Electricity Supply in India". The Forum also carried out a study on "Impact Assessment of Plan Assistance to the Forum of Regulators by the Ministry of Power during the 11th Plan Period" to assess the impact of the capacity building programmes and studies undertaken by the Forum during the 11th plan.

## Srinagar:

The Forum considered the draft study report on "Retail Sale Competition". The Forum noted the need for separation of carriage and content at the distribution level for implementation of Retail Sale Competition and approved the report.

The Forum discussed the power procurement planning of distribution companies and appreciated the need for strengthening the demand forecasting and power procurement planning by the distribution companies. It was felt SERCs while approving business plan should scrutinize the power procurement plan; especially the medium-term and long-term procurement plans of the distribution companies.

The Forum discussed the CERC's Staff Paper on "Introduction of Ancillary Services in Indian Electricity 2.1.3 38th FOR Meeting held on 18th Market". The Forum noted the need for ancillary services, framework of ancillary services and issues in its implementation. It was felt that ancillary services may be desirable to balance the variability of the renewable generation.

The Forum discussed the draft Model Legislation on State Electricity Distribution Responsibility Bill and decided that the "FOR" Secretariat may assist the Ministry of Power in drafting the Legislation with the approval of the "FOR" Chair.

#### 2.1.2 37th FOR Meeting held on 21st August, 2013 at New Delhi:

The Forum considered the initiatives taken on grid security and operation after the incidences of grid failure

in 2012. The Forum discussed the impact of gradual tightening of frequency band on grid frequency, decline in UI volume after the incidences of grid failures. The Forum noted the need for primary response to avoid large fluctuations in frequency; particularly in view of synchronization of Southern Grid by March 2014, integration of renewable generation, interconnection of neighbouring countries and impact of frequency variation on line flows and voltages and the need for protection audit in regular basis, capacity building of system operations etc.

Shri Jyotiraditya Madhavrao Scindia, Hon'ble Minister 2.1.1 36th FOR Meeting held on 20th April, 2013 at of State (I/C) for Power attended the meeting. During the interaction, he stressed on the need for coordinated efforts in the larger interest of development of the power sector. He emphasized the need to encourage generation, guarantee off-take of power and generate revenue in the power sector. He urged the Regulators to be fair and balanced in the interest of both the investors and the consumers. He also requested the Regulators to be alert, vigilant, active and helpful for the development of the sector. The Hon'ble Minister took up three specific issues for discussion and sought considered views and co-operation of the Regulators in this regard, which inter alia include "Renewable Purchase Obligation: Status of compliance – Suggestions for more effective enforcement", "Adequacy of Power Supply: Issues of Stranded Capacity and Reliability" and "Competition in the retail sale of electricity in India"

## November, 2013 at New Delhi:

Shri Gireesh B. Pradhan, Chairperson, CERC took over as Chairperson, Forum of Regulators.

The Forum considered the proposed amendments to some of the provisions of the Electricity Act, 2003. The Forum after discussion, made suggestions on the issues related to separation of distribution network business and supply business, Grid Security, Open Access, Tariff etc as contained in the proposed amendments to the Electricity Act, 2003.

#### 2.1.4 39th FOR Meeting held on 18th January, 2014 at Chandigarh:

The Forum considered and noted the proposed amendments to the Electricity Act, 2003 as presented

FOR Annual Report 2013-14 FOR Annual Report 2013-14 by the representatives of Ministry of Power, which inter alia included amendments related to separation of carriage and content in distribution and those relating to provisions other than carriage and content.

The Forum considered the draft CERC (Terms and Conditions of Tariff) Regulations, 2014 for the tariff period from 01.04.2014 to 31.03.2019. The Forum, after deliberation, made suggestions regarding further analysis on rationalization of O&M expenses, ratio of sharing of gains on account of Station Heat Rate (SHR) etc.

The Forum considered the issues related to Smart Grid Regulatory Requirements / Smart Grid Pilots in distribution. The Forum, after deliberation, observed that the Smart Grid Regulations should be simple and easy to understand and implement. The Forum also noted the importance of consultation/awareness programmes for Regulators and regulatory staff, besides need for rolling out Smart Grid programme in phases starting with metering etc.

The Forum considered the issues related to promotion of Renewable Energy Sources, Latest Developments, GOI Initiatives and Regulatory Support. After discussion, the Forum endorsed in principle, the concept of REC multiplier for solar was endorsed in principle. The Forum was also informed about the consensus evolved in the Working Group on Renewables regarding eligibility of renewable energy generator selling electricity component through open access route. The Forum noted and endorsed this recommendation of the Working Group.

#### **Studies Completed**

#### 2.2.1 Introducing Competition in Retail **Electricity Supply in India**

The Forum commissioned a study on "Introduction of Competition in Retail Electricity Supply in India" and engaged M/s Pricewaterhouse Coopers as consultant to assist the Forum is carrying out the study. The objective of the study inter alia include review international experiences (with primary focus on the UK) and study the best practices in dealing with issues, suggest alternatives for separation of network and supply businesses in distribution in India with due regard to the power sector scenario in India, to recommend a competitive retail supply model suitable for India with due regard to the existing realities of distribution in India and to identify crucial bottlenecks in the implementation of retail competition in India etc.

retail electricity sector of the United Kingdom; Victoria, Australia; Argentina; Philippines and California and in the Indian context, the report studied the experience in retail consumer choice in Mumbai and Special Economic Zones of Gujarat and Kerala. The study identified the economic, financial, technical and institutional pre-conditions for opening up the retail market to competition. The report recommended feasible market structure including segregation of network and supply businesses, ownership separation after 3 years; onset of second supply licensee and suggested a hybrid model wherein only one segment of consumers (1 MW & above load) would be initially open to competition. The study recommended phased approach with clear milestones over a 6 year period along with clear identification of enablers which will facilitate this transition.

#### 2.2.2 Assessment of Component-wise AT&C Losses for the States of Tamil Nadu, Rajasthan and Uttar Pradesh

The Forum commissioned a study on "Assessment of Component-wise AT&C Losses for the State of Tamil Nadu, Rajasthan and Uttar Pradesh" and engaged M/s Medhaj Techno Concept Pvt. Ltd. as consultant to assist the Forum in carrying out the study. The objective of the study include identifying the specific components of the AT&C losses, computing the overall AT&C losses followed by calculation of component wise AT&C losses.

The study made separate recommendations in the short, medium and long terms for high energy loss areas, in the short and medium terms to reduce commercial loss, for AT&C losses reduction in the low energy losses areas. Apart from these, the report made component wise analysis of AT&C losses and suggestion for the future AT&C losses reduction studies.

#### 2.2.3 Impact Assessment of Plan Assistance to the Forum of Regulators by the Ministry of Power during the 11th Plan Period

The Forum commissioned a study on "Impact Assessment of Plan Assistance to the Forum of Regulators by the Ministry of Power during the 11th Plan Period" and engaged M/s ICRA Management Consulting Services Ltd. to assist the Forum in carrying out the study. The objective of the study included preparation of comprehensive report on impact assessment of the Capacity Building Programmes and Studies undertaken by FOR during the 11th Plan.

The report made suggestions to enhance the impact of Studies and Capacity Building Programmes (CBPs) conducted by the Forum, by deepening the focus on The report studied the experience of competition in the specific aspects as well as taking up a wider range of

programmes. Based on the impact scores and the qualitative discussions with stakeholders, the overall impact of the Studies and CBPs was assessed as being highly satisfactory and is also found to be in line with the objectives of FOR.

#### 2.2.4 Assessment of Component-wise AT&C Losses for the States of Madhya Pradesh, Maharashtra and Karnataka

The Forum commissioned a study on "Assessment of Component-wise AT&C Losses for the States of Madhya Pradesh, Maharashtra and Karnataka" and engaged M/s MECON Ltd. to assist the Forum in carrying out the study. The objective of the study include identifying the specific components of the AT&C losses, computing the overall AT&C losses followed by calculation of component wise AT&C losses.

The study made component wise analysis of AT&C losses and suggestion for the future AT&C losses reduction studies. The study also recommended measures to reduce the AT&C losses of the distribution system which inter alia included use of HVDS and up gradation of existing network, measures for reduction in

theft and pilferage of energy of distribution system by introducing insulating conductors i.e.; Aerial Bunched conductor and increasing the regular vigilance activities, conducting Energy Accounting & Audit on regular basis for accurate measurement of the Component-wise AT&C Losses of the Distribution System and adoption of Distribution Franchisee (DF) model in high loss circles.

#### 2.3 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 the following Training and Capacity Building Programmes for the ERCs during the year. These include a five day orientation programme during 8-12 July, 2013 at the Indian Institute of Management (IIM), Ahmedabad (with international visit to USA) for Chairpersons and Members of ERC, the sixth capacity building programme during 9-14 February, 2014 at the Indian Institute of Technology (IIT), Kanpur (with international visit to Bangkok), a two day training programme on "Protection of consumer Interest" for officers of CGRF & Ombudsman during 26-27 February, 2014 at the National Power Training Institute (NPTI).

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## Achievements of Member Regulatory Bodies of Forum of Regulators during 2013-14

## 3.1 Central Electricity Regulatory Commission

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

The Commission vide notification dated February 21, 2014 issued Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 which comes into force on 1.4.2014. The base rate of return on equity has been kept at 15.5% to enlist the confidence of investors in the sector. In order to incentivise timely completion of projects, additional Return on Equity (RoE) of 0.50% is made available to projects which are commissioned within the specified timeline. Return on Equity has been grossed up with the effective tax rate of the financial year. Financial gains, if any, on account of Station Heat Rate, Secondary Fuel Oil Consumption and Auxiliary Energy Consumption have been allowed to be shared in the ratio of 60:40 between the generating station and beneficiaries.

The Commission, duly examined the suggestions submitted by POSOCO in the light of the report of the Enquiry Committee set up in the wake of the grid disturbance on 30.7.2012 and 31.7.2012 and decided that calculation of the Total Transfer Capability in line with CEA Planning Criteria should be more objective and result in optimum utilization of the transfer capacity of the inter-State transmission lines. Accordingly, the Commission approved the Revision I of the Detailed Procedures in exercise of powers under regulation 4(2) of the Congestion Charge Regulations, 2009.

The Commission, had created a market for framework for renewable energy certificates and notified the CERC (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010. The concept of renewable energy certificate encapsulated in

these Regulations seeks to address the mismatch between availability of renewable energy sources and the requirement of obligated entities to meet their renewable purchase obligations. The Commission in its endeavor to strengthen the REC framework and address some of the design issues and remove ambiguities which are affecting its implementation issued the Second amendment to the REC Regulations.

As part of the procedure, terms and conditions for grant of trading licence and in order to develop and monitor the Power Market in sync with changes affecting the electricity sector landscape, the Commission amended the principal regulations by qualifying the "Intra-State trading" on the basis of the inter-State trading licence issued by the Commission. Further, the manner of posting of information by the inter-State trading licensees on their websites was also specified besides new formats of application for issue of trading licence and for filing of information regarding Bilateral and Power Exchange Transactions annually by Trading Licensee, were also introduced.

The Commission amended the Open Access in inter-State Transmission Regulations, 2008 by which the requirement of obtaining a 'no objection' certificate by the utility from the SLDC has been introduced.

The Commission, apart from providing Secretariat services to the Forum, also provides secretariat services to Forum of Indian Regulators (FOIR) and the South Asia Forum for Infrastructure Regulation (SAFIR).

## Commission approved the Revision I of the Detailed **3.2 Andhra Pradesh Electricity Regulatory** Procedures in exercise of powers under regulation 4(2) **Commission**

Tariff Orders were issued from time to time.

The following Regulations were notified in FY 2013-14:

- APERC (Interim Balancing & Settlement Code for Open Access Transactions) First Amendment Regulation, 2013.
- APERC (Conduct of Business) Third amendment Regulation, 2013.

- APERC (Licensees's duty for supply of electricity on request) Regulation, 2013
- APERC (Method of Recruitment and Conditions of service of Officers and Staff) Regulation, 2013
- APERC (Compliance Audit) Regulation, 2013)
- APERC (Licensees' Standards of Performance)
   Second Amendment Regulation, 2013
- APERC (terms & Conditions of Appointment and Payment of Remuneration to Standing Counsel / Counsel) Regulation, 2013
- APERC (Distribution Licence) Regulations, 2013
- APERC (Fees) First Amendment Regulation, 2013
- APERC (Security Deposit) First Amendment Regulation, 2013
- APERC (Terms and Conditions for Determination of Tariff for Wheeling and Retail Sale of Electricity) First Amendment Regulation, 2014

#### 3.3 Bihar Electricity Regulatory Commission

The following Regulations were notified by the Commission during the FY 2013-14:

- BERC (Recruitment and Terms and Conditions of Service of Officers and employees) Regulations, 2014
- BERC (Terms and Conditions for Tariff Determination from Solar Energy Sources) (2nd Amendment) Regulations, 2014
- BERC (Terms and Conditions for Determination of Tariff) (2nd Amendment) Regulations, 2014
- Appointment of Consultant Regulations, 2013
- 1st Amendment to Appointment of Consultants Regulations, 2015
- Notification regarding authorising Junior Electrical Engineers and Assistant Electrical Engineers for the purpose of disconnecting the supply line for their respective jurisdiction
- Treatment of Income of Other Businesses of Transmission Licensees and Distribution Licensees, 2013

The Commission issued the following orders during the FY 2013-14:

- Application for Grant of Transmission Licence for M/s Bihar Grid Company Ltd. Licence was granted to Bihar Grid Company Ltd. for the period FY 2013-14 for intra-state transmission line.
- Petition for Review of Tariff Rate and Tariff Structure for Bagasse Based Grid Connected Cogeneration Projects in the State of Bihar filed by Cogeneration Association of India.

- Petition for making provision of solar power banking or net metering facilities for captive power in Regulation 35 of BERC (Terms and Conditions for Tariff Determination from Solar Energy Sources) Regulations, 2010.
- Approval of Business Plan of Bihar Grid Company Ltd. for FY 2014-15

## 3.4 Chhattisgarh Electricity Regulatory Commission

The following orders were issued during the FY 2013-14:

- Order on True-up and Tariff Petitions for FY 2013-14 of CSPGCL, CSPTCL, CSPDCL
- Determination of ARR for FY 2012-13 and True up for FY 10-11 & 12-13 JSPL D
- Determination of ARR for FY 2012-13 and True up for FY 10-11 & 12-13 JSPL T
- Determination of ARR for Control Period FY 2013-14 to FY 2015-16 & Retail Tariff for FY 2013-14 of JSPL – D
- Determination of ARR for Control Period FY 2013-14 to FY 2015-16 & Determination of Retail Tariff for FY 2013-14 of JSPL – T

The following regulations were notified by the Commission during the FY 2013-14.

- CSERC (Determination of tariff for procurement of power from Rooftop PV Solar Power Projects by distribution licensees of State) Regulations, 2013
- CSERC (RPO and REC framework Implementation) Regulations, 2013
- Chhattisgarh State Electricity Supply Code (First Amendment) 2013
- Chhattisgarh State Electricity Regulatory Commission (Conduct of Business-First Amendment) Regulations, 2013

#### 5 Delhi Electricity Regulatory Commission

The achievements of DERC during FY 2013-14 are given below:

- Issued Order in the matter of Determination of Transmission and Wheeling Charges, Cross Subsidy Surcharge, Additional Surcharge and other applicable charges under Open Access.
- Notified DERC (Net Metering for Renewable Energy) Regulations, 2014
- DISCOM wise scheduling has been implemented by DERC

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#### **Gujarat Electricity Regulatory** Commission

The Commission has achieved following milestones in the financial year 2013-14:

- Grid Code Regulation: GERC had notified Grid Code vide notification No. 5/2004 dated 25/08/2004 consistent with the Grid Code specified by the Central Electricity Regulatory Commission.
- Biomass & Bagasse Tariff Order: The Commission vide Order No. 4 of 2013 determined the Tariff for procurement of power by Distribution Licensees and Others in Gujarat from Bio-mass based power projects and Bagasse based co-generation project for the control period 1st August, 2013 to 31st • March, 2016.
- GERC (Terms and Conditions of Intra-State Open Access) (First Amendment) Regulations, 2014: The Commission issued the Notification No. 1 of 2014, Access) Regulations, 2014 (First Amendment) on 4.03.2014 and making effective from 1.04.2014. In the aforesaid amendment Short Term Open Access transmission charges were equated with long term/ medium term open access transmission charges 3.8 and cap of six month on Short Term Open Access was removed.
- Gujarat Electricity Regulatory Commission (Procurement of Energy from Renewable Sources) Regulations, 2010 (First Amendment), Regulations, 2014: The Commission has notified Gujarat Electricity Regulatory Commission (Procurement of Energy from Renewable Sources) Regulations, 2010 dated 17.04.2010. The said Regulations provide the Renewable Purchase Obligation for the FY 2010-11, 2011-12 and 2012-13. The RPO specified in the Regulations period ended in FY 2012-13. Hence. the Commission decided to prescribe RPO% for the future period, i.e. upto FY 2016-17.

#### Jammu & Kashmir Electricity **Regulatory Commission**

The Commission notified the following Regulations during the year:-

- JKSERC (Terms & Conditions for Tariff Determination for Renewable Energy Sources) Regulations;
- JKSERC (Licensing) Regulations;
- Draft Regulations on Terms & Conditions for Intra-State Open Access were issued for seeking suggestions/comments from the stakeholders.

The Commission issued the following Orders during the year:-

- Order on Business Plan for 3-Year MYT Period from FYs 2013-14 to 2015-16 for Distribution Sector of Power Development Department
- Order on ARR for 3-Year MYT Period from FYs 2013-14 to 2015-16 and Retail Tariff for FY 2013-14 for Distribution Sector
- Order on ARR & Tariff for MYT Control period from FYs 2013-14 to 2015-16 for Transmission Sector of Power Development Department
- Order on Determination of AFC & Tariff for FY 2013-14 for J&K State Power Development Corporation (Generation Utility)
- Order on Determination of AFC & Tariff for FY 2014-15 for J&K State Power Development Corporation (Generation Utility)

Additionally, the Commizssion initiated conduct of a study titled "Empirical Study of Psychology and GERC (Terms and Conditions of Intra-State Open Mindset of Electricity Consumers in the State of J&K and Social Impact of Power Losses in Jammu & Kashmir: Performance, Challenges & opportunities" through Shri Mata Vaishno Devi University (SMVDU)

#### Jharkhand Electricity Regulatory Commission

The following Orders were issued by the Commission in FY 2013-14:

- In the matter of fulfilment of obligation by SAIL, Bokaro Steel Plant to Purchase Power from Renewable source, 20.03,2014
- An application for compliance of the order dt 24/02/2011 passed in case no 08/2009. 11.03.2014
- An application for compliance of the order dt 26/02/2011 passed in case no 07/2009 dated 11.03.2014
- Non-providing of electrical connection to premises of the applicant(s) dated on 17.02.2014
- Order on an application Seeking review under clauses 6.4.6.59.6.6.6.61.6.62.6.63.6.64 and 6.65 of the JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulation,2012 dated on 13.02.2014

The following Regulations were notified in FY 2013-14:

• JSERC (Conduct of Business Amendment) Regulations, 2014 notified on 24-02-2014

#### 3.9 Joint Electricity Regulatory Commission • (Goa & UTs)

The Commission issued orders in the following:

- Loss Reduction Programme as per Regulation 15 of JERC for the State of Goa and UTs (terms and Conditions for determination of tariff Regulations,
- Consumer metering, reading and billing category wise
- Compliance of Joint Electricity Regulatory Commission for the State of Goa and UTs (Procurement of Renewable Energy) Regulation 2010 regarding Renewable Purchase Obligation • (RPO).
- Petition under sections 61, 62, 86 and 181 of the Electricity Act, 2003 read with Joint Electricity • Regulatory Commission for Goa and Union Territories (Procurement of Renewable Energy) Regulations, 2010 for seeking determination of . preferential Tariff under Net Metering for Rooftop Solar Photovoltaic Power Project of Chandigarh Renewal Energy Science & Technology Promotion Society (CREST) and for sale of such power to the Electricity Department of UT of Chandigarh.

The Commission notified the following regulations during the FY 2013-14

- Procedure for filing Appeal before the Appellate Authority from the final order passed by the Assessing officer under Section 126 of the EA, 2003, Regulations, 2013.
- Electricity Supply Code (First Amendment Regulations), 2013.
- Electricity Supply Code (Second Amendment Regulations), 2013.
- Conduct of Business (First Amendment Regulations), 2013.
- Conduct of Business (Second Amendment Regulations), 2013
- Appointment and Functioning of Ombudsman (First Amendment Regulations), 2013

#### **3.10 Joint Electricity Regulatory** Commission (Manipur & Mizoram)

- The Tariff orders were issued for both Electricity 3.13 Madhya Pradesh Electricity Regulatory Departments of Manipur and Mizoram
- M/s Eternity Partners were granted License for Intra State Trading in Electricity in Manipur.

