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**STANDING COMMITTEE
ON ENERGY
(2009-2010)**

FIFTEENTH LOK SABHA

MINISTRY OF POWER

*[Action Taken on the recommendations contained in the Thirtieth Report
(14th Lok Sabha) on the subject 'Role of Central Electricity Regulatory
Commission and State Electricity Regulatory Commissions
in Protection of Interests of Consumers']*

1051
FOURTH REPORT



**LOK SABHA SECRETARIAT
NEW DELHI**

April, 2010/Chaitra, 1932 (Saka)

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(2009-2010)

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(14th Lok Sabha) on the subject 'Role of Central Electricity Regulatory
Commission and State Electricity Regulatory Commissions
in Protection of Interests of Consumers']*

Presented to Lok Sabha on 21.4.2010

Laid in Rajya Sabha on 22.4.2010



LOK SABHA SECRETARIAT
NEW DELHI

April, 2010/Chaitra, 1932 (Saka)

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**COMPOSITION OF THE STANDING COMMITTEE
ON ENERGY (2009-10)**

Shri Mulayam Singh Yadav — *Chairman*

MEMBERS

Lok Sabha

2. Mohammad Azharuddin
3. Shri S.K. Bwiswmuthiary
4. Shri P.C. Chacko
5. Shri Adhir Ranjan Chowdhury
6. Shri Ram Sundar Das
7. Shri Paban Singh Ghatowar
8. Shri Arjun Munda
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12. Shri Ravindra Kumar Pandey
13. Shri Nityananda Pradhan
14. Shri M.B. Rajesh
15. Shri K. Chandrasekhar Rao
16. Dr. K.S. Rao
17. Shri Ganesh Singh
18. Shri Radha Mohan Singh
19. Shri Vijay Inder Singla
20. Shri E.G. Sugavanam
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Rajya Sabha

22. Shri Motilal Vora
23. Shri Santosh Bagrodia
24. Shri Rama Chandra Khuntia
25. Shri Bhagat Singh Koshyari

26. Shri Shivpratap Singh
27. Shri Shyamal Chakraborty
28. Shri Veer Pal Singh Yadav
29. Shri Mahendra Sahni*
30. Shri Govindrao Wamanrao Adik
31. Shri Mohammad Shafi

SECRETARIAT

- | | |
|-----------------------------|------------------------------|
| 1. Shri Brahm Dutt | — <i>Joint Secretary</i> |
| 2. Shri Shiv Singh | — <i>Director</i> |
| 3. Shri Rajesh Ranjan Kumar | — <i>Deputy Secretary</i> |
| 4. Shri Manish Kumar | — <i>Executive Assistant</i> |

*Passed away on 6th November, 2009.

INTRODUCTION

1. the Chairman, Standing Committee on Energy having been authorized by the Committee to present the Report on their behalf, present this 4th Report on the action taken by the Government on the recommendations contained in 30th Report of the Standing Committee on Energy (14th Lok Sabha) on 'Role of Central Electricity Regulatory Commission and State Electricity Regulatory Commissions in Protection of Interests of Consumers'.

2. The 30th report was presented to Lok Sabha/laid in Rajya Sabha on 13th February, 2009. Replies of the Government to all the recommendations contained in the Report were received on 18th August, 2009.

3. The Report was considered and adopted by the Committee at their sitting held on 5th February, 2010.

4. The Committee place on record their appreciation for the valuable assistance rendered to them by the officials of the Lok Sabha Secretariat attached to the Committee.

5. An analysis on the Action Taken by the Government on the recommendations contained in the 30th Report of the Committee is given at Appendix-II.

6. For facility of reference and convenience, the observations and recommendations of the Committee have been printed in bold letters in the body of the Report.

NEW DELHI;
09 March, 2010
18 Phalguna, 1931 (Saka)

MULAYAM SINGH YADAV,
Chairman,
Standing Committee on Energy.

CHAPTER I

REPORT

This Report of the Standing Committee on Energy deals with the action taken by the Government on the Recommendations/Observations contained in their Thirtieth Report (Fourteenth Lok Sabha) on the subject 'Role of Central Electricity Regulatory Commission and State Electricity Regulatory Commissions in Protection of Interests of Consumers' pertaining to the Ministry of Power.

2. The Thirtieth Report was presented to Lok Sabha on 13th February, 2009 and was laid on the Table of Rajya Sabha on the same day. The Report contained 29 Recommendations/Observations.

3. Action Taken Notes in respect of all the Recommendations/Observations contained in the Report have been received from the Government. These have been categorized as follows:

- (i) Recommendations/Observations which have been accepted by the Government:

Serial Nos. 3, 4, 6, 7, 8, 9, 15, 17, 18, 22, 23, 24, 25, 26 and 28

Total - 15
Chapter-II

- (ii) Recommendations/Observations which the Committee do not desire to pursue in view of the Government's replies:

Serial. Nos. 1 and 13

Total - 02
Chapter-III

- (iii) Recommendation/Observation in respect of which the reply of the Government has not been accepted by the Committee and which require reiteration:

Serial No. 16

Total-01
Chapter-IV

- (iv) Recommendations/Observations in respect of which the final replies of the Government are still awaited:

Serial Nos. 2, 5, 10, 11, 12, 14, 19, 20, 21, 27 and 29

Total - 11
Chapter-V

4. The Committee desire that Action Taken replies on the Recommendations contained in Chapter I of the Report and the final replies in respect of the Recommendations included in Chapter V of the Report for which only interim replies have been given by the Government, should be furnished to the Committee expeditiously.

5. The Committee have observed that the Ministry in most of their replies have either simply stated that the matter is being examined/studied or furnished the recommendations of the FOR and instead of taking conclusive action have chosen to shift the responsibility on CERC/SERCs/States Governments for implementation. The Committee have taken serious note of the evasive replies furnished by the Ministry. The Ministry in their Action Taken Replies were expected to provide details of concrete steps taken by them for implementation of the recommendations of the Committee and not just stating the present factual status. The Committee feel that it is the responsibility of the Government to ensure the proper functioning of CERC and making it accountable. Similarly, CERC is supposed to guide, coordinate and mobilize SERCs/States Governments for proper implementation of projects/programmes aimed at passing the benefits to the consumers/public. The Committee would like that in future the replies by the Ministry should be specific, complete and contain categorical reply with regard to implementation of the recommendations of the Committee.

6. The Committee will now deal with action taken by the Government on some of their Observations/Recommendations that require reiteration or merit comments.

A. Public Awareness Regarding Role of Electricity Regulatory Commissions

Recommendation (Sl. No. 2, Para 2.2)

7. The Committee had recommended that suitable steps should be taken to create public awareness regarding the role of the Electricity Regulatory Commissions so that large number of peoples' groups/organizations and public can take active part in the formulation of requisite consumer friendly policies.

8. The Ministry of Power in their Action Taken Reply have stated as under:

"It is one of the functions of the Forum to evolve measures for protection of interest of consumers and promotion of efficiency, economy and competition in power sector.

The Forum of Regulators (FOR) in its report on 'Protection of Consumer Interests' has recommended a model consumer charter stipulating the rights and obligations of consumers.

The Forum has also recommended that:

- (i) NGOs should be involved for consumer education and empowerment.
- (ii) Leaflets highlighting the consumers' rights under the standards of performance regulations should be distributed for dissemination of information amongst the consumers.
- (iii) This would be best achieved by printing the 'consumers' rights' on the back of the electricity bill. This would ensure wider access of message and improve awareness amongst the consumers.
- (iv) Knowledgeable retired personnel could be appointed by SERCs as consumer advocates for participating in (a) tariff hearing to represent interests of domestic, agricultural and small scale industry Small Scale Industries Low Tension (SSI-LT) category consumers (b) hearing for load shedding protocols and (c) hearing for framing standards of performance."

9. The Committee had made a specific recommendation that the Government should take suitable steps to create public awareness about the role of the Electricity Regulatory Commissions so as to have active participation of people in formulation of consumer friendly policies. The Committee are unhappy to note that instead of furnishing the action taken by the Government on the recommendation of the Committee, the Ministry have merely furnished the functions and summary of the recommendations of the Forum of Regulators (FOR) regarding consumer awareness and empowerment. The Ministry have not come out with a clear-cut reply as to whether the recommendation of FOR have actually been implemented. What the Committee had desired from the Ministry was to take suitable steps to create public awareness but no tangible action has been taken. The Committee would like the Ministry to follow up the recommendations of the FOR for conclusive action and intimate the Committee about the action taken.

B. Empowerment of CERC/SERCs

Recommendation (Sl. No. 5, Para 2.5)

10. As per Electricity Act, 2003, the Appropriate Commission may, with the approval of the Appropriate Government, specify the numbers,

nature and categories of other officers and employees. In this connection, the Committee had endorsed the views of the Indian Institute of Public Administration (IIPA) that the Commission should have full autonomy in matters relating to staffing pattern, organization structure and adequate powers to recruit staff as required with an overall ceiling on expenditure. Concurring with these views, the Committee had recommended that more and more autonomy needed to be given to the CERC and SERCs in the recruitment process for which Government ought to take necessary steps.

11. The Ministry of Power in their Action Taken Reply have stated:

“The Recommendations of the IIPA were referred to the Forum of Regulators (FOR), who constituted a Working Group to examine the recommendations. The Recommendations of the Working Group had been accepted by the FOR and forwarded to the Ministry. The Central Government has sought the views of the Central Electricity Authority and the State Governments in the matter.”

12. The Committee had asked the Government to take necessary steps towards extending more autonomy to the CERC and SERCs in the recruitment process, organizational structure and service conditions of officers and employees. The Ministry of Power in their Action Taken Reply have merely informed that they have obtained the views of the Forum of Regulators (FOR) in this regard and have now sought the views of the Central Electricity Authority and the State Governments in the matter. The Committee had expected concrete action from the Ministry for implementation of their recommendation. The Committee feel that the Ministry should have taken prompt action on one of the most important aspects pertaining to efficient functioning of the CERC and SERCs. The Committee desire the Ministry to expedite consultation process with CEA and State Governments for expeditious conclusive action in the matter under intimation to the Committee.

C. Need for Third Party Audit

Recommendation (Sl. No. 7, Para 2.7)

13. The Committee in their 30th Report (14th Lok Sabha) had noted the provisions made in para 8.2.1(2) of Tariff Policy, which states that third party verification/energy audit of technical and financial data for different areas/localities could be used to impose area/locality specific surcharge for greater AT&C loss levels and also the SERCs to institute a system of independent scrutiny of financial and technical

data submitted by the licensees. The Committee, however, found that in many of the States energy audits are being done in-house by the licensees themselves. To ensure that the consumers are extended the benefit of energy audit results and at the same time are not unnecessarily put to disadvantage, the Committee had recommended that SERCs should ensure third party verification of energy audit results by engaging experts/independent consultants for scrutiny and analysis of the data submitted by the licensees for tariff determination. The Committee had also asked the Government to take the necessary steps so that guidelines of tariff policy in this regard are followed by all the SERCs.

