

|                           | Forum of | Regulators |  |  |
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| Forum of Regulators (FOR) |          |            |  |  |

# ANNUAL REPORT

Published by

#### Forum of Regulators (FOR)

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# Foreword

During the year 2012-13, 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 commissioned a study on "Standardisation of Regulatory Accounts" with the objective to recognize Regulatory Accounts as distinct from Statutory Accounts to devise uniformity of approach on Regulatory Accounts and to suggest standardized principles for Regulatory Accounts. The study identified that Integrated Utilities carrying out business may utilise some common assets/ incur common expenses meant for all the Businesses. The Common items need to be apportioned to different businesses based on some Cost Driver, so that the share of cost allocated to the Regulated Business does not amount to subsidising the Un-regulated Business and different Allocation Factors were recommended. It was also recommended to segregate the Distribution Business ARR between Wires Business and Supply Business. However, it was recommended that till the time complete accounting segregation is achieved by the Distribution Licensees, separation of Wires Business ARR and Supply Business ARR can be done by apportioning the components of ARR of Distribution Business between the wire business and supply business as per a specific allocation matrix.

The Forum felt the need to prepare an incentive structure for States to facilitate them to fulfill the RPO targets. Accordingly, a study on "Preparing Incentive Structure for States fulfilling Renewable purchase obligation targets" was commissioned with an objective to study and make suitable recommendations with regard to the implementation strategy and to the commitment that may be desirable on the part of the State governments to enable their distribution utilities to achieve the set RPO obligations and foster development of renewable energy sources. The study suggested fiscal interventions, which inter alia include Incentive for resource rich states for meeting own state RPO target as well as beyond RPO target, Incentives for resource deficient states for meeting their own RPO in lieu of the additional costs of RE till grid parity is achieved. It was recommended that principle of leverage to be applied for incentivisation. The study also suggested institutional interventions, which include creation of large balancing areas and potentially separate System Operations organisation for RE Identification of balancing resources and providing sufficient incentives for them to be available for RE balancing, Better scheduling and forecasting procedures, capacity building including Suitable training for the system operators and certification.

The Forum observed the need for identification and augmenting transmission infrastructure for the likely capacity additions of RE based power (wind, solar and hydro) in Renewable rich states viz. Tamil Nadu, Karnataka, Andhra Pradesh, Gujarat, Maharashtra, Rajasthan & Himachal Pradesh during the 12th Plan period. In this context, the Forum commissioned a study on "Green Energy Corridors: Transmission Plan for Envisaged Renewable Capacity". The study proposed for establishment of Renewable Energy Management Centres at ten different locations, aimed at Wind/Solar Generation Forecast to address the issue of uncertainty and intermittency and to enable scheduling of RE power. It was also recommended that specific implementation strategy may be adopted considering low gestation period for renewable project, need for development of last mile connection, time requirement for system strengthening.

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

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

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

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

The Forum was constituted vide the Ministry of Power's (MOP) notification dated 16th February, 2005 in pursuance of the provision under section 166(2) of the EA, 2003 with the primary objective of harmonization of regulations in the power sector framed by the CERC, SERCs and JERCs. The Forum consists of Chairperson of CERC and Chairpersons of SERCs and JERCs. The Chairperson of CERC is the Chairperson of the Forum. The Central Government has made the following rules for the Forum of Regulators (FOR).

#### 1.1. 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.

#### 1.2. Functions of the Forum

The Forum shall discharge the following functions, namely:-

- Analysis of the tariff orders and other orders of the Central Commission and State Commissions, and compilation of data arising out of the said orders, especially highlighting the efficiency improvements of the utilities;
- Harmonization of regulation in power sector;
- Laying of Standards of Performance (SoPs) of licensees as required under the Act;
- Sharing of information among the members of the Forum on various issues of common interest and also of common approach;
- Undertaking research work in-house or through outsourcing on issues relevant to power sector regulation;
- Evolving measures for protection of interest of consumers and promotion of efficiency, economy and competition in power sector; and
- Such other functions as the Central Government may assign to it from time to time.

#### 1.3. 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.

#### 1.4. Mission Statement

The Forum of Regulators was conceived with the mission of nurturing the growth of independent regulation and empowerment of all having a stake in the electricity

sector in India. In pursuit of this objective, the Forum aims to:

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

# **Activities of the Forum**



#### 2.1. Meetings of the Forum of Regulators

The Forum organized seven meetings during the year and evolved consensus on many critical issues. The most significant initiative of the Forum was in the area of renewable energy where the forum conducted studies on Transmission Plan for envisaged Renewable Capacity and evolved incentive structure for States for fulfilling Renewable Purchase Obligation Targets.

#### 29th FOR Meeting held on 20th April, 2012 at Gangtok:

The Forum considered the proposed amendments in the Electricity Act, 2003 by the Ministry of Power (MOP) as also the proposal of FOR Secretariat in this context. The Forum was appraised on the proposal keeping in view the experiences of implementation of the provisions of the Electricity Act, 2003 at the Centre and the States. The Forum agreed to constitute a Working Group for making recommendations in the matter.

The Forum was apprised about the need for bringing about clarity in terms of policy and regulations for integration of rooftop solar PV. A presentation was made by FOR Secretariat in this regard. The Forum agreed for an action plan in respect of connectivity, metering, energy accounting, commercial arrangements, tariff of roof-top solar PV etc.

The Forum considered the issue related to Open Access for 1 MW and above consumers in the context of the clarification issued by the Ministry of Power, and decided that a position paper in this regard may be prepared by the FOR Secretariat and circulated to the SERCs.

The Forum noted that MOP has taken up the Distribution Franchisee Model evolved by FOR and adopted the model with minor modifications.

#### 30th FOR Meeting held on 6th April, 2012 at New Delhi:

The Forum considered the Model Regulations on "Development, Management & Operation of Off-grid Distributed Renewable Energy Generation and Supply Regulations" and approved with minor modifications.

The Forum considered the Model Regulations on "Accreditation, Registration and Issuance of Renewable Energy Certificates for Community Level Off-Grid

Distributed RE Generation Projects Regulations" and endorsed the same with minor modifications.

## 31<sup>st</sup> FOR Meeting held on 28th July, 2012 at Visakhapatnam:

The Forum considered the draft report on "Study on Preparing Plan for Transmission Infrastructure Development for the likely Capacity Additions of RE based Power Plants in the States rich in the RE Potential". The Forum endorsed the report with the suggestion *inter alia* that an assessment should be carried out separately to study the impact of the projected expenditure towards strengthening of intra-State/STU (State transmission utility) system on Aggregate Revenue Requirement (ARR)/Tariff.

The Forum considered the issues related to 'Promotion of Renewable Energy in India' as presented by MNRE and noted the points raised therein.

The Forum considered the draft report of Study on "Standardization of Regulatory Accounts" and endorsed the report with the suggestion to provide flexibility to the SERCs in terms of allocation of cost in the context of separate accounting for network and supply business and to provide separate provision to indicate reporting of Regulatory Accounts in the Union Territories where they do not have the practice of maintaining statutory accounts.

The Forum considered the issues related to quality of power supply as presented by the Asia Power Quality Initiative and decided to constitute a Working Group on "Power Quality" to examine the need for greater regulatory intervention in this respect.

The Forum discussed the recommendations of the Working Group on "Review of the Performance of the Regulators" and endorsed the Key Performance Indicators (KPIs) evolved by the Working Group as also the proposals for internal review of performance based on these parameters.

## 32<sup>nd</sup> FOR Meeting held on 29th August, 2012 at New Delhi:

The Forum examined the proposed amendments to Electricity Act, 2003 and approved the recommendations to be sent to MoP on the proposed amendments to the Act.

This meeting was attended by Dr. M. Veerappa Moily, Hon'ble Union Minister of Power. He appreciated the efforts made by the Regulators in furtherance of reforms in the power sector and stated *inter-alia* that the regulations should encourage competition in the larger interest of consumers and there should be adequate regulatory incentives for encouragement of investment in the sector while at the same time the regulatory framework should ensure quality of service and protection of consumer's interests against market abuse by any utility. He requested the regulators to deliberate on the need for amendments to the Act and Policies in consultation with the stakeholders in their States and come up with suggestions.

Secretary, Ministry of Power appreciated the role played by the Forum of Regulators (FOR) in evolving consensus on important issues, especially, the issue of financial viability of the distribution companies and Model Tariff Regulations for Distribution. Secretary (Power) referred to the two incidents of grid collapse and stated that all out efforts should be made by all stakeholders to ensure that such events do not recur in the country in future. He urged upon the State Regulators to ensure that the requirements of the State Grid Code in terms of ensuring grid discipline are followed in letter and spirit by all the participants including the distribution companies.

## 33rd FOR Meeting held on 8th December, 2012 at Port Blair:

The Forum deliberated on issues on RPO compliance, monitoring and enforcement. The Forum agreed upon the recommendations regarding compliance of RPO by large consumers, non-inter-changeability between solar and non-solar RPO, mechanism to be adopted in case of excess purchase of solar power etc.

The Forum considered the Study Report on Incentives for RPO Compliance and appreciated the issues highlighted including the need inter alia for ensuring compliance of RPO and endorsed the report.

The Forum considered the progress in respect of the Study on "Introducing Competition in Retail Electricity Supply in India". The Forum noted the need for development of framework for segregation of network and supply business in distribution. After discussion, the Forum agreed to need for development of framework for segregation of network and supply business in distribution.

The Forum considered the draft report on different aspects in relation to cost benefit analysis of Demand Side Management and endorsed the report.

## 34th FOR Meeting held on 9th January, 2013 at New Delhi:

Shri Jyotiraditya Madhavrao Scindia, Hon'ble Minister of State (I/C) took part in the meeting. Hon'ble Minister for Power was appraised about the role being played by the FOR in evolving consensus on several critical issues facing the power sector. It was informed that Forum had taken a number of steps towards harmonization of regulations in the electricity sector in India. However, the success of national reform agenda is dependent on the co-operation of state players. He mentioned that although the legislations give the power to fix tariffs to the SERCs but there is considerable influence of State Governments on this process. To counter the perception that 'State Government decides electricity prices' the Forum has evolved Model Tariff Regulations requiring suo-motu petition by SERCs in the event of non-filing of tariff petition by the DISCOM, periodic automatic pass through of fuel and power purchase price adjustment, etc. However, the support of State Governments is critical to implement these tariff regulations.

Hon'ble Minister of State (I/C) for Power recognized the Regulators as important cog in the wheel of power sector reforms and stated that the sector needed tremendous attention. Given the nature of electricity industry, exchange of best practices assumes importance. It is in this context that the Forum is expected to play an important role. He highlighted importance of issues which inter alia include Tariff rationalization, Grid stability, Open access, Regulatory independence, Promotion of renewable energy, DSM and Energy Efficiency etc.

## 35th FOR Meeting held on 16th February, 2013 at Kolkata:

The Forum discussed power scenario in the State, power sector structure and power sector reforms and initiatives undertaken by the West Bengal State and appreciated the developments made in West Bengal.

The Forum considered and discussed the Project Report prepared by MERC regarding proposal for setting up of Institute of Chartered Regulatory Analyst (ICRA).

The Forum considered the proposal for setting up a RRI which would further be considered by the Governing Body of FOIR.

The Forum were briefed about compliance of Hon'ble APTEL *suo-motu*Order OP No. 1 of 2011 for the year 2012-13 and directions to FOR Secretariat for submitting the report to the Registry. The members were apprised about the format evolved by FOR Secretariat for submission of the requisite information. The Forum

endorsed the format and it was agreed that the format for FY 2013-14 can be designed based on the format for FY 2012-13 and information shall be submitted by the SERCs/JERCs in the desired format within timeline stipulated by the Appellate Tribunal for Electricity

The Forum considered the proposed amendments to some of the provisions of the Electricity Act, 2003 with specific reference to enforcing grid discipline and rationale for such proposal. The Forum agreed upon the recommendations to be sent to MoP.

#### 2.2. Studies Completed

#### Standardisation of Regulatory Accounts

The Forum commissioned a study on "Standardisation of Regulatory Accounts" and appointed M/s ABPS Infrastructure Advisory Pvt. Ltd and Sanjay Gupta & Associates to assist the Forum. The objectives of the study inter alia included the need to recognize Regulatory Accounts as distinct from Statutory Accounts, uniformity of approach on Regulatory Accounts; suggest standardized principles for Regulatory Accounts. The key recommendations of the report are as per the following:

Integrated Utilities carrying out business may utilise some common assets/ incur common expenses meant for all the Businesses. The Common items need to be apportioned to different businesses based on some Cost Driver, so that the share of cost allocated to the Regulated Business does not amount to subsidising the Un-regulated Business. Different Allocation Factors were recommended.

It was also recommended to segregate the Distribution Business ARR between Wires Business and Supply Business. However, it was recommended that till the time complete accounting segregation is achieved by the Distribution Licensees, separation of Wires Business ARR and Supply Business ARR can be done by apportioning the components of ARR of Distribution Business between the wire business and supply business as per a specific allocation matrix.

## Incentive Structure for States fulfilling Renewable purchase obligation targets

The Forum commissioned a study on "Preparing Incentive Structure for States fulfilling Renewable purchase obligation targets" and appointed M/s Mercados Energy Markets India Pvt. Ltd. to assist the Forum. The objective included detailed study on various aspects and make suitable recommendations with regard to the implementation strategy and to

the commitment that may be desirable on the part of the State governments to enable their distribution utilities to achieve the set RPO obligations and foster development of renewable energy sources.

The study suggested fiscal interventions, which inter alia include Incentive for resource rich states for meeting own State RPO target as well as beyond RPO target, Incentives for resource deficient States for meeting their own RPO in lieu of the additional costs of RE till grid parity is achieved. It was recommended that principle of leverage to be applied for incentivisation. The study also suggested institutional interventions, which included creation of large balancing areas and potentially separate System Operations organisation for RE Identification of balancing resources and providing sufficient incentives for them to be available for RE balancing, better scheduling and forecasting procedures, capacity building including suitable training for the system operators and certification. Other policy and regulatory internventions suggested by the report include subsidized allocation of gas for supply rich renewable energy rich States and built-in flexibility around Take-or-Pay (ToP) structure of the Gas Supply Agreements. Re-design of existing REC framework was also recommended to enable obligated entities to fulfill their RPOs.

As regards RPO Incentivisation, it was suggested that Statutory advice under Electricity Act may be provided for implementation of incentive framework for RPO compliance, specifying detailed rules for disbursement of incentives linking incentives with compliance. Further, for effective RPO Monitoring, it was recommended for establishment of direct obligations for large consumers through regulation, establishment of monitoring and enforcement mechanism for minimum RPO compliance, implementation of the finalised framework in a time bound manner and penalization in fair and transparent manner when the need arises.

## Green Energy Corridors: Transmission Plan for Envisaged Renewable Capacity

The Forum commissioned a study on "Green Energy Corridors: Transmission Plan for Envisaged Renewable Capacity" and engaged M/s Power Grid Corporation of India Ltd. (Powergrid) to assist the Forum. The objectives of the study inter alia include, identification of transmission infrastructure for the likely capacity additions of RE based power (wind, solar and hydro) in Renewable rich states viz. Tamil Nadu, Karnataka, Andhra Pradesh, Gujarat, Maharashtra, Rajasthan & Himachal Pradesh during the 12th Plan period, estimation of

capex requirement for the development of transmission infrastructure, providing strategy framework for development of a model for funding transmission infrastructure to facilitate speedy renewable power development. The key recommendations of the report are as per the following:

The study proposed for establishment of Renewable Energy Management Centres at ten different locations, aimed at Wind/Solar Generation Forecast to address the issue of uncertainty and intermittency and to enable scheduling of RE power.

The study recommended for adoption of a specific implementation strategy considering low gestation period for renewable project, need for development of last mile connection, time requirement for system strengthening. It was recommended to start the transmission System works much before generation projects in a time bound manner. In order to strengthen the Intra-State network, it was recommended that projects are required to be implemented by respective STUs, while support may be provided by some expert agency having extensive experience in design, tendering, implementation etc. for common design,

standards and speedy implementation. For ISTS strengthening it was recommended for Implementation of ISTS, by agency having sufficient experience in development of high end technologies in Transmission System with sound project management skills.

#### 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 four Training and Capacity Building Programmes for the ERCs during the year. These include a three day orientation programme during 11-13 October, 2012 at the Indian Institute of Management (IIM), Ahmedabad for Chairpersons and Members of ERC, the Fifth capacity building programme during 18-23 October, 2012 at the Indian Institute of Technology (IIT), Kanpur with international exposure, a two day training programme on "Demand Side Management and Energy Efficiency" during 21-22 January, 2013 at the India Habitat Centre, New Delhi, and a Training Programme on "Protection of Consumer Interest" for officers of CGRF and Ombudsman, during 21-22 March, 2013 at the National Power Training Institute (NPTI).

# Achievements of Member Regulatory Bodies of Forum of Regulators during 2012-13

# 3.1. Central Electricity Regulatory Commission

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

In its effort to bring greater grid discipline, the Commission had tightened the norm for frequency and permissible frequency band of operation from 50.2 Hz-49.5 Hz to 50.2 Hz-49.7 Hz in FY 2011-12. The new permissible frequency band became effective from 17.09.2012. The two grid failures in July, 2012 brought new challenges for the Commission. In this case, the Commission initiated action under Section 142 of the Act against the officers in charge of STUs/ SLDCs of the States of Uttar Pradesh, Uttarakhand, Haryana, Rajasthan, Punjab and Jammu and Kashmir for imposition of penalty for non-compliance of the directions of the Commission and the provisions of the Act and the Grid Code. The Commission also imposed penalty for non compliance of the directions on a number of entities in cases of grid indiscipline.

In the Tariff Regulations for the control period 2009-14 the Commission laid down the regulatory framework for encouraging hydro power plants to provide peaking support. Taking this initiative forward the Commission amended the tariff regulations with a view to encourage the pumped storage based hydrogenating stations as also reservoir based stations as they provide valuable peaking support. Additional return on equity @ 1 % has been provided for such plants. The amended regulations also provided for determination of tariff for pumped storage hydro generating station. To bring transparency, the regulations also mandated the thermal generating companies to share with the beneficiaries, the details of parameters of gross calorific

value and the price of fuel from different sources, the blending ratio of the imported coal with the domestic coals etc. The Tariff Regulations were also amended to allow reimbursement of various fees and charges paid by the generating companies and the transmission licensees.

The Commission also specified Standards of Performance for inter-State transmission licensees to ensure efficient, reliable and economical transmission of electricity in the grid. The SOP Regulations specifies element-wise availability norms for various components of the transmission system and compensation for affected person (s) in case of availability of an element falls below the norms or restoration takes more time than as specified in the norms.

Through amendments in Trading Licence Regulations the Commission extended the definition of "inter-State trading" to recognize electricity imported from any other country for resale within India and electricity exported to any other country as inter-State trading of electricity. It has also been mandated for a Company applying for trading licence to have 'trading in electricity' as one of the main objects in the Memorandum of Association of the Company. Provision for 'contraventions and penalties' has been introduced to address the various instances of contraventions by the trading licensees.

For optimum utilization of resources and with a view to promoting renewable energy sources, the Commission amended Connectivity Regulations to allow existing generating stations, connected to the inter-State grid and having surplus land, to install capacity between 5 MW to 50 MW based on renewable source of energy in the same premises by co-locating the renewable energy based generating stations with the existing infrastructure and the associated inter-connection and transmission facilities. The existing generating station shall be required to act as the Principal Generator of the

renewable energy generating station and formalize an agreement between them to undertake all operational and commercial responsibilities for the renewable energy generating station by following the Grid Code and other regulations of the Commission.

For smooth implementation of Renewable Regulatory Fund (RRF) mechanism, the Commission had directed MNRE to resolve the issues raised by stakeholders regarding scheduling wind power. Based on the report of the task force, the CERC issued order on 16.01.2013 to implement the RRF mechanism with effect from 1.07.2013.The Commission also directed National Load Despatch Centre (NLDC) to align the "Procedures for implementation of the mechanism of Renewable Regulatory Fund" in accordance with the CERC directions and put up the revised Procedures for approval of the Commission expeditiously. As mandated in the RE Tariff Regulations, 2012, the Commission determined generic tariff of the RE projects for the first year of control period (i.e. FY 2013-14) through the Order dated 28.02.2013.

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).

During the year the Commission also rendered statutory advice to the Government of India to consider the observations of the Commission on the draft Model Power Purchase Agreement (PPA) for Case-2/Ultra Mega Power projects, circulated by the Ministry of Power, while finalizing the model Standard bid documents for competitive procurement of power.

#### 3.2. Andhra Pradesh Electricity Regulatory Commission

Tariff Orders were issued from time to time.