- Consumer Awareness were held at various places in Mizoram and Manipur.
- Meetings of State Advisory Committee and the Coordination Forum Meetings were held with stake

#### 3.11 Karnataka Electricity Regulatory Commission

The following Orders were issued by FY 2012-13:

- Order on KPTCL's Annual Performance Review for 12, ARR for FY14 to FY16 and Transmission Tariff for FY14 to FY16 under MYT Framework
- Orders on CESC'S Annual Performance Review for FY12, ARR for FY 14-16 & Retail Supply Tariff for
- Orders on DISCOMs (ESCOMs & BESCOM) Annual Performance Review for FY12, ARR for FY 14-16 & Retail Supply Tariff for FY14
- Annual Performance Review for FY12, ARR for FY 14-16 & Tariff for FY14 of HUKERI RECS
- Corrigendum to Commission's T.Os for Discoms dated 06.05.13 - 24.10.13 Order on KPTCL's APR for FY11 and approval of revised ERC and Transmission Tariff for FY13 under MYT framework

#### 3.12 Kerala Electricity Regulatory Commission

The Commission notified the following Regulations:

- Kerala Electricity Supply Code, 2014: The Model Supply Code of FOR, orders of MOP, various decisions of the CERC, APTEL and the Hon. Courts were considered while revising the said Supply Code. The earlier practice of having separate "Terms and Conditions of Supply" for each licensee in addition to a common Supply Code has been dispensed with. Now the Supply Code is applicable to all the licensees and all the consumers and other stakeholders in the State.
- Kerala State Electricity Regulatory Commission (Grid Interactive Distributed Solar Energy Systems) Regulations, 2014.
- Kerala State Electricity Regulatory Commission (Connectivity and Intra State Open Access) Regulations, 2013

## Commission

During the FY 2013-14, the Commission issued 6 Tariff Orders. The Commission also notified the following Regulations:

FOR Annual Report 2013-14 FOR Annual Report 2013-14

- First Amendment to MPERC (Establishment of Forum and Electricity Ombudsman for Redressal of Grievances of the Consumers) (Revision-I) Regulations, 2009
- Madhya Pradesh Electricity Supply Code, 2013
- Second Amendment to MPERC (Conduct of Business) Regulations, 2004
- First Amendment to Madhya Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Generation Tariff) (Revision-II) . Regulations, 2012
- Fifth Amendment to MPERC (Recovery of Expenses and other Charges for providing Electric Line or Plant used for the purpose of giving Supply) Regulations (Revision-I), 2009

#### 3.14 Maharashtra Electricity Regulatory Commission

During the FY 2013-14, the Commission notified two Regulations. They are:

- MERC (Specific Conditions of Distribution Licence applicable to Maharashtra Airport Development Company limited for MIHAN) Regulations, 2013 on 3 December, 2013.
- MERC (Specific Conditions of Distribution Licence applicable to M/s. Serene Properties Pvt. Ltd (SPPL) for IT/ ITES SEZ at Airoli, Thane) Regulations, 2013 3.15 Nagaland Electricity Regulatory on 21 August, 2013.

The Commission also issued Orders on ARR and Determination of Tariff for the following:

- Determination of Capital Cost and Tariff of Khaperkheda Unit No. 5 of Maharashtra State Power Generation Co. Ltd. (MSPGCL) for FY 2012-13
- Approval of ARR and determination of Tariff for Second Control Period for R Inlra (Generation Business) for FY 2012-13 to FY 2015-16
- Truing up of ARR for FY 2011-12 and ARR approval for Second Control Period from FY 2012-13 to FY 2015-16 in respect of Jaigad Power Transmission Co. Ltd (JPTL)
- Approval of ARR for Second Control Period FY 2012-13 to FY 2015-16 in respect of R Infra's Transmission
- Truing up for FY 2010-11 and 2011-12 in respect of RInfra's Transmission Business
- ARR for FY 2011-12 and Tariff for Second Control Period FY 2012-13 to FY 2015-16 in respect of TPC's Generation Business
- Approval of MSEDCL's MYT Business Plan for Second

- Control Period FY 2013-14 to FY 2015-16
- Final True Up for FY 2010-11 and FY 2011-12 in respect of RInfra's Distribution Business
- Truing Up of ARR of BEST for FY 2010-11 and 2011-12 and MYT for second Control Period FY 2012-13 to FY 2015-16
- ARR for FY 2011-12 and MYT for second Control Period FY 2012-13 to FY 2015-16 in respect of TPC's Distribution Business
- ARR and determination of MYT for Second Control Period (FY 2012-13 to FY 2015-16) in respect of RInfra's Distribution Business
- Approval of Business Plan of Maharashtra Eastern Grid Power Transmission Co. Ltd. (MEGPTCL) for second Control Period FY 2013-14 to FY 2015-16
- Truing up for FY 2011-12, APR of FY 2012-13 and ARR for Second Control Period FY 2013-14 to FY 2015-16 in respect of MSETCL
- Maharashtra Slate Load Despatch Centre (MSLDC)'s Budget for Cost of Operations lor FY 2014-15
- Final true-up for FY 2011-12, APR for FY 2012-13 and MYT for FY 2013-14 to FY 2015-16 in respect of MSPGCL
- Final true up for FY 2011-12 and 2012-13 in respect of MSEDCL

## Commission

The Commission issued the Tariff Order for FY 2013-14. The Commission notified the following Regulation:

NERC (Security Deposit) Regulations, 2013.

#### 3.16 Odisha Electricity Regulatory Commission

- ARR & Tariff of State Generators, STU, Bulk Supplier & all the DISCOMs are being determined every year. The Utilities filed their ARR application by 30th November each year & adhering due process of public hearings, the Commission issues ARR and Tariff Orders within 120 days of the application, which would be applicable for the ensuing year.
- Issuance of order for implementation of Renewable Purchase Obligation, Energy Conservation and Demand Side Management.
- Issuance of order on net metering/bi-directional metering for rooftop solar PV projects and their connectivity.
- Implementation of Intra-state ABT (Phase-I) covering GRIDCO & DISCOMs in real time mode with commercial implication.

- Infusion of fund in distribution sector through CAPEX programme for loss reduction and quality power supply.
- Truing up of ARR of all DISCOMs in each year and impact of Truing up is being addressed in the ARR of the next year.
- Implementation of Smart Grid Solutions (AMR&AMI) in DISCOMs under BOOT Model.
- Operation of Input based Franchisee in high AT&C loss area.
- Publication of Annual Generated and Overall Performance report of DISCOMs.
- Publication of Annual System Performance of transmission licensee (OPTCL).
- Constitution of a "Monitoring Committee" for monitoring quality of Power Supply and Standards of Performance with 3 members of SAC for assessment of the present status of the distribution system and recommendation for improvement.
- Involvement of SAC members for monitoring the progress in CAPEX and resolution of major consumer related issues.

#### 3.17 Punjab Electricity Regulatory Commission

Some of the important activities of the Commission are summarized under following heads:

- Issuance of Tariff Order: The Tariff Orders PSPCL and PSTCL for FY 2013-14 were issued on April 10,
- Promotion of generation from Renewable Energy: In order to promote co-generation and generation from renewable sources of energy as envisaged in Section 86 (1) (e) of the Electricity Act, 2003, the Commission in its Order dated 25.06.2013 in petition no. 37 of 2013 (Suo-Motu), in accordance with its Regulations, determined the generic levellised generation tariff for renewable energy power projects (RE Projects) commissioned in FY 2013-14. The Commission also determined generation tariff vide petitions filed renewable energy generators.
- Consumer Capacity building initiatives: A threetier consumer redressal hierarchy is in place to redress the grievances of electricity consumers. Dispute Settlement Committees for redressal of consumer complaints are functioning since 2006 at Zonal, Circle and Divisional level, Consumer Grievances Redressal Forum (CGRF) established by the Distribution Licensee is also functioning since 2006 with headquarters at Patiala. The Ombudsman

- Electricity, Punjab, Mohali has also been in place since 2006. The Commission is monitoring the functioning of these redressal fora.
- Petitions to the Commission: Petitions on matters relating to Generation, Transmission and Distribution of electricity are filed before the Commission as per provisions of the Electricity Act. During the period under report, the Commission has decided 67 petitions which came up before it on issues such as Determination of Tariff, levy of Fuel Surcharge, allowing of Open Access, approval of Power Purchase Agreements, fixation of Transmission/ Wheeling charges etc.
- Notification of Regulations in FY 2013-14: The Commission notified 8 Regulations in FY 2013-14.

#### 3.18 Sikkim Electricity Regulatory Commission

The Commission issued the following Orders:

• Sikkim State Electricity Regulatory Commission (Terms and Conditions for Appointment of Electricity Ombudsman) Order, 2014

The Commission notified the following Regulations:

- Sikkim State Electricity Regulatory Commission (Constitution of State Advisory Committee and its Functions) Regulations, 2013
- Sikkim State Electricity Regulation Commission (Renewable Energy Purchase Obligations and Its Compliance) Regulations, 2012
- Sikkim State Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations

#### 3.19 Tamil Nadu Electricity Regulatory Commission

The Commission issued the following orders during the FY 2013-14:

- Determination of tariff for Generation and Distribution
- Order on Pooled Cost of Power Purchase payable by TANGEDCO for the year 2015-16 under TNERC (Renewable Energy Purchase Obligation) Regulations, 2010

The Commission notified the following Regulations during the FY 2013-14:

- Amendment to Conduct of Business Regulations
- Amendment to TNERC (Renewable Energy Purchase Obligation) Regulations, 2010

FOR Annual Report 2013-14 FOR Annual Report 2013-14

- Amendments to Regulation of Consumer Redressal forum and Electricity Ombudsman
- Amendment to SAC Regulations
- Amendment to Tamil Nadu Electricity Grid Code
- Amendment to Distribution Standard of Performance Code

## 3.20 Tripura Electricity Regulatory Commission

The Commission issued the following orders during the FY 2013-14:

 Petition for ARR and Tariff revision for the Year 2013-14 ARR and Tariff revision for the Year 2013-14

## **3.21 Uttar Pradesh Electricity Regulatory Commission**

- Amendment in supply code for facilitating electricity connection to street side vendors/hutments and MAJAREs
- Facilitated implementation of pre-paid metering
- Issued MYT Regulations for distribution and transmission utilities
- Tariff/Regulatory Surcharge linked with efficiency of distribution utility

## 3.22 Uttarakhand Electricity Regulatory Commission

During the year 2013-14 the achievements of this Commission are given hereunder:

- The Commission issued Tariff Order for UPCL (the distribution licensee in the State) for FY 2012-13 wherein the retail tariffs were increased by 5% as against the demand of about 50%.
- The Commission issued Tariff Order for UJVN Ltd.(the generating company in the State of Uttrakhand) for FY 2012-13, wherein the Commission approved the AFC of the generating stations as Rs.445.12 Crore against Rs.485.46 Crore approved for FY 2011-12.
- The Commission issued Tariff Order for PTCUL (the transmission licensee in the state of Uttrakhand) for FY 2013-14, wherein it approved the ATC as Rs. 195.63 Crore against Rs.159.54 Crore approved for FY 2012-13.
- The Commission approved Average Pooled Cost of Power Purchase (APPC) for the financial year 2013-14 for fulfilment of requirement specified under UERC (Compliance of Renewable Purchase

- Obligation) Regulations, 2010.
- The Commission also issued an Order for carrying forward of unmet RPO by other obligated entities for compliance of the same by 312-03-2014.

## 3.23 West Bengal Electricity Regulatory Commission

The Commission issued the following Orders:

- Order on WBSEDCL APR for FY 11-12
- Order of WBERC in regard to Tariff Application of WBSEDCL, for the years 2011-2012, 2012-2013 and 2013-2014
- Order of WBERC in regard to Tariff Application of WBSETCL, for the years 2011-2012, 2012-2013 and 2013-2014
- Order of WBERC in regard to Tariff Application of CESC, for the years 2011-2012, 2012-2013 and 2013-2014
- Order of WBERC in regard to Tariff Application of DPSCL, for the years 2011-2012, 2012-2013 and 2013-2014
- Order of WBERC in regard to Tariff Application of Durgapur Projects Limited, for the years 2011-2012, 2012-2013 and 2013-2014

The Commission notified the following Regulations:

- WBERC (Procedure for Accreditation of a Renewable Generation Project for REC Mechanism) Regulations, 2013
- WBERC (Miscellaneous Provisions) Regulations, 2013
- WBERC (Terms and Conditions of Tariff) (Amendment) Regulations, 2013
- WBERC (Electricity Supply Code) Regulations, 2013
- WBERC (Guidelines for Establishment of Forum for Redressal of Grievances of Consumers and Time and Manner of Dealing with such Grievances by the Ombudsman) Regulations, 2013
- WBERC (Licensing and Conditions of Licenses) Regulations, 2013
- WBERC (Conduct of Business) Regulations, 2013
- WBERC (Fees) Regulations, 2013

WBERC (Standard of Performance of Distribution Licensees Relating to Consumer Services) (First Amendment) Regulations, 2013

WBERC (Standard of Performance of Distribution Licensees Relating to Consumer Services) (Second Amendment) Regulations, 2013

# 4. FOR Annual Statement of Accounts for FY 2013-14

#### **AUDITORS REPORT**

To

#### The Secretary,

Forum of Regulators,

Sectt.: C/o Central Electricity Regulatory Commission, 3rd & 4th Floor, Chanderlok Building, 36 Janpath,

New Delhi - 110 001.

We have audited the attached Balance Sheet of the Forum of Regulators as on 3lst March, 2014 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.

Further, the financial assistance amounting to Rs. 45.00 lacs received by Forum of Regulators from Ministry of Power towards Capacity Building has been carried forward to the F.Y 2014-15.

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, 2014, 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 F.RN.: 003405C

-Sd/-

### (A.K. Awasthi) Partner

Membership No.: 072519

Place: New Delhi Date: 17/06/2014

8 FOR Annual Report 2013-14 FOR Annual Report 2013-14 FOR Annual Report 2013-14

#### **Balance Sheet**

As at 31-03-2014

Amount (in ₹)

PARTICULARS	SCHEDULE	AS ON 31.03.2014	AS ON 31.03.2013
SOURCES OF FUND			
Corpus Fund		37010643	37010643
Plan Fund (Capacity Building & Consultancy)	1	9312743	14349870
MNRE FUND (Implementation of REC Framework)	2	9805454	9672934
Surplus Fund (transferred from Income & Expenditure A/c)	3	24427383	23054683
Current Liabilities			
Expenses Payable	4	4418913	754750
Expenses Payable (PLAN FUND)		-	233750
Membership Fee received in Advance		-	300000
Bank Account (Bank Balance)	5	103613	396068
Total		85078749	85772698
APPLICATION OF FUND			
Fixed Assets	6		
Gross Fixed Assets		609919	609919
<u>Less:</u> Depreciation		557780	529930
Net Fixed Assets		52139	79989
Current Assets, Loans & Advances			
Loans & Advances	7	2381643	4194435
Security Deposit (MTNL)		3000	3000
Cash & Bank Balance	8	82641967	81495273
Total		85078749	85772698
Accounting Policies and Notes on Accounts	9		

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: 17-06-2014

#### **INCOME AND EXPENDITURE ACCOUNT**

FOR THE YEAR ENDED 31-03-2014

Amount (in ₹)

PARTICULARS	As on 31.	.03.2014	As on 31	.03.2013
<u>INCOME</u>	-			
	-			
Membership Subscription		8700000		9300000
Interest from Savings Account		756		1449
Interest from Corpus Fund FDR (TDS = ₹ 3,52,029/-)		3520321		3692445
Interest from Auto Sweeps FDRs (TDS = ₹ 2,05,672/-)		2056674		814437
Interest from FDR (TDS = ₹ 5,786/-)		57866		1328482
Excess Provision Written-off		4378		-
Total - A		14339995		15136813
EXPENDITURE	-			
	-			
Meeting & Seminar Exprenses		1140215		2427433
Salary Expenses		2124688		2178988
Capacity Building & Consultancy		4877788		7688071
Provision for Doubtful Loans & Advances		1884216		_
(TDS receivable for earlier years)		1004210		_
Secretariat Expenses:				
Advertising & Publicity Expenses	80398		305639	
Audit Fees	19800		19800	
Bank Charges	676		1743	
Computer Repair & Maintenance Expenses	-		64969	
Depreciation	27850		60738	
Labour (Outsourcing) Expenses	231035		-	
Legal & Professional Charges	554476		1416030	
Other Expenses	342448		538849	
Telephone Expenses	34966		54714	
Printing & Stationery Expenses	6069		14654	
Travelling Expenses	42670		312825	
Administrative Expenses	1600000	2940388	540000	3329961
Total - B		12967295		15624453
Surplus/(Deficit) earned during the year (A- B)		1372700		(487640)

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: 17-06-2014

FOR Annual Report 2013-14 FOR Annual Report 2013-14

#### Schedule- 1

#### **Plan Fund**

(Consultancy & Capacity Building)

Amount (in ₹)

PARTICULARS	F.Y. 2013-2014	F.Y. 2012-2013
Opening balance	14349870	-
Add:		
Interest Received (TDS = ₹ 53,380/-)	534903	225045
Fund Received during the year from Ministry of Power	4500000	15000000
Other Income	4015	-
Total	19388788	15225045
Less: Utilization during the year:		
Study & Consultancy Charges	3003083	407675
Capacity Building	7036515	467500
Bank Charges	272	-
Refund to MOP on account of interest earned	36175	-
Total	10076045	875175
Balance carried forward to the next year	9312743	14349870

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: 17-06-2014 **MNRE FUND** 

(Implementation of Renewable Energy Certificate Framework)

Amount (in ₹)

Schedule- 2

PARTICULARS	F.Y. 2013-2014	F.Y. 2012-2013
Opening balance	9672934	9639056
Add: Interest Received (TDS = ₹ 65,070/-)	651758	688499
Total	10324692	10327555
Less: Utilization during the year:		
Implementation of Renewable Energy Certificate Framework	519182	654551
Bank Charges	56	70
Total	519238	654621
Balance carried forward to the next year	9805454	9672934

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: 17-06-2014

FOR Annual Report 2013-14

#### Schedule- 3

#### **SURPLUS FUND**

#### Amount (in ₹)

PARTICULARS	F.Y. 2013-2014	F.Y. 2012-2013
Opening balance	23054683	23542323
Add: Surplus/(Deficit) earned during the year (as per Income & Expenditure Account)	1372700	(487640)
Total	24427383	23054683

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: 17-06-2014

FOR Annual Report 2013-14

### Schedule- 4

### Expenses Payable

Amount (in ₹)

PARTICULARS	AS AT 31-03-2014	AS AT 31-03-2013
Administrative Cost Payable (Sectt. Cost to CERC)	1600000	-
Advertising & Publicity Expenses Payable	70054	185694
Audit Fees Payable	19800	19800
Canteen Expenses Payable	7023	2439
Computer Repair & Maintenance Expenses Payable	-	33872
House Rent Allowance Payable	18462	-
Labour (Outsourcing) Payable	23654	-
Meeting Expenses Payable	-	1697
Office Expenses Payable (CERC's Guest House)	311990	388364
Printing & Stationery Payable	1225	-
Professional Charges (FORUM's FUND) Payable	551667	-
Salary Payable	302040	-
Telephone Expenses Payable	2194	6096
Training Expenses (FORUM's FUND) Payable	1510804	-
Travelling Expenses Payable	-	116788
Total	4418913	754750

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: 17-06-2014

FOR Annual Report 2013-14 \_\_\_\_\_\_ 25

**PARTICULARS** 

Amount (in ₹)

22073

AS AT 31-03-2014 AS AT 31-03-2013

22073

2381643

as on 31-03-2014		Amount (in ₹)
PARTICULARS	AS AT 31-03-2014	AS AT 31-03-2013
Bank of India - 2258	51408	12566
Corporation Bank - CLSB/01/120018	52205	383502
Total	103613	396068

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: 17-06-2014

-Sd/-**SECRETARY** 

Schedule- 6

**Fixed Assets Schedule** 

as at 31st March 2014

Amount (in ₹)

	GROSS BLOCK				DEPRECIATION				NET BLOCK		
Description	Cost/Valuation as On 01.04. 2013	Addi- tions During the Year	Deduc- tions During the Year	Cost/Val- uation as at End of the Year	As on 01.04. 2013	On Open- ing	On Ad- ditions during the Year	On De- ductions During the Year	Total Up to 31.03. 2014	As on 31.03. 2014	As on 31.03. 2013
Computer	509045	0	0	509045	478272	18464	0	0	496736	12309	30773
Printer	32198	0	0	32198	14735	2619	0	0	17354	14844	17463
Heat Blowers	16200	0	0	16200	5374	1624	0	0	6998	9202	10826
Microwave	7200	0	0	7200	2388	722	0	0	3110	4090	4812
UPS	17451	0	0	17451	5788	1750	0	0	7538	9913	11663
Laptop	27825	0	0	27825	23373	2671	0	0	26044	1781	4452
TOTAL	609919	0	0	609919	529930	27850	0	0	557780	52139	79989
Fig. of the previous year	609919	0	0	609919	469192	60738	0	0	529930	79989	

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: 17-06-2014 Partner

#### Tax Deducted at Source F.Y. 2006-2007 261060 261060 Tax Deducted at Source F.Y. 2007-2008 453260 453260 Tax Deducted at Source F.Y. 2008-2009 - BOI 98840 98840 Tax Deducted at Source F.Y. 2008-2009 - CB 402430 402430 Tax Deducted at Source F.Y. 2009-2010 - BOI 315090 315090 Tax Deducted at Source F.Y. 2009-2010- CB 17509 17509 Tax Deducted at Source F.Y. 2010-2011 313954 313954 1884216 1884216 Tax Deducted at Source F.Y. 2011-2012 483006 483006 Tax Deducted at Source F.Y. 2012-2013 670063 670063 Tax Deducted at Source F.Y. 2013-2014 681937 3719222 3037285 **Less:** Provision for Doubtful Loans & Advances (i.e. TDS receivable for earlier years) 1884216 1835006 3037285 Total (A) Prepaid Expenses (Repair & Maintenance - Microwave) For the F.Y. 2013-14 441 For the F.Y. 2014-15 368 368 Total (B) 368 809 **Susbcription Outstanding** Opening Balance 125000 300000 Add: Receivable for the year 125000 **Less:** Received during the year 125000 300000 Total (C) 125000 Interest Accrued Interest accrued on FDRs with Corp. Bank 254180 Interest accrued on Corpus Fund FDR with Corp. Bank 151263 147385 269235 Interest accrued on Auto Sweep FDRs with Corp. Bank 384832 Interest accrued on Auto Sweep FDRs with Bank of India 238144 Total (D) 420498 1024541 Others Asstt. Director of Estates (Cash), Vigyan Bhawan, New Delhi 49000 6800 ITDC Ltd. Unit Vigyan Bhawan, New Delhi 26771 Training Expenses (IIM, Ahmedabad) 30000 Forum of Indian Regulators 20000 Total (E) 125771 6800