14. The Ministry in their Action Taken Reply have stated:

"All the State Electricity Regulatory Commissions were requested to furnish the details of third party verification of energy audit results for tariff determination in their respective States. The information furnished by the SERCs of the following States is as follows:

| Sl. No. | Name of the SERCs | Comments |
|---------|--|---|
| 1 | 2 | 3 |
| 1. | Assam Electricity Regulatory Commission | The Assam Electricity Regulatory Commission is yet to take up third party verification of the energy audit. The Commission however, feels that a third party/independent agencies should be engaged. |
| 2. | Bihar Electricity Regulatory Commission | Work on energy audit has not been initiated by the Bihar Electricity Regulatory Commission and the results are yet to come. However, the financial and technical data submitted by the Bihar State Electricity Board is being scrutinized and analyzed by an independent consultant appointed by the Commission |
| 3. | Chhattisgarh State Electricity Regulatory Commission | Third party verification of energy audit results has not been done so far. However, the Commission has been appointing consultants for scrutiny and analysis of data submitted by a licensee for tariff determination. |

| 1 | 2 | 3 |
|----|---|---|
| 4. | Delhi Electricity Regulatory Commission | The energy audits have been done in house by the licensees themselves and Commission has not considered it necessary to verify the energy audit results through independent third party. |
| 5. | Gujarat Electricity Regulatory Commission | Tariff determination is being done with the help of consultant, the Administrative Staff College of India who are also looking after energy audit results for tariff determination by the Commission. |
| 6. | Jharkhand State Electricity Regulatory Commission | Jharkhand State Electricity Regulatory Commission has appointed independent and an expert agency (consultant) to carry out independent and in-depth scrutiny of the financial and technical data submitted by licensees. |
| 7. | Karnataka Electricity Regulatory Commission | The Commission, as part of the third party verification of technical and financial data had engaged the service of PWC as consultants for scrutiny of Audit Result Report and tariff applications under multi-year tariff regime for the financial year 2008-2010. |
| 8. | Kerala Electricity Regulatory Commission | For verification of technical and financial data furnished by the Licensees, Commission has appointed a 'Compliance Examiner'. Verification and authenticity of data has also been included as his duty. |
| 9. | Madhya Pradesh Electricity Regulatory Commission | For independent scrutiny of the financial and technical data provided by the Licensees/Generating Company, the Commission has appointed the following consultants: (i) M/s. A.F. Ferguson for verification of coal accounting procedure in thermal power station of MPPGCL |

(ii) M/s Pandey Dua and Mathur Associates, Chartered Accountants for investigation of employees' expenses incurred by licensees and generating company.

(iii) M/s. PricewaterhouseCoopers for conducting a detailed scrutiny of technical and financial data.

10. Maharashtra Electricity Regulatory Commission

The Maharashtra Electricity Regulatory Commission has undertaken third party verification of energy audit by assigning the work to M/s. Feedback Ventures Ltd, Consultants in the power sector.

11. Rajasthan Electricity Regulatory Commission

All the DISCOMs are State owned. There is a statutory audit through the Chartered Accountant as well as by CAG, however, the Commission would like to have separate scrutiny of data at its own in future.

12. Tamil Nadu Electricity Regulatory Commission

Third party verification of energy audit results has not been done so far.

The Forum of Regulators constituted a Working Group on "Loss Reduction Strategies" for detailed examination of issues around reduction of distribution losses. The report finalized by the FOR based on the inputs of the working group emphasizes that third party verification of the technical and financial data submitted by the utility is crucial, before such data is taken into account for determination of tariff. Further, FOR in its report on Multi Year Tariff and Distribution Margin has recommended that data on distribution loss levels should be verified through a third party as envisaged in the Tariff Policy. FOR has indicated that the services of accredited energy auditors and academic institutions such as Indian Institute of Technology (IITs) and other engineering colleges could be utilized for this."

15. While observing that many of the State's energy audits were being done in-house by the licensees themselves, the Committee had desired that all SERCs should ensure third party verification of

energy audit for scrutiny and analysis of financial and technical data submitted by the licencees in terms of Tariff Policy of the Government. The Committee had accordingly desired the Government to take the necessary steps so that guidelines of tariff policy in this regard are followed by all the SERCs. The Government in their reply have forwarded the information supplied by 12 SERCs in this regard. The Government have further stated that the Forum of Regulators (FoR) in its Report has also emphasized the need of third party verification of the technical and financial data submitted by the utility before such data is taken into account for determination of tariff and the services of accredited energy auditors and academic institutions such as Indian Institute of Technology (IITs) and other Engineering Colleges could be utilized for this purpose. Scrutiny of the information supplied by the SERCs reveals that most of the States are yet to put in place third party verification system as per the terms of the Tariff Policy. Moreover, the Delhi Electricity Regulatory Commission has not considered it necessary to verify the energy audit results through independent third party. The Committee are surprised to note that the Ministry have simply forwarded the information received from some of the SERCs to the Committee and have not taken any steps to ensure that the guidelines on Tariff Policy are followed by all the SERCs. Though the Ministry have quoted the recommendations of the Forum of Regulators (FoR) endorsing the views of the Committee on third party verification, the Ministry have failed to intimate the action taken by them to ensure the follow-up. The Ministry cannot absolve themselves from the responsibility of ensuring third party verification of energy audit of all SERCs. Against this backdrop, the Committee reiterate that the Ministry should make sincere efforts to persuade all the SERCs to implement the guidelines on Tariff Policy regarding third party verification/audit of financial and technical data. The Committee are of the opinion that the stand taken by the Delhi Electricity Regulatory Commission of not having independent third party verification of energy audit is a gross violation of the Government policies and needs review in view of regular reports of dissatisfaction amongst consumers in the Capital. The Committee would like to be apprised of the action taken by the Ministry in this regard. The Committee would also like the Ministry to seek an explanation from Delhi Electricity Regulatory Commission in this regard.

D. Functioning of Consumers Grievances Redressal Mechanism

Recommendation (Sl. No. 14, Para 2.14)

16. The Committee had noted that the Ministry had entrusted Indian Institute of Public Administration and Administrative Staff College of India (ASCI) with conducting a study on the consumer

redressal mechanisms and giving a report within a period of three months. The Committee were also informed that ASCI had submitted the draft report which was being examined by the Ministry. The Committee had sought the details of the study Report and the precise action taken by the Government thereon.

17. The Ministry in their Action Taken Reply have stated as under:

"The Indian Institute of Public Administration (IIPA) was assigned a study on impact of reorganisation of State Electricity Boards, *vide* Ministry's letter dated December 29, 2005.

The Administrative Staff College of India (ASCI) was assigned to undertake a study to assess the functioning of Consumers Grievances Redressal Mechanism in the States of Kerala, Andhra Pradesh, Tamil Nadu, Gujarat, Chhattisgarh, Madhya Pradesh, Uttar Pradesh, Punjab, Delhi, West Bengal, Orissa, Jharkhand, Assam, Tripura and Meghalaya *vide* Ministry's letter dated February 13, 2008.

The ASCI has since completed the study and covered almost all the terms of reference in their study and submitted its draft reports in three volumes, *inter-alia*, containing its recommendations/comments.

The Ministry sought clarifications on the recommendations on two of the terms of reference. The ASCI has since furnished the clarifications. ASCI's Reports are now being examined in the Ministry."

18. The Committee had specifically sought for the details of the Study Report submitted by ASCI and the precise action taken by the Government thereon. The Ministry in their Action Taken Reply have informed that the ASCI has since completed the study and submitted its draft reports in three volumes. The ASCI has also furnished the clarifications sought by the Ministry. The Ministry have further stated that the reports of ASCI are being examined in the Ministry. The Committee had expected the Ministry to provide the details of the Study Report and precise action taken by the Government as well. The Committee regret to note that the Ministry have not moved forward from their previous position and instead of giving the details of the study report and action taken by the Government thereon, the Ministry have come out with the routine reply that the reports are being examined by them. The Committee, therefore, desire that the details of the study reports and action taken by the Ministry thereon be furnished to them without any further delay.

E. Payment of Compensation to Consumer on Account of Default in Performance

Recommendation (Sl. No. 16, Para 2.16)

19. The Delhi Electricity Supply Code and Performance Standards Regulations, 2007 envisage payment of compensation by the Distribution companies to consumers in the event of default in observance of the notified Standards of Performance. The Committee had noted the direction of the Delhi Electricity Regulatory Commission (DERC) to all the Distribution companies to pay compensation to the affected consumers without there being a need for such consumers to apply for the same. The Committee had sought the details of the cases disposed off where compensation had been paid by the Distribution companies to the affected consumers. The Committee had also desired the Government/CERC to ensure that the other State Regulatory Commissions also follow suit in the matter to protect and safeguard the interests of the consumers.

20. The Ministry in their Action Taken Reply have stated:

"The Delhi Electricity Regulatory Commission has been maintaining that compensation to the affected consumers, in the event of default on the part of utility to observe the guaranteed Standards of Performance (SoP) needs to be paid without there being any necessity for such consumers to claim the compensation amount in writing from DISCOM. However, the DISCOMs contend that compensation needs to be claimed by the affected consumers and the fact mentioned in such consumer claims need to be verified before compensation can be paid. In some cases, compensation has been paid by the DISCOMs, BSES Rajdhani Power Ltd. and BSES Yamuna Power Ltd. upon receiving the claims for such compensation from the affected consumers...

Further, the FoR in its report on "Protection of Consumer Interests" agreed that the provision in the rule issued by Government of India stipulating *inter alia* requirement of submission of a report by the ombudsman should be institutionalized by all SERCs. The relevant extract of the Rule is quoted as follows: "(a) The ombudsman shall prepare a report on a six monthly basis giving details of the nature of the grievances of the consumer dealt by the ombudsman, the response of the licensees in the redressal of the grievances and the opinion of the ombudsman on the licensee's compliance of the standards of performance as specified by the Commission under section 57 of the Act during the preceding six months; (b) The report under sub-clause (a) above shall be forwarded to the State Commission and the State Government within 45 days after the end of the relevant period of six months."

The FoR has recommended that the disposal of grievances should be monitored up to the point of compliance of the order of CGRF or ombudsman and not just the passing of order by these bodies."

21. The Committee had sought the details of the cases disposed off where compensation had been paid by the Distribution companies to the affected consumers. A scrutiny of the information received from the Government in this regard reveals that in most of the States, no compensation has been paid due to non-receipt of complaints from the affected consumers. Also the number of consumers compensated in some of the States like Delhi and Jharkhand are too less. The Committee are disappointed to note the contentions of the DISCOMs, Delhi that compensation needs to be claimed by the affected consumers and the fact mentioned in such consumer claims need to be verified before compensation can be paid instead of paying compensation to the affected consumers without applying for the same. It is well known that the level of dissatisfaction/grievance regarding fast running of meters and inflated bills being received by the consumer in Delhi is very high. The Committee feel that many affected consumers may find it cumbersome to apply for the compensation and would rather forgo the compensation in view of the complexities involved therein, ultimately defeating the very purpose of protecting the interest of the consumers and making DISCOMs accountable in this regard besides maintaining a satisfactory level of quality control. Therefore, the Committee strongly reiterate that the compensation be paid without putting condition on the affected consumers to apply for the same. Keeping in view the non-seriousness shown by many States to ventilate the grievances of the consumers, the Committee desire the Government/CERC to ensure that the provision in this regard is implemented scrupulously by all the States. The Committee at the same time concur the views of the FoR that the disposal of grievances should be monitored up to the point of compliance of the order of CGRF or Ombudsman and not just passing of order by these bodies. The Committee expect that the recommendations of FoR shall be strictly implemented in letter and spirit to protect and safeguard the interests of the consumers.

F. Implementation of Reliability Index Provision

Recommendation (Sl. No. 18, Para 2.18)

22. The Committee had noted that as per the National Electricity Policy, 2005 (Para 5.13.2), the SERCs were required to draw a road-map for the declaration of reliability under the Reliability Index (RI)

of supply of power to consumers of all cities and towns upto district headquarters as also rural areas. The Committee had pointed out that till date the States like Bihar, Gujarat, Haryana, Jharkhand, Karnataka, Kerala, Maharashtra, Meghalaya, Rajasthan, Punjab, Tamil Nadu and Uttar Pradesh had not specified the Reliability Indices. Deprecating the delay in specifying the Reliability Indices in these States, the Committee had urged the Government to intervene and pursue the matter with the concerned SERCs to ensure that their Reliability Indices be declared on priority basis.