No regulations were notified in FY 2012-13

#### 3.3. Bihar Electricity Regulatory Commission

The following Regulations were notified by the Commission during the FY 2012-13:

- Correction in Notification No. BERC/Suo-Motu Proceeding No. 29/2012-03-875 dated 31st August, 2012 - BERC (Terms and conditions for determination of Tariff) (First Amendment) Regulations, 2012
- 3rd Amendment to Electricity Supply Code, 2007

- First Amendment to Standards of Performance of Distribution Lincsee Regulations 2012
- First Amendment to Terms and Conditions for Open Access Regulations 2012
- Third Amendment to Fees, Fines and Charges Regulations 2012
- First Amendment to Renewable Purchase Obligation, its compliance and REC Framework Implementation Regulations 2012
- First Amendment to Terms and Conditions for Tariff Determination from Solar Energy Sources Regulation 2012
- First Amendment to Terms and Conditions of Determination of Tariff Regulation 2012
- 2nd Amendment to Electricity Supply Code,
- 2nd Amendment to Fees, Fines and Charges Regulation 2011

The Commission issued the following orders during the FY 2012-13:

- In the matter of Review of the tariff for purchase of electricity from biomass based power plants and bagasse based cogeneration plant in the State of Bihar and fixation of percentage target of electricity in year from renewable energy/cogeneration plant
- In the matter of Petition for seeking review of Tariff order for 2012-13 dated 30.03.2012 issued by Bihar Electricity Regulatory Commission to the extent it specifies the Solar Purchase Obligation (SPO) as a percentage of Renewable Purchase Obligation (RPO)
- In the matter of Commission jurisdiction for determination of tariff of the consumers having requirement of power of 1MW and above in view of the fact that such consumers are now to be considered as Deemed Access Consumers
- "Determination of ARR and Tariff for retail sale of electricity for FY 2012-13 along with Truing up order for FY 2010-11 and Annual Performance Review (APR) of FY 2012-13 of the BSEB.
- Commission's jurisdiction for determination of tariff of the consumers having requirement of power of 1MW and above

#### 3.4. Chhattisgarh Electricity Regulatory Commission

The following orders were issued during the FY 2012-13:

 Order on APR and Tariff Petitions for the year 2012-13 of CSPGCL, CSPTCL, SLDC & CSPDCL

- Suo-Motu order in the matter of Pooled Cost of Power Purchase by Chhattisgarh State Power Distribution Company Ltd., Bhilai Steel Plant and Jindal Steel and Power Ltd. for the year 2012-13
- The following regulations were notified by the Commission during the FY 2012-13:
- CSERC (Terms & conditions for determination of generation tariff & related matters for electricity generated by plants based on renewable energy sources) Regulations, 2012.
- CSERC (Terms and Conditions for determination of tariff according to MYT principles and Methodology and Procedure for determination of Expected revenue from Tariff and Charges) Regulations, 2012
- CSERC (Connectivity and Intra-State Open Access) First Amendment- Regulations, 2012
- CSERC (Fees and charges of State Load Despatch Centre and other related matters) Regulations, 2012
- CSERC (Appointment of Consultants) Regulations, 2013
- CSERC (Terms & conditions for determination of generation tariff & related matters for electricity generated by plants based on renewable energy sources) (First Amendment) Regulations, 2013

#### 3.5. Delhi Electricity Regulatory Commission

The achievements of the Commission during FY 2012-13 are given below:

- Implementation of Power Purchase Cost Adjustment Charges (PPAC)
- Implementation of Time of Day Tariff
- Notified DERC (Renewable Purchase Obligation and Renewable Energy Certificate Framework Implementation) Regulations, 2012
- Notified DERC (Terms and Conditions of determination of tariff for Grid connected Solar photo voltaic project) Regulations, 2013
- DISCOM wise scheduling has been implemented by **DERC**

#### 3.6. Gujarat Electricity Regulatory Commission

The Commission achieved the following milestones in the financial year 2012-13:

• Demand Side Management: The Gujarat Electricity Regulatory Commission (GERC) published a draft Demand Side Management Regulations, 2012 and invited comments/suggestions from various stake-holders. In all, 8 parties including consumer organizations and utilities submitted their comments on the draft regulations. Keeping all the suggestions in view the Commission approved the Demand Side Management Regulations, 2012. These regulations are published in the official gazette on 8th May 2012 as notification No. 1 of 2012.

- DSM Objectives: In pursuance to the Provisions made under GERC (Demand Side Management) Regulations, 2012 GERC has formulated the Objectives for Demand Side Management for the State of Gujarat on 06.08.2012.
- Wind Tariff Order: GERC, vide its Order No.2 of 2012 dated 08.08.2012 determined the tariff for power generated from the wind power projects to be commissioned during the period from 11<sup>th</sup> August, 2012 to 31st March, 2016 with consideration of comments of stakeholders.

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

The Commission notified the following Regulations during the year:-

- JKSERC (Consumer Grievances Redressal Forum, Ombudsman and Consumer Advocacy) Regulations;
- JKSERC (Multiyear Distribution Tariff) Regulations;
- JKSERC (Terms & Conditions for Determination of Transmission Tariff) Regulations;
- JKSERC Distribution Code;
- JKSERC (Compliance Audit) Regulations;
- Notification of RPO targets upto FY 2016-17.

Following draft Regulations were issued for seeking comments/suggestions of the stakeholders

- JKSERC (Licensing) Regulations;
- JKSERC (Terms & Conditions for Tariff Determination from Renewable Energy Sources) Regulations;
- JKSERC (Fuel Price Adjustment Formula) Regulations.

The Commission issued the following Tariff Orders during the year:

- Order on ARR and Retail Tariff for State Power Development Department (Transmission & Distribution Utility) for FY 2012-13;
- Order on Annual Fixed Charges and Generation Tariff for J&K State Power Development Corporation (Generation Utility) for FY 2012-13.

 Further, on Directions of the Commission the Jammu & Kashmir Power Development Department launched Voluntary Load Disclosure Scheme (VLDS) for domestic & non-domestic consumers, which helped in regularization of large number of illegal consumers and registration of unregistered load being used by the consumers.

#### 3.8. Jharkhand Electricity Regulatory Commission

The following important Orders were issued by the Commission in FY 2012-13:

- Order on Suo motu Proceeding to scrutinize the activity regarding reducing the T&D loss, Energy auditing, Realization of dues and performance of various generating plants of the licensee - JSEB.
- Order on Petition for Review of MYT order for Jojobera Unit 2 & 3 for the Control Period of FY 2012-13 to FY 2015-16.
- Order on application for direction upon JSEB to raise bills strictly in accordance with the Tariff Provision in respect of HTS consumer by charging penal charges only on that KVA which recorded beyond 110% of the contract demand & the bill raised for the month of Dec. 2011, wherein the credits given in the bill for the month of November 2011 had been reversed on the basis of the direction given by the Chief Engineer (C&R), JSEB.
- Interest on Consumer Security Deposit.
- Fuel Price and Power Purchase Adjustment (FPPPA) petition for 3rd quarter (i.e. Oct' 11 to Dec' 11) for FY- 2011-12.
- Filing of fuel price and Power Purchase Agreement (FPPA) for licensed area of Jamshedpur by Tata Steel Ltd. Distribution licensee.
- Orders to ensure uninterrupted power supply of electricity with power voltage in terms of the Powers Supply Agreement.
- Non-providing the electrical connection to the applicants/residents of Tola Birsa Nagar, Village -Arsundey.

The following Regulations were notified by the Commission in FY 2012-13:

• JSERC (Renewable Purchase Obligation And Its Compliance - First Amendment) Regulations, 2012

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

The Commission issued orders in the following:

- Establishment of Consumer Grievance Redressal
- Operationalization of Open Access
- Loss reduction Programme
- Status of Consumer metering, Reading and Billing category wise.
- Standard of Performance (SOP) Non-submission of monthly /quarterly and annual report
- Incremental Fuel Surcharge for the period from April, 2010 to October, 2010 for the Electricity Department Puducherry.

The Commission notified the following regulations during the FY 2012-13

- JERC (Procedure for filling Appeal before the Appellate Authority) Regulations 2013
- JERC (Term & Condition of determination of Tariff) Amendment Regulations 2009
- JERC (Establishment of Forum of Redressal of Grievances of Consumer) Amendment Regulations 2009

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

The tariff order for Power and Electricity Department, Government of Mizoram and for the Electricity Department, Government of Manipur were issued.

The Commission issued Intra State Trading License to M/s Eternity Partners for Intra State trading of Electricity in Mizoram.

Meetings of State Advisory Committee and the Coordination Forum Meetings were held with stake holders.

Wide spread interactive workshop on Electricity were held both in Manipur and Mizoram through empanelled organizations.

#### 3.11. Karnataka Electricity Regulatory Commission

The following Orders were issued by the Commission in FY 2012-13:

• Order on KPTCL's APR for FY11 and approval of revised ERC and Transmission Tariff for FY13 under MYT framework

- Order on CESC's approval of revised ARR and tariff MPERC (Class III and class IV service recruitment for FY13
- Order on (BESCOM/MESCOM/GESCOM/ HESCOM)
   MPERC (Distribution Performance Standards) approval of revised ARR and tariff for FY13 -
- Order on HUKERI RECS approval of revised ARR and tariff for FY13

#### 3.12. Kerala Electricity Regulatory Commission

The State Commission has held 57 public hearings for disposal of various petitions and issued 45 orders during the year 2012-13 on ARR&ERC, retailed tariff, bulk supply tariff for the supply of electricity to KSEB to other licensees of the State, truing up of accounts, noncompliance and other issues of dispute. Two meetings of the State Advisory Committee were held during this financial year.

All licensees have established CGRF and are functioning properly and effectively. Electricity Ombudsman is functioning effectively and has disposed 87 petitions during the year. Standards of performance of the licensees are monitored by the Commission. The State has met 3% of Renewable Energy Purchase Obligation during the year. The Commission has notified three regulations during this year, namely

- KSERC (Compliance and Audit) Regulations, 2012
- KSERC (Principles for determination of road map for cross subsidy reduction for distribution licensees) Regulations, 2012
- KSERC (Power procurement from renewal sources by distribution licensees) Regulations, 2013.

#### 3.13. Madhya Pradesh Electricity Regulatory Commission

During the FY 2012-13, the Commission issued 15 Tariff Orders.

During the FY 2012-13, the Commission notified the following Regulations:

- Second Amendment to MPERC (Cogeneration and Generation of Electricity from Renewable Sources of Energy) Regulations, 2010
- MPERC (Terms and Conditions for allowing pension and terminal benefits liabilities of personnel of the Board and Successor Entities) Regulations, 2012
- Third amendment to MPERC (Terms and conditions for determination of Generation tariff) (Revision –I) Regulations, 2009
- MPERC (Class I, and class II service recruitment and service conditions) Regulations, 2012

- and service conditions) Regulations, 2012
- (Revision-II) Regulations, 2012
- MPERC (Terms and conditions for determination) of Tariff for supply and wheeling of electricity and methods and principles for fixation of charges) Regulations, 2012
- MPERC (Terms and conditions for determination of Transmission Tariff) (Revision- II) Regulations, 2012
- MPERC (Terms and conditions for determination of Generation Tariff) (Revision-II) Regulations, 2012
- Fourth amendment to MPERC (Recovery of Expenses and other charges for providing Electric Line or Plant used for the purpose of giving supply) (Revision-I) Regulations, 2009
- Third amendment to MPERC (Appointment of consultants) (Revision- I) Regulations, 2009

#### 3.14. Maharashtra Electricity Regulatory Commission

In FY 2012-13, the Commission notified MERC (Authorised Consumer Representatives) Regulations, 2012 on June 8, 2012.

The Commission issued 170 Orders in FY 2012-13. A list of the important Orders issued by the Commission is given below:

- The Commission approved the MSEDCL's proposal to implement load shedding at feeder level instead of division level vide its Order dated 26 November, 2012 in Suo moto hearing in the matter of revision and violation of Principles and Protocols of Load Shedding with respect to Circular No. 43 and 44 of MSEDCL.
- The Commission determined the Generic Tariff of the RE projects for the fourth year of the control period (i.e. FY 2013-14) vide Order dated 22 March. 2013
- The Commission also issued various Orders on ARR and Determination of Tariff

#### **3.15.Nagaland Electricity Regulatory** Commission

The Commission issued the Tariff Order for FY 2012-13

During the FY 2012-13, the Commission notified the following Regulations:

 NERC (Levy And Collection of Fees and Charges by State Load Despatch Centre) Regulations 2012

- NERC (Minimum information to be maintained by a licensee or a generating company) Regulations 2012
- NERC State Grid code Regulations 2012
- NERC (Terms and Conditions for Intra–State Open Access) Regulations, 2012.
- NERC (Consumer Grievances Redressal Forum and Electricity Ombudsman) Regulations, 2012
- NERC (Terms and Conditions for Determination of Tariff) Regulations, 2010.
- NERC (Standards of Performance in Distribution and Transmission of the Licensee) Regulations, 2012.

# **3.16.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 2012-13 were issued on July 16, 2012.
- 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 19.07.2012 in petition no. 35 of 2012 (Suo-Motu) determined the generic levellised generation tariff for renewable energy power projects (RE Projects) commissioned in FY 2012-13. The Commission also determined generation tariff vide petitions filed by 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 90 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 15 Regulations in FY 2012-13.

## 3.17.Sikkim Electricity Regulatory Commission

The Commission issued the following Orders:

• Tariff Order for F.Y 2012-13 was issued on 30.03.12.

The Commission notified the following Regulations:

- SSERC (Terms and Conditions for determination of Tariff) Regulations, 2012
- Sikkim State Electricity Regulatory Commission (Electricity Supply Code) Regulations, 2012
- Sikkim State Electricity Regulatory Commission (Redressal of Grievances of Consumers and Establishment of Forum and Electricity Ombudsman) Regulations, 2012
- Sikkim State Electricity Regulatory Commission (Terms & Conditions of Intra-State Open Access) Regulations, 2012
- Sikkim State Electricity Regulatory Commission (Terms & Conditions for Determination of Tariff for Generation from Renewable Energy Sources) Regulations, 2012
- Sikkim State Electricity Regulatory Commission (State Grid Code) Regulations, 2013

# 3.18. Tamil Nadu Electricity Regulatory Commission

The Commission issued the following orders during the FY 2012-13:

- Comprehensive Tariff Order on Wind Energy
- Comprehensive Tariff Order for Bagasse based Cogeneration plants
- Comprehensive Tariff Order for Biomass based Power Plants

The Commission notified the following Regulations during the FY 2012-13:

- Amendment to SAC Regulations
- Tamil Nadu Electricity Regulatory Commission (Demand Side Management) Regulations, 2013 Amendment in Regulation 3, 6, 7 & 8 of Power procurement from Renewable sources of energy Regulations

## **3.19.Tripura Electricity Regulatory Commission**

The Commission issued the following orders during the FY 2012-13:

- Determination of Annual Revenue Requirement and Truing up Petition for FY 2011-12, Review Petition for FY 2012-13 and Tariff determination for FY 2013-14,
- Determination of Fees and Charges, for Accreditation of Renewable Energy Generation in Tripura, payable under clause 3(iv) of Regulation (Renewable Purchase Obligation and its Compliance)'2009 of Tripura Electricity Regulatory Commission.

The Commission notified the following Regulations during the FY 2012-13:

- State Advisory Committee, 2012.
- Renewable Purchase Obligation and its Compliances, 2012 (1st Amendment) Draft published on 21st August'2012
- Procurement of Energy from Renewable Sources, 2012 (1st Amendment) Draft published on 21st August'2012

# **3.20.Uttar Pradesh Electricity Regulatory Commission**

"NYAYA UPBHOKTA KE DEWAR" program was launched to address consumer grievances.

# **3.21.Uttarakhand Electricity Regulatory Commission**

During the year 2012-13 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 6.9%. The Commission rolled out a plan of prepaid metering for LT consumers upto 30 kW.
- The Commission issued Tariff Order for UJVN Ltd., the generating company in the State of Uttarakhand for FY 2012-13, wherein the Commission approved the AFC of the generating stations as Rs.485.46 Crore against Rs. 489.81 Crore approved for FY 2011-12.
- The Commission issued Tariff Order for PTCUL, the transmission licensee in the State of Uttarakhand for FY 2012-13, wherein it approved the ATC as Rs. 159.54 Crore against Rs. 131.82 Crore approved for FY 2011-12.

## 3.22. West Bengal Electricity Regulatory Commission

The Commission issued the following Orders:

- Order on WBSEDCL APR for FY 10-11
- 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 Durgapur Projects Limited, 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

### **FOR Annual Statement of Accounts**

for FY 2012-13

To The Secretary, Forum of Regulators, Sectt.: Clo Central Electricity Regulatory Commission, 3'd & 4th Floor, Chanderlok Building, 36 Janpath, New Delhi - 110 001.

#### **AUDITORS REPORT**

We have audited the attached Balance Sheet of the Forum of Regulators as on 31st March, 2013 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 received by Forum of Regulators from Ministry of Power for Capacity Building & availing Consultancy Services has been spent during the year 2012-13 only for the purpose/ object for which it

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 3lst March, 2013, and
- b) In the case of the income and expenditure account, of the deficit for the year ended on that date.

#### For A.K. AWASTHI & CO.

**Charted Accountants** F.RN.: 003405C

-Sd/-

(A.K Awasthi)

Partner M. No. 072519

Place: New Delhi Date: 19.06.2013

#### Balance Sheet As at 31-03-2013

Amount (in ₹)

| PARTICULARS  | SCHEDULE | AS ON 31.03.2013 | AS ON 31.03.2012 |
|--|----------|------------------|------------------|
| SOURCES OF FUND  | /        |                  | 75.1             |
|  |          |                  |                  |
| Corpus Fund  | \\       | 37,010,643       | 37,010,643       |
| Plan Fund (Capacity Building & Consultancy)              | 1        | 14,349,870       | 1.               |
| MNRE FUND (Implementation of REC Framework)              | 2        | 9,672,934        | 9,639,056        |
| Surplus Fund (transferred from Income & Expenditure A/c) | 3        | 23,054,682       | 23,542,323       |
| Current Liabilities                                      |          |                  |                  |
| Expenses Payable   | 4        | 754,750          | 37,112           |
| Expenses Payable (PLAN FUND)                             |          | 233,750          |                  |
| Membership Fee received in Advance                       |          | 300,000          |                  |
| Bank Account (Overdraft)                                 |          | 396,068          | 1 1 -            |
| Total  |          | 85,772,697       | 70,229,134       |
| APPLICATION OF FUND                                      |          |                  |                  |
| Fixed Assets   | 5        |                  |                  |
| Gross Fixed Assets                                       |          | 140,727          | 282,115          |
| <u>Less:</u> Depreciation                                |          | 60,738           | 141,388          |
| Net Fixed Assets   |          | 79,989           | 140,727          |
| Current Assets, Loans & Advances                         |          |                  |                  |
| Loans & Advances   | 6        | 4,194,435        | 3,498,598        |
| Security Deposit (MTNL)                                  |          | 3,000            | 3,000            |
| Cash & Bank Balance                                      | 7        | 81,495,273       | 66,586,809       |
| Total  |          | 85,772,697       | 70,229,134       |
| Accounting Policies and Notes on Accounts                | 8        |                  |                  |

As per our report on the even date appended hereto

For A.K. AWASTHI & CO.

**Charted Accountants** F.RN.: 003405C

-Sd/-

(A.K Awasthi)

Partner M. No. 072519

> -Sd/-**SECRETARY**

Place: New Delhi Date: 19-06-2013

# Income and Expenditure Account for the Year Ended 31-03-2013

Amount (in ₹)

| PARTICULARS  | As on 31. | As on 31.03.2013 |         | As on 31.03.2012 |  |
|--|-----------|------------------|---------|------------------|--|
| INCOME   |           | 704              |         |                  |  |
| Membership Subscription                            |           | 9,300,000        |         | 8,100,000        |  |
| Interest from Savings Account                      |           | 1,449            | 7 /     | 2,286            |  |
| Interest from Corpus Fund FDR (TDS = ₹ 3,69,248/-) |           | 3,692,445        | / //    | 3,496,610        |  |
| Interest from Auto Sweeps FDRs (TDS = 1,67,971/-)  |           | 814,437          | 0.00    | 186,502          |  |
| Interest from FDRs (TDS = 1,32,844/-)              |           | 1,328,482        | 377     | 1,146,971        |  |
| Total - A  |           | 15,136,813       | - 1     | 12,932,369       |  |
| EXPENDITURE  | _         |                  | 3.0     |                  |  |
| Meeting & Seminar Expenses                         |           | 2,427,433        |         | 2,428,901        |  |
| Salary Expenses                                    |           | 2,178,988        |         | 2,658,768        |  |
| Capacity Building & Consultancy                    |           | 7,688,071        |         | 12,410           |  |
| Auto Sweep & interest accrued written-off          |           | -                |         | 6,533            |  |
| Secretariat Expenses:                              |           |                  |         |                  |  |
| Advertising & Publicity Expenses                   | 305,639   |                  | 276,355 |                  |  |
| Audit Fees   | 19,800    | /                | 19,800  |                  |  |
| Bank Charges                                       | 1,743     | /                | 1,663   |                  |  |
| Computer Repair & Maintenance Expenses             | 64,969    |                  | 71,916  |                  |  |
| Depreciation                                       | 60,738    |                  | 141,388 |                  |  |
| Legal & Professional Charges                       | 1,416,030 |                  | 495,000 |                  |  |
| Other Expenses                                     | 538,849   | 51               | 636,275 |                  |  |
| Telephone Expenses                                 | 54,714    |                  | 53,028  |                  |  |
| Printing & Stationery Expenses                     | 14,654    |                  | 6,063   |                  |  |
| Travelling Expenses (TA)                           | 312,825   | T TD0 064        | 174,665 | 27664            |  |
| Administrative Expenses                            | 540,000   | 3,329,961        | 490,000 | 2,366,153        |  |
| Total - B  |           | 15,624,453       |         | 7,472,765        |  |
| Surplus/(Deficit) earned during the year ( A- B)   |           | (487,641)        |         | 5,459,604        |  |

As per our report on the even date appended hereto

For A.K. AWASTHI & CO.

**Charted Accountants** F.RN.: 003405C

-Sd/-

(A.K Awasthi)

Partner M. No. 072519

> -Sd/-**SECRETARY**

Place: New Delhi Date: 19-06-2013

# Plan Fund (Consultancy & Capacity Building)

Amount (in ₹)

Schedule- 1

| PARTICULARS  | F.Y. 2012-2013 | F.Y. 2011-2012 |
|--|----------------|----------------|
| Opening balance                                      |                |                |
| Add:   |                |                |
| Interest Received                                    | 225,045        | 65,877         |
| Fund Received during the year from Ministry of Power | 15,000,000     | 16,000,000     |
| Total  | 15,225,045     | 16,065,877     |
| Less: Utilization during the year:                   |                |                |
| Study & Consultancy Charges                          | 407,675        | 5,323,179      |
| Capacity Building                                    | 467,500        | 9,697,725      |
| Bank Charges   |                | 255            |
| Refund to MOP on account of interest earned          | 1              | 65,877         |
| Refund to MOP on account of savings/ unspent amount  | -              | 978,841        |
| Total  | 875,175        | 16,065,877     |
| Balance carried forward to the next year             | 14,349,870     | 11 85 9        |

As per our report on the even date appended hereto

For A.K. AWASTHI & CO.