As per our report on the even date appended hereto

For A.K. AWASTHI & CO. **Chartered Accountants** 

Grand Total (A+B+C+D+E)

Tax Deducted at Source

Tax Deducted at Source F.Y. 2005-2006

F.RN.: 003405C

-Sd/-

(A.K Awasthi)

M. No. 072519

-Sd/-**SECRETARY** 

4194435

Place: New Delhi Date: 17-06-2014

#### Schedule-8

#### **Bank Balances**

as on 31-03-2014

#### Amount (in ₹)

PARTICULARS	AS AT 31-03-2014	AS AT 31-03-2013
Cash Account - Imprest	2500	2500
Bank of India - 2806	26000	26458
Deposits in Scheduled Commercial banks in Auto Sweep/Flexi Deposit:		
with Bank of India (MNRE A/c)	9666824	9510673
with Bank of India (PLAN A/c)	9240000	14407000
with Corporation Bank (FORUM's A/c)	26696000	17070999
Deposits in Scheduled Commercial banks in FDR:		
with Corporation Bank (Corpus Fund)	37010643	37010643
with Corporation Bank (FORUM's)	-	3467000
Total	82641967	81495273

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: 17-06-2014

#### Statement of Accounts of the Government's Financial Assistance for the year 2013-2014

Amount in ₹

PARTICULARS	F.Y. 2013-2014	F.Y. 2012-2013
Opening balance	14349870	-
Add:		
Interest Received (TDS = ` 53,380/-)	534903	225045
Fund Received during the year from Ministry of Power *	4500000	15000000
Other Income	4015	-
Total	19388788	15225045
Less: Utilization during the year:		
Study & Consultancy Charges	3003083	407675
Capacity Building	7036515	467500
Bank Charges	272	-
Refund to MOP on account of interest earned	36175	-
Total	10076045	875175
Balance carried forward to the next year	9312743	14349870

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: 17-06-2014

FOR Annual Report 2013-14 FOR Annual Report 2013-14 FOR Annual Report 2013-14

**SCHEDULE 9** 

#### Forming part of Balance Sheet

as at 31st March, 2014

#### **BACKGROUND OF FOR**

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

The Forum shall discharge the following functions, namely:

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

#### **BACKGROUND OF MNRE**

The Ministry of New And Renewable Energy (MNRE), Government of India has released an amount of **Rs. 3.00 Crore** (Rupees Three Crores only) on 24.08.2010 to Forum of Regulators (FOR) for the implementation of Renewable Energy Certificate (REC) Framework. Till 31.03.2014, an amount of **Rs. 2.25 Crore** has been released to the implementation agencies, of which Utilization Certificates (UCs) for **Rs. 1.53 Crore** have been received. For the balance amount of UCs, the matter is being pursued with the implementing agencies.

#### SIGNIFICANT ACCOUNTING POLICIES AND NOTES TO THE ACCOUNTS

#### 1. Method of Accounting

Accounts are being prepared under the historical cost convention accrual basis, going concern and are materially complied with the mandatory Accounting Standards notified by the Govt. of India u/s 211(3)(c) of the Companies Act. 1956.

#### 2. Recognition of Income

Membership fee from each member is received on year on year basis. Such fee and other income/s is/are recognized in the books of accounts on accrual basis.

#### 3. Fixed Assets and Depreciation

Depreciation on Fixed Assets has been worked out on Written Down Value method as per rates prescribed in Income Tax Act, 1961. WDV of Assets has been shown in Fixed Assets Schedule till FY 2012-13.

Fixed Assets schedule presentation has been changed from current financial year where gross block of fixed assets & total depreciation provided till the current year is mentioned.

#### 4. Taxation

FOR has applied for exemption under section 10(46) of the Income Tax Act, 1961 on 13.12.2011 and no provision of tax has been made in the financial statements from F.Y. 2005-06 to F.Y. 2013-14, in anticipation of grant of exemption. No Income Tax Return has also been filed for the F.Y.s 2005-06 to 2010-11 in anticipation of grant of exemption. Informations/documents were called for by the Under Secretary (ITA-I), CBDT, New Delhi and ADIT(E),

New Delhi on 06.09.2012 & 19.02.2013, which have been submitted on 05.10.2012 & 15.03.2013, respectively. During the current financial year, TDS for the F.Y.s 2005-06 to 2010-11 amounting to Rs. **18,84,216/-** has been provided for as doubtful of recovery in the Income & Expenditure Account.

FOR has been filing income tax return computing **NIL** income in anticipation of grant of exemption since F.Y. 2011-12.

#### 5. Events occurring after the Balance Sheet date

No significant events which could affect the financial position as on 31.03.2014 to a material extent has been reported by the Forum, after the balance sheet date till approval of Accounts.

#### 6. Retirement Benefits

All employees are on contractual basis. Based on the terms of their contracts. Hence, no retirement benefit is payable to them and hence not provided for.

#### 7. Deposits in Auto Sweep/ Flexi Deposit and Investment in FDRs

FDR and Short term deposits in Auto Sweeps/Flexi Deposits are stated at Cost and reflected in Cash & Bank Balances.

#### 8. Salary Expenses

Till the F.Y. 2012-13, no provision was made for salary for the month of March.

From the current financial year, liability in respect of salary for the month of March, 2014 amounting to Rs. **3,02,040/-** has been provided for.

Figures have been re-grouped and re-arranged wherever necessary.

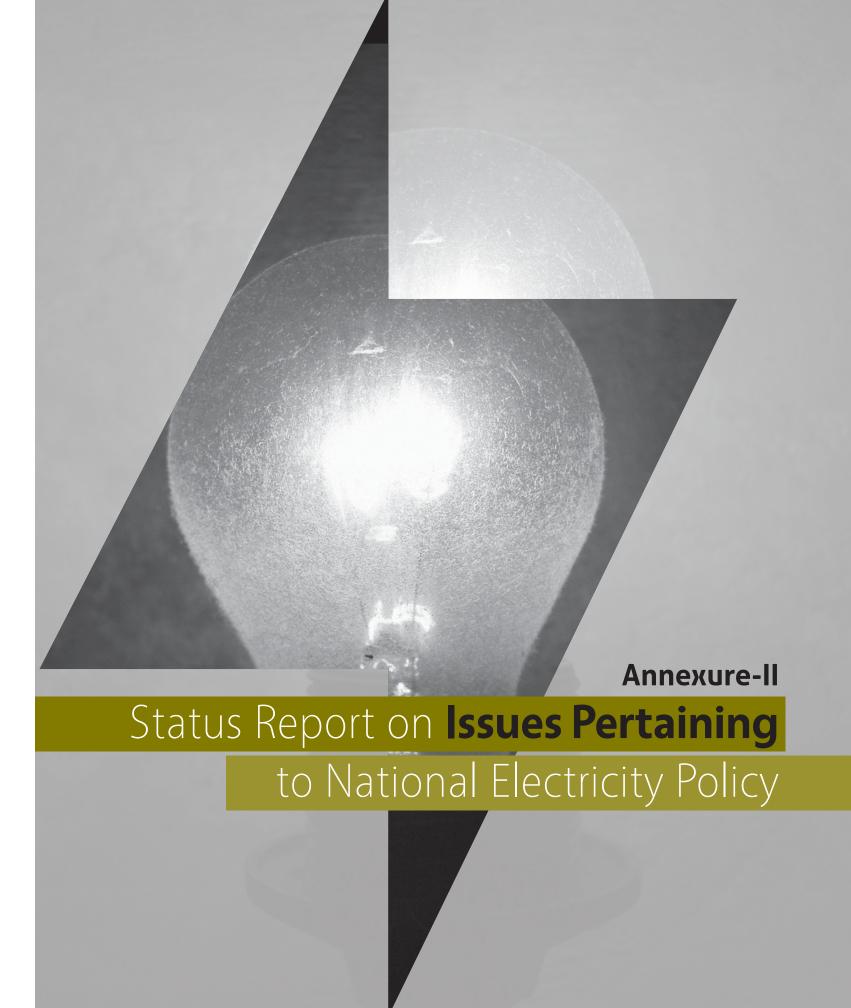
FORUM OF REGULATORS (FOR)

-sd/-Secretary

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#### Annexure-I: Members of the Forum of Regulators as on 31.03.2014

	Chairperson of the Forum of Regulators								
1	Shri Gireesh B. Pradhan	Chairperson, Central Electricity Regulatory Commission							
		Members of the Forum of Regulators							
2	Dr. V. Bhaskar	Chairperson, Andhra Pradesh Electricity Regulatory Commission							
3	Shri Digvijai Nath	Chairperson, Arunachal Pradesh State Electricity Regulatory Commission							
4	Shri Naba Kumar Das	Chairperson, Assam Electricity Regulatory Commission							
5	Shri Umesh Narayan Panjiar	Chairperson, Bihar Electricity Regulatory Commission							
6	Shri Narayan Singh	Chairperson, Chhattisgarh State Electricity Regulatory Commission							
7	Shri P.D. Sudhakar	Chairperson, Delhi Electricity Regulatory Commission							
8		Chairperson, Gujarat Electricity Regulatory Commission							
9	Shri R.N. Prasher	Chairperson, Haryana Electricity Regulatory Commission							
10	Shri Subhash Chander Negi	Chairperson, Himachal Pradesh Electricity Regulatory Commission							
11	Shri Basharat Ahmed Dhar	Chairperson, Jammu and Kashmir Electricity Regulatory Commission							
12		Chairperson, Jharkhand State Electricity Regulatory Commission							
13	Shri S.K. Chaturvedi	Chairperson, Joint Electricity Regulatory Commission for Goa and UTs							
14		Chairperson, Joint Electricity Regulatory Commission for Manipur and Mizoram							
15	Shri M.R. Sreenivasa Murthy	Chairperson, Karnataka Electricity Regulatory Commission							
16	Shri T.M. Manoharan	Chairperson, Kerala State Electricity Regulatory Commission							
17	Shri Rakesh Sahni	Chairperson, Madhya Pradesh Electricity Regulatory Commission							
18	Ms. Chandra lyengar	Chairperson, Maharashtra Electricity Regulatory Commission							
19	Shri Anand Kumar	Chairperson, Meghalaya State Electricity Commission							
20	Shri Donray A. Shishak	Chairperson, Nagaland Electricity Regulatory Commission							
21	Shri S.P. Nanda	Chairperson, Odisha Electricity Regulatory Commission							
22	Ms. Romila Dubey	Chairperson, Punjab State Electricity Regulatory Commission							
23	Shri Vishwanath Hiremath	Chairperson, Rajasthan Electricity Regulatory Commission							
24		Chairperson, Sikkim State Electricity Regulatory Commission							
25		Chairperson, Tamil Nadu Electricity Regulatory Commission							
26	Shri Niharendu Chakraborty	Chairperson, Tripura Electricity Regulatory Commission							
27	Shri Desh Deepak Verma	Chairperson, Uttar Pradesh Electricity Regulatory Commission							
28		Chairperson, Uttarakhand Electricity Regulatory Commission							
29		Chairperson, West Bengal Electricity Regulatory Commission							



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### **GRID Codes**

#### Provision in NEP (National Electricity Policy)

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.	Andhra Pradesh	-	On 27-08-2010 draft grid code was issued and final grid code is yet to be notified.
2.	Bihar	20.07.2010	BERC has notified Bihar Electricity Grid Code on 20.07.2010
3.	Chhattisgarh	First time grid code notified on 30.12.2006 and same has been repealed by the new grid code notified on 31/12/2011	Notified
4.	Delhi	31.03.2008	DERC (State Grid Code), Regulations 2008 were notified vide No. F.17 (14) Engg/DERC/2003-04/151 dated 31-03-2008. SLDC constituted Grid Co-ordination Committee to review the existing provisions with respect to IEGC Grid Code, 2010 and recommended amendments in DGC, 2008. The proposed amendment after approval of the Commission has been published in Gazette Notification of GoNCTD.
5.	Goa & Union Territories	Grid Code was notified on 04.08.2010	Already notified
6.	Gujarat	16/07/2013	GERC had notified Grid Code vide notification No. 5/2004 dated 25/08/2004 consistent with the Grid Code specified by the Central Electricity Regulatory Commission under clause (h) of sub-section (1) of section 79 of the Act. CERC notified Indian Electricity Grid Code (IEGC) on dated 28.04.2010. To make the Gujarat state Grid Code consistent with the IEGC notification no. L-1/18/2010-CERC dated 28.04.2010, GERC(Gujarat Electricity Grid Code) Regulations, 2014 notified on 16/07/2013.
7.	Jammu & Kashmir	20th November, 2007	J&K State Electricity Grid Code Regulation notified vide Notification No.: 8/JKSERC/2007 are in place.
8.	Jharkhand	04/02/2009	JSERC (State Grid Code) Regulations 2008 Notified
9.	Karnataka	Karnataka Electricity Grid Code & Distribution Code notified in 2006.	Revised Grid Code & Distribution Code to comply with IEGC-2010 are in the process of being notified
10.	Kerala	20.01.2006	Kerala State Electricity Grid Code, 2005
11.	Maharashtra		
12.	Madhya Pradesh		M.P. Electricity Grid Code was notified on 6/8/2004 and was revised through notification dated 24/10/2005. MPERC has notified the first revision to M.P. Electricity Grid Code on 24th October, 2005
13.	Manipur & Mizoram	02.07.2010	First amendment notified on 07.07.2014

S.No.	SERCs/JERCs	Date of Notification	Status					
14.	Nagaland	09th May, 2012	NERC has notified & finalized the Regulations but yet to be implemented by the Licensee.					
15.	Odisha	June 14, 2006	Orissa Grid Code (OGC) Regulation is already in force					
16.	Punjab	PSERC (Punjab State Grid ( No.PSERC/Secy/Regu.80 d	Code) Regulations, 2013 have been notified vide notification ated 14.02.2013.					
17.	Sikkim	27th June 2013	The Sikkim SERC though constituted in April 2003, the Commission became operational only from April 2011 after the appointment of the first Chairperson. Thus the Sikkim SERC took time to notify the Regulation.					
18.	Tamil Nadu	19th October, 2005	The Tamil Nadu Electricity Grid Code was notified by the Commission vide Notification No.TNERC/GC/13/1 dated 19.10.2005. Amendment issued on 12.9.2013 enabling despatch and scheduling for all renewable energy sources.					
19.	Tripura		After Gazette notification dated 15th July 2011 , it is till in force in TRIPURA					
20.	Uttarakhand	April 09, 2007	Notified					
21.	Uttar Pradesh	April 18, 2007	Applicable					
22.	West Bengal	12.01.2006  22.05.2009	First notified on 12.01.2006 vide Notification No.26/WBERC. Subsequently replaced by a new Regulation vide notification No.34/WBERC dated 04.04.2007 with amendment on 22.05.2009					

## **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.	Andhra Pradesh	The state of Andhra Pradesh has load despatch facilities with state-of-the art communication and data acquisition capability on a real time basis from FY 2006-07, in terms of the "APERC (Levy and collection of fees and charges by State Load Despatch Centre) Regulation, 2006" notified on 27-07-2006. Investment in SLDC activity is being allowed as proposed by SLDC to achieve state-of-the art communication and data acquisition capability on real time basis and it is in place from Second Control Period 2009-10 to 2013-14.
2.	Bihar	To provide facilitative framework for non-discriminatory open access, BERC has made Bihar Electricity Regulatory Commission (Terms and Conditions for Open Access) Regulations, 2005 on 20.05.2006.
3.	Chhattisgarh	SCADA system is in operation and RTU have been installed in SLDC to ensure monitoring of real time data
4.	Delhi	<ol> <li>Billing by all the three Discoms completely computerized.</li> <li>Electronic meters installed in about 95% cases.</li> <li>HVDS/LT aerial bunched (AB) Conductors installation being vigorously pursued for AT&amp;C loss reduction.</li> <li>Installation of Gas Insulated Switchgear being pursued by Delhi Transco Limited and Discoms to overcome space constraint. GIS at 200 kV Grid S/stn. At Ridge Valley, DIAL, AIIMS (Trauma Centre) and Electric Lane S/stn, have been commissioned.</li> <li>Automatic Meter Reading (AMR) for high end consumers. TPPDL has covered the connection of 11 kW and above for the Commercial purpose and 16 kW and above for the Domestic Connection besides Industrial Connection under AMR.</li> <li>Discoms are availing facilities of Geographical Information System mapping and indexing of the Consumers in day to day monitoring of distribution network.</li> <li>DT metering completed.</li> <li>SCADA system installation completed.</li> <li>SLDC fully functional and properly interfaced with RLDC as well as Discoms control centers. SLDC is operating</li> </ol>
_		"System Operations" under Intra- State ABT successfully, being the first state to introduce Intra- State ABT. SLDC has also facilitated DISCOM wise scheduling for implementation of merit order dispatch principle.
5.	Goa & Union Territories	Facilitative framework for non-discriminatory open access already in place through Regulations dated 11.02.2010. Work regarding load dispatch facilities is in progress through implementing agencies and being regularly monitored by the Regional Power Committees.
6.	Gujarat	Full-fledged State Load Despatch Centre (SLDC) and three sub SLDCs are in operation in the state with proper communication and data acquisition system.
7.	Jammu & Kashmir	J&K State Electricity Regulatory Commission (Open Access in Intra-State Transmission & Distribution ) Regulation 2006, notified vide No.: 6/J&KSERC/2006 are in place, allowing Open Access to consumers from 1 MW & above. SLDC is already established in Jammu with a Sub-load dispatch centre at Srinagar. Both are equipped with communication and data acquisition capability on real times basis. JKSERC (Terms & Conditions of intra-state Open Access) Regulations, 2015, based on Model FOR Regulations, have been notified on 10.07.2015, repealing the earlier Regulations.
8.	Jharkhand	Information awaited from licensee
9.	Karnataka	The State Transmission utility has taken up the up- gradation of SCADA under integrated SCADA scheme and has completed implementation of SCADA up to 33 kV sub-station level as a part of Technology upgradation.  Regulatory frame work for Open access was introduced in 2006 for all consumers with a contract demand of 1 MW and above.

S. No.	SERCs/ JERCs	Status
10.	Kerala	The data from all major generating stations and major grid substations are made available in SLDC for SCADA. IPPs and SHPs are not tele metered at present. Notice issued on 14.05.2014 from SLDC.
11.	Maharashtra	<ol> <li>On 10 June, 2004, Commission notified MERC (Distribution Open Access) Regulations, 2004 for introducing of Open Access in distribution system in the State. On 21 June, 2005, said regulation was superseded by MERC (Distribution Open Access) Regulations, 2005.</li> <li>The Commission notified MERC (Distribution Open Access) Regulations, 2014 &amp; MERC (Transmission Open Access Regulations), 2014 on 25 June, 2014 superseding earlier Regulations.</li> <li>Schemes Implemented by MSLDC</li> <li>Balancing and Settlement Mechanism (BSM) software for Intra State ABT Mechanism )Rs. 250.62 Lakh)</li> <li>Enhancement of Real time data acquisition (Rs. 350 Lakh)</li> </ol>
12.	Madhya Pradesh	State Load Dispatch Centre has SCADA, wideband communication system. Its Capex requirementup to FY 2015-16 for upgradation of ABT & EA system etc. matching with RLDC's facilities have been approved by MPERC. The Commission has issued order for levy and collection of Fee and Charges by SLDC for FY 2014-15 on 18th June 2014 for FY 2015-16 on 31st March 2015. The Petition regarding levy and collection of Fee and Charges by SLDC for FY 2016-17 has been filed recently and the same is under process
13.	Manipur & Mizoram	Updating of SLDC with SCADA being undertaken and in progress.
14.	Nagaland	Facilitated
15.	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 21.6.2005 and 18.07.2006. Consumers seeking Open Access for power exceeding 1 MW from generator has been allowed from January 1, 2009 whereas 1 MW 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 Orissa. The Commission had 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 Reactive Energy Account to all the stakeholders. Accordingly, SLDC is preparing monthly Energy accounting, weekly UI Account, etc.
16.	Punjab	PSTCL (erstwhile PSEB) has already established a State of the art EMS/SCADA (Energy Management System/Supervisory Control and Data Acquisition) system in association with PGCIL (Power Grid Corporation India Limited) under ULDC (Unified Load Despatch and Communication) Scheme, commissioned since August, 2002. PSTCL has already put up 49 Remote Terminal Units (RTU) (31 nos. 220 kV and 18 nos. 132 kV out of 57 nos. and 78 nos. respectively) covering all 220 kV and 132 kV Generating Stations, 220 kV and 132 kV Sub-Stations connected with interstate 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 centre 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 is in progress by Punjab State Transmission Corporation Limited.  The directives are regularly issued to the utilities every year to keep abreast with the latest technology. All electromagnetic meters are being replaced with electronic meters, LS & MS consumers have been installed with ToD meters, unmanned Grids are under construction, up gradation & economy measures are taken regularly based on third party audit of thermal plants, SCADA/EMS is under installation in Distribution systems. Boundary metering has been completed for Energy Audit. AMR of Agriculture Sector is in final stages of the commissioning SAP/ERP is being introduced. The proposal of prepaid Smart meter for Temporary & Govt. connections is under finalization.