23. The Ministry in their Action Taken Reply have stated as under:

“The National Electricity Policy casts the responsibility of compilation and publishing of Reliability Index (RI) data on the Central Electricity Authority. According to the Authority the State Electricity Regulatory Commissions have started specifying the reliability indices to ensure customer satisfaction. However, some of the SERCs are obtaining data from the power utilities for managing the reliability indices. It is necessary to have consumer indexing and logging of outages for computing reliability indices at consumer level.... Under the R-APDRP funds are being provided to the utilities for conducting GIS based consumer indexing and remotely collecting the data from the meters installed on 11kV feeders and distribution transformers. Only after consumer indexing is completed and system of IT based monitoring of consumer outages is in place, SERCs would be able to obtain reliability parameters from the utilities. It is expected that under R-APDRP in three years time above requirement would be met by the utilities. However, a roadmap is to be developed by the SERCs in consultation with utilities.”

24. The Committee expect the Ministry to follow-up with all the States/SERCs to implement the provision in letter and spirit.

G. Mechanism for Renewable Energy Certificates

Recommendation (Sl. No. 29, Para 2.29)

25. The Committee had noted that the States which do not have the potential renewable sources, can purchase power from other States and that too not exactly through transmission lines, but by the issue of certificates which would be called ‘renewable certificates’ or ‘green certificates’. The Committee were informed that the Ministry of New and Renewable Energy had engaged some consultants to work out the modalities for the same. The Committee had desired that the outcome

of the study carried out by the consultants as well as the action taken by the Government thereon be intimated to them in due course. The Committee had also recommended the Government to ensure that the 'green certificates' be strictly issued only in those States which did not have enough renewable sources of energy.

26. The Ministry in their Action Taken Reply stated:

"The Ministry of New and Renewable Energy has informed that they had engaged Consultant M/s ABPS Infrastructure Advisory Pvt. Ltd. for development of Renewable Energy Certificate mechanism for India. The Consultant is yet to submit their final report although the modalities of the proposed design have been discussed."

27. The Committee would like to be apprised of the details of the final report of the consultant and the action plan of the Government for its implementation.

CHAPTER II

RECOMMENDATIONS/OBSERVATIONS WHICH HAVE BEEN ACCEPTED BY THE GOVERNMENT

Recommendation (Serial No. 3)

The Committee are constrained to find that the post of Chairman, CERC which was lying vacant since March, 2007 was filled up only on 15th April, 2008. While acknowledging the fact that the process for selection of Chairman was initiated way back in August, 2006 an Statutory reference in this regard to the Selection Committee was made on 09.10.2006, the Committee are perturbed to note that instead of taking the required 3 months for finalising the process, the Selection Committee's recommendation was made available only on 14th August, 2007, i.e. after 10 months. What is surprising is the fact that even Department of Personnel and Training (DoPT) took about 8 months thereafter to take the approval of the competent authority for making appointment to the post. The Committee deplore the inordinate delay in appointment of the Chairman of CERC which according to them could have been curtailed. The Committee expect the Government to take all necessary steps at the earliest to fill up all other vacant posts in this Organisation.

Reply of the Government

At present, there is no vacancy in Central Electricity Regulatory Commission to be filled by the Central Government. Timely action is being taken to fill up the future vacancies in accordance with the provisions of the Electricity Act, 2003.

[Ministry of Power O.M. No. 47/5/2009-R&R Dated 18.8.2009]

Recommendation (Serial No. 4)

The Committee also find that 8 SERCs in the States of Assam, Chhattisgarh, Haryana, Jammu & Kashmir, Kerala, Punjab, Tamil Nadu and Uttar Pradesh have no Chairman and Members as on 15.07.2008. This is yet another instance which indicates the casual approach with which the regulation of power sector – which has a direct bearing on the consumers and their interests is being taken up both by the Centre and the States. The Committee would like the Ministry of Power to take up and pursue the matter of vacancies in SERCs at the appropriate

level with the respective State Governments so that these are filled up at the earliest. The Committee would like to be informed of the steps taken in this direction.

Reply of the Government

Secretary (Power) *vide* his DO letter dated 21.10.2008 to the Chief Secretaries of Rajasthan, Maharashtra, Jharkhand, Bihar, Andhra Pradesh, Tripura and Uttarakhand has stressed that any vacancy in the State Electricity Regulatory Commissions particularly at the level of Chairperson of the Commission adversely impacts the functioning of the Commission and the Forum of Regulators (FoR). He has, therefore, requested that an urgent action may be taken to fill up all existing vacancies in the SERCs. Advance action for filling up foreseeable vacancies may also please be taken, as required under Section 85(2) of the Electricity Act, 2003 to prevent vacancies from either arising or continuing for any length of time.

Incumbency status of Chairperson and Members of various Electricity Regulatory Commissions as on 27.4.2009 furnished by Forum of Regulators (FoR) is placed at Annex-1 which indicates that the posts in the above mentioned State Electricity Regulatory Commissions (SERCs) have been filled.

[Ministry of Power O.M. No. 47/5/2009-R&R Dated 18.8.2009]

Recommendation (Serial No. 6)

The Committee find that as per the provisions of the Electricity Act, 2003, the Electricity Regulatory Commissions shall be guided *inter-alia* by the National Electricity Policy and the Tariff Policy. Besides laying emphasis on promoting competition in the long run which would lead to reduction in tariff, the National Electricity Policy also require the Electricity Regulatory Commissions to regulate utilities based on predetermined indices on quality of power supply, setting up Grievance Redressal Forums expeditiously and appointment of Ombudsman within six months. The Committee observes that in most of the States where Electricity Regulatory Commissions have been set, some sort of Grievance Redressal Forums has also been put in place and Ombudsman appointed. As regards, the tariff policy notified by the Central Government on 06.01.2006, the Committee note that its main aim is to enhance competition through the reduction in capital costs and bringing about efficiency in operations. It also requires that all future requirement of power should be procured competitively by the distribution licensees except in the case of expansion of existing

projects or in the case of State controlled/owned company as an identified developer. Even for public sector projects, tariff for all new generation and transmission projects needs to be decided on the basis of competitive bidding. The Committee observe that as specified by Tariff Policy that Accredited Transmission and Commercial (AT&C) reduction needs to be incentivised by linking returns to the power utilities in a Multi Year Tariff (MYT) framework to an achievable trajectory, most of the States have yet to be put in place the MYT framework. The Committee further notes that although distribution companies in the States have been directed by SERC to bring down the AT&C losses to a desired level by issue of MYT regulations with detailed methodology related to sharing of excess profits/losses with consumer, the same could not be achieved inspite of measures taken such as feeder separation schemes, adoption of theft preventive techniques, replacement of old overhead lines, installation of new electronic meters, etc. While appreciating the new policy initiatives to enhance competition through reduction in capital costs and efficiency in operations, the Committee recommend that the Government should strive hard to see that both the CERC and SERCs ensure that AT&C and high T&D losses are brought down to specified percentages at the earliest so that consumers are also benefited by reduction in tariff of electricity.

Reply of the Government

The Forum of Regulators (FoR) constituted a Working Group on 'Loss Reduction Strategies' for detailed examination of the issues around distribution loss. Based on the inputs of the Group, FoR in its report on the matter has recommended various measures for reduction of distribution losses. Major recommendations of FoR include:

- (i) Focus should be on reduction of distribution losses. Transmission losses not to be clubbed with distribution losses.
- (ii) For segregation of technical and non-technical loss, baseline data should be compiled for each electricity division.
- (iii) Trajectory for loss reduction should be specified keeping in view actual loss levels, capital expenditure made in the past for improving the network and future capital expenditure plans.
- (iv) Segregation of feeder for agriculture supply should be resorted to especially in States where proportion of supply of agriculture sector is substantial.

(v) Sharing of gains.

- Under-achievement of loss reduction target should be borne by the licensee.
- In case of achievement over and above the targets the gain should be shared between the licensee and the consumers in the ratio to be determined by SERCs.

(vi) The utilities should effectively use the theft related penal provisions in the Electricity Act, 2003.

(vii) As stipulated in para 8.2.1(2) of the Tariff Policy, SERCs should encourage suitable local area based incentive and disincentive schemes for the staff of the utilities linked to reduction in losses.

A statement showing AT&C loss (%) for State Electricity Boards, Power Departments, and DISCOMs maintained by Power Finance Corporation for the year 2001-02 to 2007-08 region-wise (figures of 2007-08 tentative) is enclosed at Annex - 2 shows reduction in AT&C losses.

The Action Plan of various States to reduce the AT&C losses as intimated by some of the SERCs is as follows:

| Sl. No. | Name of the SERC | Action Plan |
|---------|---|--|
| 1 | 2 | 3 |
| 1. | Assam Electricity Regulatory Commission | The Commission decided to take up the matter of Multi Year Tariff for 2008-09 and 2009-10. The Commission has always advocated reduction of transmission and distribution (T&D) losses in its six Tariff Orders so that these losses are brought down to specified percentage. Any loss incurred by the utilities beyond target set by the Commission will not be allowed to be passed on to the consumers in tariff for subsequent years as per the truing up exercise already taken up |
| 2. | Bihar Electricity Regulatory Commission | The Commission has fixed transmission and distribution loss |

reduction target in its tariff order dated 26.8.2008 for the Bihar State Electricity Board for the year 2008-09 as 38%, 2009-10 as 35%, 2010-2011 as 32% and 2011-2012 as 29%.

3. Chhattisgarh State Electricity Regulatory Commission

The Commission has passed three Tariff Orders and in every tariff order targets were given for reduction in transmission and distribution losses. The Commission is pursuing the distribution licensee to ensure that AT&C losses and T&D losses are brought down to reasonable levels
4. Delhi Electricity Regulatory Commission

The AT&C losses in Delhi have been brought down from the level of about 50% in 2002 to the average level of about 20% as on 31.3.2009. The DISCOM wise AT&C loss reduction target to be achieved by the end of current control period *i.e.* by the financial year 2010-2011 by the DISCOMs is 17-20%.
5. Gujarat Electricity Regulatory Commission

Gujarat Electricity Regulatory Commission has given stringent targets to the Discoms for reduction in T&D losses and has set the target for the period 2008-2011 to bring the losses DISCOM wise from 15.86 to 8.65.
6. Jharkhand State Electricity Regulatory Commission

No trajectory for reduction of AT&C losses have been fixed on long term basis but the Commission has specifically directed its licensees to make concerted efforts to bring down AT&C losses.
7. Karnataka Electricity Regulatory Commission

The Karnataka Electricity Regulatory Commission (KERC) has fixed targets for reduction of T&D losses by giving a road map. In its multi year tariff

| 1 | 2 | 3 |
|-----|--|---|
| | | order issues in January, 2008, the Commission has fixed a loss reduction trajectory to be achieved during financial year 2008-2010 (first control period of the MYT regime) |
| 8. | Kerala Electricity Regulatory Commission | The Kerala Electricity Regulatory Commission is almost achieving the T&D losses reduction targets for the year 2004-05 from 24.95% to 18.69% in the year 2008-09 (Projected) by replacing faulty energy meters with high precision electronic meters and through initiatives such as re-conductoring, installing more distribution transformers etc. |
| 9. | Madhya Pradesh Electricity Regulatory Commission | The Government of Madhya Pradesh has prescribed a trajectory for reduction of distribution losses for the year 2006-07 from 30.0 – 43.0% to 23.5 –31.0% for the year 2010-11. The Madhya Pradesh Electricity Regulatory Commission has laid down framework for distribution MYT stipulating that in case the Utility is able to achieve the loss levels below the specified levels, then such gains will be shared on 50-50 basis between Utility and the Consumers. This will force the Power Companies to adopt measures and take necessary steps to reduce losses. |
| 10. | Maharashtra Electricity Regulatory Commission | The Maharashtra Electricity Regulatory Commission in its Multi Year Tariff Orders for the control period of 2007-2010 has specified the distribution loss trajectory Discomwise from 30.5–2.93 to 10-2.93 The commission <i>vide</i> its Terms and Conditions of Tariff Regulations, 2005 has defined the mechanism for sharing of gains or losses on account of controllable factors. |

| 1 | 2 | 3 |
|-----|--|--|
| 11. | Rajasthan Electricity Regulatory Commission | According to the Rajasthan Electricity Regulatory Commission, the DISCOM has reduced losses significantly and are almost matching the targets given by the Commission. The Feeder Renovation Programme initiated by the DISCOMS at large scale, is now on completion stage and the AT&C losses are expected to be reduced further. |
| 12. | Tamil Nadu Electricity Regulatory Commission | The Tamil Nadu Electricity Regulatory Commission <i>vide</i> its letter dated 6.11.2008 has already set the AT&C loss targets for the Tamil Nadu Electricity Board which are 19.30% for the year 2008-09, 18.90% for 2009-2010, 18.50% for 2010-2011 and 18.10% for 2011-12 |

In addition, Government has launched Restructured Accelerated Power Development and Reforms Programme with the major focus on loss reduction.