**Charted Accountants** F.RN.: 003405C

-Sd/-

(A.K Awasthi)

Partner M. No. 072519

Place: New Delhi Date: 19-06-2013

-Sd/-SECRETARY

#### Schedule- 2

MNRE FUND
(Implementation of Renewable Energy Certificate Framework)

Amount (in ₹)

| PARTICULARS   | F.Y. 2012-2013     | F.Y. 2011-2012                |
|---|--------------------|-------------------------------|
| Opening balance   | 9,639,056          | 16,045,051                    |
| Add: Interest Received Fund Received during the year from Ministry of Power                             | 688,499<br>-       | 580,280<br>-                  |
| Total   | 10,327,555         | 16,625,331                    |
| Less: Utilization during the year:  |                    |                               |
| Study & Consultancy Charges<br>Implementation of Renewable Energy Certificate Framework<br>Bank Charges | -<br>654,551<br>70 | 709,757<br>6,274,690<br>1,828 |
| Total   | 654,621            | 6,986,275                     |
| Balance carried forward to the next year  | 9,672,934          | 9,639,056                     |

As per our report on the even date appended hereto

#### For A.K. AWASTHI & CO.

**Charted Accountants** F.RN.: 003405C

-Sd/-

(A.K Awasthi)

Partner

M. No. 072519

-Sd/-SECRETARY

Place: New Delhi Date: 19-06-2013

### **SURPLUS FUND**

Schedule- 3

Amount (in ₹)

| PARTICULARS   | F.Y. 2012-2013 | F.Y. 2011-2012 |
|---|----------------|----------------|
| Opening balance   | 23,542,323     | 18,082,719     |
| Add: Surplus/(Deficit) earned during the year (as per Income & Expenditure Account) | (487,641)      | 5,459,604      |
| Total   | 23,054,682     | 23,542,323     |

As per our report on the even date appended hereto

For A.K. AWASTHI & CO.

**Charted Accountants** F.RN.: 003405C

-Sd/-

(A.K Awasthi)

Partner

M. No. 072519

-Sd/-SECRETARY

Place: New Delhi Date: 19-06-2013

## **Expenses Payable**

Amount (in ₹)

| PARTICULARS   | AS AT 31-03-2013 | AS AT 31-03-2012 |
|---|------------------|------------------|
| Opening Balance                                     | 37,112           | 469,597          |
| Add: Audit Fees Payable                             | 19,800           | 19,800           |
| Add: Advertising & Publicity Expenses Payable       | 185,694          | 2,369            |
| Add: Canteen Expenses Payable                       | 2,439            | 3,678            |
| Add: Computer Repair & Maintenance Expenses Payable | 33,872           | 4,297            |
| Add: Meeting Expenses Payable                       | 1,697            | W. St.           |
| Add: Telephone Expenses Payable                     | 6,096            | 6,968            |
| Add: Travelling Expenses Payable                    | 116,788          | 700705 // -      |
| Add: Administrative Cost (CERC's Guest House)       | 388,364          | /1838//          |
| Less: Paid during the year                          | 37,112           | 469,597          |
| Total   | 754,750          | 37,112           |

As per our report on the even date appended hereto

For A.K. AWASTHI & CO.

**Charted Accountants** F.RN.: 003405C

-Sd/-

(A.K Awasthi)

Partner

M. No. 072519

-Sd/-**SECRETARY** 

Place: New Delhi Date: 19-06-2013

## Fixed Assets Schedule as at 31st March 2013

Amount (in ₹)

| Particulars                   | WDV as on<br>01-04-2012 | Additions<br>during the year<br>(< 180 days) | Additions<br>during the year<br>(> 180 days) | Sales/<br>Transfers | Total   | Depreciation for the year | WDV as or 31-03-2013 |
|-------------------------------|-------------------------|--|--|---------------------|---------|---------------------------|----------------------|
| Printers                      | 20,545                  | V\ <del>-</del> //                           | -  | \\-                 | 20,545  | 3,082                     | 17,463               |
| Computers                     | 76,933                  |  | -  | 1                   | 76,933  | 46,160                    | 30,77                |
| Laptop                        | 11,130                  | 1  | -  | -\\\                | 11,130  | 6,678                     | 4,45                 |
| Heat Blowers                  | 12,737                  | - ·  | -  | - \                 | 12,737  | 1,911                     | 10,82                |
| Microwave                     | 5,661                   | -  | -  | -                   | 5,661   | 849                       | 4,81                 |
| UPS                           | 13,721                  | \-   | -  | -                   | 13,721  | 2,058                     | 11,66                |
| Total                         | 140,727                 | -\   | -  | -                   | 140,727 | 60,738                    | 79,98                |
| Figures for the previous year | 254,290                 | 27,825                                       | -  | -                   | 282,115 | 141,388                   | 140,72               |

As per our report on the even date appended hereto

For A.K. AWASTHI & CO.

Charted Accountants F.RN.: 003405C

-Sd/-

(A.K Awasthi)

Partner

M. No. 072519

-Sd/-**SECRETARY** 

Place: New Delhi Date: 19-06-2013

### **LOANS AND ADVANCES**

Amount (in ₹)

| PARTICULARS   | AS AT 31-03-2013 | AS AT 31-03-2012 |
|---|------------------|------------------|
| Тах Deducted at Source                                      |                  |                  |
| Tax Deducted at Source F.Y. 2005-2006                       | 22,073           | 22,073           |
| Tax Deducted at Source F.Y. 2006-2007                       | 261,060          | 261,060          |
| Tax Deducted at Source F.Y. 2007-2008                       | 453,260          | 453,260          |
| Tax Deducted at Source F.Y. 2008-2009 - BOI                 | 98,840           | 98,840           |
| Tax Deducted at Source F.Y. 2008-2009 - CB                  | 402,430          | 402,430          |
| Tax Deducted at Source F.Y. 2009-2010 - BOI                 | 315,090          | 315,090          |
| Tax Deducted at Source F.Y. 2009-2010- CB                   | 17,509           | 17,509           |
| Tax Deducted at Source F.Y. 2010-2011                       | 313,954          | 313,954          |
| Tax Deducted at Source F.Y. 2011-2012                       | 483,006          | 483,006          |
| Tax Deducted at Source F.Y. 2012-2013                       | 670,063          | / 1937 March     |
| Telephone Advance   | -                | 200 Block        |
| Total (A)   | 3,037,285        | 2,367,222        |
| Prepaid Expenses (Repair & Maintenance - Microwave)         |                  | X \ 10///        |
| For the F.Y. 2012-13  | -                | 441              |
| For the F.Y. 2013-14  | 441              | 441              |
| For the F.Y. 2014-15  | 368              | 368              |
| Total (B)   | 809              | 1,250            |
| Susbcription Outstanding                                    |                  |                  |
| Opening Balance   | 300,000          | 500,000          |
| Add: Receivable for the year                                | 125,000          | - W              |
| Less: Received during the year                              | 300,000          | 200,000          |
| Total (C)   | 125,000          | 300,000          |
| Interest Accrued  |                  |                  |
| Interest accrued on FDRs with Corp. Bank                    | 254,180          | 13,211           |
| Interest accrued on FDRs with Bank of India                 | -                | 661,774          |
| Interest accrued on Corpus Fund FDR with Corp. Bank         | 147,385          | 155,140          |
| Interest accrued on Auto Sweep FDRs with Corp. Bank         | 384,832          | / / / / / / /    |
| Interest accrued on Auto Sweep FDRs with Bank of India      | 238,144          | / /////          |
| Total (D)   | 1,024,541        | 830,126          |
| Others  |                  |                  |
| Asstt. Director of Estates (Cash), Vigyan Bhawan, New Delhi | 6,800            |                  |
| Total (E)   | 6,800            |                  |
| Grand Total (A+B+C+D+E)                                     | 4,194,435        | 3,498,598        |

As per our report on the even date appended hereto

For A.K. AWASTHI & CO.

**Charted Accountants** F.RN.: 003405C

-Sd/-

(A.K Awasthi)

Partner

M. No. 072519

-Sd/-SECRETARY

Place: New Delhi Date: 19-06-2013

# Bank Balances as on 31-03-2013

Amount (in ₹)

| PARTICULARS                                 | AS AT 31-03-2013 | AS AT 31-03-2012 |
|---|------------------|------------------|
| Cash Account - Imprest                      | 2,500            | 2,500            |
| Bank of India - 121                         | -                | (471,444)        |
| Bank of India - 2806                        | 26,458           | 9,639,056        |
| Investment in Auto Sweep/Flexi Deposit FDRs | 81,466,315       | 57,416,697       |
| Total                                       | 81,495,273       | 66,586,809       |

As per our report on the even date appended hereto

For A.K. AWASTHI & CO.

**Charted Accountants** F.RN.: 003405C

-Sd/-

(A.K Awasthi)

Partner M. No. 072519

> -Sd/-**SECRETARY**

Place: New Delhi Date: 19-06-2013

#### Statement of Accounts of the Government's Financial Assistance

for the year 2012-2013

Amount (in ₹)

|  |                | Amount (m <)   |
|--|----------------|----------------|
| PARTICULARS  | F.Y. 2012-2013 | F.Y. 2011-2012 |
| Opening balance                                      | -              | -              |
| Add:   |                |                |
| Interest Received                                    | 225,045        | 65,877         |
| Fund Received during the year from Ministry of Power | 15,000,000     | 16,000,000     |
| Total  | 15,225,045     | 16,065,877     |
| Less: Utilization during the year:                   |                | / 300          |
| Study & Consultancy Charges                          | 407,675        | 5,323,179      |
| Capacity Building                                    | 467,500        | 9,697,725      |
| Bank Charges   | / - /          | 255            |
| Refund to MOP on account of interest earned          | /_//-          | 65,877         |
| Refund to MOP on account of savings/ unspent amount  |                | 978,841        |
| Total  | 875,175        | 16,065,877     |
| Balance carried forward to the next year             | 14,349,870     | -              |

As per our report on the even date appended hereto

The financial assistance received by FOR from MoP for Capacity Building & availing Consultancy Services has been spent during the year 2012-13 only for the purpose/ object for which it was sanctioned.

#### For A.K. AWASTHI & CO.

**Charted Accountants** F.RN.: 003405C

-Sd/-

(A.K Awasthi)

Partner

M. No. 072519

-Sd/-**SECRETARY** 

Place: New Delhi Date: 19-06-2013 Forming part of Balance Sheet as at 31st March, 2013

#### **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
- 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
- Such other functions as the Central Government may assign to it, from time to time.

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

#### 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.

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.

#### **Fixed Assets and Depreciation**

Depreciation on Fixed Assets has been worked out on Written Down Value method as per rates prescribed in Schedule XIV of the Companies Act, 1956.

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 FOR, in anticipation of grant of exemption. Informations/documents called for by the Under Secretary (ITA-I), CBDT, New Delhi and ADIT(E), New Delhi on 06.09.2012 & 19.02.2013, have been submitted on 05.10.2012 & 15.03.2013, respectively.

#### **Events occurring after the Balance Sheet date**

No significant events which could affect the financial position as on 31.3.2013 to a material extent has been reported by the Forum, after the balance sheet date till approval of Accounts.

#### **Investments**

Investments in Auto Sweep/Flexi Deposit are stated at Cost and reflected in Cash & Bank Balances.

#### **Retirement Benefits**

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

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

FORUM OF REGULATORS (FOR)

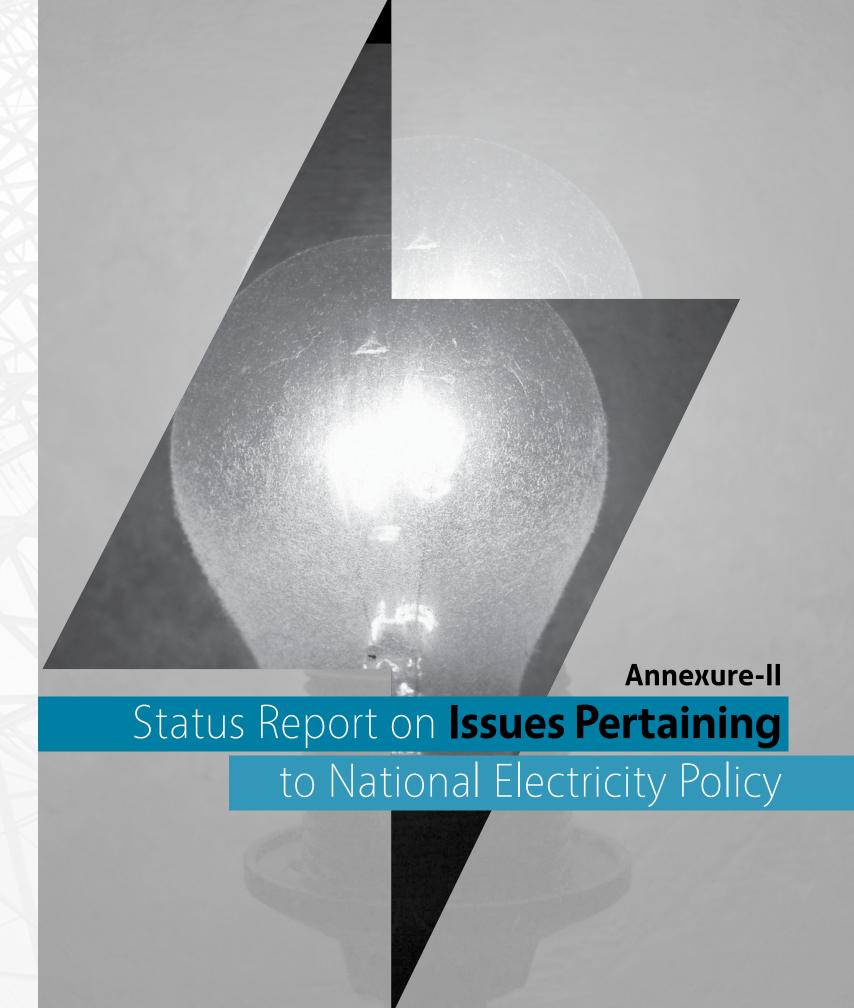
-Sd/-Secretary

**SCHEDULE 8** 

#### Annexure-I

# Members of the Forum of Regulators as on 31.03.2013

| Chair | person of the Forum of Regulators | as on 31.03.2013   |
|-------|-----------------------------------|--|
| 1     | Dr. Pramod Deo                    | Chairperson, Central Electricity Regulatory Commission                       |
| Memb  | pers of the Forum of Regulators   |  |
| 2     | Shri A. Raghotham Rao             | Chairperson, Andhra Pradesh Electricity Regulatory Commission                |
| 3     |                                   | Chairperson, Arunachal Pradesh State Electricity Regulatory Commission       |
| 4     | Shri Jayanta Barkakati            | Chairperson, Assam Electricity Regulatory Commission                         |
| 5     | Shri Umesh Narayan Panjiar        | Chairperson, Bihar Electricity Regulatory Commission                         |
| 6     | Shri Manoj Dey                    | Chairperson, Chhattisgarh State Electricity Regulatory Commission            |
| 7     | Shri P.D. Sudhakar                | Chairperson, Delhi Electricity Regulatory Commission                         |
| 8     | Dr. P.K. Mishra                   | Chairperson, Gujarat Electricity Regulatory Commission                       |
| 9     |                                   | Chairperson, Haryana Electricity Regulatory Commission                       |
| 10    | Shri Subhash Chander Negi         | Chairperson, Himachal Pradesh Electricity Regulatory Commission              |
| 11    | Shri S. Maria Desalphine          | Chairperson, Jammu and Kashmir Electricity Regulatory Commission             |
| 12    | - 100                             | Chairperson, Jharkhand State Electricity Regulatory Commission               |
| 13    | Dr. V.K. Garg                     | Chairperson, Joint Electricity Regulatory Commission for Goa and UTs         |
| 14    | Shri A. Chhawnmawia – Mizoram     | 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    |                                   | Chairperson, Madhya Pradesh Electricity Regulatory Commission                |
| 18    | Shri V.P. Raja                    | Chairperson, Maharashtra Electricity Regulatory Commission                   |
| 19    | Shri Anand Kumar                  | Chairperson, Meghalaya State Electricity Commission                          |
| 20    |                                   | Chairperson, Nagaland Electricity Regulatory Commission                      |
| 21    | Shri Satya Prakash Nanda          | Chairperson, Odisha Electricity Regulatory Commission                        |
| 22    | Ms. Romila Dubey                  | Chairperson, Punjab State Electricity Regulatory Commission                  |
| 23    |                                   | Chairperson, Rajasthan Electricity Regulatory Commission                     |
| 24    | Shri T.T. Dorji                   | Chairperson, Sikkim State Electricity Regulatory Commission                  |
| 25    | 1798 (1798) s.                    | Chairperson, Tamil Nadu Electricity Regulatory Commission                    |
| 26    | Shri Manoranjan Karmarkar         | Chairperson, Tripura Electricity Regulatory Commission                       |
| 27    | Shri Shree Ram                    | Chairperson, Uttar Pradesh Electricity Regulatory Commission                 |
| 28    | Shri Jag Mohan Lal                | 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<br>Territories | Grid Code was notified on 04.08.2010   | Already notified  |  |  |  |
| 6     | Gujarat                    | GERC 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, the Commission made necessary amendment in the existing Grid Code and a draft was prepared and placed on Commission's website to solicit objections/ suggestions from various stakeholders. There have been 14 objections/ suggestions received from stakeholders. Commission is analyzing the same and shall shortly notify the Gujarat Electricity Grid Code 2013. |   |  |  |  |
| 7     | Jammu & Kashmir            | 20 <sup>th</sup> November, 2007  | J&K State Electricity Grid Code Regulations notified vide No.:8/JKSERC are in place.  |  |  |  |

| S.No. | SERCs/JERCs          | Date of Notification  | Status  |
|-------|----------------------|---|---|
| 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               | Notification dated 20-01-2006   | Grid Code, 2005,notified on 20 <sup>th</sup> January 2006 with effect from 1-4-2006   |
| 11    | Maharashtra          | 15.02.2006  | Maharashtra Electricity Regulatory Commission (State Grid Code) Regulations 2006 has come into force with effect from 1st April 2006  |
| 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 24 <sup>th</sup> October, 2005          |
| 13    | Manipur &<br>Mizoram | 02.07.2010  | First amendment notified on 07.07.2014  |
| 14    | Nagaland             | 09 <sup>th</sup> 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 Code) Regulation Secy/Regu.80 dated 14.02.2013 | ons, 2013 have been notified vide notification No.PSERC/  |
| 17    | Sikkim               | 27 <sup>th</sup> 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           | 19 <sup>th</sup> 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              | 15 <sup>th</sup> July 2011  | After Gazette notification, 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  | First notified on 12.01.2006 vide Notification  |
|       | 70                   | 22.05.2009  | 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                      | Billing by all the three Discoms completely computerized.   |
|        |                            | Electronic meters installed in about 95% cases.   |
|        |                            | HVDS/LT aerial bunched (AB) Conductors installation being vigorously pursued for AT&C loss reduction.   |
|        |                            | 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.   |
|        |                            | 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.   |
|        |                            | Discoms are availing facilities of Geographical Information System mapping and indexing of the Consumers in day to day monitoring of distribution network.  |
|        |                            | DT metering completed.  |
|        |                            | SCADA system installation completed.  |
|        | Allen.                     | SLDC fully functional and properly interfaced with RLDC as well as Discoms control centers. SLDC is operating "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<br>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.   |

| S. No. | SERCs/ JERCs      | Status  |
|--------|-------------------|---|
| 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.   |
| 10     | Kerala            | Matching facilities with RLDC are provided at SLDC. Technology Up gradation program for 2013-'14 has been approved by SERC  |
| 11     | Maharashtra       | <ol> <li>On 10 June, 2004, Commission notified MERC (Distribution Open Access) Regulations,<br/>2004 for introducing of Open Access in distribution system in the State. On 21<br/>June, 2005, said regulation was superseded by MERC (Distribution Open Access)<br/>Regulations, 2005.</li> </ol>  |
|        |                   | <ol> <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         <ul> <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> </ul> </li> </ol>  |
| 12     | Madhya Pradesh    | State Load Dispatch Centre has SCADA, wideband communication system.lts Capex requirementupto 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. |

| S. No. | SERCs/ JERCs | Status  |
|--------|--------------|---|
| 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. |
| 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 ( <a href="www.uksldc.org">www.uksldc.org</a> ) 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.   |

| S. No. | SERCs/ JERCs  | Status  |
|--------|---------------|---|
| 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: |
| JAN    |               | 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;  |
|        |               | b. Model Bulk Power Wheeling Agreement (BPWA) for availing wheeling services of distribution licensee(s);   |
| X      |               | c. Procedures for Scheduling, Despatch, Energy Accounting, UI Accounting and Settlement System of 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/STOA) Unit of Measurement |   | Unit of<br>Measurement | ,              | /oltage  | levels  |            |
|------|-------------------|---|---|------------------------|----------------|----------|---------|------------|
| 74   |                   |   |   |                        | LT 11          | KV       | KV 33   |            |
| 1    | Andhra<br>Pradesh | APSPDCL   | *LTOA/STOA  | Rs./KVA/Month          | 384.88         | 191      | 1.22    | 29.6       |
|      | 11000311          | APEPDCL   | *LTOA/STOA  | Rs./KVA/Month          | 641.32         | 192      | 2.89    | 21.07      |
| 2    | Bihar             | BSEB  | 0   | 0                      | V              |          |         |            |
|      |                   | State Discom<br>(wheeling charges)                    | 19 paise per unit on<br>energy approved and<br>scheduled as per actual<br>injection |                        | 33 KV          | 11       | . KV    | LT         |
| 3    | Chhattisgarh      |   | 1. STOA charge 22.4<br>paise per unit   |                        |                | 220      | 132     |            |
|      |                   | STU   | 2. LTOA charge net ARR will be shared by all LTOA customer proportionately          |                        | 400 KV         | KV       | KV      | 66 KV      |
| 4    | Delhi             | The Commission had tariff orders for the              | s determined wheeling char corresponding years.                                     | ges for BRPL, BYPL     | and TPPDL      | for vari | ous yea | ers in its |
|      |                   |   |   |                        | EHT/           | HT       |         | LT         |
|      | 1                 | ED-A&N  | All   | Paise/kWh              | N              | ot Dete  | rminec  |            |
| 10   |                   | ED-Chandigarh   |   | Paise/kWh              | Not Determined |          |         |            |
| _    | Goa & Union       | DNHPDCL   | All   | Paise/kWh              | Not Determined |          |         |            |
| 5    | Territories       | ED-Daman & Diu  | All   | Paise/kWh              | Not Determined |          |         |            |
|      |                   | ED-Goa  | All Paise/kWh   |                        | Not Determined |          |         |            |
|      |                   | ED-Lakshwadeep  | All   | Paise/kWh              | N              | ot Dete  | erminec |            |
|      |                   | ED-Puducherry   | All   | Paise/kWh              | Not Determined |          |         |            |

| S.No | SERCs/JERCs | Utility (Discom)                       | Term (LTOA/STOA) | Unit of<br>Measurement | Voltage levels |        |  |
|------|-------------|--|------------------|------------------------|----------------|--------|--|
| 1    | XXX         | PGVCL/ MGVCL/                          | Both             | Paisa / kWh            | 11 KV          | 400 KV |  |
|      |             | DGVCL/ UGVCL                           | DOUT             | Paisa / KVVII          | 11             | 41     |  |
| 6    | Gujarat     | Torrent Power<br>Limited-<br>Ahmedabad | 4                |                        | 22             | 72     |  |
| 1    |             | Torrent Power<br>Limited -Surat        |                  |                        | 18             | 48     |  |