S. No.	SERCs/ JERCs	Status
17.	Sikkim	The Sikkim SERC has already notified the SSERC(Terms and Conditions of Intra State Open Access) regulations, 2012 on 30th June 2012. The Commission has issued directives to the deemed licensee in the State for technology up gradation for state of the art communication and data acquisition on real time basis.
18.	Tamil Nadu	One SLDC at Chennai and three sub Load DespatchCentres at Chennai, Madurai and Erode established. Data from sub stations and generating stations, thermal, hydel, Gas collected under the Unified Load Despatch Communication (ULDC)scheme. The existing control centre is being revamped at a cost of Rs.19.07 crores. The main control centre at Chennai that can handle 1200 RTUs is operational.
19.	Tripura	In the state of Tripura no body has come forward for Open Access consumer. Thus , question of providing facility to OA consumer does not arise. However , upgradation of State Load Despatch Centre under in progress.
20.	Uttarakhand	Directions have already been issued on 06.04.2010 for segregation of SLDC, its ring fencing and development of necessary infrastructure & Filing a separate ARR. UERC in the Tariff Order for approval of Business Plan and Multi-Year Tariff for First Control Period (FY 2013-14 to FY 2015-16) directed PTCUL to submit a final report on ring fencing of SLDC and to file a separate Petition for SLDC while filing the Annual Performance Review for FY 2013-14.
		As per direction of the UERC, PTCUL has filed a separate ARR for SLDC. Besides, above website of SLDC (www.uksldc.org) has been started since September, 2013. Works related to SCADA are almost towards completion and Real time data of ICTs, Transmission lines & Generating Station are shown on this website.
21.	Uttar Pradesh	The Commission issued Uttar Pradesh Electricity Regulatory Commission (Terms and Conditions for Open Access) Regulations, 2004 (in short 'UPERC Open Access Regulations') vide notification no. UPERC/Secy./Regulations/05-249 dated 7.6.05 to operationalize long term and short term open access in the state. The Regulations also provides that effective from 1st April, 2008 any consumer with demand of above 1 MW can avail open access of transmission and distribution systems. Subsequently, the Commission has also made / finalized the necessary regulatory framework as below:
		<ul> <li>a. UPERC (Terms and Conditions for Open Access) (First Amendment)         Regulations, 2009 that includes among others detailed procedure(s) for Long- Term Open Access         and Short-Term Open Access for use of distribution system, with or without transmission system;</li> <li>b. Model Bulk Power Wheeling Agreement (BPWA) for availing wheeling         services of distribution licensee(s);</li> <li>c. Procedures for Scheduling, Despatch, Energy Accounting, UI Accounting and Settlement System of</li> </ul>
		electricity transmitted through the State grid for the electricity drawn by distribution licensee(s) from outside and/or within the State.
		Further, the Commission also directed SLDC to develop procedure for energy accounting of electricity drawn from the grid by an open access consumer who is connected with the distribution system or electricity injected into the grid by a generating station embedded in the distribution system.
22.	West Bengal	West Bengal Electricity Regulatory Commission (Open Access) Regulations, 2007 published under Notification No.:35/WBERC dated 12.04.2007 as amended.
		SCADA in transmission system has been implemented and running since 2005.
		Operational data from different 132kV, 220kV and 400KV sub-stations and power stations are presently being transmitted to SLDC through 48 RTUs with microwave link which is expected to be converted to optical fiber mode soon along with some more extension of RTUs.

## 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/		Unit of		Voltage	e levels					
50	JERCS/JERCS	Othery (Discom)	STOA)	Me	asurement								
			(For FY 2013-14)										
		Utility Term			Unit of Meas	Urement Vo		ltage levels					
2.	Andhra Pradesh	(DISCOM)	(LTOA/STO	A)	Omit of Fied		LT	11 KV	33 KV				
		APSPDCL	*LTOA/STOA		Rs./KVA/Mor	nth	363.66	180.53	27.38				
		APEPDCL	*LTOA/STOA		Rs./KVA/Mor	nth	656.89	198.12	21.85				
4.	Bihar	SBPDCI/NBPDCL	0	0									
		State Discom (wheeling charges)	22.1 paise per unit on energy approved and scheduled as per actual injection				33 KV	11 KV	LT				
5.	Chhattisgarh	STU	1. STOA charge 23.3 paise per unit 2. LTOA charge net ARR will be shared by all LTOA customer pro- portionately			400 KV	220 KV	132 KV	66 KV				
6.	Delhi	The Commission has in its tariff orders fo				RPL, BYPL	and TPPDL	for variou	ıs years				

S.No SERCs/JERCs		Utility (Discom)	Term (		Unit	of	Voltage levels			
3.NO	SERCS/JERCS	Othlity (Discom)	STC	STOA)		ment				
		11,224	Taura	Unit	of Measure		Voltage Levels			
		Utility	Term		ment		EHT/HT		LT	
		ED-A&N	All	Р	aise/kWh		N	ot Deterr	nined	
	Cas Cullinian	ED-Chandigarh	All	Р	aise/kWh		N	ot Deterr	nined	
7.	Goa & Union Territories	DNHPDCL	All	Р	aise/kWh		9		9	
		ED-Daman & Diu	All	Р	aise/kWh		14		18	
		ED-Goa	All	Р	aise/kWh		N	ot Deterr	mined	
		ED-Lakshwadeep	All	Р	aise/kWh		N	ot Deterr	mined	
		ED-Puducherry	All	Р	aise/kWh		19/04		36	
		PGVCL/ MGVCL/					11 KV		400 KV	
0		DGVCL/ UGVCL Torrent Power					12		43	
8.	Gujarat	Limited- Ahmedabad	Both	Paisa / kWh		1	25		80	
		Torrent Power Limited -Surat					18		47	
notifice Medic for a p	GERC has notified ( tation no. 3 of 2011, m-term Open Access eriod up to one montl le for intra-state oper	in which, Long-term for a period exceeding hat a time, but not ex	Open Ac ng three r ceeding a	cess for months, period	r a period ex but not exce of six month	ceeding eeding t s in a ca	g 12 years I hree years a lendar year	out not e and Shor is provid	exceeding 25 years t-term Open Access ed. The Regulations	
-			Term				Voltage levels			
11.	Jammu & Kashmir	J&KPDD	(LTOA STOA	/ N	Unit of leasuremen		Transmis Wheel		ng	
			STOA	Rs	/MW/Day	58	7.00	1560.0	0	
12	71	Utility (Discom)	Terr	n (LTOA	/STOA)	Unit	of Measure	ment	Voltage levels	
12.	Jharkhand	JSEB / JBVNL					Rs./kWh		0.12	
		Wheeling Charges	(Paise/ U	nit)						
		Utility	EHT/1	.32KV	HT/33/	66 KV	HT/1:	1 KV	LT	
		BESCOM				10		33		
		MESCOM					20	)	68	
		CESC					20		68	
13.	Karnataka	HESCOM					2.		69	
	I .	11			1					

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i. For Renewable sources who wheel energy within the State, the wheeling charges is in kind

ii. Actual charges depend upon the point of injection & point of drawal iii. In addition to above charge, losses as applicable has to be borne.

GESCOM

and is equal to 5% of the energy injected.

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			Term (LTOA/	Unit of	:	Voltage levels			
S.No	SERCs/JERCs	Utility (Discom	STOA)	Measurem					
					EHT	LT	F.(C +:-C		
14.	Kerala	KSEB Ltd.	LTOA STOA	STOA KWL		24 Paise	EffectiCv 5/13	e from	
						L.T	33 kV	11 kV	
		MSEDCL			Rs/kWh	1.03	0.11	0.60	
		TPC-D			Rs/kWh	1.87	0.89		
15.	Maharashtra	RInfra-D			Rs/kWh	1.22	0.63		
	Managanad	BEST			Rs/kWh	as a loca hence e	s been rec al authority exempted t of the Op ons	y and from the	
		Sl.No.	Year	LTOA (Rs./MW	/Month)	STOA (Rs	./MW/Moi	nth)	
16.	Madhya Pradoch	1	FY 2013-14 4	273.48	106	8.36			
10.	Madhya Pradesh	Wheeling charg	ges						
		FY 2013-14			Rs.	0.22 per at	t 33 Kv		
17.	Manipur & Mizoram	Transmission and	d Wheeling Charge	are fixed in bot	th the States in	Tariff orde	rs annually	/.	
		Utility (Disco	m) Term (LTOA/STOA)	Unit of Measureme	ent				
19.	Nagaland	NA	NA	NA					
		NA	NA	NA					
		NA	NA	NA					
		Wheeling & Cross subsidy surcharge for HT consumers (11 KV & 33							
		DISCOM	Wheeling Charg				arge 9Pais		
		CESU	78.0			101			
20.	Odisha	NESCO	81.2	29		55			
		WESCO	61.3	30		76			
		SOUTHCO	99.9	94		165	5		
		Long	r Term (LTOA) (PSPC	~  \	Short term (S	TOA) Volta	oe levels	(PSPCL)	
			lonth of the contrac	-		119 paise/		(I SI CL)	
21.	Punjab		ed that Transmission					power of	
	T drijdb	consumption wi irrespective of d	thin the state shall istance. In case of arges shall be levia	be levied at 2° wheeling of NR	% of the energ	y injecteď	into the S	tate Grid,	
27	Cildina	Year	Utility (Discon			of Mea- ement	Voltage	levels	
23.	Sikkim		Energy & Power De ment, Govt of Sikki						

S.No	SERCs/JERCs	Utility (D	iscom)	1	Term (LTOA/ STOA)	l	Unit of Measurement			Volta	age	levels	
		Year	Year Utility		Term(LTOA/		Unit of mea-	Voltage levels					
		Teal	Other	y	STOA)		sue-ment	11kV	22kV	33k	ίV	110kV	230kV
24.	Tamil Nadu	FY	TANGE	)-	LTOA/STOA t TANGEDCO	0	MU	8619.	34				
		2013-14	CO		STOA-captive & third party		MU	1088	491	658		669	219
26.	Tripura				not yet devel distribution i					questi	on (	of OA	
27.	Uttarakhand	Uttarakhan Corporation (UPCL)		ch th	absence of voise wheeling harges are Rs. e wheeling opecified in the bossumers and	and 730 thar Re	transmissio 2.22/MW/D ges calcula gulation and	on chargo Day. For ted in d the sa	ges. Howe embedde accordan ame work	ever, ted ope ce wi ce out t	the a en a ith to N	average access co the met Iil for H1	wheeling onsumers, chodology findustry
		Utility (D	iscom)	Term (LTOA/STOA)		A) Unit o				oltage levels  / Above 132 k		172 137	
28.	Uttar Pradesh	All Discoms				Rs./kWh		LTOA: 0	LTOA: 0.135 STOA:0.034		LTOA: 0.101 STOA:0.025		
		Year 2013	5-14	WE	BSEDCL	CES	SC Ltd	DPI	PL		DPSC Ltd		
		Vest Bengal Avoidable Cost kV		75 kW	.13 paise/ /h		L35.79 paise/ kWh		29.19 paise/ kWh		64.75 paise/kWh		/kWh
29.	West Bengal			kW	0.27 paise/ /h + wheel- g charges	kW	6.42 paise/ h + wheelin Irges			ina l	266.64 paise/kWh + wheeling charges		
		Cross subs		It is the difference			e of the applicable tariff for the category of the consum-						

## **Transmission Charges**

LTOA – Long Term Open Access

**STOA** – Short Term Open Access

S. No.	SERCs/JERCs	LTOA (Rs	./MW/Month)		STOA (Rs./MW/Day)					
1.	Andhra Pradesh	Term				Voltage levels	;			
		(LTOA/STOA) Unit of Measurement			132KV	220KV	400KV			
		*LTOA/STOA Rs.MW/Day			2006.5	2006.5	2006.5			
			* Charges ar	e san	ne for both LTO	A/STOA				
2.	Bihar	6	4827			533				
3.	Chhattisgarh		shared by all LTOA/ s proportionately in I capacity	STO.	A charge 23.3 p roved and sche	paise per unit or duled as per ac	n energy tual injection			
4.	Delhi	charges in case of ARR approve	of intra-state open	methodology for calculation of transmission servic access in its order dated 24.12.2013. On the bas on for respective years, transmission charges ar						
5.	Goa & Union Territories		od, as there was no t ission charges were r			e under jurisdic	tion of JERC, the			
6.	Gujarat	2970								
7.	Jammu & Kashmir	Rs. 37,040.00		Rs. 5	587.00					
8.	Jharkhand	0.18								
9.	Karnataka	95422		784	.46					
10.	Kerala	19 Paise/kWh		19 F	Paise/kWh					
11.	Maharashtra	Rs.320.22/kW/m	nonth	Rs.0	0.43Rs/kWh					
12.	Madhya Pradesh	Rs.108935.70/M	1W/day	Rs.9	07.80/MW/day	/				
13.	Manipur & Mizoram	LTOA and STOA a	re yet to made separ	ately						
14.	Nagaland	NA		NA						
15.	Odisha	<b>Year</b> FY 2013-14	LTOA (Rs./M)		nth)	<b>STOA (Rs./</b> / 150				
		92451		27 r	27 paise/unit					
16.	Punjab	Further submitte consumption wi Grid, irrespectiv	thin the state shall b	and W e levi	27 paise/unit and Wheeling charges for wheeling of NRSE power of levied at 2% of the energy injected into the State of wheeling of NRSE Power outside the State, full heleviable					

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S. No.	SERCs/JERCs	LTOA (Rs./MW/Mont	LTOA (Rs./MW/Month)		OA (Rs./MW/Day)		
		Year	LTOA (	`/MW/Month)	STOA (`/MW/Day)		
		FY 2013-14					
17.	Sikkim	Access) regulations, 2012 or for determining the various However, the only deemed of Power Department, Government,	The Sikkim SERC has already notified the SSERC(Terms and Conditions of Intra State Ope Access) regulations, 2012 on 30th June 2012 outlining the procedure and methodologi for determining the various charges (transmission, wheeling and cross subsidy surcharg However, the only deemed distribution/transmission licensee in the State i.e the Energy Power Department, Government of Sikkim has not received a single application from a consumer requesting Open Access either for Transmission or Distribution till date. As suct the need for establishing the charges for Transmission /Distribution under Open Access				
18.	Tamil Nadu	Rs.1973(MW/day)=Rs.59 (MW/month)	9,190/-	Rs.82.21(MW/hr) = Rs.1973/- (MW/da			
19.	Tripura	Does not arise in case of Trip	pura				
20.	Uttarakhand	Rs. 90683.10		Rs.3022.77			
21.	Uttar Pradesh	Rs. 0.135 / kWh	-				
22.	West Bengal	145321.00		1210.26			

## 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.

S.	SERCs/JERCs	Ut	tility					Year (%)				
No.	SEKCS/JEKCS	Di	scom		FY 2013-14							
2.	Andhra	APSP	DCL	12.22								
۷.	Pradesh	APEP	DCL	12.10								
		Sl.N	lo l			Utility				Yea	ır (%)	
4.	Bihar	34.11				Otherty			20	13-14	201	.4-15
٦.	Diridi	1.	NBF	DCL (Appr	oved Disti	ribution	Loss)			23	2	1.4
		2.	SBP	DCL (Appr	oved Distr	ibution l	_oss)			23	2	1.4
				05-06	06-07	07-08	*08-09	09-10	10-11	11-12	12-13	13-14
				35.81%	33.81%	32.54%	37.15%	34.32%	34.00%	32%	30%	28%
5.	Chhattisgarh	State com	Dis-	(i) Distrib includ (ii) Distrib have b * Due to ch	<ul> <li>Note:</li> <li>(i) Distribution loss trajectory for year 05-06, 06-07 and 07-08 has been calculated including sales at EHV level also</li> <li>(ii) Distribution loss trajectory for year 08-09, 09-10, 10-11,11-12, 12-13 and 13-14 have been calculated excluding sales at EHV level also</li> <li>* Due to change in methodology adopted for calculation of distribution loss target for year 08-more than year 07-08</li> </ul>					13-14		
		Sl.	Utility					Year (%)				
		No.			2012-13			13-14		20	014-15	
		1.	BRPL	17.74%	(Target 14	.16%)	16.93% (Ta	rget 13.33		o be trued get 12.50%		
6.	Delhi	2.	BYPL	21.14%	(Target 16	.82%)	22.19% (Ta	rget 15.66		o be trued get 14.50%		
		3.	TPPDL	10.73%	(Target 12	.50%)	10.56% (Ta	rget 12.00	)%) Yet t	o be trued get 11.50%	d up	
		4.	NDMC	7.65% (	Target 10.3	35%)	11.57% (Ta	rget 10.10	)%) Yet t	o be trued get 9.85%	d up	

S.	CEDC- (JEDC-	Utili	ty	Year (%)						
No.	SERCs/JERCs	Disco	om			FY 2013-14				
					T&D Loss T	<b>Trajectory</b>				
		S.No.		ERC Jurisdi	ction		201	3-14		
		1	Chandigarh				15	5%		
		2	Goa					12.00%		
7.	Goa & Union Territories	3	Puducherry					12.50%		
	Territories	4	Daman & Diu					5%		
		5	Dadra & Nagar Ha					0%		
		6	Andaman & Nicol	par Islands				03%		
		7	Lakshadweep				15.0	00%		
8.	Gujarat	DGV	CL			11.75				
		UGV	CL			12.50				
		MGV	CL			12.25				
		PGV	CL			25.50				
		TPL-	-A			8.50				
		TPL-	-S			5.15				
		Kandla Trus			8.50					
		Mundra SEZ			7.50					
		Torre Energy (TEL	Ltd.			3.00				
	Jammu &		Utility		Year (%)/T&D Loss Trajectory					
11.	Kashmir		Discom			2013-1	4	2014-15		
			JKPDD	4	6.76	45.26		43.76		
			Utility	,		Distribution	Loss Targets	(%)		
		Sl.No.	Discon		2012-13		13-14	2014-15		
		1.	JSEB		18%		17%	16%		
12.	Jharkhand	2.	JUSCO		5%		5%	5%		
		3.	SAIL – Bokaro		15%		13%	11%		
		4.	TSL		6.5%	6	5.0%	5.75%		
					Only T&[	) Losses				
							6-14 (%)			
			Utility		Targ	get		Achieved		
			BESCOM		13.8	30		13.95		
13.	Karnataka		GESCOM		20.0	00		21.90		
			HESCOM		19.0	00		18.05		
			MESCOM		11.7	75		11.93		
			CESC		15.5	50		14.73		
			Hukeri RCS		15.0	00		14.53		

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S.	CTDC (170C	Utility					Year (	%)				
No.	SERCs/JERCs	Discom				F	Y 201	3-14				
							Year	(%)				
		Utility	20	008-09	2009-10	2010-11	201	1-12	2012-	13	20	013-14
14.	Kerala	KSEB		18.83	17.71	16.09	15	.65	15.3	0	15.0	0 (Actual)
		T&D			16.92	16.00	15	.31	14.8	1	14.75	(approved)
		AT&C			17.26	16.89	16	.15	15.6	6	15.58	(approved)
		MSEDCL	14.00	%					-			
15.	Maharashtra (	TPC-D	0.99%	6								
L).	Manarashira	R Infra-D	9.50%	6								
		BEST	7.00%	6								
16.	Madhya Pradesh	Discom	2012-	-13	2013-14	2014-15						
		(i) East Discom	24		23	20						
		(ii) West Discom	22		20	18						
		(iii) Central Discom	26		20.30	21						
			Sl.	Utility						Year	r (%)	
			No.	Discor	n			201	.2-13	201	3-14	2014-15
L7.		Manipur & Mizoram	1.		ur State Powe any Ltd.	er Distributio	n	3.	5%	32	2%	29%
			2.		and Electrici of Mizoram	ty Departme	nt	3:	1%	29	9%	27%
		Utility					Year (	%)				
19.	Nagaland	Discom		201	.2-13		2013-	14			2014	-15
		DPN		41.	37%		38.89	1%			33.6	7%
								FY 20	13-14			
		DISCOM				Target		1120	15 14	Δ	chieve	d
	CESU					23.77		39.50				
20. Odisha		NESCO				19.17		35.93				
		WESCO				20.40					40.64	
		SOUTHCO				26.25					46.39	
		Sl.No.	Uti	lity	Appr	(Transm						
21.	Punjab	-5t.110.	Disc	om		2012-13			13-14			2014-15
						3.00%			00%			6.00%