[Ministry of Power O.M. No. 47/5/2009-R&R Dated 18.8.2009]

Recommendation (Serial No. 7)

The Committee observe that as per para 8.2.1(2) of Tariff Policy, third party verification/energy audit of technical and financial data for different areas/localities could be used to impose area/locality specific surcharge for greater AT&C loss levels and this, in turn, would generate local consensus for effective action for better governance. Further para 8.2.1(2) of the policy requires the SERCs to institute a system of independent scrutiny of financial and technical data submitted by the licensees. The policy also emphasizes that an in-depth scrutiny of the financial and technical data submitted by the licensees would form the basis for tariff determination. The Committee are, however, concerned to note that in many of the States energy audits are being done in-house by the licensees themselves. To ensure that the consumers are extended the benefit of energy audit results and at the same time are not unnecessarily put to disadvantage, the Committee feel that SERCs should ensure third party verification of

energy audit results by engaging experts/independent consultants for scrutiny and analysis of the data submitted by the licensees for tariff determination. The Committee also desire that the Government should take the necessary steps so that guidelines of tariff policy in this regard are followed by all the SERCs.

Reply of the Government

All the State Electricity Regulatory Commissions were requested to furnish the details of third party verification of energy audit results for tariff determination in their respective States. The information furnished by the SERCs of the following States is as follows:

| Sl. No. | Name of the SERCs | Comments |
|---------|--|---|
| 1 | 2 | 3 |
| 1. | Assam Electricity Regulatory Commission | The Assam Electricity Regulatory Commission is yet to take up third party verification of the energy audit. The Commission however, feels that a third party/independent agencies should be engaged. |
| 2. | Bihar Electricity Regulatory Commission | Work on energy audit has not been initiated by the Bihar Electricity Regulatory Commission and the results are yet to come. However, the financial and technical data submitted by the Bihar State Electricity Board is being scrutinized and analyzed by an independent consultant appointed by the Commission |
| 3. | Chhattisgarh State Electricity Regulatory Commission | Third party verification of energy audit results has not been done so far. However, the Commission has been appointing consultants for scrutiny and analysis of data submitted by a licensee for tariff determination. |
| 4. | Delhi Electricity Regulatory Commission | The energy audits have been done in house by the licensees themselves and Commission has not considered it necessary to verify the energy audit results through independent third party. |

| 1 | 2 | 3 |
|----|---|--|
| 5 | Gujarat Electricity Regulatory Commission | Tariff determination is being done with the help of consultant, the Administrative Staff College of India who are also looking after energy audit results for tariff determination by the Commission. |
| 6. | Jharkhand State Electricity Regulatory Commission | Jharkhand State Electricity Regulatory Commission has appointed independent and an expert agency (consultant) to carry out independent and in-depth scrutiny of the financial and technical data submitted by licensees. |
| 7. | Karnataka Electricity Regulatory Commission | The Commission, as part of the third party verification of technical and financial data had engaged the service of PWC as consultants for scrutiny of Audit Result Report and tariff applications under multi-year tariff regime for the financial year 2008-2010. |
| 8. | Kerala Electricity Regulatory Commission | For verification of technical and financial data furnished by the Licensees, Commission has appointed a 'Compliance Examiner'. Verification and authenticity of data has also been included as his duty. |
| 9. | Madhya Pradesh Electricity Regulatory Commission | For independent scrutiny of the financial and technical data provided by the Licensees/Generating Company, the Commission has appointed the following consultants: <ul style="list-style-type: none"> (i) M/s A.F. Ferguson for verification of coal accounting procedure in thermal power station of MPPGCL. (ii) M/s Pandey Dua and Mathur Associates, Chartered Accountants for investigation of employees' expenses incurred by licensees and generating company. (iii) M/s Pricewaterhouse Coopers for conducting a detailed scrutiny of technical and financial data. |

| 1 | 2 | 3 |
|-----|---|--|
| 10. | Maharashtra Electricity Regulatory Commission | The Maharashtra Electricity Regulatory Commission has undertaken third party verification of energy audit by assigning the work to M/s Feedback Ventures Ltd., Consultants in the power sector. |
| 11. | Rajasthan Electricity Regulatory Commission | All the DISCOMs are state owned. There is a statutory audit through the Chartered Accountant as well as by CAG, however, the Commission would like to have separate scrutiny of data at its own in future. |
| 12. | Tamil Nadu Electricity Regulatory Commission | Third party verification of energy audit results has not been done so far. |

The Forum of Regulators constituted a Working Group on "Loss Reduction Strategies" for detailed examination of issues around reduction of distribution losses. The report finalized by the FOR based on the inputs of the working group emphasizes that third party verification of the technical and financial data submitted by the utility is crucial, before such data is taken into account for determination of tariff. Further, FOR in its report on Multi Year Tariff and Distribution Margin has recommended that data on distribution loss levels should be verified through a third party as envisaged in the Tariff Policy. FOR has indicated that the services of accredited energy auditors and academic institutions such as Indian Institute of Technology (IITs) and other engineering colleges could be utilized for this.

[Ministry of Power O.M. No. 47/5/2009-R&R Dated 18.8.2009]

Comments of the Committee

(Please see Para 15 of Chapter I of the Report)

Recommendation (Serial No. 8)

The Committee have been informed that fixing tariff for the various classes of consumes is State specific but the principles and methodology for determination of tariff applicable to the generating companies and transmission licensees in the Central sector have been specified in CERC (Terms and conditions of Tariff) Regulations 2004. These regulations

also serve as guidelines for State Commissions to specify the regulation for terms and conditions for determination of tariff in respect of the generating companies and transmission licensees under their control. The Ministry of Power have informed the Committee that tariff rationalization has not been achieved in full, but the progress has been good. The Committee feel that the consumers generally are not satisfied with the service rendered and the tariff of electricity supplied to them, the whole process of reorganization of Electricity Boards and the reforms as such have not served the desired purpose. The Committee, therefore, recommend the Government should take the necessary measures to improve the distribution system so that consumers get good service as well as benefit of the tariff rationalization.

Reply of the Government

Views of the Central Electricity Regulatory Commission were sought in the matter. According to the Commission, to ensure quality of service — the distribution licensee has to take care of two important considerations, viz., supply availability and network availability. FOR in its report on "Multi Year Tariff and Distribution Margin" has recommended that:

- Recovery of fixed cost should be linked to achievement for Composite Index of Supply Availability (timely contracting adequate power to meet forecast load) and Network Availability to be specified by SERC.
- For every 1% underachievement in composite availability for urban and/or rural areas, Return on Equity shall be reduced by 0.1% of Equity.

As regards tariff rationalization, the information as available with FOR Secretariat on steps taken by State Commissions on tariff rationalization is enclosed as **Annexure-3**.

As informed by various State Electricity Regulatory Commissions consistent efforts are being made for improvement and strengthening of distribution system in their States by implementing Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY), Accelerated Power Development and Reforms Programme (APDRP), Atal Jyoti Yojana, rural electrification work and for reduction of AT&C losses.

Government has approved re-structured APDRP during the XI Plan as a Central Sector Scheme. The focus of the programme is on actual, demonstrable performance in terms of loss reduction.

The programme size of re-structured APDRP during XI Plan is Rs. 51,577 crore. Projects under the scheme would be taken up in Two Parts. Part-A would include the projects for establishment of baseline data and IT applications for energy accounting/auditing & IT based consumer service centers. Part-B would include the distribution strengthening projects. Outlay for Part-A (Baseline System) projects is Rs. 10,000 crore and that for Part-B projects is Rs. 40,000 crore. Initially funds for projects under both the parts would be provided through loan. The entire amount of loan for Part-A projects would be converted into grant on the completion of the project and up-to 50% (90% for special category States) loan of Part-B projects would be converted into grant on achieving the 15% AT&C loss in the project area on a sustainable basis.

Government of India launched Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) in March 2005 with an objective to electrify over one lakh un-electrified villages and to provide free electricity connections to 2.34 Crore rural BPL households. The scheme provides 90% capital subsidy for the projects. The continuation of the scheme in the XI Plan was sanctioned on 3rd January 2008 with a provision of Rs. 28,000 Crore capital subsidy, which covers 27 states in the country.

The status of implementation as on 15th May 2009 is as below:

| No. of Projects sanctioned | Cost of the Projects (Rs. crore) | Subsidy released (Rs. crore) | No. of villages to be Electrified | | No. of free connections to be Provided (In Lakh) | |
|----------------------------|----------------------------------|------------------------------|-----------------------------------|----------|--|----------|
| | | | Target | Achieved | Target | Achieved |
| 562 | 26,001 | 13,913.45 | 1,18,146 | 61,360 | 245.08 | 60.04 |

[Ministry of Power O.M. No. 47/5/2009-R&R Dated 18.8.2009]

Recommendation (Serial No. 9)

Although, the provisions of Section 61(f) of the Electricity Act, 2003, provide that Appropriate Commission shall specify the terms and conditions for the determination of tariff and is stated to be guided by Multi Year Tariff (MYT) principles, only some States have adopted this procedure. The Committee desire that such arrangement should also be in vogue in the rest of the States for which Central Government ought to impress upon them at appropriate level. Further, since the licensees/distribution companies are making huge profits by resorting to the setting up of tariff slabs for various categories of consumers, the Committee would like to be informed as to whether any such

policy in regard to fixing different tariff slabs for the consumers has been formulated by the Government. The Committee feel that instead of resorting to different slab systems across the country for fixation of power tariff, Government should examine the feasibility of achieving particular uniform rates of power supply for different categories of consumers, *i.e.* Domestic, agriculture and industrial, etc. in the country.

Reply of the Government

Central Electricity Regulatory Commission (CERC) has been specifying Multi-Year Tariff (MYT) Regulations for Generation and Transmission. The first control period was of 3 years for the period from 2001-04, followed by MYT for 5 years from 2004-09. CERC has recently issued the tariff regulations for 2009-14.

As per the information available with the Forum of Regulators (FOR) Secretariat, 9 SERCs (Maharashtra, Madhya Pradesh, New Delhi, Andhra Pradesh, Kerala, Gujarat, Karnataka, West Bengal and Chhattisgarh) have issued MYT Regulations for Distribution. FOR constituted a Working Group on 'MYT and Distribution Margin'. The report evolved by the forum based on the inputs of the Working Group suggests *inter-alia* a model MYT framework for distribution licensees.