**Note:** GERC has notified GERC (Terms and Conditions of Intrastate Open Access) Regulations, 2010 on 01.06.2011 as notification no. 3 of 2011, in which, Long-term Open Access for a period exceeding 12 years but not exceeding 25 years, Medium-term Open Access for a period exceeding three months, but not exceeding three years and Short-term Open Access for a period up to one month at a time, but not exceeding a period of six months in a calendar year is provided. The Regulations provide for intra-state open access in the state transmission network as well as the distribution system of licensees.

| p. 0 | Tor milita state   | open access in the ste | ste transmission               | ,,,, | Tettrom as men                      |   | in system or the |      |          |  |
|------|--------------------|------------------------|--------------------------------|------|-------------------------------------|---|------------------|------|----------|--|
|      |                    |                        | Term                           |      |                                     | \   | Voltage levels   |      |          |  |
| 7    | Jammu &<br>Kashmir | J&K PDD                | (LTOA/ Measurement STOA)       |      | Transmission Wheeling charges       |   |                  |      |          |  |
|      |                    |                        | STOA                           | Rs   | s/MW/Day                            | 496.00  | 1396.00          | \    |          |  |
| 8    | Jharkhand          |                        | Utility<br>(Discom)            |      | Term<br>(LTOA/<br>STOA)             | Unit of<br>Measurement  | Voltage levels   |      |          |  |
|      |                    |                        | JSEB / JBVN                    | L    |                                     | Rs./kWh   |                  | 0.12 |          |  |
|      |                    |                        | Wheeling Charges (Paise/ Unit) |      |                                     |   |                  |      |          |  |
|      |                    |                        | Utility                        |      | EHT/132KV                           | / HT/33/66 KV   | HT/11 KV         | ' LT |          |  |
|      |                    |                        | BESCOM                         | V    |                                     |   | 10               | 22   | 2        |  |
|      |                    |                        | MESCOM                         | Λ    |                                     |   | 21               | 48   | 3        |  |
|      |                    |                        | CESC                           | Т    |                                     |   | 19               | 44   | <b>+</b> |  |
| 9    | Karnataka          |                        | HESCOM                         | 7    |                                     |   | 19               | 44   | ļ        |  |
|      |                    |                        | GESCOM                         |      | \                                   |   | 22               | 51   |          |  |
|      |                    |                        | in kind and<br>ii. Actual cha  | is e | equal to 5% of th<br>s depends upon | wheel energy within the<br>he energy injected.<br>I the point of the inje<br>losses as applicable h | ction and point  |      | es is    |  |

| S.No          | SERCs/JERCs          | Utility (I   | Discom)                                 | Term (LTO                     | A/STO                  | DA)              | М               | Unit of<br>easurem  |  | Voltag                   | e levels         |  |
|---------------|----------------------|--|---|-------------------------------|------------------------|------------------|-----------------|---------------------|--|--------------------------|------------------|--|
|               |                      | Wheeling Charge & Cross Subsidy Surcharge w.e.f 01-07-2012 |   |                               |                        |                  |                 |                     |  |                          |                  |  |
|               |                      |  |   |                               |                        |                  |                 | ١                   | /oltage lev  | els                      |                  |  |
|               |                      | Utility<br>(Discom)  | Term<br>(LTOA/<br>STOA)                 | Unit of<br>Measurement        | EHT<br>220<br>KV       | EHT<br>110<br>KV | EHT<br>66<br>KV | Railway             | HT-1<br>Industrial   | HT-II Non-<br>Industrial |                  |  |
| 10            | Kerala               | KSEB   | LTOA<br>Equal to<br>and more<br>than 5  | Cross<br>Subsidy<br>Surcharge | nil                    | nil              | 11 Ps/<br>unit  | 24<br>ps/unit       | Nil  | 49 ps/unit               | 255 ps/unit      |  |
|               |                      |  | years /<br>STOA<br>Less than<br>5 years | Wheeling<br>Charge            |                        |                  |                 |                     | 26 ps/unit   | 26 ps/unit               | 26 ps/unit       |  |
|               |                      |  |   | ,                             | •                      |                  | •               | •                   | L.T  | 33 kV                    | 11 kV            |  |
|               |                      | MSEDCL   |   |                               | Rs/kWh                 |                  |                 | Vh                  | 1.03   | 0.11                     | 0.11 0.60        |  |
|               | Maharashtra          | TPC-D  |   |                               |                        |                  | Rs/kWh          |                     | 0.38   |                          |                  |  |
| 11            |                      | RInfra-D   |   |                               |                        |                  | Rs/kWh          |                     | 0.88   | 0.88 0.46                |                  |  |
|               |                      | BEST   |   |                               | Rs/kWh author from     |                  |                 | authorit<br>from th | as been recognized as a local ity and hence exempted the purview of the Open regulations |                          |                  |  |
|               |                      | Sl.No.   | Ye                                      | ar Lī                         | TOA (F                 | ks./M\           | N/Mon           | th)                 |  | DA (Rs./MW               | //Month)         |  |
| 12            | Madhya               | 1  | FY 2012-                                | 13 4100                       | )                      |                  |                 |                     | 1025   |                          |                  |  |
| 12            | Pradesh              | Wheeling   |   |                               |                        |                  |                 |                     |  |                          |                  |  |
|               |                      | FY 2012-1  | L3                                      |                               |                        |                  |                 |                     | Rs. 0.15 pe  | er at 33 Kv              |                  |  |
| 13            | Manipur &<br>Mizoram | Transmissi   | on and W                                | heeling Charge                | are fi                 | ked in           | both t          | the States          | s in Tariff o  | rders annua              | ally.            |  |
| 14            | Nagaland             | Utility<br>(Discon   | (                                       |                               | Unit o<br>surer        |                  |                 |                     | Volta  | ge levels                |                  |  |
| 14            | Nagaland             | NA   |   | NA                            | NA                     |                  |                 |                     | //   |                          |                  |  |
|               |                      | NERC has f   | inalized th                             | ne Open Access F              | Regula                 | tions l          | but no :        | such case           | has been b   | rought to th             | e Commission yet |  |
| La properties |                      | DISC   | ом -                                    |                               |                        |                  |                 |                     | arge for HT consumers (11 KV & 33 kV)  Cross subsidy surcharge 9 Paise/Kwh)              |                          |                  |  |
|               |                      | CES  |   | Wheeling Ch                   | 1 <b>arge</b><br>78.09 |                  | e/KWh)          | Cr                  | oss subsid   | y surchargo<br>101       | e 9 Paise/KWh)   |  |
| 15            | Odisha               | NESC   |   |                               | 76.09<br>81.29         |                  | 55              |                     |  |                          |                  |  |
|               |                      | WES  |   |                               | 61.30                  |                  |                 | 1/2                 |  | 76                       |                  |  |
|               |                      | SOUTH  |   |                               | 99.94                  |                  |                 |                     |  | 165                      |                  |  |

| S.No | SERCs/JERCs   | Utility (D          | Discom)  | 1        | erm (LTOA/                             | STOA)       |   | Unit of<br>Measurement   |                        | nt                              | Voltage levels           |            |                            |
|------|---------------|---------------------|--|----------|--|-------------|---|--------------------------|------------------------|---------------------------------|--------------------------|------------|----------------------------|
|      |               |                     | Long Term (LTOA) (PSPCL)   |          |  |             | Short term (STOA)<br>Voltage levels (PSPCL) |                          |                        |                                 |                          |            |                            |
|      |               | ()                  | SPCLJ  |          | From 1                                 | 4.2017      | 2 to 6.                                     | 5.2012                   |                        | From                            | 7.5.2012                 | 2 to 31.3. | 2013                       |
| 16   | Punjab        |                     | kV, 132 kV,<br>33kV or 11 kV   |          | 220 kV<br>&132 kV                      | 66 k'       |   | 11 k                     | v                      | 220 kV 8<br>132 kV              | 66k<br>33                |            | 11kV                       |
|      |               | Mont                | 640/MW/<br>h of the  |          | 0.0 paise/                             | 18.<br>pais | se/   | 37.2<br>paise            | 2/                     | 1                               | L24.0 pa                 | aise/unit  |                            |
|      |               | contracte           |  |          | unit<br>iscom)                         | un          | IL  | Term (                   | LTOA                   |                                 | nit of                   | Volta      | ge levels                  |
| 17   | Sikkim        | Energ               | Energy & Power De  |          |  | Govt o      | f   | STO                      |                        | Meas                            | uremen                   |            |                            |
| 300  |               |                     |  |          | T (170                                 | . ,         | Unit  | of                       |                        | Vo                              | ltage le                 | vels       |                            |
|      |               | Year                | Utility  | <b>'</b> | Term (LTOA/<br>STOA)                   |             | measu<br>men                                | ie- 1                    | 1kV                    | 22kV                            | 33kV                     | 110kV      | 230kV                      |
| 18   | 18 Tamil Nadu | FY TANGEDCO         |  |          | LTOA/STOA<br>TANGEDO                   | 0           | MU  |                          |                        |                                 | 3659.54                  | 4          | 1                          |
| 5/4  |               | 2012-13             | IANGED   | 2        | TOA-captiv<br>third part               |             | MU  | 8                        | 334                    | 199                             | 536                      | 661        | 230                        |
| 19   | Tripura       |                     | Open Access system is not yet developed in the State of Tripura , So , question of OA transmission charges & distribution network charges does not arise .   |          |  |             |   |                          | smission               |                                 |                          |            |                            |
| 20   | Uttarakhand   |                     | 7659.07*MW/day*  "Embedded open access consumers" shall not pay the wheeling charges calcul in accordance with the methodology specified in the regulat and the same works out to NIL for HT industry consumers Rs. 6837.09?MW?day for Non-Domestic consumers. |          |  |             |   |                          | alculated<br>gulations |                                 |                          |            |                            |
|      |               | Utility             | Ter  | m (LTC   |  | Unit        |   |                          |                        |                                 | tage lev                 | els        |                            |
| 2.4  | 1111          | (Discom             |  | STOA)    |  | easure      |   |                          | 1                      | 32 kV                           |                          | Above 1    | 32 kV                      |
| 21   | Uttar Pradesh | All Disco           | ms   |          | Rs./kWh                                |             |   | LTOA: 0.176<br>STOA:0.05 |                        |                                 | LTOA: 0.132<br>STOA:0.04 |            |                            |
|      |               |                     | every yea  | r. The   | nes wheeli<br>data relate              |             |   |                          |                        |                                 |                          |            |                            |
|      |               | Year 20:            | 12-13  | V        | VBSEDCL                                |             | CESC  | Ltd                      |                        | DPL                             |                          | DPS        | C Ltd                      |
| 2.2  | Mast Davis    | Wheeling            | charge   | 82.2     | 4 paise/kW                             | h 136       | 5.61 pa                                     | aise/kW                  | h 2:                   | 7.46 paise                      | /kWh                     | 58.35 pa   | ise/kWh                    |
| 22   | West Bengal   | Avoidabl            | le Cost  | kWh      | 5.14 paise/<br>ı + wheeling<br>charges |             |   | paise/<br>heeling        |                        | 184.69 pa<br>Wh + whe<br>charge | eling                    | kWh + v    | paise/<br>vheeling<br>rges |
|      |               | Cross<br>surcharges | subsidy  | It is t  | the differer<br>gallowed op            |             | he ap                                       | plicable                 |                        | f for the o                     | ategory                  | of the co  |                            |

# **Transmission Charges**

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

| S. No. | SERCs/JERCs             | LTOA (Rs.   | /MW/Month)  | ST                        | STOA (Rs./MW/Day)         |  |  |  |
|--------|-------------------------|---|---|---------------------------|---------------------------|--|--|--|
|        |                         | Term Unit of  |   | Voltage levels            |                           |  |  |  |
| 1.     | Andhra Pradesh          | (LTOA/STOA)   | Measurement   | 132KV                     | 220KV                     | 400KV  |  |  |
| 1.     | Alidilla Fladesii       | *LTOA/STOA  | Rs.MW/Day   | 2153.42                   | 2153.42                   | 2153.42  |  |  |
|        |                         | * Charges are same fo   | or both LTOA/STOA   |                           | 70.00                     |  |  |  |
| 2.     | Bihar                   | 53310   |   | 438                       |                           |  |  |  |
| 3.     | Chhattisgarh            | MTOA customers  | Net ARR will be shared by all LTOA/<br>MTOA customers proportionately in<br>ratio of reserved capacity  STOA charge 22.4 pa<br>unit on energy ap<br>and scheduled as per<br>injection |                           |                           |  |  |  |
| 4.     | Delhi                   | transmission servi<br>dated 24.12.2013  | has stipulated the<br>ce charges in case of<br>. On the basis of AR<br>ransmission charges  | intra-state<br>R approved | open access<br>by the Com | in its order mission for   |  |  |
| 5.     | Goa & Union Territories | During this period, as there was no transmission licensee under jurisdicti of JERC, the separate transmission charges were not determined |   |                           |                           |  |  |  |
| 6.     | Gujarat                 | 2780  |   |                           |                           | Transmission charge payable by Short-term open access customers = 1/4× Rate of transmission charge payable by long-term / medium-term open access customers i.e. Rs. 695/MW/Day. |  |  |
| 7.     | Jammu & Kashmir         |   | 16.30   | Rs. 496.                  | .00                       |  |  |  |
| 8.     | Jharkhand               | 0.18  |   | -                         |                           |  |  |  |
| 9.     | Karnataka               |   | 2012-   | <u>13</u>                 | 111                       |  |  |  |
| 9.     | Karnataka               | 112224  | 3000  | 922.39                    |                           |  |  |  |
| 10.    | Kerala                  | EHT-22 Ps/unit  |   | EHT-22                    | Ps/unit                   |  |  |  |
| 11.    | Maharashtra             | Rs.213.39/kW/mo   | nth   | Rs.0.29                   | Rs/kWh                    |  |  |  |
| 12.    | Madhya Pradesh          | Rs. 123000 /MW/mo   | onth  | Rs. 1024                  | /MWE/Day                  |  |  |  |
| 13.    | Manipur & Mizoram       | LTOA and STOA are   | yet to made separa  | itely                     |                           |  |  |  |
| 14.    | Nagaland                | NA  |   | NA                        |                           |  |  |  |

| S. No. | SERCs/JERCs   | LTOA (Rs  | LTOA (Rs./MW/Month)   |   |  |
|--------|---------------|---|---|---|--|
| 15.    | Odisha        | Year  | LTOA<br>(Rs./MW/Mont  | STOA<br>h) (Rs./MW/Day)   |  |
|        |               | FY 2012-13  | 6000  | 1500  |  |
| 16.    | Punjab        | 71226   |   | 19 Paise/unit   |  |
|        | 3-13          | Year  | LTOA (Rs. /MW/Mont  | h) STOA (₹Rs./MW/Day)   |  |
|        |               | FY 2012-13  |   |   |  |
| 17     | Sikkim        | methodologies for cross subsidy surch licensee in the Stat has not received a either for Transmiss the charges for Tran | determining the various of<br>large). However, the only<br>e i.e the Energy & Power<br>single application from any<br>iion or Distribution till date<br>smission/Distribution und | 2012 outlining the procedure and harges (transmission, wheeling and deemed distribution/transmission). Department, Government of Sikkim consumer requesting Open Access e. As such, the need for establishing er Open Access has not arisen so far. |  |
| 18     | Tamil Nadu    | Rs.6483(MW/day<br>month)  | ) = Rs.1,94,490/-(MW/   | Rs.270.11(MW/hr) =<br>Rs.6483/- (MW/day)  |  |
| 19     | Tripura       | Does not arise in   | case of Tripura   |   |  |
| 20     | Uttarakhand   | Rs.83342.40   |   | Rs.2778.08  |  |
| 21     | Uttar Pradesh |   | Rs. 0.174 / k   | Wh  |  |
| 22     | West Bengal   | 145231.00   | \   | 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. No.  | SERCs/JERCs                |            |                  | Utility                   |                | Year (%)                  |        |               |                                       |                            |
|---------|----------------------------|------------|------------------|---------------------------|----------------|---------------------------|--------|---------------|---------------------------------------|----------------------------|
| J. 110. | JERCS/JERCS                |            |                  | Discom                    |                | FY 2012-13                |        |               |                                       |                            |
| 1       | Andhra Pradesh             |            |                  | APSPDCL                   |                |                           |        | 12.4          | 15%                                   | 180                        |
|         | Andria Fragesii            |            |                  | APEPDCL                   |                |                           |        | 12.3          | 80%                                   | 3                          |
|         |                            |            |                  |                           |                |                           | Ye     | ear (%)       |                                       |                            |
| 2       | Bihar                      | Sl.N       | D.               | Utility                   | 2012-          |                           |        | 013-14        |                                       |                            |
|         | 511101                     | 1          | BS               | SEB (T&D Loss)            | 27.            | 5                         |        | <i>&gt;</i> < |                                       | -4-5                       |
| 3       | Chhattisgarh               |            |                  | State Discom              |                | /                         |        | 30            | %                                     |                            |
|         |                            | Sl.<br>No. | Utility          | 2012-13                   |                | Year<br>2013              |        |               |                                       | 2014-15                    |
|         |                            | 1          | BRPL             | 17.74%<br>(Target 14.16%) | (              | 16.93%<br>(Target 13.33%) |        | )             | Yet to be trued up (Target 12.50%)    |                            |
| 4       | Delhi                      | 2          | BYPL             | 21.14% (Target<br>16.82%) |                | 22.19%<br>(Target 15.66%) |        |               |                                       | be trued up<br>get 14.50%) |
|         |                            | 3          | TPPDL            | 10.73% (Target<br>12.50%) | (              | 10.56%<br>(Target 12.00%) |        | )             | Yet to be trued up<br>(Target 11.50%) |                            |
|         |                            | 4          | NDMC             | 7.65% (Target 10.35%)     | (              | 11.57%<br>(Target 10.10%) |        | )             | Yet to be trued up<br>(Target 9.85%)  |                            |
| 1       |                            |            | ED-A&N           |                           |                |                           | 18.03% |               |                                       |                            |
| 40      |                            |            | ED-Chandigarh    |                           |                |                           |        | 16.0          | 0%                                    |                            |
|         |                            |            | DNHPDCL          |                           |                |                           | 6.00%  |               |                                       |                            |
| 5       | Goa & Union<br>Territories |            | ED-Daman and Diu |                           |                |                           | 9.25%  |               |                                       |                            |
|         | iemones                    | ED-Goa     |                  |                           |                | 12.50%                    |        |               |                                       |                            |
|         |                            |            |                  | E                         | ED-Lakshwadeep |                           |        | 15.92%        |                                       |                            |
|         |                            |            |                  | ED-Puducherry             |                | 12.50%                    |        |               |                                       |                            |

| S. No.  | SERCs/JERCs      |                           |      | Utility            |          |                     | Year                          | (%)             |  |  |
|---------|------------------|---------------------------|------|--------------------|----------|---------------------|-------------------------------|-----------------|--|--|
| 3. INU. | SERCS/JERCS      |                           |      | Discom             |          |                     | FY 201                        | l2-13           |  |  |
| 1///    |                  | DGVCL                     |      |                    |          |                     | 12.00                         |                 |  |  |
|         |                  | UGVCL                     |      |                    |          |                     | 13.00                         |                 |  |  |
|         | Gujarat          | MGVCL                     |      |                    |          |                     | 12.50                         |                 |  |  |
|         |                  | PGVCL                     |      |                    |          |                     | 27.                           | 00              |  |  |
| 6       |                  | TPL-A                     |      |                    |          |                     | 8.5                           | 0               |  |  |
|         |                  | TPL-S                     |      |                    |          |                     | 5.1                           | .5              |  |  |
|         |                  | Kandla Port Trust         |      |                    |          |                     | 8.7                           | '5              |  |  |
|         |                  |                           |      | Mundra Port S      | EZ       |                     | 7.7                           | '5              |  |  |
|         |                  | Torrent Energy Ltd. (TEL) |      |                    |          | 3.0                 | 00                            |                 |  |  |
| 577     |                  |                           | Util | _                  |          |                     | T&D Loss Traje                |                 |  |  |
| 7       | Jammu & Kashmir  |                           | Disc |                    | 2012-1   |                     | 2013-14                       | 2014-15         |  |  |
|         |                  |                           | JKPI | DD                 | 46.76    | 5                   | 45.26                         | 43.76           |  |  |
|         |                  | Sl.No.                    |      | Utility            |          |                     | Distribution Loss Targets (%) |                 |  |  |
|         |                  |                           |      | Discom             | 2012-    |                     | 2013-14                       | 2014-15         |  |  |
| 8       | Jharkhand        | 1                         |      | JSEB               | 189      |                     | 17%                           | 16%             |  |  |
|         |                  | 2                         |      | JUSCO              | 5%       |                     | 5%                            | 5%              |  |  |
|         |                  | 3                         |      |                    | 159      |                     | 13%                           | 11%             |  |  |
|         |                  | 4                         |      | ISL                | 6.59     | y T&D Losses        | 6.0%                          | 5.75%           |  |  |
|         |                  |                           |      |                    | Oili     | y T&D Losses        | FY 2012-1                     | 3 (%)           |  |  |
|         |                  |                           |      | Utility            |          | Tar                 |                               | Achieved        |  |  |
|         |                  | 1                         |      | BESCOM             |          | 14                  | .00                           | 13.82           |  |  |
| 9       | Karnataka        |                           |      | GESCOM             |          | 19.50               |                               | 19.09           |  |  |
|         |                  | HESCOM                    |      |                    |          | 18.00               |                               | 19.96           |  |  |
|         |                  |                           |      | MESCOM             | <u> </u> | 12                  | .00                           | 11.88           |  |  |
|         |                  |                           |      | CESC               |          | 15                  | .00                           | 15.07           |  |  |
|         |                  |                           |      | Hukeri RCS         |          |                     | .00                           | 15.10           |  |  |
| 10      | Kerala           | 2007-0                    | 08   | 2008-09            | 2009-10  | <b>KSEB</b> 2010-11 | 2011-12                       | 2012-13         |  |  |
| 10      | Keraia           | 20.02                     |      | 18.83              | 17.71    | 16.09               | 15.65                         | 14.81 (approved |  |  |
|         |                  |                           |      | MSEDCL             |          |                     | 14.6                          | 7%              |  |  |
| 11      | Maharachtra      |                           |      | TPC-D              |          | \                   | 1.35%                         |                 |  |  |
| 11      | Maharashtra      | R Infra-D                 |      |                    |          |                     | 10.24%                        |                 |  |  |
|         |                  | BEST                      |      |                    |          |                     | 7.50%                         |                 |  |  |
|         |                  | A                         |      | Discom             |          |                     | 2012                          | 2-13            |  |  |
| 12      | Madhya Pradesh   |                           |      | (i) East Discor    | n        |                     | 24                            | 1               |  |  |
| 12      | Mauriya Frauesii |                           |      | (ii) West Disco    | m        |                     | 22                            | 2               |  |  |
|         |                  | 1320                      |      | (iii) Central Disc | om       |                     | 20                            | 5               |  |  |