S. No.	SERCs/JERCs	Utility Discom	Year (%) FY 2013-14					
23.	Sikkim	The Energy 8 bution/trans Generation h the segregat	The Energy & Power Department, a State Government Department is functioning as the deemed distribution/transmission/generation utility in Sikkim. The segregation of the Transmission, distribution ar Generation has not yet been done i.e the restructuring of the Department is yet to be done due to which the segregation of technical and commercial losses through energy audit has not been done. The Sikking SERC has issued several directives to the State Government for taking timely action on the matter.					ission, distribution and o be done due to which been done. The Sikkim
		Sl.	114:1:4.			Year %(T	&D loss)	
24.	Tamil Nadu	No.	Utility	2012-1	3	2013	-14	2014-15
		1 TAN	IGEDCO	16.8		16.	.4	16.0
26.	Tripura		ment owned Lic					d to prepare a Time
		Tariff orders mission has primarily foc achieving 15 for the distri lection effici	has been direct given investmen using on reduci % distribution l	ing the distribut at approval to Go ng the AT&C los losses by FY 201 duction and coll 2-13, FY 2013-1	cion licensed byt. funded s sses of the c .5-16. Furth ection effic	e to reduce schemes vi: distributior er, the Com iency. The t	its AT&C loss z., R-APDRP Pa system with mission has a targets of dist	ion through its various ses. Moreover, the Com- art-A & Part-B which are an overall objective of also defined a trajectory ribution losses and col- elow:
			Status		FY 201	12-13	FY 2013-14	FY 2014-15
		Approved D	istribution Loss	es	179	%	16%	15.5%
27.	Uttarakhand	Status of Co	llection Efficien	су				
			Status		FY 201	12-13	FY 2013-14	FY 2014-15
		Approved C	ollection Efficie	ncy	97%		97.5%	98%
			ed AT&C losses		above dist	ribution los	sses and colle	ection efficiency for the
		Sl.No.	Stat				Year (%)	
		St.No.	Stat	us	FY 20	12-13	FY 2013-14	4 FY 2014-15
		1. Ap	proved Collectic	n Efficiency	19.4	49%	18.10%	17.19%
			to standards for ards of Performa					nas already notified the
	I lete -				Year (%)	)		
28.	Uttar Pradesh		2012-13		2013-14	<u> </u>		2014-15
		N	ot available		Not availa	ble		Not available
		Sl.No.	Utility			Ye	ear (%)	
		31.110.	DISCOM	20	12-13	20	013-14	2014-15
		1	WBSEDCL		L7.50	_	17.50	17.50
29.	West Bengal	2	CESC		L4.45		14.30	14.30
		3	DPL		5.30	_	5.20	5.20
		4	DPSC		5.25			5.25
		5	DVC		2.30	2.20		2.20

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## **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 prepaid 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.	Andhra Pradesh	ToD tariff and meters are already in place for most of the HT consumers with load above 70 KVA.
2.	Bihar	BERC in its Directives issued by the Commission with Tariff Order directed to Distribution Licensees to ensure cent percent metering, the Commission from time to time reviews the status of metering.
3.	Chhattisgarh	100% meterisation has been done by State Discom. TOD meter facility is provided to all HT and EHT consumers
4.	Delhi	In the Tariff order dated July 31, 2013, the Time of Day (ToD) Tariff-ToD Tariff was made applicable on all consumers (other than domestic) whose sanctioned load/MDI (whichever is higher) is 100 kW/108 kVA and above.
5.	Goa & Union Territories	The JERC regularly monitors the progress on metering and reviewing metering plans of all the Distribution Licensee under its jurisdiction. Use of pre-paid meters and ToD meters also encouraged through appropriate determination of the tariff categories. Regarding third party metering testing arrangements, the CGRFs/Ombudsman decides the matter on case to case-basis.
6.	Gujarat	All categories of consumer are 100% metered except Agriculture consumers. For agriculture consumers, the feeders were segregated and 100% feeder level metering is provided. Agriculture connections are released with meters after 10.10.2000.
7.	Jammu & Kashmir	As per Section 49 of J&K Electricity Act, 2010, the Distribution Licensee (State Power Development Department) was required to complete 100% metering by the end of April, 2012. Although Utility is focusing on completion of 100% metering in the areas covered under R-APDRP, but the Utility has not been able to meet the targets as set under the Act. On the request of the Utility the dead line for achieving 100% metering was extended till June, 2013. The Utility has not been able to complete 100% metering within the extended deadline upto June 2013 and submitted that it can complete 100% metering only by the end of FY 2015-16. Suo-moto proceeding were initiated by the Commission against the Utility to seek compliance of the Utility to the directives of the Commission passed in the matter with regard to submission of a detailed metering plan dully approved by the State Government. The Utility furnish metering plans both for system and consumer metering. The Commission while adopting the plan directed the Utility to seek approval of the State Legislature to the proposed time lines for achieving 100% metering in view of serious deviations of the time lines stipulated in the Act.
8.	Jharkhand	Information awaited from licensee
9.	Karnataka	Metering plan of Distribution Licensees have been approved and are being monitored. Distribution Licensees have installed meters for all the category of installations except IP sets of 10 HP and below
10.	Kerala	All consumers in Kerala have been metered. For HT & EHT Consumer, TOD meter is compulsory. For LT Industrial consumers above 20 kW (connected load) ToD meter is compulsory.

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S.No	SERCs/ JERCs	Metering Plan
		1. The Commission has introduced TOD tariff in Maharashtra in FY 2000-01 vide Order dated April 28,2000
		2. Tariff in Maharashtra consists of two components, i.e., Fixed Cost (Rs./kW) and Variable Cost (Rs./kWh).
		3. For better management of load, TOD tariff is introduced by MERC. Peak time usage is charged more and night time usage is offered concession. TOD tariff in Maharashtra has divided each day in following tile slots and charged according to consumption during respective time slots:
11.	Maharashtra	Timings 0600 to 0900 hours 0900 to 1200 hours 1200 to 1800 hours 1800 to 2200 hours 2200 to 0600 hours
11.	INIGIIGIASIIUA	4. The Commission had undertaken third party meter testing in R-Infra-D license area to verify the accuracy of operational meters for sample number of consumers from each category through M/s IDEMI, independent NABL accredited calibration & testing lab. This meter testing drive was started by IDEMI on behalf of MERC from 14 October, 2009 and it concluded on 4 April, 2010. During this exercise 1337 number of meters were attended.
		5. The Commission vide Order in Case No. 19 of 2012 dating 16.08.2012 MSEDCL that all new connections should be provided on meter basis only.
		6. All the consumers in State of Maharashtra are metered except AG consumers in MSEDCL licence area. During proceedings in Case No. 121 of 2014, MSEDCL has submitted that around 16,11,963 (i.e., 43%) no. of AG consumers connections out of 37,32,563 are still un-metered.
		7. The Commission has directed MSEDCL to complete 100% metering within a period of 3 years.
		Meterisation Plan is indicated below:
		Meterisation Plan as agreed by the Distribution Companies in Madhya Pradesh
		i. Domestic Consumers - Urban - 100% meterisation achieved during FY 2012-13
		ii. Domestic Consumers - Rural - By September 2016 for East Discom, June 2016 for West Discom and March 2016 for Central Discom
12.	Madhya Pradesh	iii. Agriculture DTrs  - No timeframe for East and West Discom.  Meterisation is to be complete by March 2017 for Central Discom
		iv. Feeders (11kV)  - East Discom: 100 achieved. West Discom: 95.24% target achieved. Central Discom: 100% by March 16
		v. Feeders (33kV) - East and West Discom: 100 achieved. Central Discom: 100% by March 16
		TOD already in place for HT consumers since 2000.
		Third Party Independent Meter Testing already in place since 21/08/2007.
13.	Manipur & Mizoram	100% metering yet to be achieved in Manipur and achieved in Mizoram.
14.	Nagaland	

S.No	SERCs/ JERCs	Metering Plan
15.	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 utilize pre-paid meters if the consumer elects for it. The Commission has further directed that all the Govt. consumers should preferably be provided with pre-paid meters to avoid default in payment by them. The Commission in their tariff orders has directed that all the three-phase consumers 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.
16.	Punjab	All Consumers except AP (Agriculture) category are metered in the State of Punjab. However the consumption of AP category has been determined on the basis of pumped Energy of exclusive AP feeders. PSPCL has been directed to submit 100% metering plan as per Section 55 of the Electricity Act, which is still awaited.
17.	Sikkim	The Sikkim SERC has issued strict directives to the licensee for 100% metering of all consumers. Metering has been made mandatory for getting new connections. Directives for using pre-paid meters has also been issued. The Commission has directed the licensee to submit its metering plan for approval by the Commission. As per details furnished by the Department 77.37% of the total consumers have been metered as on November 2015.
18.	Tamil Nadu	All services metered except agricultural & hut services. Petition filed by licensee in 2012 seeking time for installation of meters in agricultural and hut services. Licensee has endeavoured to provide 100% metering in feeders and Distribution Transformers. Direction issued to the licensee to undertake study of losses in individual feeders through adequate sample study and time extended upto 3/2014. Licensee has undertaken the study and is due to furnish the report.
19.	Tripura	100 % consumer metering programmee is still going on. However more than 90 % metering has already been done. Pre-paid metering is yet to be introduced. TOD already introduced as per demand of consumer.
20.	Uttarakhand	A Rebate of 4% of energy charges for domestic category and 3% of energy charges for other LT consumers is allowed to the consumers under the prepaid metering schemes from the date of installation and operationalization of prepaid meters.  Directions have been issued to DISCOM for strengthening in-house offsite & on-site meter testing facilities and also explore other options in this regard.
21.	Uttar Pradesh	Metering is encouraged in the State and TOD metering has already been implemented
22.	West Bengal	FY: 2013-14  WBSEDCL – a) All category except a fraction of Agricultural consumers: 100%  CESC Ltd 100%  DPSCL - 100%  DPL - 100%

## 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.	Andhra Pradesh	HVDS is being implemented for agricultural services and for villages	SCADA is being implemented in all major cities in Andhra Pradesh
2.	Bihar	Yet to Start	
3.	Chhattisgarh	State discom has taken up converting LT system to HVDS. More schemes are being prepared for execution on REC – loan funds basis	Automatic meter reading has been implemented for all HT and EHT consumers. Similar arrangement for LT load of 50 H.P. and above is in process. Data base management is being done with help of SAP package. SAP software is in implementation with eight different modules. The billing, financial control, material management and HR modules are already functional
4.	Delhi	HVDS - Implemented in past but not favoured now. Low Tension Aerial Bunched cables (LT ABC) introduced in a big way due to cost effectiveness.	SCADA - Implemented by the three Discoms
5.	Goa & Union Territories	The JERC directs all distributi operation efficiency and also al	on licensees through tariff orders for improvement in its lowing capex in this regard.
6.	Gujarat		has been started by the Distribution Licensees. HVDS en taken up in MGVCL, UGVCL, DGVCL and PGVCL for effective
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.	SCADA & DBM system is being provided under R-APDRP scheme (Part-A) covering 30 towns including two Capital cities of Jammu & Srinagar.
8.	Jharkhand	Information awaited from licens	see

S. No	SERCs/JERCs	HVDS	SCADA & Data Base Management
9	Karnataka	KERC has been monitoring LT/HT ratio. Further, ESCOMs have taken up segregation of 11 kV feeders supplying to IP sets under "NirantaraJyothi Scheme". HVDS schemes are being taken up by the ESCOMs. Guide lines has been issued by the Commission regarding execution of HVDS scheme wherever it is necessary.	KPTCL has taken up the up-gradation of SCADA under integrated SCADA scheme. For data base management, ESCOMs have taken up computerization for implementation of MIS.
10.	Kerala	SCADA has already been impl Scheme in Part A	emented. Upgradation work is in progress under R-APDRP
11.	Maharashtra	HVDS implementation is being carried out in MSEDCL Area through APDRP/R-APDRP-B/Infrastructure Schemes for effective reduction in losses.	Implementation of SCADA/DMS and Data base management is being carried out R-APDRP in MSEDCL Area.  SCADA/DMS system has already been implemented in BEST, TPC-D and R infra-D licensee area.
12.	Madhya Pradesh	Capex Plan approved which is also inclusive of HVDS in identified areas	To be taken up by Discoms
13.	Manipur & Mizoram	Yet to be implemented in both t	:he States.
14.	Nagaland		
15.	Odisha	The Commission has earlier directed that all rural electrification works shall be made through HVDS only as far as possible	As per Odisha Grid Code, provision has been made for installation of SCADA and communication facilities in all 220 KV Grid S/S. Load data at all the EHT sub-stations are being captured and analyzed online. It provides Dash board display of 15-minutes load data of each DISCOM on a continuous basis. It also provides information on over loading and interruptions. Initiation has been taken for implementation of SCADA/DMS in distribution sector under R-APDRP scheme. It will be fully operational after availing fund from the said scheme.
16.	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 2.11 lac AP LVDS connections to HVDS ending 31.03.2015.	LOI for Distribution SCADA / DMS has been placed on M/s Siemens and project will be executed along with R-APDRP works.
17.	Sikkim		HVD system as well as SCADA and data management systems are under implementation and will be sometime before they can be fully operationalised.
18.	Tamil Nadu	Under the R-APDRP scheme, around 11350 Transformers of different capacities below 100 KVA have been installed by the licensee under HVDS.	Under R-APDRP scheme, SCADA – Distribution Management System is being executed by the licensee in 7 cities viz. Chennai, Madurai, Trichy, Coimbatore, Salem, Tiruppur&Tirunelveli at a total cost of Rs.139.79 crores. The project is likely to be completed by June, 2016.
19.	Tripura	Already introduced and under progress	Only SCADA has been introduced in a particular area of Tripura.

S. No	SERCs/JERCs	HVDS	SCADA & Data Base Management
20.	Uttarakhand	UERC has directed that all loads above 75 kW must be released on HT. All PTW loads are to be released on HT only. HVDS is being implemented under R-APRDP part-B scheme in the rampant theft prone areas for reduction of technical losses and improved voltage profile.	Data centre (DC) and Disaster Recovery Centre (DRC) have been established and started functioning. 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. Consumer indexing and GIS mapping has been completed in 31 towns of the State under RAPDRP scheme. Ring fencing and feeder metering and DT metering of these towns have almost been completed. Works related to installation of Modems are in progress.
21.	Uttar Pradesh	Implementation of HVDS and SO	CADA systems are currently in progress
22.	West Bengal	No such system has yet been matured in the State	WBSEDCL: Implementation phase through R-APDRP (Part A) Scheme.  CESC Limited: EHT stations: Master Control Centre and Backup Control Centre with RTU in 23 stations Distribution Stations, 33 KV GIS in DS, 33 KV Consumers: Master Control Centre with a provision of off-line backup with 58 RTUs.

### **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).

1. Ar	i		Summary
	andhra Pradesh	08-08-2013	The State Commission notified second amendment to the Principal Regulation No. 7 of 2004.
2. Bi	lihar	18.01.2007	BERC has notified Bihar Electricity Regulatory Commission (Standards of Performance of Distribution Licensee) Regulations, 2006 on 18.01.2007
3. Cł	Chhattisgarh	July 14, 2006	SOP along with provision for penalties for delay in consumer services, has been notified
4. De	)elhi	18th April 2007	Already notified in April 2007 vide Delhi Electricity Supply Code and Performance Standards Regulations, 2007, which is under revision.
15	Goa & Union erritories		fied SoP Regulations on 18.12.2009. Subsequently based on by the FoR, new set of SoP Regulations notified in 24.07.2015.
6. Gı	Gujarat	Vide notification No. 10 of 2005 dated 31/03/2005.	The Commission reviews the performance of various Distribution utilities against the standards prescribed in above notification. The Commission obtains quarterly reports as well as Annual reports with details required under provisions of the SoP regulations for the Distribution Utilities.
7. Ja	ammu & Kashmir	19.06.2006	J&KSERC (Distribution Performance Standards) Regulations 2006 laying guidelines for maintenance of certain critical distribution system parameters for providing efficient, reliable, coordinated and economical system of electricity distribution and retail supply, are in place.
8. Jh	harkhand	09.09.2015	JSERC (Electricity Supply Code) Regulations, 2015 Notified on 09/09/2015
9. Ka	Karnataka	June 10,2004	Standard of Performance have been specified and notified on 10.06.2014 and their compliance is being monitored.
10. Ke	(erala	09.05.2006	KSERC (Licensee's Standards of performance) Regulations, 2006 have been issued.
11. M	1aharashtra	20 January, 2005	MERC (Standards of performance of distribution licensees, period for giving supply and determination of compensation) Regulations, 2005 were notified on 20 January, 2005.
		Latest	The regulations includes quality of supply, reliability of system, guaranteed standards of performance etc.
12. M	1adhya Pradesh	Notification-23/11/2012	First Notified on 16/07/2004. Revision I Notified on 26/09/2005. Revision II Notified on 23/11/2012
	Manipur & Mizoram	25.06.2012	The regulation is repealed and new regulation notified vide notification dt. 09.06.2014.
	lagaland		

			has been made effective from the date of notification of the Regulation.
16.	Punjab	29.06.2007	Standards of performance (SOP) have been specified in the PSERC (Electricity Supply Code & Related Matters) Regulations, 2007 effective from 1st January, 2008 notified vide notification no. PSERC/Secy./Regu.31 dated 29th June, 2007 and published in the State Gazette dated July 27, 2007.  Compensation in case of failure to meet Standards of Performance
			by the Utility has been implemented w.e.f. 1.1.2012.
17.	Sikkim	23 <sup>rd</sup> March 2012	The Commission had formulated the "Sikkim State Electricity Regulatory Commission for the State of Sikkim (Standards of Performance for Distribution and Transmission of Licensee) Regulations, 2012 and issued the same vide No.03/SSERC/SP/2012 dated 14th March 2012 for publication in the Official Gazette of the State Government. The Regulation has been notified in Official Gazette of the Government of Sikkim No.132 Dated 23rd March 2012.
			The Regulation comprehensively covers and specifies various standards of performance for distribution and transmission licensees.
18.	Tamil Nadu	1.9.2004	Norms for various parameters fixed in the National Electricity Policy specified by the Commission in the Tami Nadu Electricity Distribution Standards of performance Regulations 2004 and the same are monitored.
19.	Tripura	11 <sup>th</sup> Jan'2005	SOP Regulation has already been introduced in the state of Tripura by the only Licensee i.e. TSECL
20.	Uttarakhand	April 17, 2007	Regulation on SoP has already been notified. Payment of compensation and penalties for delay in consumer services also notified in the regulation. Quarterly report is being submitted by the distribution licensee on SoP. Information, in this regard, submitted by DISCOM is being monitored on regular basis. UERC is also promoting awareness in consumers about SoP. Besides conventional complaint logging, Service of Toll free numbers has also been started for complaint logging which is beneficial for prompt monitoring of compliance of SoP Regulations. Besides above, Charter of Services for electricity consumers of the State was issued on 04.02.2015 for general awareness of the electricity consumers regarding the Standards of performance.
21.	Uttar Pradesh		The Commission has notified SoP in the MYT Regulations, 2014 applicable from April 1, 2015

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S. No.

15.

SERCs/JERCs

Odisha

SoP – Date of Notification

May 28, 2004

OERC has issued OERC (Licensees Standards of Performance)
Regulation, 2004. The Commission has specified expected

Standards of Performance such as frequency and duration of

interruption, etc of licensees in the said regulation. Compensation

to the consumers for non-adherence to some of the standards

S. No.	SERCs/JERCs	SoP – Date of Notification	Summary
22.	West Bengal	West Bengal Electricity Regulatory Commission (Standard of Performance Distribution Licensees relating to Consumer Services) Regulations:  a) First notified on 05.02.2004 vide 16/WBERC dated 05.02.2004 b) Further repealed and replaced by 24/WBERC dated 18.10.2005 c) Again repealed and replaced by 46/WBERC dated 31.05.2010 d)Amended by 57/WBERC dated 26.08.2013 e)Second Amendment by 61/WBERC dated:07.01.2014	The Standard of Performance as amended time to time specifies benchmarks relating to frequency and duration of interruption, voltage parameters, failure rates, time for restoration of supply etc.