In the context of differentiation of tariff, Section 62(3) of the Electricity Act, 2003 provides as under:-

"The Appropriate Commission shall not, while determining the tariff under this Act, show undue preference to any consumer of electricity but may differentiate according to the consumer's load factor, power factor, voltage, total consumption of electricity during any specified period or the time at which the supply is required or the geographical position of any area, the nature of supply and the purpose for which the supply is required".

Some State Electricity Regulatory Commissions have, however, reduced the number of slabs within a consumer category as part of tariff rationalization.

Further Tariff Policy provides in para 8.4.2 that:

"The National Electricity Policy states that existing PPAs with the generating companies would need to be suitably assigned to the successor distribution companies. The State Governments may make such assignments taking care of different load profiles of the distribution companies so that retail tariffs are uniform in the State

for different categories of consumers. Thereafter the retail tariffs would reflect the relative efficiency of distribution companies in procuring power at competitive costs, controlling theft and reducing other distribution losses."

Under the Electricity Act, 2003, the State Electricity Regulatory Commissions (SERCs) are empowered to determine the tariff for supply of electricity to various consumers in the State. No approval of the Central Commission or the Central Government is required for this purpose. The tariff of electricity depends on the overall power purchase cost as well as the operational and financial performance of the Distribution Companies (DISCOMs) i.e. Aggregate Technical and Commercial (AT&C) Losses, operational expenses, capital investment for system upgradation/augmentation etc. In determining the tariff, the SERCs, *inter-alia*, are required to safeguard consumers' interest and at the same time, ensure recovery of the cost of electricity in a reasonable manner.

[Ministry of Power O.M. No. 47/5/2009-R&R Dated 18.8.2009]

Recommendation (Serial No. 15)

The Standing Committee on Energy, in their 9th Report (14th Lok Sabha) on APDRP, presented to Lok Sabha on 25.08.2005, had recommended that besides resolving the issues like steep tariff hike and reduction in T&D losses, the private distribution companies in Delhi should also sort out the issues relating to increasing complaints of fast running of electricity meters. As regards the number of complaints received by distribution companies in Delhi, the Committee are informed during 2007-08, 17293 complaints related to billing and 23051 complaints on metering problems were received by the distribution companies. The DERC has also informed that the Delhi Electricity Supply Code and Performance Regulations, 2007 require the electricity meters to conform to the Central Electricity Authority (CEA) Installation and Operation of Meters Regulation 2006. The CEA regulations specify that meters shall comply with the requirements of the relevant standard notified by the Bureau of Indian Standards (BIS) which *inter alia* define the error limits of meters. The error limits for electricity meters are set by BIS in their relevant standards and current limits are $\pm 1\%$ and $\pm 2.5\%$ for class I static (electronic) type meter under standard and on site conditions. The Committee are happy to note that DERC has notified ERTL (North), Okhla, Delhi and CPRI which are National Accreditation Board for Testing and Calibration Laboratories (NABLs) accredited Government laboratories, as independent third parties for testing of meters. However, the fact

remains that consumers in Delhi are mainly dissatisfied with such measures. The Committee strongly feel that ways and means should be found to ensure satisfaction of the consumers in respect of over-billing as well as fast running of meters. In case of complaints of fast running meters, quick action needs to be taken to replace them. The Committee also recommend that the consumers should be allowed to have a meter of their own choice from a set of meters approved by the agencies like CPRI. The Committee also feel that distribution companies should educate the consumers as to how the electric appliances are to be used with a view to ensuring minimum consumption of electricity which in turn would reduce the possibility of the excess reading of sensitive meters.

Reply of the Government

Electricity is a concurrent subject. Distribution of electricity comes within the purview of the States. Accordingly, the Distribution Companies (DISCOMs) are regulated by the respective State Electricity Regulatory Commission (SERCs) under the provisions of the Electricity Act, 2003. The Delhi Electricity Regulatory Commission (DERC) has reported that the accuracy standards of different classes of electricity meters are decided by Bureau of Indian Standards (BIS). The current standard for domestic electricity of meters issued by BIS provide for a tolerance of ± 2.5 per cent. Therefore, a meter found to be fast or slow within the prescribed limit of ± 2.5 per cent is considered to be functioning accurately and, therefore, does not have any billing related implications.

The DERC has also informed that in recent years a number of meter testing drives have been conducted by the DISCOMs, the Government of NCT of Delhi and by the DERC and the number of meters found to be running fast out of those tested was small.

The position regarding other States is as follows:-

The Government of Chhattisgarh has allowed the consumers to have meters of their own choice from the set of approved meters. The DISCOMs in this State have taken up consumer awareness drive from time to time for educating consumers to reduce their energy consumption by adopting various measures.

In Goa the consumers are being allowed to have the meters of their choice having the required specification and which have been duly tested in accordance to IS/BIS specification. Measures are being taken for educating consumers through advertisements/posters etc. on energy conservation/use of energy efficient equipments/appliances.

In Haryana, the Dakshin Haryana Bijli Vitran Nigam Ltd. has empanelled manufacturers of meters and the consumer is free to choose any one of them. The Utility has also included its consumers awareness programme in its Capital Investment Plan for the financial year 2009-10.

The distribution companies in Madhya Pradesh are already taking action to educate the consumers and providing necessary information by organizing camps and workshops at local level.

According to Orissa, the Orissa Electricity Regulatory Commission (OERC) (Condition of Supply) Code, 2004 provides that the consumers can himself procure the meters either from the vendors certified by the licensee confirming to licensees technical specifications or may request the licensee to supply the meter. Various consumer awareness programme are being conducted by the OERC and licensees through electronic, audio and print media.

[Ministry of Power O.M. No. 47/5/2009-R&R Dated 18.8.2009]

Recommendation (Serial No. 17)

Performance of power stations and inter-State Transmission system regulated by the Central Electricity Regulatory Commission (CERC) is governed by the benchmark Standards of Performance specified by the Commission as part of multi-year terms and conditions of tariff notified by it. Further, the CERC has specified a benchmark of target availability/capacity index in order to ensure reliability of supply which ultimately has to reach the end consumer through a distribution utility, the capacity of generating stations to produce electricity and of a transmission utility/licensee to deliver the same from the point of generation to the point of drawal. The Committee note that in most of the States, the State Electricity Regulatory Commissions (SERCs) have notified the Standards of Performance for quality, continuity and reliability of service to the consumers after consultation with licensees, stakeholders and general public. Some States are stated to have taken initiatives to notify and implement the Standards of Performance. In this regard, Karnataka has made an innovation by introducing Office of the Consumer's Advocacy (OCA), who hears complaints about the non-compliance of the Standards of Performance by the utilities. In Madhya Pradesh, quarterly and annual Reports on the performance standards are being published in newspapers and are available in Madhya Pradesh Electricity Regulatory Commission (MPERC). The MPERC also hold workshops with NGOs to disseminate information on the performance standards among consumers. The distribution

companies have been directed by MPERC to display performance standards at their offices. As per the directions of MPERC, six lakh pamphlets containing details of performance standards were distributed alongwith electricity bills in Bhopal, Indore and Jabalpur. Further, Ombudsmen are directed to review performance standards bi-annually. Similarly, Gujarat Electricity Regulatory Commission (GERC) specified formats for submitting information related to performance and obtains compliance reports from the Distribution Licensees and same are also uploaded on the Commission's website. The Standards of Performance Regulations provide for the various limits and time period for the parameters (Interruption, Period of Schedule Outages, Voltage variations, Harmonics) related to quality of power. To enforce these standards, detailed procedures have been prescribed in the Grid Code to be complied with by the licensees. While the Committee appreciate the steps taken by some of the State Electricity Regulatory Commissions, for monitoring the Standards of Performance and reliability of supply through monthly Reports, yet the Committee find out that many of these Commissions have not so far fixed the pre-determined indices on quality of power supply, to be followed by licensees. Taking note of the fact that as many as 21 State Electricity Regulatory Commissions (SERCs) have laid down Standards of Performance, the Committee desire that the Government should persuade all the SERCs to take elaborate steps to ensure that the Distribution Companies supply the consumers with the continuous, quality and reliable supply of power. To ensure this, the Committee recommend that SERCs/Distribution companies should regularly disseminate information on Standards of Performance (SoP) being followed by the Distribution Companies. This needs to be ensured that the quarterly reviews are carried out by SERCs and the defaulting Distribution Companies are penalized. The Committee would like to be apprised of the action taken by the Government in this regard.

Reply of the Government

Reliability Indices (RIs) are generally specified by State Electricity Regulatory Commissions as part of Standards of Performance (SoP) Regulations. Status of SoPs notified by some SERCs containing RIs is at Annex-5.

The Central Government has made Forum of Regulators Rules, 2005, according to which laying of standards of performance of licensees as required under the Electricity Act, 2003 is the function of the FoR. In regard to dissemination of information on and monitoring of compliance of SoPs, the Forum of Regulators (FoR) in its report on

‘Protection of Consumer Interest’ has made the following recommendations:

- A model consumer charter stipulating the rights and obligations of consumers.
- NGOs should be involved for consumer education and empowerment.
- Leaflets highlighting the consumers’ rights under the standards of performance regulations should be distributed for dissemination of information amongst the consumers.
- This would be best achieved by printing the ‘consumers rights’ on the back of the electricity bill. This would ensure wider access of message and improve awareness amongst the consumers.
- Provision in the rule issued by Government of India stipulating *inter alia* requirement of submission of report by the Ombudsman should be institutionalized by all SERCs.

Action taken by some of the SERCs are as follows:

| Sl. No. | Name of the SERCs | Action Plan |
|---------|--|--|
| 1 | 2 | 3 |
| 1. | Assam Electricity Regulatory Commission | The Commission has established Consumer Advocacy Cell (CAC) to disseminate the information. The CAC is bringing out an information bulletin titled “Consumer Grid”. |
| 2. | Chhattisgarh State Electricity Regulatory Commission | The Commission had enlisted the services of a reputed NGO to create awareness among consumers about their rights and obligations under the Electricity Act, 2003. |
| 3. | Delhi Electricity Regulatory Commission | The DERC has published the information contained in Delhi Electric Supply Code and Performance Standards Regulations, 2007 in a consumer friendly booklet form being freely distributed at Resident Welfare Association/Consumer meeting by DISCOMs. |

| 1 | 2 | 3 |
|----|--|--|
| 4. | Gujarat Electricity Regulatory Commission | The GERC has released a booklet titled "Guidelines on Rights of Electricity Consumers under the Electricity Act, 2003" which contains detailed information on rights of consumers as well as SoP including amount of compensation if the SoP standards are not followed. |
| 5. | Himachal Pradesh Electricity Regulatory Commission | The Commission has informed that the utility has been submitting quarterly reports and consolidated Annual Reports on SoP |
| 6. | Karnataka Electricity Regulatory Commission | The quarterly report being submitted by the licensees are being analysed by the Office of Consumer Advocacy |
| 7. | Madhya Pradesh Electricity Regulatory Commission | The Commission has enlisted about 125 NGOs across the State and following the procedure as contained in the Forum of Regulators report. |
| 8. | Maharashtra Electricity Regulatory Commission | The Commission has framed a comprehensive "Electricity Consumers' Rights Statement" to educate the consumers. |
| 9. | Tamil Nadu Electricity Regulatory Commission | The Commission is monitoring the half-yearly reports being submitted by the licensee. |

[Ministry of Power O.M. No. 47/5/2009-R&R Dated 18.8.2009]

Recommendation (Serial No. 18)

The Committee note that as per the National Electricity Policy, 2005 (Para 5.13.2), the SERCs are required to draw a road map for the declaration of reliability under the Reliability Index (RI) of supply of power to consumers of all cities and towns upto district headquarters as also rural areas. The Committee are, however, dismayed to note that till date the States like Bihar, Gujarat, Haryana, Jharkhand, Karnataka, Kerala, Maharashtra, Meghalaya, Rajasthan, Punjab, Tamil Nadu and Uttar Pradesh have reportedly not specified the Reliability Indices. The Committee feel that specifying the Reliability Indices should have been the top priority of SERCs to ensure consumer satisfaction. The Committee, deprecate the delay in specifying the

Reliability Indices in these States and strongly urge the Government to intervene and pursue the matter with the concerned SERCs to ensure that their Reliability Indices be declared without any further loss of precious time.