| C Na   | CEDC-/JEDC-          |                                  |                            | Utilit   | у   |  | Year (%)   |  |                                     |  |         |  |
|--------|----------------------|----------------------------------|----------------------------|--|---|--|--|--|-------------------------------------|--|---------|--|
| S. No. | SERCs/JERCs          |                                  |                            | Disco  | m   |  | FY 2012-13   |  |                                     |  |         |  |
|        |                      | Sl.No                            |                            | Uti  | lity  |  |  | Year (%)                               |                                     |  |         |  |
|        |                      | JI.NU                            | Disc                       |  |   | 20   | 2012-13  |  |                                     | 2014-15  |         |  |
| 13     | Manipur &<br>Mizoram | 1                                | [                          |  | tate Power<br>Company Ltd.  |  | 35%  | 32%                                    |                                     | 29%  |         |  |
|        |                      | 2                                | De                         |  | l Electricity<br>ovt. of Mizorar  |  | 31%  | 29%                                    |                                     | 27%  |         |  |
|        |                      |                                  | Uti                        | lity   |   | •  | Year (9  | 6)                                     |                                     |  |         |  |
| 14     | Nagaland             |                                  | Dis                        | com  | 2012  | 2-13   | 2013-1   | L4                                     | 2                                   | 014-15   |         |  |
|        | J                    |                                  | DPN                        |  | 41.3  | 7%   | 38.89  | 39%                                    |                                     | 33.67%   |         |  |
|        |                      | DISCO                            | M                          | FY 20  | 12-13   | FY   | 2013-14  |  | FY 20                               | 14-15  |         |  |
| 15     | Odisha               |                                  | DISCO                      | IVI  | Target  | Achieved   | Target   | Achieved                               | Targ                                | get  | Achieve |  |
|        |                      | CESU                             | J                          | 23.77  | 41.44   | 23.77  | 39.50  | 23.7                                   | 77                                  | 36.65  |         |  |
|        |                      | NESC                             | 0                          | 19.17  | 40.38   | 19.17  | 35.93  | 19.3                                   | 17                                  | 33.19  |         |  |
|        |                      | WESC                             | 0                          | 20.40  | 42.72   | 20.40  | 40.64  | 20.4                                   | 40                                  | 39.49  |         |  |
| X      |                      | SOUTH                            | СО                         | 26.25  | 47.13   | 26.25  | 46.39  | 26.2                                   | 25                                  | 44.64  |         |  |
| 16     | 0 : 1                | Sl.No.                           | Ĺ                          | Jtility  |   |  | n & Distribut<br>mission in the                      |  |                                     |  |         |  |
| 16     | Punjab               |                                  | D                          | iscom  | m FY 2012-13  |  | FY 2013-14   |  | FY 2014-15                          |  |         |  |
|        |                      | 1                                | F                          | PSPCL  | 18.00%  | 18.00%   |  |  | 16.00%                              |  |         |  |
| 17     | Sikkim               | distribut<br>and Gen<br>to which | ion/ti<br>eration<br>the s | ransmission/g<br>on has not ye<br>segregation of | artment, a Stat<br>generation utility<br>t been done i.e<br>f technical and d<br>I several directiv | y in Sikkim. <sup>-</sup><br>the restruc<br>commercial | The segregation<br>turing of the D<br>losses through | of the Trai<br>epartment<br>energy aud | nsmissions<br>is yet t<br>dit has i | on, distributi<br>to be done d<br>not been dor |         |  |
| 19     | Tripura              |                                  |                            |  | d Licensee of e for reduction   |  |  |  |                                     |  |         |  |

| C No.  | SERCs/JERCs    | Utility   |  |   | Year (%)  |   |  |  |  |
|--------|----------------|---|--|---|---|---|--|--|--|
| S. No. | SERCS/JERCS    |   | Discom FY 201  |   |   |   |  |  |  |
|        |                | various<br>Moreove<br>R-APDR<br>distribu<br>2015-1<br>reduction<br>for FY 2 | deavor for reducing the tech<br>Tariff orders has been direct<br>er, the Commission has give<br>P Part-A & Part-B which are<br>tion system with an overall<br>6. Further, the Commission h<br>on and collection efficiency. T<br>012-13, FY 2013-14 and FY | ing the distrenting investment<br>primarily for<br>objective or<br>nas also defi<br>he targets of | ibution lider to approve the consing on a chieving one of a chieving distributions. | censee to reduce<br>al to Govt. fund<br>reducing the AT<br>g 15% distribut<br>ectory for the d<br>on losses and col | e its AT&C losse:<br>led schemes viz<br>&C losses of th<br>tion losses by F<br>istribution losse |  |  |
|        |                | Status  | of Distribution Losses Status  | EV 2  | 012-13  | FY 2013-14  | FY 2014-15   |  |  |
|        |                | Δn  | proved Distribution Losses   |   | 7%  | 16%   | 15.5%  |  |  |
| 20     | 20 Uttarakhand |   | \  | >   _   | . 7 90  | 10%   | 15.5%  |  |  |
|        | o ttoront      | Status of   | f Collection Efficiency  |   |   |   |  |  |  |
|        |                |   | Status   |   | 012-13  | FY 2013-14  | FY 2014-15   |  |  |
|        |                | App   | roved Collection Efficienc   | y 5   | 97%   | 97.5%   | 98%  |  |  |
|        |                |   | ulated AT&C losses considering<br>ective financial years are as foll<br>Status   | lows:   |   | Year (%)  |  |  |  |
|        | 1000           |   |  |   | 012-13  | FY 2013-14  | FY 2014-15   |  |  |
|        |                |   | 1 Approved Collection Efficiency   |   | .49%  | 18.10%  | 17.19%   |  |  |
|        |                |   | gard to standards for reliability<br>C, Standards of Performance Re  |   |   |   |  |  |  |
|        |                |   |  | Year (%   | 6)  |   |  |  |  |
| 21     | Uttar Pradesh  |   | 2012-13  | 2013-1  | .4  | 2   | 014-15   |  |  |
|        |                |   | Not available  | Not avail   | .able   | Not   | available  |  |  |
|        |                | Sl.No.  | Utility  |   |   | Year (%)  |  |  |  |
|        |                | Julio.  | DISCOM   | 2012-13   | 5   | 2013-14   | 2014-15  |  |  |
|        |                | 1   | WBSEDCL  | 17.50   |   | 17.50   | 17.50  |  |  |
| 22     | West Bengal    | 2   | CESC   | 14.45   |   | 14.30   | 14.30  |  |  |
|        |                | 3   | DPL  | 5.30  |   | 5.20  | 5.20   |  |  |
|        |                | 4   | DPSC   | 5.25  |   | 5.25  | 5.25   |  |  |
|        |                | 5   | DVC  | 2.30  |   | 2.20  | 2.20   |  |  |

# **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                   | TOD metering was introduced vide DERC Tariff Order dated 13.07.2012 on pilot basis for large industrial and non – domestic consumers (300KW 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 complete 100% metering as per proposed plan. The Commission also 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  |

| S.No | SERCs/ JERCs   | Metering Plan   |  |  |  |  |  |
|------|----------------|---|--|--|--|--|--|
| 10   | Kerala         | All consumers were metered before the enactment of Electricity Act, 2003.  TOD Meters for all HT/EHT consumers introduced before enactment of Electricity Act, 2003.  TOD Meters for all LT Industrial above 20 KW and LT Domestic Consumers having consumption above 500units /month introduced w.e.f.01-05-2013 and 01-07-2012 respectively.  |  |  |  |  |  |
| 11   | Maharashtra    | <ol> <li>The Commission has introduced TOD tariff in Maharashtra in FY 2000-01 vide Order dated April 28,2000</li> <li>Tariff in Maharashtra consists of two components, i.e., Fixed Cost (Rs./kW) and Variable Cost (Rs./kWh).</li> <li>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:         Timings             0600 to 0900 hours             0900 to 1200 hours</li>             1200 to 1800 hours             1800 to 2200 hours  </ol>   |  |  |  |  |  |
|      |                | <ul> <li>2200 to 0600 hours</li> <li>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 &amp; 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.</li> <li>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.</li> <li>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.</li> </ul> |  |  |  |  |  |
|      |                | 7. The Commission has directed MSEDCL to complete 100% metering within a period of 3 years.   |  |  |  |  |  |
| 12   | Madhya Pradesh | 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  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 Mater Testing already in place since 21/08/2007.   |  |  |  |  |  |
|      |                | Third Party Independent Meter Testing already in place since 21/08/2007.  |  |  |  |  |  |

| S.No | SERCs/ JERCs      | Metering Plan  |
|------|-------------------|--|
| 13   | Manipur & Mizoram | 100% metering yet to be achieved in Manipur and achieved in Mizoram.   |
| 14   | Nagaland          |  |
| 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       | Directions issued for 100% metering. TOD implemented on LT industries above 25 kW and all HT Industrial consumers. Prepaid metering scheme approved by the UERC in the Tariff Order for FY 2012-13 and since then is included in each subsequent tariff orders.  |
| 21   | Uttar Pradesh     | Metering is encouraged in the State and TOD metering has already been implemented  |
| 22   | West Bengal       | FY: 2012-13  |
|      |                   | 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   | SCADA under R-APDRP scheme has been introduced for capital town of Patna   |
| 3     | Chhattisgarh            | State discom has taken<br>up converting LT system<br>to HVDS. More schemes<br>are being prepared for<br>execution on REC – loan<br>funds basis   | base management is being done with help of   |
| 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 |  | ution licensees through tariff orders for improvement and also allowing capex in this regard.                        |
| 6     | Gujarat                 |  | A has been started by the Distribution Licensees. s already been taken up in MGVCL, UGVCL, DGVCL eduction in losses. |
| 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. |  |

| S. No | SERCs/JERCs       | HVDS  | SCADA & Data Base Management   |
|-------|-------------------|---|--|
| 8     | Jharkhand         | Information awaited from  | licensee   |
| 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            | HT/LT ratio of K.S.E.B-1:5.23   | Pilot implementation under RAPDRP scheme by the utility in progress.   |
| 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 | Being initiated in both the   | 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   | 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  |

| S. No | SERCs/JERCs   | HVDS   | SCADA & Data Base Management  |
|-------|---------------|--|---|
| 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        |  | CCADA and data management systems are under esometime before they can be fully operationalised.   |
| 18    | Tamil Nadu    |  | 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 .  |
| 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 a   | and SCADA systems are currently in progress   |
| 22    | West Bengal   |  | WBSEDCL: Under implementation phase through R-APDRP (Part A) Scheme.  CESC Limited: Implemented in EHT and 33 KV systems. At 6KV/11KV level about 70% of distribution stations (33/11/6 KV) out of 99 are covered under SCADA system  |

# **Norms for Standard of Performance**

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

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

| S. No. | SERCs/JERCs                | SoP – Date of Notification                         | Summary   |
|--------|----------------------------|--|---|
| 1      | Andhra Pradesh             | 22-06-2004   | In order to improve reliability and quality of supply, the State Commission notified APERC (Licensees' Standards of Performance) Regulation, 2004 (Regulation No. 7 of 2004). On 19-08-2005, the State Commission notified first amendment to the Principal                                       |
| 2      | Bihar                      | 18.01.2007   | Regulation No. 7 of 2004.  BERC has notified Bihar Electricity Regulatory Commission (Standards of Performance of Distribution Licensee) Regulations, 2006 on 18.01.2007  |
| 3      | Chhattisgarh               | July 14, 2006                                      | SOP along with provision for penalties for delay in consumer services has been notified   |
| 4      | Delhi                      | 18 <sup>th</sup> April 2007                        | Already notified in April 2007 vide Delhi Electricity Supply Code and Performance Standards Regulations, 2007, which is under revision.   |
| 5      | Goa & Union<br>Territories |  | P Regulations on 18.12.2009. Subsequently based on R, new set of SoP Regulations notified in 24.07.2015.  |
| 6      | 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      | Jammu & 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      | Jharkhand                  | 09.09.2015   | JSERC (Electricity Supply Code) Regulations, 2015<br>Notified on 09/09/2015   |
| 9      | Karnataka                  | June 10,2004                                       | Standard of Performance have been specified and notified on 10.06.2014 and their compliance is being monitored.   |
| 10     | Kerala                     | Notification dated 09-05-2006                      | KSERC (Licensee's Standards of Performance) Regulations, 2006.Notification with effect from 1-11-2006.  |
|        |                            |  | First amendment 2009.   |
| 11     | Maharashtra                | 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.  |

| S. No. | SERCs/JERCs       | SoP – Date of Notification     | Summary   |
|--------|-------------------|--------------------------------|---|
| 12     | Madhya Pradesh    | Latest Notification-23/11/2012 | The regulations includes quality of supply, reliability of system, guaranteed standards of performance etc.   |
|        |                   |                                | First Notified on 16/07/2004. Revision I Notified on 26/09/2005. Revision II Notified on 23/11/2012   |
| 13     | Manipur & Mizoram | 25.06.2012                     | The regulation is repealed and new regulation notified vide notification dt. 09.06.2014.  |
| 14     | Nagaland          | 31/01/2012                     | NERC has notified & finalized the Regulations vide No. NERC/REGN/2012(A) dated 31/01/2012.  |
| 15     | Odisha            | 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 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 has specified the expected standards in the Regulations.   |
| 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           | 11-01-2005                     | 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. |

|        |               |   | 2.7%  |  |
|--------|---------------|---|---|--|
| S. No. | SERCs/JERCs   | SoP – Date of Notification  | Summary   |  |
| 21     | Uttar Pradesh |   | The Commission has notified SoP in the MYT Regulations, 2014 applicable from April 1, 2015                |  |
| 22     | West Bengal   | West Bengal Electricity Regulatory<br>Commission (Standard of<br>Performance Distribution Licensees<br>relating to Consumer Services)<br>Regulations: | time specifies benchmarks relating to frequency and duration of interruption, voltage parameters, failure |  |
|        |               | 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   |   |  |

# 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   |
|--------|-------------------------|---|---|
|        | Andhra Pradesh          | 06-02-2004  | For setting up the Forum for Redressal of Grievances of the Consumers in the State of Andhra Pradesh and for appointment of Vidyut Ombudsman, the State Commission has notified APERC (Establishment of Forum and Vidyut Ombudsman for Redressal of Grievance of the Consumers) Regulation, 2004 (Regulation No. 1 of 2004). Subsequently on 01-10-2007, the Commission issued first amendment to the Principal Regulation No. 1 of 2004. |
|        |                         | 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<br>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<br>11.03.2004   | Delhi Electricity Regulatory Commission (Guidelines for establishment of forum for redressal of grievances of consumer and Ombudsman) Regulations 2003. (Notified on 11 <sup>th</sup> March 2004)   |
| 5      | Goa & Union Territories | JERC Regulations in this regard notified on 31.07.2009. CGRFs and Ombudsman arrangement is in place and working very 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 | 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.  |

| C 11   | CED C (UED C    | CCD D   |   |
|--------|-----------------|---|---|
| S. No. | SERCs/JERCs     | CGR Regulation  | Summary   |
| 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  |
| 9      | Karnataka       | June 10,2004  | KERC has framed Consumers Grievance Redressal Regulations and notified it on 10.06.2014. Commission has appointed Ombudsman and established CGR Forum at all District Head Quarters in the State.   |
| 10     | Kerala          | Notification dated 14-10-2005.  (Ombudsman and CGRF are in place for KSEB as well as other Licensees) | KSERC (CGRF & Electricity Ombudsman) Regulations, 2005 w.e.f.14-10-2005. First Amendment 2007 Second Amendment 2008 Third Amendment 2010 Fourth Amendment 2010 Fifth Amendment 2011.  |
| 11     | Maharashtra     | Maharashtra 20.04.2006  | a) In pursuance to section 42(5) & 42(6) of the Electricity Act, 2003, MERC has formed "Maharashtra Electricity Regulatory Commission (Consumer Grievance Redressal Forum & Electricity Ombudsman) Regulations, 2006, which superseded the Regulations formed in 2003, known as Maharashtra Electricity Regulatory Commission (Consumer Grievance Redressal Forum & Ombudsman) Regulations, 2003.   |
|        |                 |   | b) The Regulations provide for a three tier grievance Redressal mechanism wherein a consumer of the Distribution Licensee, aggrieved due to deficiency in service provided to him by the Licensee, may first approach the <b>IGR Cell</b> of his area, and if not satisfied, then file grievance with <b>CCGR</b> of his zone, and, if not satisfied by the decision of CCGR, can approach the <b>Ombudsman</b> .   |
| 0      |                 |   | 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.  |
|        | 1007900         |   | Thus, presently, there are total 19 CGRF's in State of Maharashtra.   |
|        |                 |   | d) The Office of the Electricity Ombudsman was constituted on 27th December, 2004 u/s 42(6) of the EA, 2003 and started functioning from 25th January, 2005 at Mumbai. MERC has constituted one more Electricity Ombudsman at Nagpur for the convenience of electricity consumers of the State, in 2011.  |
|        |                 |   | e) The Electricity Ombudsman and all the CGRFs are working effectively in the State.  |
| 12     | Madhya Pradesh  | Notified on<br>30.04.2004. Revised<br>on 28.08.2009.<br>Last amended on<br>10.05.2013                 | The regulations includes guidelines for setting up of ECGRFs redressal of consumers grievances and also regarding Ombudsman   |

| S. No. | SERCs/JERCs       | CGR Regulation  | Summary   |
|--------|-------------------|---|---|
| 13     | Manipur & Mizoram | 18.06.2010  | CGRF has been constituted in both the States. Ombudsman also designated for both the Sates.   |
| 14     | Nagaland          |   | NERC has notified & finalized the Regulations vide  |
|        |                   | 31/01/2012  | No. NERC/REFN/2012(B) dated 31/01/2012.   |
| 15     | Odisha            | OERC has issued<br>OERC (Grievance<br>Redressal Forum and<br>Ombudsman)   | There are 12 GRFs and two Ombudsmen officers are operation 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 headquarters at Patiala functioning since 1.8.2006. Ombudsman, Electricity Punjab, Chandigarh appointed by PSERC and functioning since 11.9.2006  |
| 17     | Sikkim            | 30 <sup>th</sup> 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        | 18 <sup>th</sup> 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     | West Bengal       | a)Regulation was been made on 17th January, 2006 in replacement of previous Regulations dated 08th October, 2003. b) Further replaced by 56/WBERC dated: 26.08.2013 | 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**

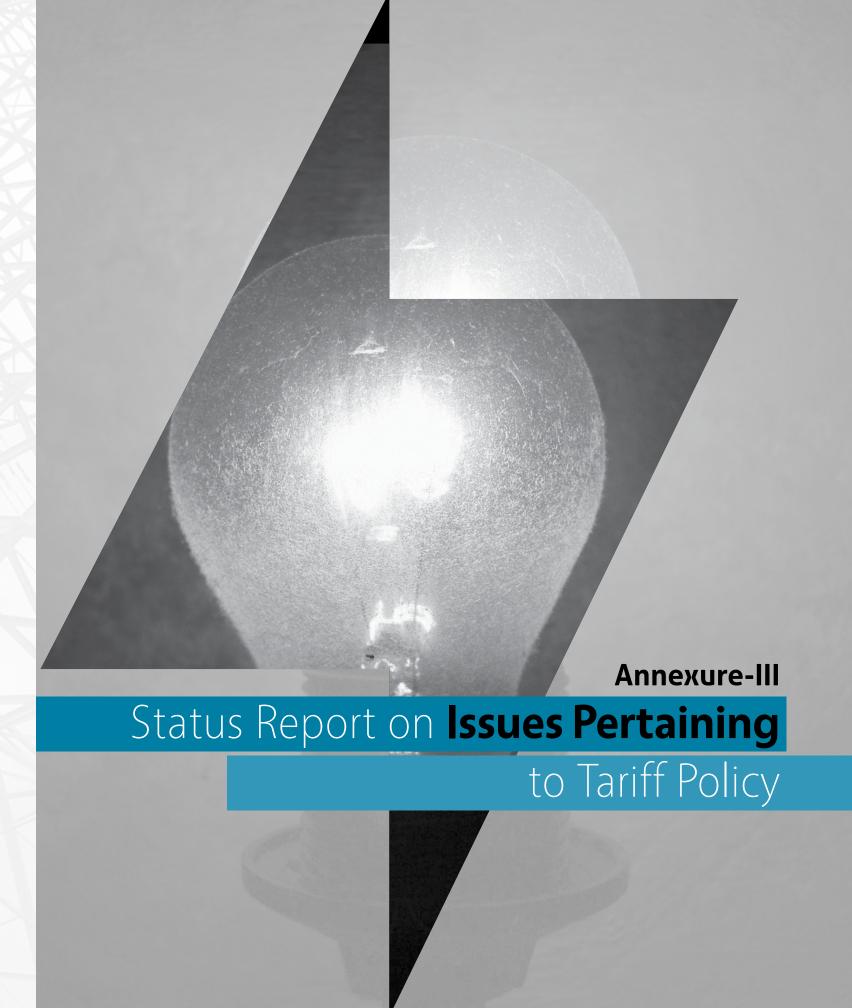
#### **Provision in NEP:**

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<br>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 Advocacy Cell (CAC) under the KSERC is working towards creating awareness among the consumers in regulatory mechanism by conducting classes. Pamphlets distributed on the Standards of Performance of the licensees, CGRF and Electricity Ombudsman, tips on energy savings etc. Action to publish a News letter of the Commission on a quarterly basis has been initiated.   |

| S.No. | SERCs/ JERCs      | Summary   |
|-------|-------------------|---|
| 11    | Maharashtra       | 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 19 <sup>th</sup> 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   |
|       |                   | 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.   |
|       | NI I              | 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  |
| 15    | Odisha            | <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 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> <li>Annual interactive meetings with GRFs &amp; Ombudsman</li> <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</li> </ul> |
|       |                   | <ul> <li>annually.</li> <li>Booklet (FAQ) titled "What should You Do?" published &amp; distributed to electricity consumers</li> <li>Performance Standards published annually</li> <li>Public awareness campaign based on FAQ in all major Oriya &amp; English dailies</li> <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>  |

| S.No. | SERCs/ JERCs  | Summary  |
|-------|---------------|--|
| 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.   |
| 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 or 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 .  |
| 20    | Uttarakhand   | 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.   |
|       |               | 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, 2006 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.