## **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.	Andhra Pradesh	03-07-2007	With regard to appointment and terms & conditions of service of Ombudsman and his staff, the State Commission notified APERC (Appointment of Vidyut Ombudsman and Terms & Conditions of Service) Regulation, 2007 (Regulation No. 2 of 2007). Subsequently on 19-06-2010, the Commission issued first amendment to the Principal Regulation No. 2 of 2007.
2.	Bihar	Notified on 20.05.2006	BERC has notified Bihar Electricity Regulatory Commission (Consumer Grievance Redressal Forum and Electricity Ombudsman) Regulations, 2006 on 20.05.2006.
3.	Chhattisgarh	Feb 15, 2005 and revised on 22.12.07	CGR established in three regional headquarters. Ombudsman appointed and both are functional
4.	Delhi	Notified on 11.03.2004	Delhi Electricity Regulatory Commission (Guidelines for establishment of forum for redressal of grievances of consumer and Ombudsman) Regulations 2003. (Notified on 11th March 2004)
5.	Goa & Union Territories	JERC Regulations in this regist in place and working ver	gard notified on 31.07.2009. CGRFs and Ombudsman arrangement y well.
6.	Gujarat	GERC (Establishment of Forum for Redressal of Grievances of the Consumers) Regulations, 2004, Notification No.4 of 2004 dated 25.08.2004. (Repealed).  GERC has notified on 07.04.2011 CGRF and Ombudsman (Consumer Grievances Redressal Forum and Ombudsman) Regulations, 2011, Notification No. 2 of 2011.	There are 8 CGRFs functioning in the State of Gujarat. The Commission has been appointing independent  Ombudsman with effect from 01.06.2010 for a tenure of three years. The Commission reviews their performance through quarterly reports and periodic review meetings.
7.	Jammu & Kashmir	Notified and in place	J&KSERC (Electricity ombudsman Regulation, 2010 & J&KSERC Guidelines for Establishment of Forum for Redressal of Grievances of Consumers) Regulations 2010, have been notified vide notification No.: 03/JKSERC/2010 dated; 06.10.2010 & No.: 04/JKSERC/2010 dated; 06.10.2010 respectively. Further the Commission has notified J&KSERC (Consumer Redressal Grievances Forum Ombudsman and Consumer Advocacy) Regulations 2012 vide No.: JKSERC/20 dated; 27.08.2012. Ombudsman yet to be appointed as CGRF has not been established so far by the Utility/Govt.
8.	Jharkhand	09/11/2011	Already notified

S. No.	SERCs/JERCs	CGR Regulation	Summary
9.	Karnataka	June 10 2007	KERC has framed Consumers Grievance Redressal Regulations and notified it on 10.06.2014. Commission
9.	Karnataka June 10,2004		has appointed Ombudsman and established CGR Forum at all District Head Quarters in the State.
10.	Kerala	14.10.2005	KSERC (Consumer Grievance Redressal Forum & Electricity Ombudsman) Regulations, 2005. CGRF & Ombudsman are functioning effectively in the State.
11.	Maharashtra	20.04.2006	<ul> <li>a) In pursuance to section 42(5) &amp; 42(6) of the Electricity Act, 2003, MERC has formed "Maharashtra Electricity Regulatory Commission (Consumer Grievance Redressal Forum &amp; Electricity Ombudsman) Regulations, 2006, which superseded the Regulations formed in 2003, known as Maharashtra Electricity Regulatory Commission (Consumer Grievance Redressal Forum &amp; Ombudsman) Regulations, 2003.</li> <li>b) The Regulations provide for a three tier grievance Redressal mechanism wherein a consumer of the Distribution Licensee, aggrieved due to deficiency in service provided to him by the Licensee, may first approach the IGR Cell of his area, and if not satisfied, then file grievance with CCGR of his zone, and, if not satisfied by the decision of CCGR, can approach the Ombudsman.</li> <li>c) Accordingly, each Discom has constituted its CGRF(s). The three Discoms, viz. BEST, RInfra and TPC have one CGRF each, while the MSEDCL due to its wide area of operations has 16 CGRF's.</li> <li>Thus, presently, there are total 19 CGRF's in State of Maharashtra.</li> <li>d) The Office of the Electricity Ombudsman was constituted on 27th December, 2004 u/s 42(6) of the EA, 2003 and started functioning from 25th January, 2005 at Mumbai. MERC has constituted one more Electricity Ombudsman at Nagpur for the convenience of electricity consumers of the State, in 2011.</li> <li>e) The Electricity Ombudsman and all the CGRFs are working effectively in the State.</li> </ul>
12.	Madhya Pradesh	Notified on 30.04.2004. Revised on 28.08.2009. Last amended on 10.05.2013	The regulations includes guidelines for setting up of ECGRFs redressal of consumers grievances and also regarding functioning of Electricity Ombudsman
13.	Manipur & Mizoram	18.06.2010	CGRF has been constituted in both the States. Ombudsman also designated for both the Sates.
14.	Nagaland	31/01/2012	NERC has notified & finalized the Regulations vide
			No. NERC/REFN/2012(B) dated 31/01/2012.  There are 12 GRFs and two Ombudsmen officers are operation
15.	Odisha	OERC has issued OERC (Grievance Redressal Forum and Ombudsman)	in the state. One Ombudsman office covers NESCO, WESCO & SOUTHCO and the other Ombudsman office covers CESU only. The Ombudsmen are directly appointed by the Commission whereas the President and Finance Members of the GRFs are nominated by the Commission from a panel of names submitted by the concerned DISCOMs. The Commission nominates the Co-opted Member
16.	Punjab	PSERC (Forum & Ombudsman) Regulations, 2005 framed	CGRF with headquarter at Patiala functioning since 1.8.2006. Ombudsman, Electricity Punjab, Chandigarh appointed by PSERC and functioning since 11.9.2006

S. No.	SERCs/JERCs	CGR Regulation	Summary	
17.	Sikkim	30th April 2012	Guidelines formulated and CGRF set up by the licensee. The regulations regarding Ombudsman notified and CGRF notified and Ombudsman designated.	
18.	Tamil Nadu	18th February, 2004	Commissions regulations on Consumer Grievance Redressal Forum and Ombudsman provides for the licensee to establish forum or forums for redressal of grievances of the consumers in accordance to the regulations. The distribution licensee has constituted 42 Consumer Grievance Redressal Forums, one in each distribution circle and the forums are functioning well. The Electricity Ombudsman has been appointed by the Commission who carries out the functions entrusted to him under the regulations. The Electricity Ombudsman is the Appellate authority against the orders passed by the forums.	
19.	Tripura	Already framed	CGRF has already been introduced by the Licensee. Existing Ombudsman has retired on 33/06/2015. New Ombudsman yet to appoint.	
20.	Uttarakhand	Notified on 17.01.2007	Two CGRFs and one Ombudsman functional.	
21.	Uttar Pradesh	The Commission notified "UP Electricity Regulatory Commission (Consumer Grievance Redressal Forum & Electricity Ombudsman) Regulations, 2007" on October 4, 2007	All the Discoms have already set up CGRF in their respective licensee areas and are presently functional.	
22.	a) Regulation was been made on 17th January, 2006 in replacement of previous Regulations dated 08th October, 2003.		WBSEDCL – 19+1 (1 PGRO at Head Quarter) CESC Ltd 10 DPSCL - 9 DPL – 6 At present 3 Ombudsmen are functioning	

## **Capacity Building for Consumer Groups**

#### **Provision in NEP:**

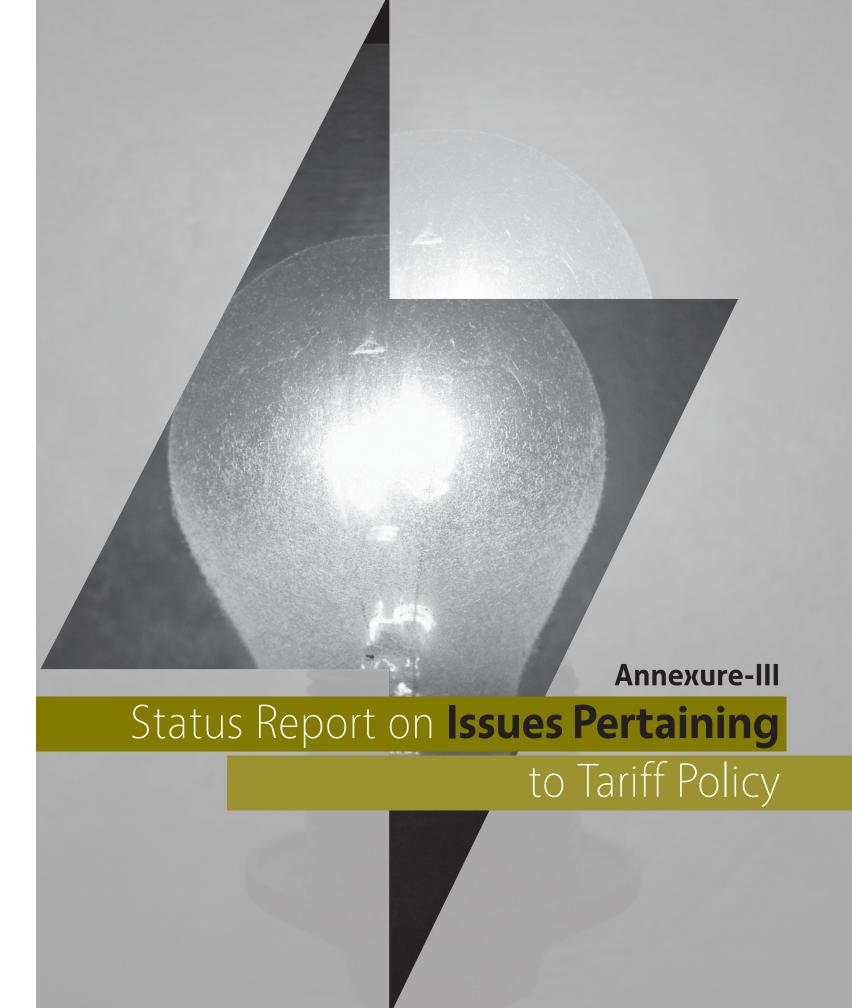
5.13.4 The Central Government, the State Governments and Electricity Regulatory Commissions should facilitate capacity building of consumer groups and their effective representation before the Regulatory Commissions. This will enhance the efficacy of regulatory process.

S.No.	SERCs/ JERCs	Summary
1.	Andhra Pradesh	The Commission has been inviting views / suggestions from the stakeholders / consumers / general public during tariff determination, notifying regulations etc., through electronic / print media and their response is encouraging.
2.	Bihar	
3.	Chhattisgarh	Consumer Advocacy Cell has already been set-up in the Commission
4.	Delhi	The Commission has mandated Public Grievance Cell, GoNCTD to carry out Consumer Advocacy. The Commission has also issued a Public Awareness Bulletin for redressal of Consumer Grievances.
5.	Goa & Union Territories	The JERC regularly conducting the 'Public Hearings' at various places under its jurisdiction. For some matters, the JERC also conducts 'Interaction with the Consumer Groups' for appraising them about JERC Regulations.
6.	Gujarat	The Commission invites the consumer groups to participate in tariff determination and solicit their valuable suggestions for improving services to the consumer. Project implemented with the help of CUTS International with an objective to increase long term capacity/awareness of consumer groups to demand for Demand Side management and Renewable Energy initiatives.
7.	Jammu & Kashmir	The Commission has regularly been organizing workshops on provisions of J&K Electricity Act, 2010, Distribution Performance Standards Regulations, Electricity Supply Code & General Consumer Awareness at District Head qtrs of State & encourages consumer organizations and Utility officers to organize such seminars/workshop from time to time.
8.	Jharkhand	For effective representation of consumer groups, multiple public hearings are conducted before finalization of any tariff order/regulations. For finalization of JSEB Tariff order, multiple public hearings were held from April 2012 to May 2012. At the same time the Commission directs the utilities in the state to conduct public awareness programmes that help in creating awareness about various issues thereby helping in capacity building.
9.	Karnataka	Capacity building for consumer groups was initially done through the Office of Consumer Advocacy by conducting workshops, training, Seminars and issue of  Quarterly magazines/leaflets. This has been continued through the office of the Ombudsman. The Commission in its Tariff Orders has been providing funds towards expenditure for consumer capacity building undertaken by the Distribution Licensees.
10.	Kerala	Consumer groups have been identified.

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S.No.	SERCs/ JERCs	Summary		
		1. In accordance with Sec 86(4) and 94(3) to achieve the purpose of representation of the electricity consumer's interests, MERC, by its Order dated 19th December, 2003 on the basis of interest shown by the Consumer Protection Organisations (CPOs) and their experience/expertise found as matching the requirements – had authorized five authorized Consumer Representatives Organizations, namely;  (a) Mumbai GrahakPanchayat, Vile Parle (West), Mumbai		
		(b) Prayas Energy Group, Pune (c) Thane Belapur Industries Association, Navi Mumbai (d) Vidarbha Industries Association, Nagpur (e) Maharashtra Chamber of Commerce, Industry & Agriculture		
11.	Maharashtra	2. On 8 June, 2012 MERC has notified MERC (Authorised Consumer Representatives) Regulations, 2012 for identifying and authorizing the organizations and individual persons suitable to represent in the interests of electricity consumers.		
		3. Recently, the Commission has also authorized the fifteen individual persons as specialist in different fields, as the CRs to present the consumers interest on 'case-to-case' basis.		
		4. The Consumer Groups participate and present their views and suggestions on behalf of the Consumers in hearing on determination of ARR/Tariff for Generating Company, Transmission Licensee, Distribution Licensee and Trading Licensee, etc.		
		5. Including the above Consumer Representatives, the Comments/suggestions of the consumers/stakeholders and general public is also invited vide Public Notice on the matter relating to tariff determination and finalization of the regulations.		
12.	Madhya Pradesh	for 127 NGOs registered assisting consumers		
13.	Manipur & Mizoram	Citizen Charter notified, Consumers' Awareness Meetings / Workshops are held from time to time through the empanelled organizations and by the Commission itself. Consumers are well represented in State Advisory Committee in both the States. Consumers groups also participated in Public hearings on important issues.		
14.	Nagaland	NA		
		<ul> <li>In various regulatory decision making process, the Commission takes the views and opinions of the consumers and permits them to participate in its hearings.</li> <li>As per Section 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</li> </ul>		
		<ul> <li>ARR&amp; Tariff Application of the Licensees/Generating Company</li> <li>The Commission had also engaged NGOs and Consumer Activists as Consumer Counsel, to collect necessary feedback on Distribution Licensees' Performance and consumer satisfaction on the services provided by the Distribution Licensees.</li> </ul>		
15.	Odisha	• Annual interactive meetings with GRFs & Ombudsman		
		<ul> <li>Inspections of GRF and consumer interface programmes are being conducted every year</li> <li>A compendium containing tariff and other important orders is being published annually.</li> </ul>		
		Booklet (FAQ) titled "What should You Do?" published & distributed to electricity consumers		
		Performance Standards published annually		
		Public awareness campaign based on FAQ in all major Oriya & English dailies		
		<ul> <li>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 is now much more consumer friendly and interactive in nature.</li> </ul>		
16.	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.		

S.No.	SERCs/ JERCs	Summary
17.	Sikkim	The Commission has making all efforts to make the regulator process consumer friendly and to bring in transparency and accountability. Information regarding functioning of the Commission, Regulations framed, CGRF and Ombudsman have been placed in the public domain. The distribution license has been directed to carry out awareness/sensitization programs for consumers thereby disseminating information and educating the consumers.
18.	Tamil Nadu	The activities of the consumer grievance redressal forums formed in all the distribution circles are monitored by the Commission. The Commission has published booklet on consumer related matters and circulated among consumers/consumer groups.
19.	Tripura	Due to want of adequate staff, we are not in a position to arrange Capacity Building Programme.
		The UERC 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 UERC conducts structured consultation with the Committee after proper circulation of the agenda alongwith the proposals much in advance of such consultation/meeting.
20.	Uttarakhand	The UERC conducts public hearing throughout the State and based on the UERC'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 UERC 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
21.	Uttar Pradesh	The Commission has been promoting formation of consumer groups for effective representation from different levels of consumers. All the groups are making quality contribution in the decision making of the Commission. The commission is also conducting public hearing at different laces of the State to accommodate greater consumer participation for the tariff determination and other important issues.
22.	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, 2013 for redressal of consumers' grievances at different level. 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.



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### **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		
		S.No.	RoE (%)	Summary	
1.	Andhra Pradesh	1.	15.5	APGENCO Stations	
	Andria Pradesii	S.No.	RoE (%)	Summary	
		2.	14	APTRANSCO	
2.	Bihar	14%			
3.	Chhattisgarh	15.5%	Return on equity for Generating Company and Transmission Licensees for control period FY 2013-14 to FY 2015-16 calculated on pretax basis at base rate of 15.5%		
		16.0%	Return on equity for Distribution Licens FY 2015-16 calculated on pretax basis a		
4.	Delhi	14% & 16%	The return on Equity is 14% post tax business and the Return on Equity 16% as approved by DERC in MYT Regulatio and FY 2014-15.	post tax for the Distribution business	
5.	Goa & Union Territories		As the Licensees under JERC jurisdiction are operating as Government Department and as integrated utilities, the JERC allowed 3% return on operating net fixed assets during the period.		
6.	Gujarat	14%	RoE is granted to Generation, Transmission and Distribution activity which are regulated activities in the State based on GERC (MYT) Regulations.		
7.	Jammu & Kashmir	i) 14% ii) 15.5%	As per Regulation 25 of JKSERC (Terms & Condition for Determination of Hydro-Generation Tariff) Regulations 2011.  As per Regulation 28 of JKSERC (Multi Year Distribution Tariff) Regulation 2012 and Regulation 4.10 of JKSERC (Terms & Conditions for Determination of Transmission Tariff) Regulation 2012.		
8.	Jharkhand	15.50% (Post-Tax)	Incentive of 0.50% is provided for comp specified by the Commission		
9.	Karnataka	15.50%	The Commission has specified a RoE of State.	of 15.5% for all the Licensees in the	
10.	Kerala				
11.	Maharashtra	MERC vide its regulation namely Maharashtra Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2011 has specified the following for second control period 2011-12 to 2015-16:  RoE for generation — 15.5% (* Additional 0.5% shall be allowed if project completes within time limit, otherwise not).  RoE for Transmission — 15.5%  RoE for Distribution Wire Business -15.5%  Supply Business — 17.5%			

guided by the principles & methodology adopted in CERC's Regulati				ERC's Regulations	
12.	Madhya Pradesh	Year	ROE in %	Additional ROE, if applicable	Summary
		FY 2013-14	15.5% (16%)	0.5%	For Retail Supply & Distribution Business, ROE shall be computed on pre-tax basis
13.	Manipur & Mizoram	16%	Generation, Transr	nission and Distribu	ition
14.	Nagaland	16%			
15.	Odisha	15.5% for Generation & Transmission Companies and 16% for DISCOMs	The Commission has allowed RoE to OHPC (State Hydro Generator) on pre-tax basis at the base rate of 15.5% grossed up with the applicable tax rate for the equity investment made after 01.04.1996. Similarly for OPTCL, the STU, the Commission has allowed RoE@ 15.5% as per the CERC norm for capital invested in the form of equity for the projects commissioned after 01.04.1996. However, the Commission has allowed RoE @ 16% to the DISCOMs on the amount of equity infused to the business as per LTTS Order.		
16.	Punjab	15.5%		he amount of equity ed as per Tariff Reg	actually employed in creation of asset ulations.
17.	Sikkim	14%	The Energy & Power Department, Govt. of Sikkim, the only deemed licensee is a Department of the State Government, the expenditures are incurred against the grants given by the State Government. As such, no separate equity has been allowed for Return on Equity by the Commission		
18.	Tamil Nadu		14% post tax (as per Regulation 21 of the Terms and Conditions for Determination Tariff Regulations, 2005)		
19.	Tripura	14.89 %	Total Rs. 31.03 Cr. was approved by TERC		
20.	Uttarakhand	i. Generation, Transmission Licensee and SLDC– 15.5% ii. Distribution Licensee- 16%	to FY 2015-16		
21.	Uttar Pradesh	16%	"Return on equity accordance with r the rate of return:	ution Tariff Regulations shall be allowed @egulation 4.7. How	16%, on the equity base determined i ever, the Commission may reduce/rais nce of the distribution licensee vis-à-vi
			Generation	Same as per Ta	riff Regulations of CERC
22.	West Bengal		Transmission		riff Regulations of CERC
			Distribution		n the ROE allowed for generation

Summary

The Return on Equity in Generation & Transmission Tariff is allowed as per MPERC (Terms and Conditions for determination of Generation & Transmission Tariff) Regulations, which are

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S.No.

SERCs/JERCs

RoE (%)

## **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.	SERCs/JERCs	CERC Rates adopted	Suggestions for separate Depreciation Rates
1.	Andhra Pradesh	No	MOP rates – adopted as per Regulation No.1 of 2008 notified by APERC. MOP rates may adopted as they are followed by transmission licensee i.e., APTRANSCO in annual accounts.
2.	Bihar	Yes	
3.	Chhattisgarh	Adopted	
4.	Delhi		hedule is provided in MYT Regulations 2011 for Generation, ousiness for FY 2012-13, FY 2013-14 and FY 2014-15.
5.	Goa & Union Territories	The JERC has adopted CERC ra allowed for all the licensees u	tes for depreciation and accordingly the same was nder JERC jurisdiction
6.	Gujarat	Depreciation is allowed on various assets as per CERC rates. Aggregate Depreciation Rates allowed to utilities (i.e. Generation, Transmission & Distribution) of Gujarat	NIL
7.	Jammu & Kashmir		JKSERC Tariff Regulations specify separate rates for different assets, having different useful life.
8.	Jharkhand		
9.	Karnataka	Adopted	The Commission has adopted the depreciation rates as notified by the CERC.
10.	Kerala		
11.	Maharashtra		As per Maharashtra Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2011 the value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission.  The Generator, Transmission licensee or Distribution licensee shall be permitted to recover depreciation on the value of fixed assets used in their respective business computed in following manner:  (1) The approved original cost of the project/fixed assets shall be the value base for calculation of depreciation.  (2) Depreciation shall be computed annually based on the straight line method.  (3) The salvage value of the asset shall be considered at 10% of the allowable capital cost and depreciation shall be allowed up to a maximum of 90% of the allowable capital cost of the asset.  Depreciation shall not be permitted on land and the value of land shall be excluded from the allowable capital cost for the purpose of calculation of depreciation

Maharashtra	the value of fixed assets used in their respective business computed in following manner:  (1) The approved original cost of the project/fixed assets shall be the value base for calculation of depreciation.  (2) Depreciation shall be computed annually based on the straight line method.  (3) The salvage value of the asset shall be considered at 10% of the allowable capital cost and depreciation shall be allowed up to a maximum of 90% of the allowable capital cost of the asset.
	Depreciation shall not be permitted on land and the value of land shall be excluded from the allowable capital cost for the purpose of calculation of depreciation

S.No.	SERCs/JERCs	CERC Rates adopted	S	uggestions for separate Depreciation Rates			
				lations for determination of Generation and same as provided in CERC Tariff Regulations			
13		Year CERC Rates a	dopted	Suggestions for separate Depreciation rates			
12.	Madhya Pradesh	FY 2012-13 FY 2013-14 FY 2014-15		The depreciation rates applicable for Retail supply & Distribution business for FY 12-13, 13-14 and 14-15 are as applicable			
13.	Manipur & Mizoram	Yes					
14.	Nagaland						
15.	Odisha	Not adopted	OERC has adopted depreciation as per orders of Hon' High Court and in accordance with DoR notificat No.1068/E dated 29.01.2003 at pre-92 rates as notif by GOI. For state hydro generation projects, depreciat is allowed at rate of 2.57%. However, for hydro project where principal loan repayment is more than depreciation arrived at 2.57% in those cases depreciat is allowed to the extent of principal repayment of Coron transmission utility additional depreciation in shape of special appropriation has been allowed as the CERC Notification over and above the depreciat computed at pre-92 rate. For distribution business depreciation has been allowed at pre-92 rate as orders of Hon'ble High Court.				
16.	Punjab	As per Appendix III of CERC (Terms and Conditions of Tariff) Regulations, 2009		f depreciation as per CERC Regulations is also d in case of Punjab Power Utilities			
17.	Sikkim	CERC rates adopted by Sikkim SERC	Regula have b	as per CERC (Terms and Conditions of Tariff) tions 2009, Appendix –III and Appendix-II been adopted respectively for Generation and hission Assets.			
18.	Tamil Nadu		s for De	epreciation as per its Tariff Regulation (Regulation termination of Tariff Regulations, 2005) which is			
19.	Tripura		Lum-Sı	um Rs.24.31 Cr. was approved by TERC			
20.	Uttarakhand	Adopted		pecified rates are adopted by the UERC			
21.	Uttar Pradesh	No	& MYT	mmission follows UPERC Tariff Regulations (2006) for calculation of depreciation.			
22.	West Bengal		de sti Ar Co Re at ii) Th as m iii) Fro sh	s per existing provisions in the Commission, the expreciation shall be calculated annualy, based on raight-line method at the rates prescribed in the anexure-A to West Bengal Electricity Regulatory emmission (Terms and Conditions of Tariff) egulations, 2011, as amended, which is available the website of the Commission.  The residual value of assets shall be considered 10% and depreciation shall be allowed up to aximum of 90% of the original cost of the Asset. Behold land is not a depreciable asset and its cost at all be excluded from the capital cost.  The solutions is not a depreciable asset and its cost and be excluded from the capital cost.			