Reply of the Government

The National Electricity Policy casts the responsibility of compilation and publishing of Reliability Index (RI) data on the Central Electricity Authority. According to the Authority the State Electricity Regulatory Commissions have started specifying the reliability indices to ensure customer satisfaction. However some of the SERCs are obtaining data from the power utilities for managing the reliability indices. It is necessary to have consumer indexing and logging of outages for computing reliability indices at consumer level. Status of SERCs which have notified SoPs containing RIs provided by the CERC is placed at Annex-5. Under the R-APDRP funds are being provided to the utilities for conducting GIS based consumer indexing and remotely collecting the data from the meters installed on 11V feeders and distribution transformers. Only after consumer indexing is completed and system of IT based monitoring of consumer outages is in place, SERCs would be able to obtain reliability parameters from the utilities. It is expected that under R-APDRP in 3 years time above requirement would be met by the utilities. However, a road map is to be developed by the SERCs in consultation with utilities.

Some of the SERCs have laid down the Reliability Index which are as follows:

| Sl. No. | Name of the SERCs | Action Plan |
|---------|--|---|
| 1. | Madhya Pradesh Electricity Regulatory Commission | The Commission has laid down the levels of RI for all cities and towns up to the District Headquarter towns and also for the industrial growth centre. According to the Commission the RI for the period April 2008 to September 2008 varies from 98-99.50% |
| 2. | Tamil Nadu Electricity Regulatory Commission | The Commission has set RI on 6.11.2008 for all the cities, towns up to district headquarters and rural areas which varies from 95% in the year 2007-08 to 99.95% in the year 2001-2012 |

[Ministry of Power O.M. No. 47/5/2009-R&R Dated 18.8.2009]

Recommendation (Serial No. 22)

The Committee note with great concern that the major issue brought to the notice by the CERC with regard to the violation of Indian Electricity Grid Code (IEGC) remain frequent overdrawal from the Grid by certain States at lower frequencies. The Committee have been informed that the procedure of day ahead scheduling and pricing of deviations from the schedule (unscheduled interchange or UI) was part of the IEGC prepared by Central Transmission Utility and approved by the Commission which was implemented w.e.f. 1st February, 2000. The provision for pricing of UI, however, became effective only after implementation of the Availability Based Tariff (ABT) progressively in various regions beginning from July, 2002. The Committee also note that the ceiling rate of UI is fixed at 49.0 Hz and is related to the price of electricity that can be produced using the costliest fuel and thus reflects system marginal cost. However, there have been instances when States have overdrawn below the desired frequencies. In this regard, the Committee note that while disposing of a petition filed by the Western Regional Load Despatch Centre, the Central Commission *vide* its order dated 28th January, 2003 had directed that MPSEB shall pay a penalty of Rs. One lakh only invoking powers conferred on the Commission under Section 45 of now repealed ERC Act, 1998. Similarly, while disposing of a petition filed by Northern Regional Load Despatch Centre (NRLDC), the Commission had imposed a penalty of Rs. One lakh only on Uttar Pradesh Power Corporation Limited (UPPCL) invoking powers vested with it under Section 142 of the Electricity Act, 2003. A penalty of Rs. One lakh on UPPCL was also imposed by the adjudicating officer appointed by the Commission under Section 143 of the Act, to conduct an inquiry into the instances of non-compliance by the respondent of the instruction of the NRLDC during the period 1.4.2006 to 30.4.2006. The Committee feel that the penalty imposed on the States overdrawing from the Grid at low frequency is too meagre to discourage them from overdrawing and to force them to follow the Grid Code. The Committee, therefore, recommend that more stringent penalties should be taken by the Central Government/CERC to prevent overdrawal from the Grid and as such to protect the Grid from collapsing.

Reply of the Government

The Central Government has constituted National Load Despatch Centre located at New Delhi to discharge the function of supervision over the Regional Load Despatch Centres, scheduling and dispatch of electricity over inter-regional links in accordance with grid standards

specified by the Authority and grid code specified by Central Commission in coordination with Regional Load Despatch Centres and coordination with Regional Load Despatch Centres for achieving maximum economy and efficiency in the operation of National Grid, etc. The Central Government has also constituted Regional Load Despatch Centres for complying with such principles, guidelines and methodologies in respect of the wheeling and optimum scheduling and despatch of electricity as the Central Commission may specify in the Grid Code.

As informed by the Central Electricity Regulatory Commission Apart from levying penalty on the defaulting entities as per the provisions of the Electricity Act, 2003, the Central Commission has of late taken strong exception to non-compliance of grid code in the matter of overdrawal of electricity, violations of regulations on inter-State Open Access and inter-State trading. The Commission has initiated action against the MDs/CEOs of the companies concerned under Section 149 of the Act in addition to taking action against the companies and also levied penalties in some cases.

In addition, the Central Commission has notified Central Electricity Regulatory Commission (Unscheduled Interchange Charges and related matters) Regulations, 2009, on 30th March, 2009 where in Regulation 7, it has been provided that in addition to UI Rates corresponding to frequency of 49.2 Hz, as stipulated under regulation 5, an additional Unscheduled Interchange Charge at the rate equivalent to 40% of the UI Rate corresponding to frequency of 49.2 Hz shall be applicable for over-drawal or under-injection of electricity for each time-block when grid frequency is below 49.2 Hz.

Provided that for under-injection of electricity during the time-block when grid frequency is below 49.2 Hz for the generating stations using coal or lignite or gas supplied under Administered Price Mechanism (APM) as the fuel, Additional Unscheduled Interchange Charge shall be equivalent to 40% of the UI Cap Rate.

[Ministry of Power O.M. No. 47/5/2009-R&R Dated 18.8.2009]

Recommendation (Serial No. 23)

The Committee note that some of the States have not even paid the UI charges. The Committee also take note of the fact that in a petition filed by WRLDC, the Commission has directed MPSEB to pay Rs. 25 crore on or before 25.06.2006 and the balance amount of Rs. 25.7 crore by 27.07.2006. Further, Uttar Pradesh is also reported to

be not paying the outstanding arrears of Rs. 770 crore of Unscheduled Interchange. In view of the huge outstanding arrears on accounts of non-payment of UI charges, the Committee feel that the Government should take up the matter at the highest level to ensure that the States abiding by the Grid Code do not suffer on account of the unauthorised overdrawal of power by other States. The Committee fully endorse the view of the Government that the outstanding amount from the defaulting States needs to be recovered by way of the Central appropriation of their allocated funds and desire that the action taken in this regard be reported to them.

Reply of the Government

The Central Electricity Regulatory Commission apart from levying penalty on the defaulting entities as per the provisions of the Electricity Act, 2003, the Central Commission has taken strong exception to non-compliance of grid code in the matter of overdrawal of electricity, violations of regulations on inter-State Open Access and inter-State trading. The Commission has initiated action against the MDs/CEOs of the companies concerned under Section 149 of the Act in addition to taking action against the companies and also levied penalties in some cases. As regards, recovery of outstanding amount from the defaulting States by way of the Central appropriation of their allocated funds, the Ministry is seeking the views of the Central Electricity Regulatory Commission.

[Ministry of Power O.M. No. 47/5/2009-R&R Dated 18.8.2009]

Recommendation (Serial No. 24)

The Committee agree with the concern expressed by the Ministry about States violating the unscheduled interchange barrier and overdrawing power to the detriment of other States, and expect them to appropriately fix UI charges taking into account the cost of generation of power from various kind of fuels including naphtha and these charges may be allowed to increase as and when the fuel cost is increased. The Committee also fully endorse the views of the Government that the regulators should evolve such a practice that when the Annual Return Rates (ARRs) are being filed, the damages which have been imposed for the UI charges should be stated separately and very clearly and those payments which are in the nature of damages should not go to show purchase of power because that really is the inefficiency or incompetence of that particular Distribution company or entity. The Committee would, therefore, recommend that the matter may be deliberated by FORs to arrive at a consensus and

the Committee may be apprised of action taken in the matter. At the same time the Committee strongly recommend that certain more stringent measures are needed to be evolved by the Central Government in consultation with the CERC to avoid any major grid disturbances in the future.

Reply of the Government

The Forum of Regulators in its last meeting held on 11-12th June, 2009 deliberated on this recommendation and has decided that SERCs should not permit in the Annual Review Requirements (ARR) with effect from 1.8.2009, the inclusion of 'additional UI charge' imposed on the utilities under CERC's UI Regulations for overdrawal during the time blocks when frequency was below 49.2Hz. The minutes of the meeting containing decisions on this recommendation have been forwarded to the SERCs by the Commission. FOR after deliberations have taken a consensus decision that UI will not be allowed in ARR.

Apart from levying penalty on the defaulter entities as per the provisions of the Electricity Act, 2003, the Central Commission has informed that it has taken strong exception to non-compliance of grid code in the matter of overdrawal of electricity, violations of regulations on inter-State Open Access and inter-State trading. The Commission has initiated action against the MDs/CEOs of the companies concerned under Section 149 of the Act in addition to taking action against the companies and also levied penalties in some cases.

[Ministry of Power O.M. No. 47/5/2009-R&R Dated 18.8.2009]

Recommendation (Serial No. 25)

The Committee note that regulations for open access in inter-State transmission issued by the Central Electricity Regulatory Commission (CERC) in February, 2004, were amended in February, 2005, to further harmonise them with the requirements of trading in electricity. The CERC has now finalised the new open access regulations for the inter-State transmission after consultation with the stakeholders and the new regulations have been reported to become fully effective with effect from April 1, 2008. Steps are stated to have been taken in 19 States to implement the provision of Electricity Act, 2003 regarding issue/notification of the regulation for open access. Further, 35 consumers in Chhattisgarh, 17 applicants in Madhya Pradesh, 9 consumers in Rajasthan have been reported to be availing/sanctioned open access of electricity. The Committee observe that the annual volume of electricity traded through open access route is only of the

order of two per cent of the total available energy. The new regulations for open access State that in case of bilateral intra-regional transaction, the transmission charges for the use of inter State transmission system shall be Rs. 30/MWh, for bilateral, between adjacent regions, these will be Rs. 60/MWh and Rs. 90/MWh for bilateral wheeling of electricity through one or more intervening regions. Further, in case of the collective transactions charges at the rate of Rs. 30/MWh for energy approved for transmission for each point of injection and for each point of drawal shall be payable for use of the inter-State transmission system. The Committee also observe that the transmission charges recovered from open access customers are to be utilised for reduction in the monthly transmission charges payable by long-term customers of the region after allowing 25% to be retained by the Central Transmission Utility and the transmission charges for the use of State network to be disbursed to the State Transmission Utility concerned. The Committee believe that these new regulations which have come into force with effect from 1st April, 2008, would not only improve the magnitude of bilateral trade of power in the country where the present transactions are taking place between the SEBs or their successor utilities, but will also benefit the consumers once open access at intra-State level also becomes effective. The Committee appreciate the efforts made by the Ministry to see that the open access is operationalised in the country and also take note of the fact that it was unanimously resolved to support this proposition in the Chief Ministers conference held during 2007. The Committee recommend the State Governments should ensure that the open access takes off in their States more steadily and progressively.