| No | SERCs/ JERCs            | RoE (%)  | Summary  |  |  |  |
|----|-------------------------|--|--|--|--|--|
|    | Andless Duedeels        | 15.5   | APGENCO Stations   |  |  |  |
|    | Andhra Pradesh          | 14   | APTRANSCO  |  |  |  |
|    | Bihar                   | 14%  |  |  |  |  |
| Z  | Chhattisgarh            | 15.5%  | Return on equity for control period FY 2010-11 to FY 2012-13 calculated on pretax basis at base rate of 15.5%. Provision for 0.5% additional return on equity is kept for timely completed projects commissioned on or after 01/04/2010    |  |  |  |
|    | Delhi                   | 14% & 16%  | The return on Equity is 14% post tax for the Transmission & Generation business and the Return on Equity 16% post tax for the Distribution business as approved by DERC in MYT Regulations 2011 for FY 2012-13, FY 2013-14 and FY 2014-15. |  |  |  |
|    | Goa & Union Territories | As the Licensees under JERC jurisdiction are operating as Government Department and integrated utilities, the JERC allowed 3% return on operating net fixed assets during to period. |  |  |  |  |
|    | Gujarat                 | 14%  | RoE is granted to Generation, Transmission and Distribution activity which are regulated activities in the State based on GERC (MYT) Regulations.  |  |  |  |
|    | Jammu & Kashmir         | i) 14%   | As per Regulation 25 of JKSERC (Terms & Condition for Determination of Hydro-Generation Tariff) Regulations 2011.  |  |  |  |
|    |                         | ii) 15.5%  | 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.   |  |  |  |
|    | Jharkhand               | 15.50% (Post-Tax)  | Incentive of 0.50% is provided for completion of projects as per the timelines specified by the Commission   |  |  |  |
|    | Karnataka               | 15.50%   | The Commission has specified a RoE of 15.5% for all the Licensees in the State.  |  |  |  |
|    | Kerala                  | 14 %   | ROE with effect from 2005-06.  |  |  |  |
|    |                         |  | Prior to that 3 % of RONFA.  |  |  |  |

| S. No | SERCs/ JERCs      | SERCs/ JERCs RoE (%)  |   |   | Summary  |  |  |  |
|-------|-------------------|---|---|---|--|--|--|--|
|       | 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 within time limit,   |   | itional 0.5% shall be   | allowed if project complete  |  |  |  |
|       |                   | RoE for Transmiss   | ion – 15.5%                                 |   |  |  |  |  |
|       |                   | RoE for Distribution  | on Wire Business -1                         | .5.5%   |  |  |  |  |
|       |                   | Supply Business   | – 17.5%                                     |   |  |  |  |  |
|       | Madhya Pradesh    | The Return on Eq  | uity in Generation 8<br>or determination of |   | allowed as per MPERC (Term<br>sion Tariff) Regulations, whic<br>RC's Regulations           |  |  |  |
|       |                   | Year  | ROE in %                                    | Additional ROE,<br>applicable   | if Summary   |  |  |  |
|       |                   | FY 2012-13  | 15.5%                                       | 0.5%  |  |  |  |  |
|       |                   | FY 2013-14  | 15.5% (16%)                                 | 0.5%  | For Retail Supply &<br>Distribution Business,<br>ROE shall be computed<br>on pre-tax basis |  |  |  |
|       |                   | FY 2014-15  | 15.5%                                       | 0.5%  | A N A A  |  |  |  |
|       | Manipur & Mizoram | 16%   | 1   | Generation, Transmission and Distribution   |  |  |  |  |
|       | Nagaland          | 16%   |   |   |  |  |  |  |
|       | Odisha            | 15.5% for Generation & Transmission Companies and 16% for DISCOMs   |   | The Commission has allowed RoE to OHPC (Sta Hydro Generator) on pre-tax basis at the base ra of 15.5% grossed up with the applicable tax ra for the equity investment made after 01.04.199 Similarly for OPTCL, the STU, the Commission has allowed RoE@ 15.5% as per the CERC nor 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. |  |  |  |  |
|       | Punjab            | 15.5%   |   | RoE @ 15.5% on the amount of equity actual employed in creation of assets are beir considered as per Tariff Regulations.  |  |  |  |  |
|       | 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   |  |  |  |  |
|       | Tamil Nadu        | 14% post tax (as<br>Regulations, 2005   |   |   | tions for Determination Tari   |  |  |  |
|       | Tripura           | 14.89 %   |   | Total Rs. 23.80 Cr. wa  | as approved by TERC  |  |  |  |
|       | Uttarakhand       | Generation, Trans<br>Distribution Licer   |   | Tariff Regulations, 2<br>March, 2013.   | 2004 remain applicable t   |  |  |  |

| S. No | SERCs/ JERCs  | RoE (%) |   | Summary   |
|-------|---------------|---------|---|---|
|       | Uttar Pradesh | 16%     |   | e entitled to earn Return on Equity o. 4.10 of the UPERC Distribution s, 2006.  |
|       |               |         | on the equity<br>with regulation<br>may reduce/rais<br>performance of | uity shall be allowed @16%, base determined in accordance 4.7. However, the Commission se the rate of return subject to the distribution licensee vis-à-visnchmarks set by the Commission." |
|       | West Bengal   |         | Generation  | Same as per Tariff<br>Regulations of CERC   |
|       |               |         | Transmission  | Same as per Tariff<br>Regulations of CERC   |
|       |               |         | Distribution  | 1% higher than the ROE allowed for generation   |

# **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<br>adopted | Suggestions for separate Depreciation Rates   |
|-------|-------------------------|-----------------------|---|
|       | 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. |
|       | Bihar                   | Yes                   |   |
|       | Chhattisgarh            | Adopted               | 10 20 A   |
|       | Delhi                   |                       | preciation Schedule is provided in MYT Regulations 2011 for ission and Distribution business for FY 2012-13, FY 2013-14   |
|       | Goa & Union Territories |                       | ted CERC rates for depreciation and accordingly the same was icensees under JERC jurisdiction   |

| S.No. | SERCs/JERCs       | CERC Rates<br>adopted  | Suggestions for  | separate Depreciation Rates  |  |  |
|-------|-------------------|--|--|--|--|--|
|       | 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  |  |  |
|       | Jammu & Kashmir   | dujarat  | JKSERC Tariff Regulation assets, having different of   | ns specify separate rates for different useful life.   |  |  |
|       | Jharkhand         |  | , ,  |  |  |  |
| 7     | Karnataka         | Adopted  | The Commission has ac<br>CERC Tariff Regulations.  | dopted the depreciation rates as per   |  |  |
|       | Kerala            | CERC Rates<br>followed<br>w.e.f.2003-04.   |  | Nil  |  |  |
|       | Maharashtra       |  | Year Tariff) Regulations,  | ctricity Regulatory Commission (Multi<br>2011 the value base for the purpose<br>the capital cost of the asset admitted |  |  |
|       |                   |  | shall be permitted to r  | sion licensee or Distribution licensee<br>ecover depreciation on the value of<br>eir respective business computed in   |  |  |
|       |                   |  |  | al cost of the project/fixed assets shall<br>lculation of depreciation.  |  |  |
|       |                   |  | (2) Depreciation shall t<br>straight line method.  | pe computed annually based on the  |  |  |
|       |                   |  | of the allowable capital   | the asset shall be considered at 10% cost and depreciation shall be allowed % of the allowable capital cost of the     |  |  |
|       |                   |  | 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 |  |  |  |
|       | Madhya Pradesh    | The Depreciation ra<br>Transmission tariff a   | tes in MPERC Regulations<br>re prescribed the same as  | for determination of Generation and provided in CERC Tariff Regulations  |  |  |
|       |                   | Year   | CERC Rates adopted   | Suggestions for separate Depreciation rates  |  |  |
|       |                   | FY 2012-13   |  | The depreciation rates applicable  |  |  |
|       |                   | FY 2013-14   | Yes  | for Retail supply & Distribution business for FY 12-13, 13-14 and  |  |  |
|       |                   | FY 2014-15   |  | 14-15 are as applicable  |  |  |
|       | Manipur & Mizoram | Yes  |  |  |  |  |
|       | Nagaland          | 7/1  |  |  |  |  |

| S.No. | SERCs/JERCs   | CERC Rates<br>adopted  | Suggestions for separate Depreciation Rates   |  |  |  |  |
|-------|---------------|--|---|--|--|--|--|
|       | Odisha        | Not adopted  | OERC has adopted depreciation as per orders of Hon'ble Hi Court and in accordance with DoR notification No.1068/E dat 29.01.2003 at pre-92 rates as notified by GOI. For state hyc generation projects, depreciation is allowed at rate of 2.57 However, for hydro projects where principal loan repayme is more than the depreciation arrived at 2.57% in those cas depreciation is allowed to the extent of principal repayme of loan. For transmission utility additional depreciation in t shape of special appropriation has been allowed as per t CERC Notification over and above the depreciation comput at pre-92 rate. For distribution business the depreciation he been allowed at pre-92 rate as per orders of Hon'ble Hi Court. |  |  |  |  |
|       | Punjab        | As per Appendix<br>III of CERC (Terms<br>and Conditions of<br>Tariff) Regulations,<br>2009   | Rate of depreciation as per CERC Regulations is also applied in case of Punjab Power Utilities  |  |  |  |  |
|       | Sikkim        | CERC rates<br>adopted by Sikkim<br>SERC  | Rates as per CERC (Terms and Conditions of Tariff) Regulations 2009, Appendix –III and Appendix-II have been adopted respectively for Generation and Transmission Assets.   |  |  |  |  |
|       | Tamil Nadu    | Commission has allowed the rate of Depreciation as per its Tariff Regulation (Regulation 24 of the Terms and Conditions for Determination of Tariff Regulation 2005) which is in line with CERC's Tariff regulation. |   |  |  |  |  |
|       | Tripura       | 4.87 %   | Lum-Sum Rs. 24.31 Cr. was approved by TERC  |  |  |  |  |
|       | Uttarakhand   | Adopted  | CERC specified rates are adopted by the UERC  |  |  |  |  |
|       | Uttar Pradesh | No   | The Commission follows UPERC Tariff Regulations (2006 & MYT) for calculation of depreciation.   |  |  |  |  |
|       | West Bengal   |  | (i) As per existing provisions in the Commission, the depreciation shall be calculated annually, based on straight line method at the rates prescribed in the Annexure – A to West Bengal Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2011 as amended which is available at the website of the Commission.  |  |  |  |  |
| -     |               |  | (ii) The residual value of assets shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the original cost of the Asset.  |  |  |  |  |
|       |               |  | (iii) Freehold land is not a depreciable asset and its cost shall be excluded from the capital cost.  |  |  |  |  |
|       | 74            |  | There is no such suggestion at present on behalf of the Commission on depreciation.   |  |  |  |  |

# 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  |  |  |  |
|--------|---|---|--|--|--|--|
|        | Andhra Pradesh  | No  | Instead of Intrastate ABT, Interim Balancing and Settlement Code is being followed   |  |  |  |
|        | Bihar   |   |  |  |  |  |
| 11     | Chhattisgarh  | Not notified  | It is under drafting stage   |  |  |  |
|        | Delhi   | Yes   | Intra-state ABT was introduced vide Order dated 31.03.2007.  |  |  |  |
| X      | Goa & Union<br>Territories  | As all the licensees during the not introduced.   | e period worked as integrated utilities, the Intra-State ABT was   |  |  |  |
|        | Territories not introduced.  Gujarat GERC vide Order No.3 o 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 or commercial basis in the state from 05.04.2010 as per the order No. 3 of 2010 |   | connected CPP, Open Access Consumers & Distribution licensee in the state  However, the Solar and Wind energy generators are excluded from the intra-state ABT due to infirm nature of power.  The second sec |  |  |  |
| \U     | Jammu & Kashmir   |   | Intra-State ABT not introduced so far.   |  |  |  |
|        | Jharkhand   | At present, ABT is not applicable in the state. As the process of power sector reform took place recently with unbundling of the electricity board, Commission will considint introducing ABT in the near future. |  |  |  |  |
|        | 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.  |  |  |  |
|        | Kerala  | Not Implemented   | \  |  |  |  |

| S. No. | SERCs/ JERCs      | Intra-State ABT                                   | Summary   |  |  |  |  |
|--------|-------------------|---|---|--|--|--|--|
|        | Maharashtra       | MERC Orderin Case No.42 of 2006 issued on May 17, |   |  |  |  |  |
|        |                   | 2007  | Settlement of deviations is done on weighted average system marginal price in Maharashtra in order to ensure proper economic signal to market participants.   |  |  |  |  |
|        |                   |   | 2. Distribution licensees and the transmission open access users (subject to criteria) operating within electricity market of Maharashtra shall be state pool participants.   |  |  |  |  |
|        |                   |   | 3. 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.  |  |  |  |  |
|        | Madhya Pradesh    | Yes   | w.e.f. 01st November, 2009  |  |  |  |  |
|        | Manipur & Mizoram | No  | Only one utility present in each the States   |  |  |  |  |
| M      | Nagaland          | The Commission has not yet                        | fixed availability based tariff   |  |  |  |  |
|        | Odisha            | Regulations notified on<br>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. |  |  |  |  |
|        | 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.  |  |  |  |  |
| R      | 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.  |  |  |  |  |
|        | Tamil Nadu        |   | mplemented. Draft regulations have been hosted in the 1.2016 inviting comments/ suggestions from stakeholders.  |  |  |  |  |
|        | Tripura           |   | TSECL being sole unbundled Utility in the State has not introduced the Intra-State ABT.   |  |  |  |  |
|        | 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   |
|--------|---------------|--|---|
|        | 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:   |
| 100    |               |  | 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. |
|        | West Bengal   | i) ABT has been  | WBSETCL status:   |
|        | 40000         | introduced for intra-<br>state mode since  | Meters for ABT only   |
|        |               | 01.01.2008.  | Generation to Transmission: 40  |
|        |               | ii) As per regulation 6.1.1<br>of the West Bengal<br>Electricity Regulatory<br>Commission (Terms and   | Meters for ABT and TOD:   |
|        |               |  | Generation to Transmission: 76  |
|        |               |  | Transmission to Distribution:342  |
|        |               | Conditions of Tariff) Regulations, 2011  | Tie lines between Utilities:40  |
|        |               | Power Stations under   | Meters for TOD only at IPP:09   |
|        |               | Availability Based Tariff  |   |
|        |               | <ol> <li>All generating stations of West Bengal Power Development Corporation Limited (WBPDCL) viz.,</li> <li>Kolaghat Thermal Power Station,</li> <li>Bakreswar Thermal Power Station,</li> <li>Bandel Thermal Power Station,</li> <li>Santaldih Thermal Power Station</li> <li>Sagardighi Thermal Power Station</li> </ol> |   |
|        |               | II. All other forthcoming generating station(s) above 50MW of any generating company synchronized with the State Grid subsequently.  |   |

# **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<br>Category                 |                      | Peak Ta                                  | riff         | Off-              | Peak Tariff                                       |
|--------|---------------------------------------|--|--------------------------------------|----------------------|--|--------------|-------------------|---|
|        | Andhra Pradesh 6.00 P.M. to 10.00 P.M |  |                                      | Consumer Category    |  |              | riff (Rs./<br>Ah) | Off-Peak<br>Tariff (Rs./<br>kVAh)                 |
|        |                                       |  | HT-IA Ir                             | ndustry (            | (132 KV)                                 | 4.9          | 97                | 3.97  |
|        |                                       |  | HT-IA I                              | ndustry              | (33 KV)                                  | 5.3          | 37                | 4.37  |
|        |                                       |  | HT-IA I                              | ndustry              | (11 KV)                                  | 5.8          | 30                | 4.80  |
|        |                                       |  |                                      | sonal Inc<br>son(132 | dustries off-<br>? KV)                   | 6.3          | 10                | 5.10  |
| X      |                                       |  |                                      | onal Inc<br>ason(33  | lustries off-<br>KV)                     | 6.3          | 35                | 5.35  |
| 1      |                                       |  |                                      | sonal Inc<br>ason(11 | lustries off-<br>KV)                     | 6.9          | 97                | 5.97  |
|        |                                       | 1000                                       | HT-II C                              | thers (1             | .32 KV)                                  | 6.:          | 10                | 5.10  |
|        |                                       | 1000000                                    | HT-II (                              | Others (             | 33 KV)                                   | 6.3          | 35                | 5.35  |
|        |                                       |  | HT-II (                              | Others (             | 11 KV)                                   | 6.9          | 97                | 5.97  |
|        |                                       |  | HT-III Air                           | ports et             | c(132 KV)                                | 5.5          | 54                | 4.54  |
|        |                                       |  | HT-III Air                           | rports et            | cc (33 KV)                               | 5.8          | 36                | 4.86  |
|        |                                       |  | HT-III Ai                            | rports e             | tc(11 KV)                                | 6.3          | 39                | 5.39  |
|        | Bihar                                 | Yes  | High Tension                         | 209                  | % higher thar                            | n normal     | 15%<br>normal     | lower than<br>tariff                              |
|        | Chhattisgarh                          | Yes  | HV & EHV,<br>Industrial<br>consumers | ene                  | 0% of normal<br>ergy charge (6<br>00 pm) |              | of energ          | normal rate<br>gy charge<br>om to 5:00 am<br>day) |
|        | Delhi                                 | Yes  |                                      | Sur                  | charge @15%                              | 6            | Rebate            | @15%  |
|        |                                       | TOD Tariff shall nov<br>load/MDI (whicheve |                                      |                      |  |              | stic) who         | se sanctioned                                     |
| 1      |                                       | Month                                      | Peak hours                           |                      | narge on<br>y Charges                    | Off Peak hou |                   | te on energy<br>charges                           |
|        | 774                                   | April-September                            | 1500—2400 Hrs                        | 10%                  | 0  | 000-0600 Hr  | s 10%             |   |
|        |                                       | October-March                              | 1700-2300 Hrs                        | 5%                   | 2.                                       | 300-0600 Hr  | s 10%             | )   |

| S. No. | SERCs/JERCs   | TOD introduced                              | Consumer Peak Tariff                             |                                       |                                 | Off-Peak Tariff                 |   |                               |                     |  |
|--------|---|---|--|---------------------------------------|---------------------------------|---------------------------------|---|-------------------------------|---------------------|--|
|        | Goa & Union   | TOD TARIFF                                  |  |                                       |                                 |                                 |   |                               |                     |  |
|        | Territories   | Utilities ToD                               |  | ToD introduced                        |                                 | Consumers<br>Category           | Peak Ta                                 | ariff                         | Off-Peak Tariff     |  |
|        |   | ED-A&N                                      | //   | No                                    |                                 | category                        |   |                               |                     |  |
|        |   | ED-Chandigarh                               | ///  | No                                    |                                 |                                 |   |                               | 100                 |  |
|        |   | DNHPDCL                                     |  | No                                    |                                 |                                 |   |                               |                     |  |
|        |   | ED-Daman and Diu                            |  | No                                    |                                 | 7                               |   |                               |                     |  |
|        | ED-Goa  | ED-Goa                                      |  | No                                    |                                 |                                 |   |                               |                     |  |
|        |   | ED-Lakshwadeep                              |  | No                                    |                                 |                                 |   |                               |                     |  |
|        |   | ED-Puducherry                               |  | No                                    |                                 |                                 |   |                               |                     |  |
|        | the state of Gujarat  applicable for LT co than 40 kW and for 100 kVA & above, 10.00 PM to 06.00 / Moreover, time of u tariff. In HT categor category all other H ToD Tariff rates as respect to Tariff Ord Peak Hour Timing  Off Peak Hour Tim Night Hours |   | hrs to 2200 hrs our Timings 1100 hrs to 1800 hrs |                                       |                                 |                                 |   |                               |                     |  |
|        | Jammu & Kashmir   | Not introduced so                           |  |                                       |                                 | dated 2nd June                  |   |                               | - ,                 |  |
|        | Janning O Kashinii  | far.  | -  | -//                                   | 120% of energy charges          |                                 |   |                               |                     |  |
| W      | Jharkhand   | Yes   | HTS  |                                       |                                 |                                 | harges                                  |                               | % of energy<br>rges |  |
| 7      | Karnataka   | KERC has introduced                         | TOD on c   | ptional basi                          | is aı                           | nd fixed differe                | ntial rates                             | as be                         | low:                |  |
|        |   | Consumer Cate                               | gory   |                                       | Peak Tariff<br>00 to 22:00 hrs) |                                 | Off-Peak Tariff<br>(22:00 to 06:00 hrs) |                               |                     |  |
|        | XX III  | LT Industries                               |  | 1                                     |                                 | olus 100 paise                  |   |                               | ff minus 125 paise  |  |
|        |   | HT Water Supply                             |  | <b>!</b>                              |                                 | olus 100 paise                  |   |                               | ninus 125 paise     |  |
|        |   | HT Industries includir commercial less than |  | <del> </del>                          |                                 | olus 100 paise                  |   |                               | ninus 125 paise     |  |
|        |   | TOD Introduced                              | Consumer Category                                |                                       | Peak Tari                       | iff                             | Off-Peak Tariff                         |                               |                     |  |
|        | 7/  | Compulsory                                  | contra   | ustries,<br>ct demand o<br>VA & above | of                              | Normal tariff plus              |   | Normal Tariff minus 12.       |                     |  |
|        |   |   | with a   | mmercial<br>contract<br>nd of 500 K\  | /A                              | Normal tariff plus<br>100 paise |   | Normal Tariff minus 125 paise |                     |  |