## **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.	Andhra Pradesh	No	Instead of Intrastate ABT, Interim Balancing and Settlement Code is being followed
2.	Bihar		
3.	Chhattisgarh	Not notified	It is under drafting stage
4.	Delhi	Yes	Intra-state ABT was introduced vide Order dated 31.03.2007.
5.	Goa & Union Territories	As all the licensees durinot introduced.	ing the period worked as integrated utilities, the Intra-State ABT was
6.	Gujarat	GERC vide Order No.3 of 2006 dated 11.08.2006 "Bringing the Generation Station of Gujarat State, Distribution Licensee and other persons under the purview of Intra-State Availability Based Tariff." implemented the ABT in the State of Gujarat.  The intrastate ABT frame work came into force on commercial basis in the state from 05.04.2010 as per the order No. 3 of 2010 of the Commission.	Intra-State ABT introduced for Generating stations, grid connected CPP, Open Access Consumers & Distribution licensee in the state
7.	Jammu & Kashmir		Intra-State ABT not introduced so far.
8.	Jharkhand		applicable in the state. As the process of power sector reforms th unbundling of the electricity board, Commission will consider near future.
9.	Karnataka	Implemented	Order for implementation of ABT issued on 26.12.2006.However, Mock exercise was carried out for the past 2 years and Intra-State ABT is being implemented from 1/2/2016.
10.	Kerala		

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S.No.	SERCs/ JERCs	Intra-State ABT	Summary
11.	Maharashtra	MERC Order in Case No. 42 of 2006 dated 17.05.2007	<ol> <li>Introduction of weighted average system Marginal Pricing (WASMP) based ABT mechanism in Maharashtra</li> <li>Settlement of deviations is done on weighted average system marginal price in Maharashtra in order to ensure proper economic signal to market participants.</li> <li>Distribution licensees and the transmission open access users (subject to criteria) operating within electricity market of Maharashtra shall be state pool participants.</li> <li>Generators are not considered for imbalance pool settlement. Similar treatment is given to RE generators. With regard to CPP using conventional power sources, deviations on transactions will be accounted at the consumer end as in case of distribution licensees.</li> </ol>
12.	Madhya Pradesh	Yes	w.e.f. 01st November, 2009
13.	Manipur & Mizoram	No	Only one utility present in each the States
14.	Nagaland	The Commission has no	pt yet fixed availability based tariff
15.	Odisha	Regulations notified on 14.02.2008	Intra-State ABT Regulations has been notified on 14.02.2008. In view of the preparedness of the utilities, OERC devided 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 mode with commercial implications has been implemented with effect from 01.04.2012. The Phase-II covering generators and CGPs is yet to be implemented on commercial basis.
16.	Punjab	Not introduced	Punjab State Power Corporation Limited is still looking the Generation and Distribution functions in the State of Punjab and the costs have not been segregated for Generation business and Distribution business as yet by the Utility. As such, introduction of ABT (Availability Based Tariff) at this stage is not feasible.
17.	Sikkim	Not Introduced	Sikkim being a power surplus state with a very small "within the State" power demand/requirement and no grid connected captive generating plants, the urgency for introducing Availability Based Tariff has not been felt as of now.The Commission plans to introduce ABT as and when the need arises.
18.	Tamil Nadu		mplemented. Draft regulations have been hosted in the Commission's inviting comments/ suggestions from stakeholders.
19.	Tripura		TSECL being sole unbundled Utility in the State has not introduced the Intra-State ABT.
20.	Uttarakhand		SLDC is operational w.e.f. November 27, 2012 and SACADA is operational w.e.f April 18, 2013. (Ring fencing of SLDC and implementation of SCADA is in progress. Intra State ABT would be implemented after July, 2016.)

S.No.	SERCs/ JERCs	Intra-State ABT	Summary
21.	Uttar Pradesh	Implemented	The Commission follows Regulation 4.2 (11) of Distribution Tariff Regulations, 2006 which is specified as below:  "4.2 Power Purchase Cost:  11. In the regime of Availability Based Tariff (ABT), the cost of power purchase through UI shall be allowed to be passed through in tariff of the subsequent year subject to the following conditions:  a) The average rate for power purchased through UI should not exceed the maximum rate for power purchased under the Merit Order of the licensee as approved by the Commission.  b) The total cost of electricity units purchased through UI shall be restricted to 10% of total power purchase cost approved by the Commission.  Provided that where the average rate for power purchased under UI exceeds the maximum specified rate of power purchase under the Merit Order of the licensee, the cost of such power purchase shall be allowed to be passed through in tariffs of the subsequent year at the maximum rate for power
			purchase under the Merit Order of the licensee as approved by the Commission whether the ceiling limit of 10% as stated in 11 (b) above has reached or not."
		i) ABT has been	WBSETCL status:
		introduced for intra- state mode since	Meters for ABT only
		01.01.2008.	Generation to Transmission: 40
		ii) As per regulation 6.1.1 of the West	Meters for ABT and TOD:
		Bengal Electricity	Generation to Transmission: 77
		Regulatory Commission (Terms	Transmission to Distribution:378
		and Conditions of Tariff) Regulations,	Tie lines between Utilities:42
		2011	Meters for TOD only at IPP:09
		Power Stations under Availability Based Tariff	,
22.	West Bengal	I. All generating stations of West Bengal Power Development Corporation Limited (WBPDCL) viz.,	
		1.Kolaghat Thermal	
		Power Station,  2.Bakreswar Thermal Power Station,	
		3. Bandel Thermal Power Station,	
		4. Santaldih Thermal Power Station	
		5.Sagardighi Thermal Power Station	
		II. All other	
		forthcoming generating station(s)	
74		above 50MW of any generating company	FOR Annual Report 2013-14
		synchronized with	
		the State Grid	

## **TOD Tariff**

#### Provision in Tariff policy:

**6.2 Tariff structuring and associated issues :** The Appropriate Commission may also introduce differential rates of fixed charges for peak and off peak hours for better management of load.

S. No.	SERCs/JERCs	TOD introduced		Consumer Cat	egory	Peak Tari	ff	Off	-Peak Tariff
		Consumer	Consumer Category			Tariff (Rs./kVA	h) (	Off-Peak Ta	ariff (Rs./kVAh)
		HT-IA Indus	try(1	132 KV)		5.90			4.90
		HT-IA Industry (33 KV)		6.30			5.30		
		HT-IA Indus			6.73				5.73
		HT-IA Seasonal Industries off-season (132 KV)				7.03			6.03
		HT-IA Seasor off-seaso				7.28			6.28
1.	Andhra Pradesh	HT-IA Seasor	al Ir	ndustries		7.90			6.90
		off-seaso				7.03			
		HT-II Other				7.03			6.03
		HT-II Othe		<u>.</u>		7.20			6.90
		HT-III Airports		· · · · · · · · · · · · · · · · · · ·		6.72			5.72
		HT-III Airport				7.01			6.01
		HT-III Airport				7.58			6.58
2.	Bihar	Yes		High Tension	20% higher than		nan	15% lower than nor	
					130% of normal		221	tailii	
3.	Chhattisgarh	Yes		HV & EHV, Indu consumers	I			85% of normal rate of energy charge (11:00 p to 5:00 am of next day	
		TOD Tariff shall now load/MDI (whicheve				mers (other than			se sanctioned
4.	Delhi	Month	ı	Peak hours		rcharge on rgy Charges	Off P	eak hours	Rebate on energy charges
		April-September	150	00—2400 Hrs		15%	0000	-0600 Hrs	
		October-March		00-2300 Hrs		10%	2300	-0600 Hrs	15%
					TOD	TARIFF			
		Utilities	T	oD introduced	Consu	ımers Category	Pea	k Tariff (	Off-Peak Tariff
		ED-A&N	N	lo					
		ED-Chandigarh	N	lo					
5.	Goa & Union	DNHPDCL	N	lo					
	Territories	ED-Daman and Diu	Y	es	CD 90	00 kVA & above	120	% 9	90%
		ED-Goa	+	lo					
		ED-Lakshwadeep	+	lo					
		ED-Puducherry	+	lo					

S. No.	SERCs/JERCs	TOD introduce	ed	Consumer Category	Peak	Tariff	Off-Peak Tariff		
				Tariff Policy provides (ToD) tariffs.	for facilita	ating implem	entation of Time of Day		
				tariff applicable for LT or more than 40 kW an	consume d for HT co above, usi	rs whose cor onsumers cor ng electricity	Gujarat. There is separate itract demand is equal to itracted for regular power of exclusively during night		
6.	Gujarat	It has introduced i	n the	Moreover, time of use t	tariff is ap except HT-	plicable to W Agriculture a	later Works category of LT and Railway Traction tariff it of time of use tariff.		
0.	dajarat	state of Gujarat		ToD Tariff rates as apprespect to Tariff Orders			CL, MGVCL & PGVCL with 3.		
				Peak Hour Timing	5 07		00 hrs and 1800 hrs to 200 hrs		
				Off Peak Hour Timir	ngs   110	00 hrs to 180	00 hrs		
				Night Hours	220	00 hrs to 06	00 hrs next day		
				ToD Tariff rates as app respect to Tariff Orders			er Ltd – Ahmedabad with 3.		
7.	Jammu & Kashmir	Not introduced so	far.						
8.	Jharkhand								
		KERC has introduced TOD on optional basis and fixed differential rates as below:							
		Consumer Catego	ory	Peak Tariff (18:00 to 2	22:00 hrs)	Off-Peak Ta	ariff (22:00 to 06:00 hrs)		
		LT Industries		Normal tariff plus 10	0 paise	Normal Tar	iff minus 125 paise		
		HT Water Supply		Normal tariff plus 10	0 paise	Normal Tar	iff minus 125 paise		
9.		HT Industries inc commercial less 500 KVA		Normal tariff plus 100	O paise	Normal Tar	iff minus 125 paise		
9.	Karnataka								
		TOD Introduced		onsumer Category		ak Tariff	Off-Peak Tariff		
				dustries, contract Normal and of 500 KVA & above 100 pa		tariff plus se	Normal Tariff minus 125 paise		
		Compulsory	with a	mmercial a contract nd of 500 KVA above	Normal 100 pai	tariff plus se	Normal Tariff minus 125 paise		
10.	Kerala								
		The Commission in 2000 in Case No.		ed TOD Tariff in the sta	te in FY 20	000-01 vide (	Order dated April 28,		
				TOD .	Tariff				
			Timings			Rs./kWh			
11.	Maharashtra			00 hours			0.00		
				00 hours	0.80				
				00 hours			0.00		
				00 hours			10		
		220	U to 06	00 hours		<u>-</u>	1.00		

S. No.	SERCs/JERCs	TOD introduced	Consumer Category	Peak Tariff	Off-Peak Tariff
12.	Madhya Pradesh	Since 2000	All HT categories except for Railway Traction and Bulk Residential Users	15% of Normal rate of Energy Charge as Surcharge	7.5% of Normal rate of Energy Charge as Rebate
13.	Manipur & Mizoram	No			
14.	Nagaland	NA			
15.	Odisha	Yes	All three phase consumers having static meter	Normal Tariff	The Commission has accepted the principles of time of day tariff since 01.04.2005 providing rebate @ 10P/U on consumption during the off-peak hours. Further drawal by industries during off-peak hours upto 120% of contract demand without levy of any penalty has been allowed.
16.	Punjab	Time of Day (ToD) introduced	Large Supply industrial category consumers	months (October to N 14 during off peak h to 06.00 hours (ne industrial category	Fime of Day (ToD) for 6 March) of the year FY 2013- nours i.e. from 22.00 hours xt day) for Large Supply consumers and approved in the normal tariff of this
		**Not introduced			**
17.	Sikkim	** <b>Note:</b> Sikkim being a power su	d of power is very small	.As such the Sikkim SE	peak and off peak load.The RC has not yet introduced
18.	Tamil Nadu	Time of Day introduce	d Consumer categor	y Peak tariff 20% extra on energy charges	Off peak tariff Reduction of 5% on energy charges
		Time of Day (ToD) introduced	Consumer Category	Peak Tariff	Off-Peak Tariff
19.	Tripura	Introdued in some cases as per desired of consumer	Industrial, Coffee- Rubber garden,Bulk supply etc.	140 % of normal rate	60 % of the normal rate

S. No.	SERCs/JERCs	TOD introduced	<b>Consumer Category</b>	Peak	Tariff	Off-Pe	ak Tariff	
					Energy Charges at peak hours shall be as under:		Energy Charges at off- peak hours shall be as under:	
				LT Industr 5.10/kVA		LT Industry:	Rs. 3.06/kVAh	
				HT Indust		HT Industry:		
				Load Factor	Energy Charge	Load Factor	Energy Charge	
20.	Uttarakhand		LT Industries above 25 kW & all HT	Less than 33	Rs. 5.40/	Less than 33 %	Rs. 2.75/ kVAh	
			Industries	%	kVAh	Above	2 2 2 2 4	
					Rs. 5.40/	33% and upto 50 %	Rs. 2.97/ kVAh	
					kVAh	Above 50%	Rs. 3.24/ kVAh	
				Above 50%	Rs. 5.40/ kVAh			
		Time of Day (ToD) introduced	Consumer Category	Pea	k Tariff	Off-P	eak Tariff	
21.	Uttar Pradesh	Yes	LMV-6: Small and Medium Power	the ap	: 115% of pplicable y charge+ nd charge	of the energy	6: 92.5% applicable y charge+ nd charge	
			HV-2: Large and Heavy Power	applica charge	15% of th ble energ + demand narge	y applica I charge	2.5% of the ble energy + demand narge	
22.	West Bengal	No differential rate for fi been introduced already			is Commiss	ion though TO	DD tariff has	

## 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 Procu	ured From Renewables (%)		
1.	Andhra Pradesh	<b>DISCOM</b> APEPDCL	Renewable Power Pu Tariff (average Tarisources) Rs.3.86	iff all	1.39	Power Procured from renewable sources (%)			
		APSPDCL	PSPDCL Rs.4.92 2.						
2.	Bihar	Rs. 2.49/kWh	n Hydro, Rs. 4.55/kWh S	Sugar Mills	S	1.17% of tota	l purchase		
3.	Chhattisgarh	plant less Plant betw Plant betw 2. Tariff for B a. Energy Ch b. Fix charge	Iro Tariff for FY 2013-14 (in Rs./Kwh) for at less than 2 MW – 5.66 Int between 2 & 5 MW – 5.16 Int between 5 & 25 MW – 4.40 Iff for Biomass Plant for FY 13-14; Irgy Charge Rs.3.57/Kwh charges Rs.2.16/Kwh of plants achieving D in FY 13-14						
		Sl.No.	FY	Tari	ff (F	Rs./Unit)	Power Procured from Renewables (%)		
			BRI						
		1	2012-13		2.	99	2.07#		
		2	2013-14		2.	54	0.98		
		3	2014-15		2.	62	0.99		
				ВҮ	′PL				
4.	   Delhi	1	2012-13		Ν	IA	NA		
7.	Detili	2	2013-14		5.	97	0.005		
		3	2014-15			97	0.005		
				TPP	PDL				
		1	2012-13			L75	0.06		
		2	2013-14	6.42		42	0.03		
		3	2014-15		6.	64	0.03		
		#% of sales a tions)	and for FY 2013 pro-rat	ed sales i	s co	nsidered from	October 2012 (RPO Regula-		
Goa & Union Terri- RPO Obligation									
-	tories	FY 2013-14:	Solar -0.4%, others-2.	6%, Total-	-3.0	%			

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S. No.	SERCs/ JERCs	Tariff	Power	Procu	red Fron	n Renewa	bles (%)
		Solar PV: sstart With Accelerated Depreciation: For Megawatt-Scale  Levelized Tariff for 25 years: 8.63 Rs./unit For First 12 years: 9.13 Rs./unit For subsequent 13 years: 7.00 Rs./unit For kilowatt-scale Levelized Tariff for 25 years: 10.36 Rs./unit Without Accelerated Depreciation: For Megawatt-Scale Levelized Tariff for 25 years: 9.64 Rs./unit For First 12 years: 10.30 Rs./unit For subsequent 13 years:7.50 Rs./unit For kilowatt-scale Levelized Tariff for 25 years: 11.57 Rs./unit Solar Thermal: With Accelerated Depreciation: Levelized Tariff for 25 years: 11.55 Rs./unit Without Accelerated Depreciation: Levelized Tariff for 25 years: 12.91 Rs./unit Without Accelerated Depreciation: Levelized Tariff for 25 years: 12.91 Rs./unit Wind: Net Levelized Tariff for 25 years: 4.15 Rs./unit	Year	chas	se (in %) ergy sou	Quantum o from ren rces (in te	ewable rms of
	Gujarat	<ul> <li>Depreciation Benefit: 0.37 Rs./unit Biomass:</li> <li>For Period 1.3.2014 to 31.07.2013</li> <li>Water Cooled:</li> <li>With Acceleration Depreciation</li> <li>Levelized tariff for 1 to 10 years: 4.40 Rs./unit</li> <li>And for 11 to 20 years: 4.75 Rs./unit</li> <li>Without Accelerated Depreciation:</li> </ul>	(1)	To- tal (2)	Wind (3)	Solar (4)	Bio- mass, ba- gasse and others
6.		<ul> <li>Levelized tariff for 1 to 10 years: 4.45 Rs./unit</li> <li>And for 11 to 20 years: 4.80 Rs./unit</li> <li>Air cooled:</li> </ul>	2010- 11	5%	4.5%	0.25%	0.25%
		With Acceleration Depreciation  ■ Levelized tariff for whole life: 4.70 Rs./unit Without Accelerated Depreciation:	2011- 12	6%	5.0%	0.5%	0.5%
		<ul> <li>Levelized tariff for whole life: 4.76 Rs./unit</li> <li>Bagasse based co-generation:</li> <li>With Acceleration Depreciation</li> </ul>	2012- 13	7%	5.5%	1.0%	0.5%
		<ul> <li>Levelized tariff for 1 to 10 years: 4.55 Rs./unit</li> <li>And for 11 to 20 years: 4.90 Rs./unit</li> <li>Without Accelerated Depreciation:</li> </ul>	2013- 14	7%	5.5%	1.0%	0/5%
		<ul> <li>Levelized tariff for 1 to 10 years: 4.61 Rs./unit</li> <li>And for 11 to 20 years: 4.96 Rs./unit</li> <li>For Period 1.08.2013 to 31.03.2014</li> <li>Biomass</li> <li>Water Cooled: <ul> <li>Levelized Fix tariff: 1.77 Rs./unit</li> <li>Variable tariff: 3.39 Rs./unit</li> <li>AD benefit: 0.29 Rs./unit</li> <li>Levelized fixed tariff with AD: 1.49 Rs./unit.</li> </ul> </li> <li>Air Cooled: <ul> <li>Levelized fixed tariff: 1.89 Rs./unit</li> <li>Variable tariff: 3.52 Rs./unit</li> <li>AD benefit: 0.31 Rs./unit</li> <li>Levelized fix tariff with AD: 1.58 Rs./unit</li> </ul> </li> <li>Bagasse based co-generation: <ul> <li>Levelized fixed tariff: 1.86 Rs./unit</li> <li>Variable tariff: 3.15 Rs./unit</li> </ul> </li> <li>AD benefit: 0.32 Rs./unit</li> <li>Levelized fixed tariff with AD: 1.54 Rs./unit</li> </ul>					
7.	Jammu & Kashmir	Rs. 0.96/unit (Average) for Hydel sources (upto 25MW) within the State.				4.75% (N ).25% (So	on-Solar); lar).
8.	Jharkhand	Commission approves tariff from renewable sources of energy based on market price of RECs and generic tariff issued by CERC	1.00% (5	Solar),	3.00%(1	lon Solar)	