Reply of the Government

The Secretary (Power) *vide* his DO letter dated October 20, 2008 to Chief Secretaries of all State Governments has impressed that Open Access is a critical component of the Electricity Act, 2003 which makes it mandatory to introduce Open Access by January, 2009. He also drew the attention on the emphasis by the Hon'ble Prime Minister in the Chief Ministers' Conference held on May 28, 2007 on ensuring open access to consumers. It was resolved in the conference that the State Government commit themselves to operationalising 'Open Access' in the transmission and distribution sectors and issue policy directives to Regulators, if necessary. In the Round Table Conference with the Forum of Regulators and State Power Secretaries held in November, 2007 it was agreed that State Electricity Regulatory Commissions will notify open access charges and SLDCs would be made independent.

[Ministry of Power O.M. No. 47/5/2009-R&R Dated 18.8.2009]

Recommendation (Serial No. 26)

The Committee are concerned to note that some States are reported to be forcing their regulators to bring directions to use power within the State and also there has been a tendency of some States to impose excessive wheeling charges for the export of power which makes it unremunerative for generating companies to sell their power outside the State. While appreciating the Government's action to direct the Forum of Regulators to bring out a website which will post all the rates which have to be paid and charges which would be levied for utilising open access as well as the distribution companies who intend to purchase power through open access, the Committee urge the Government to take immediate steps to ensure that all the Regulatory Commissions to follow a uniform policy regarding open access and levying of wheeling charges therefore to usher in effective operationalisation of open access in the country.

Reply of the Government

The Ministry of Power *vide* D.O. letter of 20th October, 2008 from Secretary (Power) has requested the Chief Secretaries of all State Governments that SERCs determine open access surcharge, wheeling charge and stand by charge of electricity according to the provisions of the Tariff Policy latest by February, 2009.

Action taken by some of the SERCs are as follows:

| Sl. No. | Name of the SERC | Action Taken |
|---------|---|---|
| 1 | 2 | 3 |
| 1. | Bihar Electricity Regulatory Commission | Order determining the transmission charges, wheeling charges and cross subsidy charges etc. payable by open access customers to utility has been issued by the Commission. |
| 2. | Delhi Electricity Regulatory Commission | DERC has issued orders for Intra-State Open Access on 19.8.2008 and also prescribed the surcharge, <i>vide</i> order dated 29.8.2008. The wheeling and Transmission Charges were included in the respective MYT orders. |

| 1 | 2 | 3 |
|-----|--|--|
| 3. | Gujarat Electricity Regulatory Commission | The Commission has fixed wheeling charges rationally. According to the Commission Transmission charges are also very low and 4% wheeling charges also fixed for wheeling or generation from renewable energy sources. |
| 4. | Himachal Pradesh Electricity Regulatory Commission | The Commission has issued regulations for determining wheeling charges etc. |
| 5. | Jharkhand Electricity Regulatory Commission | The wheeling charges for use of inter-State transmission system in Jharkhand is fixed on the basis of the efficient cost of transmission which are 6.5 paisa per kwh. |
| 6. | Karnataka Electricity Regulatory Commission | The Commission has determined transmission charges and wheeling charges for long term and short term open access transactions. |
| 7. | Kerala State Electricity Regulatory Commission | Regulations on open access issued by the Commission as early as in 2005. |
| 8. | Madhya Pradesh Electricity Regulatory Commission | The MPERC has issued orders on wheeling charges and cross subsidy. According to the Commission the charges are reasonable and not deterrent to open access. |
| 9. | Maharashtra Electricity Regulatory Commission | The transmission charges and wheeling charges are revised yearly and are approved in the respective Tariff Orders of the Commission. |
| 10. | Orissa Electricity Regulatory Commission | The Open Access Regulations have been published by the Commission. Open Access charges which includes transmission charges and wheeling charges and cross subsidy charges are being notified by the Commission every year. |

[Ministry of Power O.M. No. 47/5/2009-R&R Dated 18.8.2009]

Recommendation (Serial No. 28)

The Committee note that Section 86 (I)(e) of the Electricity Act, 2003, provides that the State Electricity Regulatory Commissions shall promote cogeneration and generation of electricity from the renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person and also specify, for purchase of electricity from such sources – a percentage of the total consumption of electricity in the area of a Distribution Licensee. The National Electricity Policy and Tariff Policy also suggest preferential tariff and implementation of Section 86 (I) (e) with progressively increasing percentages for renewable power generation. Consequently some State Governments are making efforts to exploit the available renewable energy potential in their States – whether it is through the wind, biomass, solar, small hydro projects and as a result of these efforts the States like Tamil Nadu, Maharashtra, Karnataka, Gujarat, Rajasthan, Madhya Pradesh have 3873.4 MW, 1755.9 MW, 1011.4 MW, 1252.9 MW, 538.8 MW and 187.7 MW of installed capacity of electricity from renewable sources of energy. Steps are also stated to be taken by the State nodal agencies to further promote the development of energy from renewable energy sources. The Committee are however, constrained to note that a number of States have not as yet even specified the Renewable Power Purchase obligation percentages. The States who have specified the power purchase obligations, the figure varies from 2% to 10%. Although, the Committee acknowledge that State Commissions should decide as to how and which renewable source of energy needs to be tapped or procured, the Committee observe that the non-implementation of provision of Section 86 (I)(e) of the Electricity Act, 2003, by some of the States would further hinder the exploitation and use of renewable energy in those States. The Committee, therefore, recommend that the Central Government/CERC should take up the matter at appropriate levels and ensure that all the States lay down the obligations not only for the generation of electricity from renewable sources of energy but also for the purchase of such electricity by the Distribution Licensees. The Committee also expect the Forum of Regulators (FOR) to play a proactive role in promoting renewable energy and bringing about uniformity in the Renewable Energy Purchase Obligation provisions in all the States.

Reply of the Government

The Electricity Act, 2003, National Electricity Policy and Tariff Policy cast the responsibility of promoting renewable sources of energy on the State Electricity Regulatory Commissions.

According to the Forum of Regulators, the Forum in its report on "Policies on Renewables" has made several recommendations seeking to promote development of renewable sources of energy. Salient recommendations are as under:—

- Minimum level of Renewable Purchase Obligation (RPO) at 5% till 2010 on lines of National Action Plan on Climate Change;
- A part of RPO may be reserved for RE resources in the region, such as solar PV and solar thermal, which are in the nascent stage of exploitation and technology involved has risks.
- SERCs to provide for penalty for non-compliance of RPOs.
- Facilitative framework for inter-State exchange of power.
- CEA to provide for appropriate grid connectivity standards for renewables.
- Concessional transmission charges by STU for sale of power within the State.
- Preferential tariff based on the cost-plus approach for non-firm RE-based projects during loan repayment period after which they should be asked to compete.
- GBIs are preferable to capital subsidies for promotion of RE technologies.
- GBI will be necessary if renewables, particularly solar is to be promoted on the scale envisaged in NAPCC.
- GBIs should be announced upfront, which could be factored in the tariff to be set by ERCs.
- Renewable Energy Certificate (REC) at national level to promote RE sources.

The FOR has informed that the present status of Renewable Purchase Obligation (RPO) in States is as follows:

| Sl.No. | SERC | Power Purchase obligation From Renewables (%) |
|--------|-------|--|
| 1 | 2 | 3 |
| 1. | APERC | For FY '08-09 = 5.0% |
| 2. | AERC | 5% as per draft notification |

| 1 | 2 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------|---------|---|---------|---------|----------|---------|---------|----------|---------|-----|-----|---------|-----------|-----|---------|-----|------|---------|-------|-----|---------|------|----------|-----|-----|-----|----|-----|-----|-----|-----|----|
| 3. | CSERC | 5% from biomass, 3% from small hydro plants, 2% from solar energy, wind, bagasse based cogeneration etc. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4. | DERC | 1% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5. | GERC | For FY 08 – 09 = 2% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6. | HERC | 10% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7. | HPERC | 20% from SHPP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8. | KERC | BESCOM, ESCOM & CESC... 10% HESCOM, & GESCOM and Hkeri Society 7.00% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9. | KSERC | Up to 5% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10. | MPERC | 10% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11. | MERC | 4% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12. | OERC | 4% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13. | PSERC | 1% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14. | RERC | Renewable Energy purchase obligation: <table><tr><td>Year</td><td>Wind</td><td>Bio-Mass</td></tr><tr><td>2006-07</td><td>2%</td><td>5%</td></tr><tr><td>2007-08</td><td>4%</td><td>6%</td></tr><tr><td>2008-09</td><td>5%</td><td>7%</td></tr><tr><td>2009-10</td><td>6%</td><td>7.5%</td></tr><tr><td>2010-11</td><td>6.75%</td><td>8%</td></tr><tr><td>2011-12</td><td>7.5%</td><td>8.5%</td></tr></table> | Year | Wind | Bio-Mass | 2006-07 | 2% | 5% | 2007-08 | 4% | 6% | 2008-09 | 5% | 7% | 2009-10 | 6% | 7.5% | 2010-11 | 6.75% | 8% | 2011-12 | 7.5% | 8.5% | | | | | | | | | |
| Year | Wind | Bio-Mass | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2006-07 | 2% | 5% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2007-08 | 4% | 6% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2008-09 | 5% | 7% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2009-10 | 6% | 7.5% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2010-11 | 6.75% | 8% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2011-12 | 7.5% | 8.5% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15. | TNERC | 10% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16. | UERC | 2009-10 of 8% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17. | UPERC | 7.5% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18. | WBERC | <table><tr><td>Year</td><td>2008-09</td><td>2009-10</td><td>2010-11</td><td>2011-12</td></tr><tr><td>WBS&EDCL</td><td>4.8</td><td>6.8</td><td>8.3</td><td>10</td></tr><tr><td>CESC Ltd.</td><td>4.0</td><td>6.0</td><td>8.0</td><td>10</td></tr><tr><td>DPL</td><td>2.5</td><td>4.0</td><td>7.0</td><td>10</td></tr><tr><td>DPSCLtd.</td><td>2.0</td><td>4.0</td><td>7.0</td><td>10</td></tr><tr><td>DVC</td><td>2.0</td><td>4.0</td><td>7.0</td><td>10</td></tr></table> | Year | 2008-09 | 2009-10 | 2010-11 | 2011-12 | WBS&EDCL | 4.8 | 6.8 | 8.3 | 10 | CESC Ltd. | 4.0 | 6.0 | 8.0 | 10 | DPL | 2.5 | 4.0 | 7.0 | 10 | DPSCLtd. | 2.0 | 4.0 | 7.0 | 10 | DVC | 2.0 | 4.0 | 7.0 | 10 |
| Year | 2008-09 | 2009-10 | 2010-11 | 2011-12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WBS&EDCL | 4.8 | 6.8 | 8.3 | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CESC Ltd. | 4.0 | 6.0 | 8.0 | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DPL | 2.5 | 4.0 | 7.0 | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DPSCLtd. | 2.0 | 4.0 | 7.0 | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DVC | 2.0 | 4.0 | 7.0 | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

[Ministry of Power O.M. No. 47/5/2009-R&R Dated 18.8.2009]

CHAPTER III

RECOMMENDATIONS/OBSERVATIONS WHICH THE COMMITTEE DO NOT DESIRE TO PURSUE IN VIEW OF THE GOVERNMENT'S REPLIES

Recommendation (Serial No. 1)

The Committee note that functions of the Central Electricity Regulatory Commission (CERC), an independent statutory body with quasi-judicial powers, are mainly to regulate the tariff of generating companies; regulate inter-State transmission of electricity; determine tariff for inter-State transmission of electricity; issue licenses to persons to function as transmission licensees, adjudicate upon disputes involving generating companies or transmission licensees; specify grid code having regard to grid standards; specify and enforce the standards with respect to quality, continuity and reliability of services by licensees and also fix trading margin in the inter-State trading of electricity. Section 61 of the Electricity Act, 2003 provides that the SERCs shall be guided by the principles and methodologies specified by the CERC for determination of tariff applicable to generating companies and transmission licensees. Also under the provisions of Section 107 of the Act, the Central Government has powers to give directions to the CERC in matters of policy involving public interest. The Committee, however, are surprised to find that no such direction has ever been given by the Central Government to the CERC (since coming in to force of the Electricity Act, 2003). This proves that the Central Government has acted with complete indifference or lack of any interest in the matter. The Committee would like Central Government to fulfill their responsibility in protecting the interests of consumers by ensuring frequent and meaningful interaction between the Central Government and CERC. The Committee expect the Government to issue necessary direction on policy related matters concerning consumers at the earliest. The Committee would like to be apprised of the action taken in this regard.