| C No.  | CEDCo/JEDCo          | TOD introduced  | Consumer   | Dook Towiff                        | Off Book Towiff  |  |  |  |  |  |
|--------|----------------------|---|--|------------------------------------|--|--|--|--|--|--|
| S. No. | SERCs/JERCs          | TOD introduced  | Category   | Peak Tariff                        | Off-Peak Tariff  |  |  |  |  |  |
|        | Kerala               | With Effect From 01-05-2013   | HT/EHT LT IV Industrial above 20 KW                          | 150 % of Energy<br>150 % of Energy | 75 % of Energy<br>75 % of Energy   |  |  |  |  |  |
|        |                      |   | LT Domestic<br>above 500 units/<br>month                     | 120 % of Energy                    | 90 % of Energy   |  |  |  |  |  |
|        | Maharashtra          | The Commission introduced TOD Tariff in the state in FY 2000-01 vide Order dated April 28,  |  |                                    |  |  |  |  |  |  |
|        |                      | 20000 in Case No. 1 of 1999.  |  |                                    |  |  |  |  |  |  |
|        |                      |   | imings   | TOD Tariff                         | kWh  |  |  |  |  |  |
|        |                      | 0600 to 0900 hours  |  |                                    | 00   |  |  |  |  |  |
|        |                      | 0900 to 1200 hours  |  |                                    | 80   |  |  |  |  |  |
|        |                      | 1200 to 1800 hours  |  |                                    | 00   |  |  |  |  |  |
|        |                      | 1800 to 2200 hours  |  |                                    | 10   |  |  |  |  |  |
|        |                      | 2200 to 0600 hours  |  |                                    | .00  |  |  |  |  |  |
| X      | Madhya Pradesh       | Since 2000  | All HT Categories  | 15% of Normal rate of              | 7.5 % of Normal rate   |  |  |  |  |  |
|        | Madriya Fradesii     | Since 2000  | except for Railway<br>Traction and Bulk<br>Residential Users | Energy Charge as Surcharge         | of Energy Charge as<br>Rebate  |  |  |  |  |  |
|        | Manipur &<br>Mizoram | No  |  |                                    |  |  |  |  |  |  |
|        | Nagaland             |   |  | NA                                 |  |  |  |  |  |  |
|        | Odisha               | Yes  Not introduced   | 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. |  |  |  |  |  |
|        |                      |   | 4  | 777 100                            |  |  |  |  |  |  |
|        | Sikkim               | Note:  Sikkim being a power surplus state has no difficulty in managing the peak and off peak loa within the State demand of power is very small. As such the Sikkim SERC has not yet introd differential rates of fixed charges for peak and off peak hours. |  |                                    |  |  |  |  |  |  |
|        |                      |   |  |                                    |  |  |  |  |  |  |
|        | Tamil Nadu           | Time of Day introd  | uced Consumer ca   | ategory Peak tariff                | Off peak tariff  |  |  |  |  |  |
|        |                      | 16.3.2003   | HT industrial  | 20% extra on er charges            |  |  |  |  |  |  |

| S. No. | SERCs/JERCs   | TOD introduced                                     | Consumer<br>Category  |                 | Pe                       | eak Tariff                               | Off-Pea   | k Tariff          |
|--------|---------------|--|---|-----------------|--------------------------|--|---|-------------------|
|        | Tripura       | Introdued in some cases as per desired of consumer | Industrial,<br>Coffee-Rubber<br>garden,Bulk<br>supply etc . |                 | 140 %                    | of normal rate                           | 60 % of th  |                   |
|        | Uttarakhand   |  | LT Industries<br>above 25 kW & all<br>HT Industries         | ho<br><b>LT</b> |                          |  | Energy Charge<br>hours shall be<br>LT Industry<br>Rs. 2.93/kV | e as under:       |
|        |               |  |   | нт              | Industr                  | y:                                       | HT Industry   | y:                |
|        |               | 14   |   |                 | Load<br>Factor           | Energy<br>Charge                         | Load<br>Factor  | Energy<br>Charge  |
|        |               |  |   | t               | Less<br>han 33           | Rs. 5.10/kVAh                            | Less than 33 %  | Rs. 2.57/<br>kVAh |
|        |               |  |   | aı              | % Above 33% nd upto 50 % | Rs. 5.10/kVAh                            | Above<br>33% and<br>upto 50<br>%                              | Rs. 2.79/<br>kVAh |
|        |               |  |   | l               | Above<br>50%             | Rs. 5.10/kVAh                            | Above<br>50%  | Rs. 3.06/<br>kVAh |
|        | Uttar Pradesh | Time of Day (ToD)                                  | Consumer Categ  | ory             |                          | Peak Tariff                              | Off-Peal  | ( Tariff          |
|        |               |  | LMV-6: Small and<br>Medium Power                            |                 | applica                  | : 115% of the<br>able energy<br>+ demand | LMV-6: 92.59<br>applicable e<br>charge+ dem<br>charge         | nergy             |
|        |               | Yes  | HV-2: Large and<br>Heavy Power                              |                 | applica                  | 115% of the<br>able energy<br>+ demand   | HV-2: 92.5%<br>applicable e<br>charge+ dem<br>charge          | nergy             |
|        | West Bengal   | No differential rate for been introduced alre      |   |                 |                          |  | on though TOI   | D tariff ha       |

# Renewable Source of Energy start 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            |  | Tarif  |  | Power Procured From Renewables (%)        |   |   |  |
|--------|-------------------------|--|--|--|---|---|---|--|
|        | Andhra Pradesh          | DIS  | СОМ  |  | ole Power<br>riff (average<br>sources)    | Power Pr                                | rocured from renewable<br>sources (%)   |  |
|        |                         | APEPDO   | CL   | Rs.3   | .542                                      |   | 1.52%   |  |
|        |                         | APSPD  | CL   | Rs.3   | 3.24                                      |   | 2.04%   |  |
|        | Bihar                   |  | /kWh Hyd<br>/kWh Sug                                     |  |   | 1.327% o                                | f total purchase  |  |
| Chha   | Chhattisgarh            | For plant lead to the plant le | ant less the petween 2 petween 5 for Bioma rgy Charges R | FY 2012-13 (in an 2 MW – 5.4   2 & 5 MW – 4.9   5 & 25 MW – 4   5 & 25 MW – 4   5 Plant for FY   e Rs.3.33/Kwh   s.2.07/Kwh of   D in FY 12-13 | 46<br>96<br>4.24<br>12-13:<br>1<br>plants | 2. Biomas<br>3. Other RI<br>(hydel, wir | minimum 0.50%<br>– minimum 3.75%<br>E – minimum 1.50%<br>nd etc)<br>ninimum 5.75% |  |
|        | Delhi                   | Sl.No.   |  | FY   | Tariff (R                                 | ks./Unit)                               | Power Procured from Renewables (%)  |  |
|        |                         | BRPL   |  |  |   |   |   |  |
|        |                         | 1  | 20   | )12-13   | 2.  | 99                                      | 2.07#   |  |
|        |                         | 2  | 20   | )13-14   | 2.  | 54                                      | 0.98  |  |
|        |                         | 3  | 20   | )14-15   | 2.  | 62                                      | 0.99  |  |
|        |                         | <u> </u>   |  | - 75   | BYPL                                      | - 1                                     |   |  |
|        |                         | 1  |  | )12-13   |   | Α                                       | NA  |  |
| _      |                         | 2  |  | )13-14   |   | 97                                      | 0.005   |  |
|        | Phia.                   | 3  | 20   | )14-15   |   | 97                                      | 0.005   |  |
|        |                         |  |  |  | TPPDL                                     |   |   |  |
| 123    |                         | 1  |  | )12-13   |   | .75                                     | 0.06  |  |
|        |                         | 2  |  | )13-14   |   | 42                                      | 0.03  |  |
|        |                         | 3  | 20   | )14-15   | 6.  | 64                                      | 0.03  |  |
|        |                         |  | ales and<br>gulations)                                   | es is consic   | dered from October 2012                   |   |   |  |
|        | Goa & Union Territories | RPO Obl<br><b>FY 2012</b>  |  | -04%, others   | 5-2.6%, Total-                            | -3.0%                                   |   |  |

| S. No. | SERCs/ JERCs | Tariff   | Powe    | r Procu      | red From    | Renewa       | ibles (%)                                 |
|--------|--------------|--|---------|--------------|-------------|--------------|---|
|        | Gujarat      | Solar PV: With Accelerated Depreciation:   | Year    | %) fro       | m renev     | vable en     | purchase (in<br>ergy sources<br>r in kWh) |
|        |              | For Megawatt-Scale  • Levelized Tariff for 25  | (1)     | Total<br>(2) | Wind<br>(3) | Solar<br>(4) | Biomass,<br>bagasse and<br>others         |
|        |              | years: 9.28 Rs./unit • For First 12 years: 9.98  | 2010-11 | 5%           | 4.5%        | 0.25%        | 0.25%                                     |
| 1400   |              | Rs./unit   | 2011-12 | 6%           | 5.0%        | 0.5%         | 0.5%                                      |
|        |              | • For subsequent 13 years: 7.00 Rs./unit   | 2012-13 | 7%           | 5.5%        | 1.0%         | 0.5%                                      |
|        |              | For kilowatt-scale  Levelized Tariff for 25 years: 11.14Rs./unit   |         |              |             |              | ocess of fixing<br>quent years.           |
|        |              | Without Accelerated Depreciation: For Megawatt-Scale  Levelized Tariff for 25 years: 10.37 Rs./unit  For First 12 years: 11.25 Rs./unit  For subsequent 13 years:7.50 Rs./unit |         |              |             |              |   |
|        |              | <ul><li>For kilowatt-scale</li><li>Levelized Tariff for 25 years: 12.44 Rs./unit</li></ul>   |         |              |             |              |   |
|        |              | Solar Thermal:   |         |              |             |              |   |
|        |              | <ul> <li>With Accelerated Depreciation:</li> <li>Levelized Tariff for 25 years: 11.55 Rs./unit</li> </ul>  |         |              |             |              |   |
|        |              | Without Accelerated Depreciation:  • Levelized Tariff for 25 years: 12.91 Rs./unit   |         |              |             |              |   |
|        |              | Wind:<br>For Period 1.04.2012 to<br>10.08.2012   |         |              |             |              |   |
|        |              | Net Levelized Tariff for 25 years: 3.56 Rs/unit  |         |              |             |              |   |
|        |              | • For Period 11.08.2012 to 31.03.2013  |         |              |             |              |   |
|        |              | Net Levelized Tariff for 25<br>years: 4.15 Rs./unit  |         |              |             |              |   |
|        | 1/100        | Depreciation Benefit: 0.37     Rs./unit  |         |              |             |              |   |

| S. No. | SERCs/ JERCs   | Tariff  | Power Procured From Renewables (%)  |
|--------|----------------|---|---|
|        |                | BIOMASS:  | Milita.   |
|        |                | Water Cooled: With Acceleration Depreciation Levelized tariff for 1 to 10 years: 4.40 Rs./unit And for 11 to 20 years: 4.75 Rs./unit  |   |
|        |                | <ul> <li>Without Accelerated Depreciation:</li> <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> </ul>                   |   |
| X      |                | Air cooled: With Acceleration Depreciation Levelized tariff for whole life: 4.70 Rs./unit   |   |
|        |                | Without Accelerated Depreciation: • Levelized tariff for whole life: 4.76 Rs./unit  |   |
|        |                | <ul> <li>Bagasse based co-generation: With Acceleration Depreciation  Levelized tariff for 1 to 10 years: 4.55 Rs./unit</li> <li>And for 11 to 20 years: 4.90 Rs./unit</li> </ul> |   |
|        |                | <ul> <li>Without Accelerated Depreciation:</li> <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> </ul>                   |   |
| Ja     | ammu & Kashmir | Rs.1. 29/unit (Average) for<br>Hydel sources (upto 25MW)<br>within the State.   | 2.47% achievement against target of 4.75% o (Non-Solar); NIL against target of 0.25% (Solar). |
| Jł     | narkhand       | Commission approves tariff from renewable sources of energy based on market price of RECs and generic tariff issued by CERC   | 1.00% (Solar), 3.00%(Non Solar)   |

| S. No.   | SERCs/ JERCs               | Tari                | ff                | Power Proc   | ured From Renev   | wables (%)   |
|----------|----------------------------|---------------------|-------------------|--|---|--|
| Ka       | arnataka                   |                     |                   | n has been speci<br>ate and the detail:  |   |  |
| - AXX    |                            | EV 2012 17          | Non-S             | olar (%)   | Sola  | r (%)  |
|          |                            | FY 2012-13          | RPO Target        | RPO Met  | RPO Target  | RPO Met  |
|          |                            | BESCOM              | 10                | 13.75  | 0.25  | 0.02   |
|          |                            | MESCOM              | 10                | 14.01  | 0.25  | 0  |
|          |                            | CESC                | 10                | 12.45  | 0.25  | 0  |
|          |                            | HESCOM              | 7                 | 7.65   | 0.25  | 0.03   |
| 711      |                            | GESCOM              | 7                 | 6.78   | 0.25  | 0.007  |
|          |                            | \\                  |                   |  |   |  |
| * The ab | ove tariff applicable upto | 31.03.2013. The Cor | mmission is in th | ne process of dete   | ermining tariff fo  | r future period  |
| Κε       | erala                      |                     |                   | 3 % of its tota<br>energy sources<br>be from solar b<br>subsequent yea<br>implemented for<br>KSEB and from 2 | and out of the pased plants, 10 ors up to 10 % or the financial year. | is 0.25% shall<br>% increase in<br>This is strictly<br>ear 2013-14 for |

| S. No. | SERCs/ JERCs   | Tariff   | Power Procured From Renewables (%)                |
|--------|----------------|--|---|
|        | Maharashtra    | Levellised Tariff for Different  | RPO for FY 2012-13: 8%                            |
|        |                | RE Projects Commissioned during F.Y. 2012-13   | (SOLAR RPO – 0.25% + NON-SOLAR RPO – 7.75%)       |
|        |                | 1. Wind Power: a. Wind Zone – 1: Rs.5.67/kWh b. Wind Zone – 2: Rs.4.93/kWh c. Wind Zone – 3: Rs.4.20/kWh d. Wind Zone – 4: Rs.3.78/kWh   |   |
|        |                | 2. Small Hydro Power: a. <-500kW: Rs.5.76/kWh b. >500kWh, <=1 MW: Rs.5.26/kWh c. Above 1 MW & up to and including 5 MW: Rs.4.76/kWh d. Above 5 MW & up to and including 25 MW: Rs.4.09/kWh |   |
|        |                | a. Solar Power: a. Solar PV: Rs.11.16/kWh b. Solar Thermal: Rs.13.44/ kWh c. Solar Rooftop PV and Other small solar power: Rs.11.66/ kWh   |   |
|        |                | <b>4. Biomass Power:</b> Rs.5.41/kWh   |   |
|        |                | 5. Non-fossil fuel Based<br>Cogeneration:<br>Rs.4.79/kWh   |   |
|        |                | 6. Non-Qualifying Non-fossil fuel based Co-generation Projects: 2.23/kWh   |   |
|        | Madhya Pradesh | Wind - Rs. 5.92/ Unit<br>Biomass -<br>Rs. 6.36/Unit (estimated)  | Solar: 0.012%<br>Non-Solar: 1.52%<br>Total: 1.53% |
|        | 4.             | Solar PV - Rs.10.44/U nit  |   |
|        |                | <b>Solar Thermal -</b> Rs 12.65/Unit<br>Bagasse based Co-generation<br>Rs.6.28/Unit  |   |
|        |                | Small Hydro-<br>Rs.5.25/Unit (estimated)   |   |
|        |                | Municipal Solid Waste-<br>Rs. 6.39/Unit  |   |
|        |                | Biogas-Rs. 4.20/Unit   |   |

| S. No. | SERCs/ JERCs      | Tariff   | Power Pro  | ocured From Ren | ewables (%)   |
|--------|-------------------|--|--|-----------------|---|
|        | Manipur & Mizoram | Generic Tariff fixed   | Manipur: Nil Mizoram: 2012-13: 19.93% 2013-14: 11.99% 2014-15: 9.03% |                 |   |
|        | Nagaland          | *Not Fixed  *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 | NA   |                 |   |
|        | Odisha            | Wind Energy-5.31   |  | RPO target      | Actual  |
|        |                   | SHP<5MW-3.91   | Solar  | 0.15%           | 0.08%   |
|        |                   | SHP between 5 to 25 MW-  | Non-Solar  | 1.40%           | 1.30%   |
|        |                   | 3.64   | Co-gen   | 3.95%           | 3.26%   |
|        |                   | Solar PV-13.34 Solar Thermal-14.81 Biomass-5.01 Non fossil based Cogeneration-4.61 sstart  | obligated enti   |                 | gulations, by other<br>having CGPs and<br>ored by OREDA |

| RPO | Tab | le: |
|-----|-----|-----|
|-----|-----|-----|

|                  | Minimum quantum of purchase in percentage (in terms of energy consumption in the State in KWH) |           |               |       |  |  |  |
|------------------|--|-----------|---------------|-------|--|--|--|
| Year-wise target | Rene   | ewable    | Communication | Total |  |  |  |
|                  | Solar  | Non-Solar | Co-generation | Total |  |  |  |
| 2009-10 (Actual) | \ \ - /  | 0.80      | 3.45          | 4.25  |  |  |  |
| 2010-11          | - //   | 1.0       | 3.50          | 4.5   |  |  |  |
| 2011-12          | 0.10   | 1.20      | 3.70          | 5.0   |  |  |  |
| 2012-13          | 0.15   | 1.40      | 3.95          | 5.5   |  |  |  |
| 2013-14          | 0.20   | 1.60      | 4.20          | 6.0   |  |  |  |
| 2014-15          | 0.25   | 1.80      | 4.45          | 6.5   |  |  |  |
| 2015-16          | 0.30   | 2.00      | 4.70          | 7.0   |  |  |  |

| S. No. | SERCs/ JERCs |                    | Tari           | ff  | Pow                                    | er Procured From   | n Renewables (%)   |  |
|--------|--------------|--------------------|----------------|---|--|--|--|--|
|        | Punjab       | As per t           | able r<br>belo | eproduced<br>w                                    |  | 2.909<br>[2.83(Non-Solar)  |  |  |
|        |              | Levelli<br>Fixed ( | Cost           | Variable<br>Cost<br>(FY 2012-<br>13)<br>(Rs./kWh) | Applicable<br>Tariff Rate<br>(Rs./kWh) | Benefit of<br>Accelerated<br>Depreciation, if<br>availed<br>(Rs./kWh)  | Net Applicable Tariff<br>Rate upon adjusting<br>for Accelerated<br>Depreciation benefit<br>(3-4)<br>(Rs./kWh)  |  |
|        |              | 1                  |                | 2   | 3                                      | 4  | 5  |  |
|        |              |                    |                |   | 376                                    | Power Projects   |  |  |
|        |              | 2.1                | 2              | 3.71  | 5.83                                   | 0.13   | 5.70   |  |
|        |              | 1,000              |                |   | sil Fuel based                         | Co-Generation Pro  | ojects   |  |
|        |              | 1,9                | 0              | 3.42  | 5.32                                   | 0.12   | 5.20   |  |
|        |              |                    |                | Bi  | omass Gasifie                          | r Power Projects   |  |  |
|        |              | 2.3                | 86             | 3.83  | 6.19                                   | 0.11   | 6.08   |  |
|        |              |                    |                |   | Biogas based                           | Power Projects   |  |  |
|        |              | 3.0                | )6             | 3.38  | 6.44                                   | 0.21   | 6.23   |  |
|        |              | Partic             | ulars          | are-to  | Tariff Rate                            | Benefit of<br>Accelerated<br>Depreciation, if<br>availed<br>(Rs./kWh)  | Net Applicable Tariff<br>Rate upon adjusting<br>for Accelerated<br>Depreciation benefit<br>(2-3)<br>(Rs./kWh)  |  |
|        |              |                    |                |   |  | 3  | 4  |  |
|        |              | 1<br>Below 5       |                |   | 2                                      | Small Hydro Power Projects   |  |  |
|        |              |                    |                |   | Small Hydro                            | 0.38   | 4.50   |  |
|        |              |                    | MW             |   | .00                                    | 3354.5   | 5 70 70 8  |  |
|        |              | 5 to 2             | 5 to 25 MW     |   |  | 0.34   | 3.82   |  |
|        | \\\\         |                    |                |   | Wind Energy                            | Power Projects   |  |  |
|        |              | Wi<br>Zon          |                | 5   | .96                                    | 0.60   | 5.36   |  |
|        | \\\          | Colo               | - DV           | 4/  | Solar Pov                              | ver Projects   | 9.35   |  |
|        |              | Sola               | 2.50000        | 71.52   | 2.46                                   | 1.24   | 11.22  |  |
|        |              | The                | lar<br>rmal    | 1.  | .40                                    |  | 11.22  |  |
|        | Sikkim       |                    |                |   |  | urchase Obligations, 2012 on 2 g the minimum nased by the considering the ower demand of Renewable/Hementation of Research to the commission ensee to file its I 2014-15 and Fannual Review Persecutions, 2014-15 and 2014- | ne SSERC (Renewable on and its compliance), 17th September 2013 on %ages of R.Es to Distribution Licensee fact that almost the f the State is being Hydro Power Plants, PO had been kept in the in has issued directive RPO compliance for FYY 2015-16 alongwith the stition for FY 2015-16/ |  |
|        | Tamil Nadu   | Wind – Rs.3        | 3 96 n         | er unit   |  | tion for FY 2016-  | -17.<br>05% is for Solar.  |  |
|        | IGITIL NOOG  |                    |                | ogeneration                                       | TOTAL KEC                              | 770 OF WITHCIT O.  | 05 /0 13 101 JUIA1.  |  |
| \      |              | plants: Rs.4       |                | Periciation                                       |  |  |  |  |
|        |              |                    |                |   |  |  |  |  |

| S. No. | SERCs/ JERCs | Tariff  | Power Procured From Renewables (%)  |
|--------|--------------|---|---|
|        | Tripura      | Such type of energy not yet generated, so ,question of tariff does not arise.   | Does not arise  |
|        | Uttarakhand  | Projects commissioned on or after 01.04.2009  | Details of RPO compliance by Distribution Licensee                          |
|        |              | (i) SHP Projects (upto 25MW):   | % RPO % of Target RPO Target Achieved                                       |
|        |              | Upto 5 MW Rs. 3.75 /unit (3.50)   | Non- 5.00 76<br>Solar   |
|        |              | 5 to 10 MW Rs. 3.65/unit<br>(3.40)  | Solar 0.05 117  Further, entire 100% power from renewable                   |
|        |              | 10 to 15 MW Rs. 3.50/unit (3.25)  | sources including cogeneration projects are purchased ahead of merit order. |
|        |              | 15 to 20 MW Rs. 3.40/unit (3.15)  |   |
|        |              | 20 to 25 MW Rs. 3.25/unit (3.00)  |   |
|        |              | (ii) Baggase based:   |   |
|        |              | Co-generation projects fixed charges of Rs. 2.75/unit (2.60). In Addition, the normative fuel prices is admissible which is Rs. 2.05/unit for FY 2012-13 with 5% p.a. escalation. |   |
|        |              | (iii) Biomass based projects:   |   |
|        |              | fixed charges of Rs. 1.90/<br>unit(1.80). In Addition,<br>the normative fuel prices<br>is admissible which is Rs.<br>2.20/unit for FY 12-13 with<br>5% p.a. escalation.           |   |
|        |              | (iv) Wind Projects:   |   |
|        | X            | Zone 1: Rs. 5.15/unit (4.75)  |   |
|        |              | Zone 2: Rs. 4.35/unit (4.00)  | \\\\\   |
|        |              | Zone 3: Rs. 3.65/unit (3.35)  | \\  |
|        |              | Zone 4: Rs. 3.20/unit (2.90)  | \\  |
|        |              | (v) Solar PV:   |   |
|        |              | Rs. 17.70/unit (16.05)  |   |
|        |              | (vi) Solar Thermal:   | \   |
|        |              | Rs. 12.95/unit (11.80)  |   |

| S. No. | SERCs/ JERCs  | Tari                 | ff                       | Power Procured Fro                            | om Renewables (%)                           |  |  |
|--------|---------------|----------------------|--------------------------|---|---|--|--|
|        | Uttar Pradesh | Rs. 4.30 per kWh     | 1 4                      | .7% of the actual powe                        | er purchase made                            |  |  |
|        |               | P                    | referential Tariff a     | s per UPERC Regulation                        | ns (2012-13)                                |  |  |
|        |               | Rs.4.17/kwh<br>Solar | 5.02/kwh<br>– Rs.3.50 to | About 3% to 4% of t                           | the total consumption                       |  |  |
|        |               | Others – Rs.4.       | 00/kwh                   |   | 11.77                                       |  |  |
|        |               | Renewable Purcl      | nase Obligation          |   |   |  |  |
|        |               | Year                 | Year                     |   | Obligation                                  |  |  |
|        |               | 2010-11              | Non-So<br>3.75           |   | Total<br>4                                  |  |  |
|        |               | 2010-11              | 4.50                     |   | 5   |  |  |
|        |               | 2012-13              | 5.0                      | 1.0   | 6   |  |  |
|        | West Bengal   | Year                 |                          | tum of Purchase (in %<br>neration and Renewab | ) of total consumption<br>le Energy Sources |  |  |
|        |               |                      | Sola                     | ır  | Non-Solar                                   |  |  |
|        |               | 2014-15              | 0.1                      | 5   | 4.5   |  |  |
|        |               | 2015-16              | 0.20                     | 0   | 5.0   |  |  |
|        |               | 2016-17              | 0.25                     | 5   | 5.5   |  |  |
|        |               | 2017-18              | 0.30                     | 0.30 6.0                                      |   |  |  |