S. No.	SERCs/ JERCs	Tariff		Power P	rocured From Re	enewables (%)			
					fied by the Commission for all Distribution ne for the last 3 years are as follows.				
			Non-Sol		Sol	ar (%)			
		FY 2013-14	RPO Target	RPO Met	RPO Target	RPO Met			
9.	Karnataka	BESCOM	10	10.94	0.25	0.036			
		MESCOM	10	14.40	0.25	0			
		CESC	10	9.98	0.25	0			
		HESCOM	7	7.40	0.25	0.032			
		GESCOM	7	7.44	0.25	0.037			
10.	Kerala								
		Levellised Tariff for Different Commissioned during F.Y. 20 1. Wind Power:							
		a. Wind Zone – 1: Rs.5.81/kWlb. Wind Zone – 2: Rs.5.05/kWlc. Wind Zone – 3: Rs.4.31/kWld. Wind Zone – 4: Rs.3.88/kWl	h h	MEDC	its Maharashtra	Floatricity Dog			
11.	Maharashtra	2. Small Hydro Power: a. <-500kW: Rs.5.91/kWh b. >500kWh, <=1 MW: Rs.5.41. c. Above 1 MW & up to and in Rs.4.92/kWh d. Above 5 MW & up to and in Rs.4.21/kWh	icluding 5 MW:	ulatory Cor Obligation tation of Ro dt.7th June quantum o able energ	MERC vide its Maharashtra Electricity Regulatory Commission (Renewable Purchase Obligation, its Compliance and Implementation of Rec Framework) Regulations, 2010 dt.7th June, 2010 stipulated the minimum quantum of purchase (in %) from renewable energy sources (in terms of energy equivalent in kwh):				
		a. Solar Power: a. Solar PV: Rs.8.98/kWh b. Solar Thermal: Rs.9.48/kWh c. Solar Rooftop PV and Other er: Rs.12.31/kWh		RPO for FY	2013-14: 9%	N-SOLAR RPO –			
		<b>4. Biomass Power:</b> Rs.5.87/kWh							
		<b>5. Non-fossil fuel Based Coge</b> Rs.5.81/kWh	eneration:						
		<b>6. Non-Qualifying Non-fossil Co-generation Projects:</b> 2.28/kWh	fuel based						
12.	Madhya Pradesh	Wind - Rs. 5.92/ Unit Biomass - Rs. 6.36/Unit (estir Solar PV - Rs.10.44/U nit Solar Thermal - Rs 12.65/Unit Bagasse based Co-generation Small Hydro- Rs.5.25/Unit (est Municipal Solid Waste- Rs. 6.3 Biogas-Rs. 4.20/Unit	Rs.6.28/Unit stimated)	Solar: 0.30 Non-Solar: Total:1.609	1.30%				
13.	Manipur & Mizoram	Generic Tariff fixed		Manipur : N Mizoram: 2012-13 : 2013-14 : 2014-15 :	19.93% 11.99%				

S. No.	SERCs/ JERCs		Tariff		Pov	ver Procu	red From	Renewables (%)	
_5. No.	JERCS/ JERCS	*Not Fixed	- IGI III		100	ver riocul	red i Toll	r Kellewabies (70)	
14.	Nagaland	*NERC has fixed th fulfilled by 8X3 MV Project. The Tariff F has not yet been d	*NERC has fixed the RPO at 5% which is fulfilled by 8X3 MW Likhimro Hydro Electric Project. The Tariff Fixation on Renewable Energy has not yet been done since there is no such project being undertaken by DN&RE, Nagaland						
		Wind Energy-6.24					RPO tar	get Actual	
15.	Odisha	SHP<5MW-4.89 SHP between 5 to Solar PV-11.44 Solar Thermal-9.52 Biomass-5.33 Non fossil based C	25 MW-4.26 2	L	Nor Co The im obliga OA cor	ted entities	0.20% 1.60% 4.20% ion of RPC is is indust	6 0.18% 6 1.60%	
		As per table repro	duced below		3.50%	∕₀ (Non-Sola	r); 0.13 (	Solar)]	
			Generic Tariff	for techno	logies	for FY 20:	13-14		
		Levellised Fixed Cost	Variable Cost (FY 2013-14)				f Accel- eprecia- availed	Net Applicable Tariff Rate upon adjusting for Accel- erated Deprecia-	
		(₹/kWh)	(₹/kWh)					tion benefit (3-4) (₹/kWh)	
		1	3	Power Projects			5		
		2.27	ass based P		1	1 /.	6.10		
		2.27	Non-Fossil Fuel based Co					0.10	
		2.04	1	5.70 0.13			5.57		
		2.01	iss Gasifier				3.37		
16.	   Punjab	2.42	6.52		0.1	L2	6.40		
10.	, anges	Biogas based Power Projects							
		3.30	3.61	3.61 6.91		0.24		6.67	
		Particulars	Applicable Ta (₹/kW	ariff Rate	Depr a	of Accelera eciation, if ovailed ₹/kWh)	Ra	let Applicable Tariff te upon adjusting for elerated Depreciation benefit (2-3) (₹/kWh)	
		1	2			3		4	
		D-I 5 MAY		ll Hydro Po			· ·	/ 7 /	
		Below 5 MW	5.16 4.40			0.42		4.74 4.02	
		5to 25MW		d Energy Po		0.38		4.02	
		Wind Zone-1	6.29			0.49		5.80	
		C   D)/	9.75	olar Powe	r Projec	ts			
		Solar PV Solar Thermal	8.75 . 11.9	0		0.88 1.21		7.87 10.69	
17.	Sikkim	Sikkim SERC notific Regulations, 2012 be purchased by entire power dem implementation of to the licensee t	ed the SSERC (Rer 2 on 27th Septen the Distribution L and of the State f RPO had been I to file its RPO co	nber 2013 icensee. H is being m kept in abe ompliance	specify lowever et from yance. for FY	ring the r consider Renewal The Comr 2013-14	minimum ing the i ole/Hydr mission I ,2014-1!	and its compliance), a %ages of R.Es to fact that almost the o Power Plants, the has issued directive 5 and FY 2015-16 on for FY 2016-17.	

		15 to 25 MW (3.5.74/dilit (5.44)			
		(ii) Baggase based: Co-generation projects fixed charges of Rs. 2.85/unit (2.70). In Addition, the normative fuel prices is admissible which is Rs. 2.45/unit for FY 2013-14 with 5% p.a. escalation.			
		(iii) Biomass based projects: fixed charges of Rs. 2.10/unit(2.00). In Addition, the normative fuel prices is admissible which is Rs. 2.48/unit for FY 13-14 with 5% p.a. escalation.	Details of RF	PO compliar	nce by Distributio
		(iv) Biomass Gasifier projects: Fixed charges of Rs. 2.25/unit(2.10). In addition, the normative fuel prices is		% RP0 Targe	I STOOT UUI
20.	Uttarakhand	admissible which is Rs. 2.56/Unit for FY 2013- 14 with 5% p.a escalation	Non-Solar	6.00	71
		(v) Biogas projects:	Solar	0.05	
	Fixed charges of Rs. 3.75/unit (3.50). In addition, the normative fuel prices is admissible which is Rs. 3.55/unit which is for FY 2013-14 with 5% p.a. escalation.	Further, entire 100% power from renewable sources including cogeneratic projects are purchased ahead of merit order			
		(vi) Wind Projects: Zone 1: Rs. 5.45/unit (5.00) Zone 2: Rs. 4.85/unit (4.45) Zone 3: Rs. 4.15/unit (3.80) Zone 4: Rs. 3.35/unit (3.05) Zone 5: Rs. 3.10/unit (2.80)			
		(vii) Solar PV : Rs. 11.10/unit (10.15)			
		(viii)Solar Thermal: Rs. 13.30/unit (12.15)			
		(ix) Grid Interactive Rooftop and Small Solar PV: Rs. 9.20/unit (8.15			
21.	Uttar Pradesh	Rs. 4.62 per kWh	4.0% of the	actual pow	er purchase mac
		Solar Pv: Rs. 8.90 (Capped) Biomass: Rs. 5.41 (Capped) MSW: Rs. 5.12 (Capped)		(in %) of from C	Quantum of Purcha total consumption ogeneration and ole Energy Sources
Nost F	M+ D	Wind: Rs. 5.71 (Capped)		Solar	Non-Solar
22.	i vvest Bengal		1 201/15	0.45	/ [
22.	West Bengal	Co-Gen (Bottom): Rs. 3.34	2014-15	0.15	4.5
22.	west Bengal	(Capped) Small Hydro: Rs. 4.42 (Capped)	2014-15	0.15	5.0
22.	west Bengal	(Capped)			

Tariff

Bagasse based cogeneration plants: Rs.4.92/-

Projects commissioned on or after 01.04.2013

Such type of energy not yet generated, so,

question of tariff does not arise.

(i) SHP Projects (upto 25MW): Upto 5MW Rs. 4.22/unit (3.92) 5 to 15 MW Rs. 4.02/unit (3.72) 15 to 25 MW Rs. 3.74/unit (3.44)

Wind – Rs.3.96 per unit

Biomass: Rs.4.85/-

Power Procured From Renewables (%)

Total RPO -9% of which 0.05% is for Solar.

Does not arise

SERCs/ JERCs

Tamil Nadu

Tripura

S. No.

18.

19.

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## **Status of Determination of Open Access Surcharge**

#### **Provision in Tariff Policy:**

#### 8.5 Cross-subsidy surcharge and additional surcharge for open access

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

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

S. No.	SERC/JERC	Utility/ Discom	Cross-Subsidy Surcharge ( Paise/KWh)		Metho	odology Adopted
2.	Andhra Pradesh	Utility/ Discom	Category		ss-Subsidy urcharge aise/KWh)	Methodology Adopted
			All categories		Nil	Embedded Cost
		APSPDCL	All categories		Nil	Methodology
4.	Bihar	SBPDCL/NBPDCL	For 132 kV consum Paise/kWh For 33 kV consume than HTSS): 53 Paise For 11 kV consume than HTSS): 44 (paise For HTSS consumers and 11 kV): Nil	rs (other e/kWh rs (other se/kWh)	recommended Subsidy-Surcha of the prevailin state, to encour seek power pu sources outside the cost of del with the retail	nula (S=T-[C(1+l/100)+D]) in the tariff Policy, Cross rge is calculated. In view of power shortages in the rage the HT consumers to prichase options from the enthe state and to make invered power comparable tariff approved, the cross rge was approved at 50% omputed.
5.	Chhattisgarh	State Discom	1. HT Consumers Rs.1.026 per KWH			ethod in line with efined in tariff policy

S. No.	SERC/JERC	Utility/ Discom		bsidy Surcharge aise/KWh)	Methodology Adopted			
6.	Delhi	BYPL, BRPL and TPDDL	determine subsidy su BYPL and order da on De	urcharge for BRPL, TPDDL vide its sted 24.12.2013 termination of on and Wheeling Cross Subsidy and other charges under	The Commission has methodology for a cross subsidy sure dated 24.12.2013; Transmission and Cross Subsidy Surapplicable charge	The Commission has prescribed methodology for determination of cross subsidy surcharge vide its order dated 24.12.2013 on Determination of Transmission and Wheeling Charges, Cross Subsidy Surcharge and other applicable charges under Open access.		
		Utility		Cross-Subsidy	Surcharge Me	thodology Adopted		
		ED-A&N	١		Not Determined	d		
		ED-Chandig	garh		Not Determined	d		
_	Goa & Union	DNHPDC	īL	0	A	As per Tariff Policy		
7.	Territories	ED-Daman 8	<del>J</del> Diu	59	J.	As per Tariff Policy		
		ED-Goa	3		Not Determined	d		
		ED-Lakshwa	deep		Not Determined	d		
		ED-Puduch	ierry	HT1-123, HT2-13	3, HT3-104 As per Tariff Policy			
8.	Cuiarat	PGVCL/MGVCL /DGVCL/UGVCL		45		ogy adopted for Cross		
0.	Gujarat	TPL-Ahmedabad		32		Surcharge is as per National Tariff policy.		
		TPL-Surat		39	тапп роцсу.			
11.	Jammu & Kashmir	J&KPDD	No surcha	arge being levied				
12.	Jharkhand		Not Appl	icable at Present	computation meth	ns of the State specify nodology of CSS which is dology specified by CERC		
		SERC		Utility	Category	2013-14		
						2013 14		
		KERC		BESCOM	HT2(a) (Industrial)			
				GESCOM	66KV and above HT level – 11 KV /	64 paise per Kwhs		
13.	Karnataka			HESCOM	33 KV HT2(b)	31 paise per Kwhs		
				MESCOM	(Commercial) 66KV and above	208 paise per Kwhs 174 paise per Kwhs		
				CESC	HT level – 11 KV / 33 KV	1/4 paise per kwiis		
			CLJC					
14.	Kerala							
15.	Maharashtra	MSEDCL, TPC-D and R Infra D	As per Tari	ff Order	As per Tariff Policy	/ Formula		
16.	Madhya Pradesh	East Discom, Central Discom& West Discom		ail supply tariff d 23.3.2013 (copy	As per tariff policy	As per tariff policy		

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S. No.	SERC/JERC	Utility/ Discom		bsidy Surcharge aise/KWh)		Methodology Adopted			
17.	Manipur & Mizoram	1.Manipur State Power Distribution Company Ltd.  2. Power and Electricity Department Govt. of Mizoram	No surchar	No surcharge levied A			As specified in open-access regulation		
19.	Nagaland	NA							
		Cross subsidy surc	harge for Op	en Access consu	mer 1MW	& above	for FY 2013-14		
		Discom	S	CSS for EHT (	Paise/Kwh	i) (	SS for HT (Paise/Kwh)		
20.	Odisha	CESU		19	7		101		
20.	Odisila	NESCO		15			55		
		WESCO		15			76		
		SOUTHCO		27	6		165		
							e cross subsidy surcharge 13-14 are as under:		
			Category				14 (paise/unit)		
24		La	rge Supply				107		
21.	Punjab	Don	nestic Suppl	y		100			
			sidential su	pply			114		
			ulk supply			85			
		Rail	way Traction	1		114			
23.	Sikkim	Energy & Power Department, Govt of Sikkim	Not fixed		has b Access Access The n surcha	een rec . As su Consum nethodol rge and	cation from any consumer relived requesting Open ch there are no Open ers in Sikkim as on date. ogy for cross subsidy additional surcharge shall as and when the necessity		
24.	Tamil Nadu	Utility/DIS- COM	Cross	Subsidy Surchai (Paise/kWh)	rge	Мє	ethodology adopted		
24.	Tallit Nadu	TANGEDCO	GEDCO Rs.3.40 to Rs.4.81			N	Formula as per ational Tariff Policy		
		Utility/ Discom Cross-Subsidy Surcharge ( Paise/KWh) Metho							
26.	Tripura	O.A. consumer is available in Tripu	not	Does not		,	Does not arise		
27.	Uttarakhand	Uttarakhand Power Corporation Ltd (UPCL)	40 paise/l	kWh	system	distril	.4, 17% pooled average pution loss shall be ben access consumers		

S. No.	SERC/JERC	Utility/ Discom	Cross-Subsidy Surcharg ( Paise/KWh)	e Methodology Adopted		
		Cross-Subsidy Surd ( Paise/ KWh)	charge	Methodology Adopted		
				The Commission computed the cross subsidy surcharge for the relevant consumer categories using the following formula:		
				<b>S</b> = T – [C (1+ L / 100) + D] <b>Where</b>		
				<b>S</b> is the cross subsidy surcharge		
				<b>T</b> is the Tariff payable by the relevant category of consumers;		
28.	Uttar Pradesh		surcharge computed by or relevant categories nil.	C is the Weighted average cost of power purchase of top 5% at the margin excluding liquid fuel based generation and renewable power. In case of UP, this works out to Rs. 6.59 /kWh considering the cost of marginal power purchase sources of Anta, Auraiya, Dadri Gas and Rosa Power Project II.		
				<b>D</b> is the average wheeling charges for transmission and distribution of power which is Rs. 0.620 /kWh		
			<b>L</b> is the system losses for the apply voltage level, expressed as a perc which is computed as 28%.			
		WBSEDCL: 75.13+	330.27 (Avoidable Cost)	Cross subsidy surcharges		
29.	West Bengal	CESC Ltd: 135.79+ DPL: 29.19+187.00	346.42 (Avoidable Cost)	It is the difference between the applicable tariff for the category of the consumers being allowed open access and the cost avoided by the licensee		

### **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.	Andhra Pradesh					As mentioned under item (3) Open Access Transmission Charges & Distribution networks Charges of Status report on issues pertaining to National Electricity Policy.
2.	Bihar					
3.	Chhattisgarh	Nil	Rs.21.00 per KVA(For captive and non- captive load of CPP)	Nil	1. Startup power Rs.185/KVA/ Month as demand charge and Rs.5.40/KVAh as energy charges for consumers having contract demand 2. Startup power Rs.11.53 per unit for consumers who has no contract demand 3. Standby charges Rs.7.76/Kwh unit for energy up to open access limit and Rs.10.35/Kwh unit for energy beyond open access limit	1. Wheeling charge – 22.1 paisa/Kwh  2. LTOA & MTOA customer shall bear net ARR in proportion to their allocated capacity

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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
4.	Delhi	Captive generation	n is not there in De	elhi State		
5.	Goa & Union Territories	Not specified sepa	rately as there are	e no such cases un	der JERC jurisdiction	
6.	Gujarat	No Penalty	26.50 Rs./KVA		In line with the Section 26 of the GERC (Terms and Conditions of Intra-State Open Access) Regulations, 2011, Standby charges are applicable as per Tariff Orders of the respective distribution licensees.	For DISCOMs (PGVCL, MGVCL, DGVCL & UGVCL) Wheeling charges are as follows; at 11 KV: 11 ps/kwh at 400 V (LT): 41 ps/kwh For TPL Wheeling charges At 11 KV, In Ahmedabad and Surat - 22 and 18 ps/kwh respectively.  At 400 V (LT)- In Ahmedabad and Surat 72 and 48 ps/kwh respectively.
7.	Jammu & Kashmir	No surplus captive power generation available in the State.				
8.	Jharkhand	Information awaite	ed from licensee		1.5 times of HT Industrial Consumer Energy Charges upto 1008 hours Beyond 1008 hours, temporary supply tariff is applicable	0.12
9.	Karnataka		UI rates. KERC has	not prescribed ar		the State by specifying of CD, parallel operation
10.	Kerala	_				

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	Whee	eling Char	ges
						DIS- COM	Volt- age Level	Rs./ kWh
							33kV	0.11
						MSED-	/11kV	0.60
						CL	LT level	1.03
11.	Maharashtra	No		No	*Rs.20/kVA/month	TPCD	HT level	0.89
						IPCD	LT level	1.87
						Rin-	HT level	0.63
						fraD	LT level	1.22
						BEST**	-	-
12.	Madhya Pradesh	No penalty	Rs.20/KVA	NIL	Commitment charges 132 KV-Rs.25/KVA/ month 33KV- Rs. 31/ KVA/month In addition to above, fixed charges and energy charges for the power consumed at temporary rate			
13.	Manipur &	No CPP	Nil	Nil	Nil	Specified	in Tariff	orders
14.	Mizoram Nagaland	NA						
15.	Odisha	No penalty. This shall be governed by Regulation 66-71 of OERC Distribution (Conditions of Supply) Code, 2004	Nil	Nil	NIL	WESCO NESCO SOUTHCO	- 78. - 81. ) - 61. - 99.	29 30
16.	Punjab	Nil	Nil	Nil	633 paise per kWh	Rs. 38359 month	96 per M	W per
		*Not formulated	Not formulated	Not formulated	Not formulated	*Not forn	nulated	
17.	Sikkim	formulating Regula	ations for grid con	nected captive po	in Sikkim. Therefore, so wer plants has not arise when the need arises.			

S. No.	SERCs/JERCs	Penalty for reduction of contracted demand by consumer having CPP	cha	el operation rges/ Grid ort Charges	Minin Guara Char	ntee		-up / Stand by Charges	Whee	ling Charges
		Penalty for redu of contracted de by consumer ha CPP	mand	Parallel o charg Grid Su char	ges/ pport	Guar	mum antee irges	Start up/St charg		Wheeling chargesW
18.	Tamil Nadu	Nil		Nil		Actual records deman or 90% sanctic deman whiche higher	ed ad 6 of oned ad ever is	Start up power -Temporary stariff; Standby power Energy charge applicable to category; Demand charger per Tariff order	upply er – es –Tariff the ges – As	17.35 paise
19.	Tripura	Captive Generating arise.	g Plant	t is not avail	able in the	e State o	of Tripura	a, so, question	of differen	it does not
20	Uttarakhand	Nil	the responsible to reconstruction and in exponsible to reconstruction and in exponsible the construction and in exponsibl	owever, onsibility onronization oroviding oronizing oments orming quisite dards mport/ rt meters lie with aptive rators.	Nil				1	o case basis. case reported
21.	Uttar Pradesh	Not Applicable	Not A	Applicable	Applicab conventi energy		Not Ap	plicable	Not Appli	icable
22.	West Bengal	There is no such penalty for reduction of contracted demand by consumer having CPP other the mismatch charges. Methods of Parallel operation charges/Grid Support Charges, Start-up/Stand Charges and Wheeling Charges have been provided in West Bengal Electricity Regulatory Come (Open Access) Regulations, 2007, as amended.  Commission passes orders regularly for Transmission Charges, Wheeling Charges & Cross substances 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.					o/Stand by y Commission s subsidy			



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