# 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<br>Surcharge<br>( Paise/KWh) | Methodo                                   | Methodology Adopted    |  |  |
|--------|----------------|-----------------|--|---|------------------------|--|--|
| 2.     | Andhra Pradesh | Utility/ Discom | Consumer Category                          | Cross-Subsidy<br>Surcharge<br>(Paise/KWh) | Methodology<br>Adopted |  |  |
|        |                | APEPDCL         | LT-I                                       | 14  | Embedded Cost          |  |  |
|        |                |                 | LT-II Non-Domestic                         | 192                                       | Methodology            |  |  |
|        |                |                 | LT-II Ad. Hoardings                        | 476                                       |                        |  |  |
|        |                |                 | LT-III Industrial<br>(Noraml)              | 187                                       |                        |  |  |
|        |                |                 | LT-III Industrial (SSI)                    | 213                                       |                        |  |  |
|        |                |                 | HT-IA(132 Kv)                              | 226                                       |                        |  |  |
|        |                |                 | HT-IA(33 Kv)                               | 200                                       |                        |  |  |
|        |                |                 | HT-IA(11 Kv)                               | 218                                       |                        |  |  |
|        |                |                 | HT-IB(132 Kv)                              | 45  |                        |  |  |
|        |                |                 | HT-IB(33 Kv)                               | 83  |                        |  |  |
|        |                |                 | HT-IB(11 Kv)                               | 0   |                        |  |  |
|        |                |                 | HT-II(132 Kv)                              | 280                                       | \                      |  |  |
|        |                |                 | HT-IIA(33 Kv)                              | 326                                       |                        |  |  |
|        |                |                 | HT-II(11 Kv)                               | 329                                       |                        |  |  |
|        |                |                 | HT-III(132 Kv)                             | 253                                       |                        |  |  |
|        |                |                 | HT-IIIA(33 Kv)                             | 263                                       |                        |  |  |
|        |                |                 | HT-III(11 Kv)                              | 273                                       |                        |  |  |
|        |                |                 | HT-V                                       | 167                                       |                        |  |  |
|        |                |                 | HT-VI(132 Kv)                              | 0   |                        |  |  |
|        |                |                 | HT-VI(33 Kv)                               | 391                                       |                        |  |  |
|        |                |                 | HT-VI(11 Kv)                               | 103                                       |                        |  |  |

| S. No. | SERC/JERC Utility/ Discom |                    | Cross-Subsidy SERC/JERC Utility/ Discom Surcharge ( Paise/KWh)   |   | ology Adopted                                   |
|--------|---------------------------|--------------------|--|---|---|
|        |                           | Utility/<br>Discom |  | Cross-Subsidy<br>Surcharge<br>(Paise/KWh)   | Methodology<br>Adopted                          |
|        |                           |                    | LT-I LT-II Non-Domestic LT-II Ad. Hoardings LT-III Industrial (Normal) LT-III Industrial (SSI) HT-IA(132 Kv) HT-IA(33 Kv)          | 18<br>168<br>0<br>155<br>65<br>228<br>169   |   |
| X      |                           | APSPDCL            | HT-IA(11 Kv) HT-IB(132 Kv) HT-IB(33 Kv) HT-IB(11 Kv) HT-II(132 Kv)   | 158<br>0<br>36<br>0   | Embedded Cost<br>Methodology                    |
|        |                           |                    | HT-II(33 Kv) HT-III(11 Kv) HT-III(132 Kv) HT-IIIA(33 Kv) HT-III(11 Kv)   | 271<br>287<br>228<br>220<br>222   |   |
|        |                           |                    | HT-V<br>HT-VI(132 Kv)<br>HT-VI(33 Kv)<br>HT-VI(11 Kv)  | 126<br>0<br>0<br>215  | ne formula (S=T-                                |
| 4.     | Bihar                     | BSEB               | (other than HTSS): Paise/kWh  For 11 kV consum (other than HTSS): (paise/kWh)  For HTSS consum 33 kV: 0 Paise/kWh  For HTSS consum | 60 Paise/kWh For 33 kV consumers (other than HTSS): 54 Paise/kWh For 11 kV consumers (other than HTSS): 52 For 11 kV consumers (other than HTSS): 52 For 12 kV consumers to consumers to options from |   |
| 5.     | Chhattisgarh              | State Discom       | 1. HT Consum<br>Rs.0.682 per KWH<br>2. For EHT Consum<br>Rs.1.178 per KWH  | Average cost  | method in line with<br>defined in tariff policy |
| 6.     | Delhi                     |                    | 1  | / \ \   |   |

| S. No.        | SERC/JERC               | Utility/ Di          | scom     |  | oss-Subsidy<br>Surcharge<br>Paise/KWh) |   | Methodology Adopted                                  |  |  |
|---------------|-------------------------|----------------------|----------|--|--|---|--|--|--|
|               | 9                       | Util                 | ity      | Cro  | ss-Subsidy Surc                        | harge   | Methodology Adopted                                  |  |  |
|               |                         | ED-A&N               |          |  | 1                                      | Not Det   | termined   |  |  |
|               |                         | ED-Chandig           | garh     |  | 1/1/2                                  |   | termined   |  |  |
| 7.            | Goa & Union Territories | DNHPDCL              |          |  | 116                                    | Not Det   | termined   |  |  |
|               |                         | ED-Daman             | & Diu    |  |  | Not Det   | termined   |  |  |
|               |                         | ED-Goa               |          |  |  | Not Det   | termined   |  |  |
|               |                         | ED-Lakshwa           | adeep    |  |  | Not Det   | termined   |  |  |
|               |                         | ED-Puduch            | erry     |  |  | Not Det   | termined   |  |  |
|               |                         | PGVCL/MGV<br>DGVCL/  | CL/      |  | 39                                     |   |  |  |  |
| 0             |                         | UGVCL                |          |  |  | The methodology adopted for Cro   |  |  |  |
| 8.            | Gujarat                 | Torrent<br>Ahmedabad | Power    |  | 0                                      |   | Subsidy Surcharge is as per Nationa<br>ariff policy. |  |  |
|               |                         | Torrent Powe         | er-Surat |  | 0                                      |   |  |  |  |
| 11.           | Jammu & Kashmir         | J&KPDD               |          |  | No surcharge being levied              |   | $A \setminus A \setminus A$                          |  |  |
| 12.           | Jharkhand               |                      |          | Not Applicable at computation method which is in-line with |  | Regulations of the State specify<br>utation methodology of CSS<br>is in-line with methodology<br>fied by CERC |  |  |  |
| $\mathcal{A}$ |                         | SERC                 | Utili    | ity  | Category                               |   | 2014-15  |  |  |
|               |                         | KERC                 | BESCOI   | М  | HT2(a)                                 |   | 97.91 paise per Kwhs                                 |  |  |
|               | Karnataka               |                      | GESCO    |  | (Industria<br>66KV and ab              | •   |  |  |  |
|               |                         |                      |          |  | HT level – 11 KV / 33<br>KV            |   | 62.96 paise per Kwhs                                 |  |  |
| 13            |                         |                      |          |  | HT2(b)<br>(Commerci<br>66KV and ab     |   | 194.29 paise per Kwhs                                |  |  |
|               |                         |                      | HESCO    | M  | \                                      |   | 159.35 paise per Kwhs                                |  |  |
|               |                         |                      | MESCO    | М  | HT level – 11 K<br>KV                  | W / 33  | \\   |  |  |
|               |                         |                      | CESC     |  | IXV                                    |   | \  |  |  |
|               |                         | EHT-220KV            |          | Nil  |  |   |  |  |  |
|               |                         | EHT-110 KV           |          | Nil  |  |   |  |  |  |
|               |                         | EHT-66KV             |          | 11   |  |   |  |  |  |
| 14.           | <br>  Kerala            | Railway              |          | 24   |  |   |  |  |  |
|               |                         | HT-1 Industr         | ial      | Nil  |  |   |  |  |  |
|               |                         |                      |          | 49   | As                                     |   | As per Tariff Policy.                                |  |  |
|               |                         | HT-IV -Commercial    |          |  |  |   | \  |  |  |
|               |                         | HT-IV -Commercial    |          | 233  | 255                                    |   | \  |  |  |

| S. No. | SERC/JERC         | Utility/ Discom  | Cross-Subsidy<br>Surcharge<br>( Paise/KWh) | Methodology Adopted   |  |
|--------|-------------------|--|--|---|--|
| 15.    | Maharashtra       | MSEDCL, TPC-D and<br>R Infra D   | As per Tariff Order                        | As per Tariff Policy Formula  |  |
|        |                   | Central Discom   |  | As per Tariff Policy  |  |
| 16.    | Madhya Pradesh    | East Discom  | As per detailed Retail Supply Tariff Order |   |  |
|        |                   | West Discom  | Supply farm order                          |   |  |
| 17.    | Manipur & Mizoram | <ol> <li>Manipur         State Power         Distribution         Company Ltd.     </li> <li>Power and         Electricity         Department         Govt. of         Mizoram     </li> </ol> | No surcharge levied                        | As specified in open-access regulation  |  |
| 19.    | Nagaland          | NA   |  |   |  |
|        |                   | Cross subsidy surchar  | ge for Open Access con                     | sumer 1MW & above for FY 2012-13  |  |
|        | Odisha            | Discoms  | CSS for EHT (Paise/K                       |   |  |
| 20.    |                   | CESU   | 197  | 101   |  |
|        |                   | NESCO  | 157  | 55  |  |
|        |                   | WESCO<br>SOUTHCO   | 158<br>276                                 | 76<br>165   |  |
|        |                   |  |  | Regulations, 2011, the cross subsidy of consumers of PSPCL for FY 2012-13   |  |
|        |                   | Catego   | ory  | FY 2012-13  |  |
| 21.    | Punjab            | Large Su   | ıpply                                      | (paise/unit)<br>88  |  |
| 21.    | Punjao            | Domestic   |  | 85  |  |
|        |                   | Non-Resident   |  | 107   |  |
|        |                   | Bulk su  | pply                                       | 63  |  |
|        |                   | Railway Tr   |  | 107   |  |
| 23.    | Sikkim            | Energy & Power<br>Department, Govt<br>of Sikkim  | Not fixed                                  | So far no application from any consumer has been received requesting Open Access. As such there are no Open Access Consumers in Sikkim as on date. The methodology for cross subsidy surcharge and additional surcharge shall be formulated as and when the necessity arises. |  |

| S. No. | SERC/JERC     | Utility/ Discom  | Cross-Subsidy<br>Surcharge<br>( Paise/KWh)  | Methodology Adopted  |
|--------|---------------|--|---|--|
| 24.    | Tamil Nadu    | Utility/DISCO  | M Cross Subsidy<br>Surcharge (Paise/kWh   | Methodology adopted  |
| 24.    | Talliff Nadu  | TANGEDCO   | Rs.1.66 to Rs.3.28  | Formula as per National<br>Tariff Policy   |
| 1      |               | Utility/ Discom  | Cross-Subsidy Surcharge<br>(Paise/KWh)  | Methodology Adopted  |
| 26     | Tripura       | O.A. consumer is not available in Tripura  | Does not arise  | Does not arise   |
| 27     | Uttarakhand   | Uttarakhand Power<br>Corporation Ltd<br>(UPCL)   | 43 paise/kWh  | For FY 2012-13, 18%<br>pooled average system<br>distribution loss shall be<br>applicable to open access<br>consumers   |
|        |               | Cross-Subsidy<br>Surcharge<br>( Paise/ KWh)  |   | dology Adopted   |
| 28     | Uttar Pradesh | The cross subsurcharge computed by the Commission for relevant catego worked out to be ni  | for the relevant consume formula: S = T – [C (1+ L / Where  S is the cross subsidy sur T is the Tariff payable consumers; C is the Weighted average 5% at the margin excludand renewable power. I Rs. 4.43 /kWh consider purchase sources of Ros KahalgaonSt.IIPh.I and Ar D is the average wheelidistribution of power wh L is the system Losses | charge by the relevant category of ge cost of power purchase of top ding liquid fuel based generation n case of UP, this works out to ing the cost of marginal power a Power Project II, Dadri Thermal, npara 'C'. ng charges for transmission and |
| 29     | West Bengal   | WBSEDCL: 82.24 + 315.14 (Avoidable Cost)  CESC Ltd: 339.46 + 136.61 (Avoidable Cost)  DPL: 27.46 + 184.6 (Avoidable Cost)  DPSCL: 58.35 + 450 (Avoidable Cost) | It is the difference between category of the consume the cost avoided by the l  | reen the applicable tariff for the rs being allowed open access and  |

# 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<br>reduction of<br>contracted<br>demand by<br>consumer<br>having CPP | Parallel<br>operation<br>charges/<br>Grid Support<br>Charges        | Minimum<br>Guarantee<br>Charges | Start-up / Stand<br>by Charges  | Wheeling Charges  |
|--------|----------------|--|---|---------------------------------|---|---|
|        | Andhra Pradesh |  |   |                                 |   | As mentioned under item (3) Open Access Transmission Charges & Distribution networks Charges of Status report on issues pertaining to National Electricity Policy.  |
|        | Bihar          |  |   |                                 |   |   |
| H      | Chhattisgarh   | Nil  | Rs.21.00 per<br>KVA (For captive<br>and non-captive<br>load of CPP) | Nil                             | 1. Startup power Rs.185/ KVA/Month as demand charge and Rs.5.40/ KVAh as energy charges for c o n s u m e r s having contract demand  | <ol> <li>Wheeling charge – 19 paisa/Kwh up to 33 KV</li> <li>22.4 Paise/Kwh above 33 KV for STOA</li> <li>LTOA &amp; MTOA customer shall bear net ARR in proportion to their reserved capacity</li> </ol> |
|        |                |  |   |                                 | 2. Startup power Rs.10.29 per unit for consumers who has no contract demand 3. Standby charges Rs.7.44/ Kwh unit for energy up to open access limit and Rs.9.92/Kwh unit for energy |   |
|        |                |  |   |                                 | beyond open<br>access limit   |   |

| S. No. | SERCs/JERCs                | Penalty for<br>reduction of<br>contracted<br>demand by<br>consumer<br>having CPP | Parallel<br>operation<br>charges/<br>Grid Support<br>Charges | Minimum<br>Guarantee<br>Charges | Start-up / Stand<br>by Charges   | Wheeling Charges  |
|--------|----------------------------|--|--|---------------------------------|--|---|
|        | Delhi                      | Captive generation   | on is not there in De  | lhi State                       | 1/2  | \ \\  |
|        | Goa & Union<br>Territories | Not specified sep  | parately as there are  | no such cases u                 | ınder JERC jurisdictio   | n   |
|        | Gujarat  Jammu & Kashmir   | No Penalty  No surplus   | 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. |
|        |                            | captive power generation available in the State.                                 |  |                                 |  |   |
|        | Jharkhand                  | Information awaited from licensee  |  |                                 | 1.5 times of HT Industrial C on s u m e r Energy Charges upto 1008 hours  Beyond 1008 hours, temporary supply tariff is applicable   | 0.12  |
| /      | Karnataka                  | the rates linked to  |  | not prescribed                  |  | PPs in the State by specifying tion of CD, parallel operation   |
|        | Kerala                     |  |  |                                 |  | 5% of wheeled energy.   |

| S. No. | SERCs/JERCs                       | Penalty for reduction of contracted demand by consumer having CPP   | Parallel<br>operation<br>charges/<br>Grid Support<br>Charges | Minimum<br>Guarantee<br>Charges | Start-up / Stand<br>by Charges  | Wheeling Charges              |                    |        |
|--------|-----------------------------------|---|--|---------------------------------|---|-------------------------------|--------------------|--------|
|        |                                   |   |  |                                 | - 1   | DISCOM                        | Voltage<br>Level   | Rs./   |
|        |                                   |   |  |                                 |   | MSEDCL                        | 33kV               | 0.11   |
|        |                                   |   |  |                                 |   | 1 ×                           | /11kV              | 0.60   |
|        |                                   |   |  |                                 | *Rs.20/kVA/   | - (5 ).                       | LT level           | 1.03   |
|        | Maharashtra                       | No  |  | No                              | month   | TPCD                          | HT level           | 0.19   |
|        |                                   |   |  |                                 |   | - 50                          | LT level           | 0.38   |
|        |                                   |   |  |                                 |   | RinfraD                       | HT level           | 0.46   |
|        |                                   |   |  |                                 |   | DECT                          | LT level           | 0.88   |
|        |                                   |   |  |                                 |   | BEST**                        | -                  | -      |
| X      | Madhya Pradesh  Manipur & Mizoram | NIL   | 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 |                               |                    |        |
|        | ivianipui & iviizorani            | No CPP  | Nil  | Nil                             | Nil   | Specifie                      | d in Tariff c      | orders |
|        | Nagaland                          |   |  | NA                              |   |                               |                    |        |
|        | Odisha                            | No penalty. This shall be governed by Regulation 66-71 of OERC Distribution (Conditions of Supply) Code, 2004 | Nil  | Nil                             | NIL   | WESC<br>NESCO<br>SOUT<br>CESU | ) - 81             | .29    |
| N      | Punjab                            | Nil   | Nil  | Nil                             | 561 paise per<br>kWh  | Rs. 4525                      | 40 per MV<br>month | W per  |

| S. No. | SERCs/JERCs   | Penalty for<br>reduction of<br>contracted<br>demand by<br>consumer<br>having CPP   | Parallel<br>operation<br>charges/<br>Grid Support<br>Charges   | Minimum<br>Guarantee<br>Charges  | Start-up / Stand<br>by Charges  | Wheeling Charges   |  |  |
|--------|---------------|--|--|--|---|--|--|--|
|        | Sikkim        | *Not<br>formulated   | Not<br>formulated  | Not<br>formulated  | Not<br>formulated   | Not formulated   |  |  |
|        |               | formulating Reg  | gulations for grid o   | onnected capt  |   | erefore, so far the need for as not arisen. However, the eed arises. |  |  |
|        | Tamil Nadu    | Nil  | Nil  | Actual recorded demand or 90% of sanctioned demand whichever is higher | Start up power -Temporary supply tariff; Standby power - Energy charges –Tariff applicable to the category; Demand charges – As per Tariff order.   | 23.27paise   |  |  |
|        | Tripura       | Captive Genera not arise .   | ting Plant is not av   | railable in the S  | State of Tripura, so,   | question of different does   |  |  |
|        | Uttarakhand   | Nil  | Nil, however, the responsibility of synchronization and providing synchronizing equipments conforming to requisite standards and import/export meters shall lie with the captive generators. | Nil  | As per the tariff specified under the Schedule for temporary supply i.e. Rate of charge in a p p r o p r i a t e rate schedule + 25% with no minimum charges and demand charges for the number of days the supply is taken. | On case to case basis. No such case reported                         |  |  |
|        | Uttar Pradesh | Not<br>Applicable  | Not<br>Applicable  | Applicable for conventional energy                                     | Not Applicable  | Not Applicable   |  |  |
|        | West Bengal   | There is no such penalty for reduction of contracted demand by consumer having CPP other than UI mismatch charges. Methods of Parallel operation charges/Grid Support Charges, Start-up/Stand by Charges and Wheeling Charges have been provided in West Bengal Electricity Regulatory Commission (Open Access) Regulations, 2007, as amended.  Commission passes orders regularly for Transmission Charges, Wheeling Charges & Cross subsidy Surcharges for Open Access/Captive consumers. Other charges are consumer specific and determined by the Commission at the time of approval of open access to a consumer. |  |  |   |  |  |  |



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