Reply of the Government

During briefing on the subject 'Role of CERC and SERCs in Protection of Interests of Consumers' it had been submitted to the Standing Committee on Energy that the Central Government has not given any direction to the Central Electricity Regulatory Commission

(CERC) under the provisions in Section 107 of the Electricity Act, 2003, as the occasion has not arisen so far.

Moreover, after notifying the National Electricity Plan, National Electricity Policy and Tariff Policy, sufficient guidance has been given to the CERC and hence, the need has not yet arisen.

As far as the State Electricity Regulatory Commissions are concerned it is for the respective State Governments to issue directions to the concerned SERCs as per the provisions in Section 108 of the Electricity Act, 2003 which reads, "(1) In the discharge of its functions, the State Commission shall be guided by such directions in matters of policy involving public interest as the State Government may give to it in writing. (2) If any question arises as to whether any such direction relates to a matter of policy involving public interest, the decision of the State Government thereon shall be final."

[Ministry of Power O.M. No. 47/5/2009-R&R Dated 18.8.2009]

Recommendation (Serial No. 13)

The Committee also note that after exhausting the channel of CGRF and Ombudsman, the affected consumer has no place to go for appeal except for having an option to go through the normal legal process as the Regulatory Commissions are not empowered to hear any appeal. The Committee, therefore, desire that some sort of mechanism needs to be worked out by the Government in this regard so that the electricity consumers may be spared from the cumbersome legal processes in seeking the redressal of their grievances.

Reply of the Government

The Electricity Act, 2003 gives precedence *inter-alia* to Consumer Protection Act. The consumer therefore has the right to approach consumer Courts apart from the Consumer Grievance Redressal Forum (CGRF) and Ombudsman.

It is felt that further multiplicity of levels of redressal may result in litigations and harassment of consumers.

[Ministry of Power O.M. No. 47/5/2009-R&R Dated 18.8.2009]

CHAPTER IV

RECOMMENDATIONS/OBSERVATIONS IN RESPECT OF WHICH THE REPLIES OF THE GOVERNMENT HAVE NOT BEEN ACCEPTED BY THE COMMITTEE AND WHICH REQUIRE REITERATION

Recommendation (Serial No. 16)

The Delhi Electricity Supply Code and Performance Standards Regulations, 2007 envisage payment of compensation by the Distribution companies to consumers in the event of default in observance of the notified Standards of Performance. The Commission has directed all the Distribution companies to pay compensation to the affected consumers without there being a need for such consumers to apply for the same. The Committee would like to know details of the cases disposed off where compensation have been paid by the Distribution companies to the affected consumers. At the same time, the Committee would like the Government/CERC to ensure that the other State Regulatory Commissions also follow suit in the matter to protect and safeguard the interests of the consumers.

Reply of the Government

The Delhi Electricity Regulatory Commission has been maintaining that compensation to the affected consumers, in the event of default on the part of utility to observe the guaranteed Standards of Performance (SoP) needs to be paid without there being any necessity for such consumers to claim the compensation amount in writing from DISCOM. However, the DISCOMs contend that compensation needs to be claimed by the affected consumers and the fact mentioned in such consumer claims need to be verified before compensation can be paid. In some cases, compensation has been paid by the DISCOMs BSES Rajdhani Power Ltd. and BSES Yamuna Power Ltd. upon receiving the claims for such compensation from the affected consumers.

As per Forum of Regulators, the number of cases where compensation has been paid by the licensee to the affected consumers is at Annexure-4.

Further, the FoR in its report on "Protection of Consumer Interests" agreed that the provision in the rule issued by Government of India

stipulating *inter-alia* requirement of submission of a report by the ombudsman should be institutionalized by all SERCs. The relevant extract of the Rule is quoted as follows: "(a) The ombudsman shall prepare a report on a six monthly basis giving details of the nature of the grievances of the consumer dealt by the ombudsman, the response of the licensees in the redressal of the grievances and the opinion of the ombudsman on the licensee's compliance of the standards of performance as specified by the Commission under section 57 of the Act during the preceding six months; (b) The report under sub-clause (a) above shall be forwarded to the State Commission and the State Government within 45 days after the end of the relevant period of six months."

The FOR has recommended that the disposal of grievances should be monitored up to the point of compliance of the order of CGRF or ombudsman and not just the passing of order by these bodies.

[Ministry of Power O.M. No. 47/5/2009-R&R Dated 18.8.2009]

Comments of the Committee

(Please see Para 21 of Chapter-I of the Report)

CHAPTER V

RECOMMENDATIONS/OBSERVATIONS IN RESPECT OF WHICH THE FINAL REPLIES OF THE GOVERNMENT ARE STILL AWAITED

Recommendation (Serial No. 2)

As regards the transparency in the exercise of powers and functioning of the CERC, the Committee have been given to understand that the CERC floats discussion paper among stakeholders, calls for comments and then holds public hearings before preparing the draft regulation. The draft regulation is also stated to be put on the website of the Commission for eliciting the comments/response of the stakeholders and pursue at large with a view to eventually notifying the regulation. The Committee desire that suitable steps should also be taken to create public awareness regarding the role of the Electricity Regulatory Commissions so that large number of peoples' groups/organizations and public can take active part in the formulation of requisite consumer friendly policies.

Reply of the Government

It is one of the functions of the Forum to evolve measures for protection of interest of consumers and promotion of efficiency, economy and competition in power sector.

The Forum of Regulators (FOR) in its report on 'Protection of Consumer Interests' has recommended a model consumer charter stipulating the rights and obligations of consumers.

The Forum has also recommended that:

- (i) NGOs should be involved for consumer education and empowerment.
- (ii) Leaflets highlighting the consumers' rights under the standards of performance regulations should be distributed for dissemination of information amongst the consumers.
- (iii) This would be best achieved by printing the "consumers rights" on the back of the electricity bill. This would ensure wider access of message and improve awareness amongst the consumers.

- (iv) Knowledgeable retired personnel could be appointed by SERCs as consumer advocates for participating in (a) tariff hearing to represent interests of domestic, agricultural and small scale industry Small Scale Industries Low Tension (SSI-LT) category consumers, (b) hearing for load shedding protocols, and (c) hearing for framing standards of performance.

[Ministry of Power O.M. No. 47/5/2009-R&R Dated 18.8.2009]

Comments of the Committee

(Please see Para 9 of Chapter-I of the Report)

Recommendation (Serial No. 5)

The Committee observes that as per Electricity Act, 2003, the Appropriate Commission may, with the approval of the Appropriate Government, specify the numbers, nature and categories of other officers and employees. However, the salaries and allowances payable and other service conditions of the Secretary, officers and other employees are to be such as specified with the approval of the Appropriate Government. In this connection, the Indian Institute of Public Administration (IIPA) has conducted a study on the impact of reorganization of State Electricity Boards (SEBs), wherein they have recommended that the Commission should have full autonomy in matters relating to staffing pattern, organization structure and adequate powers to recruit staff as required with an overall ceiling on expenditure. Concurring with these views, the Committee recommend that more and more autonomy need to be given to the CERC and SERCs in the recruitment process for which Government ought to take necessary steps.

Reply of the Government

The Recommendations of the IIPA were referred to the Forum of Regulators (FoR), who constituted a Working Group to examine the recommendations. The recommendations of the Working Group had been accepted by the FoR and forwarded to the Ministry. The Central Government has sought the views of the Central Electricity Authority and the State Governments in the matter.

[Ministry of Power O.M. No. 47/5/2009-R&R Dated 18.8.2009]

Comments of the Committee

(Please see Para 12 of Chapter-I of the Report)

Recommendation (Serial No. 10)

The Committee note with satisfaction that most of the State Governments are making efforts to reduce the cross subsidy and hope that the same would be kept within limits, benefiting only the most deserving sections of the society *i.e.* agriculturists/BPL households, etc. At the same time, the Committee desire that it would be useful if important details like the cost of electricity to the Government, subsidy given to consumers thereon, etc. are clearly mentioned in the bills issued to the consumers to educate and make them aware of the money being spent by the Government – for making available to them the electricity at a particular rate as is being done in certain States like Rajasthan, etc.

Reply of the Government

The Ministry sought this information from the State Governments.

According to Government of Haryana, the existing software of the DISCOMs does not support incorporation of details of subsidies in the consumer bill. However, they have noted the recommendations of the Committee and would upgrade the software.

In Madhya Pradesh the quantum of subsidy provided by the Government of Madhya Pradesh to agriculture and other category of consumers are already being mentioned in the monthly energy bills.

The Chhattisgarh Government has said that giving such details to consumers in his bill will unnecessary increase the size of the bill and administration cost.

A few State Governments like Orissa are not extending any subsidy to any class of consumers.

[Ministry of Power O.M. No. 47/5/2009-R&R Dated 18.8.2009]

Recommendation (Serial No. 11)

The Committee have been given to understand that the Electricity Regulatory Commissions are to facilitate capacity building of consumer groups. Section 94 (3) of the Act provides that the appropriate Commission may authorize any person as it deems fit to represent the interests of the consumers in the proceedings before it. It is pertinent to note in this regard that a unique feature was introduced by Karnataka Electricity Regulatory Commission by constituting the Office

of Consumer Advocacy (OCA) in the year 2001 under the similar provision of Karnataka Electricity Reforms Act, 1999. Further, the OCA has been facilitating redressal of consumer grievances and up to 31st March 2007, the OCA received 1043 complaints out of which 891 were resolved to the satisfaction of the consumers and the action was being taken to dispose off the remaining 152 complaints. Similarly, in Maharashtra, MERC has formulated its Consumer Grievance Redressal Forums and Electricity Ombudsman Regulations, 2006, which provides guidelines to the Licensees in the matter. As per the guidelines, separate machinery has been set up by MERC for the redressal of grievances. All the five Distribution Licensees in the State have established Consumer Grievance Redressal Forums in each Distribution Zone falling within their area of electricity supply. The Committee further observe that Maharashtra State Electricity Distribution Company Ltd. (MSEDCL) has established twelve CGRF at each Zone, i.e., Amravati, Nagpur (Urban), Nagpur (Rural), Aurangabad, Nashik, Pune, Beed, Latur, Kolhapur, Kalyan, Konkan and Bhandup. While appreciating that distribution companies in Maharashtra have established CGRF in each Zone, the Committee recommend that the Government/CERC should pursue all SERCs to ensure that CGRF/Ombudsman are set up in each distribution zone at convenient and easily accessible locations/places in each State to make them approachable by the common consumers. As regards disposal of cases by the Consumer Grievance Redressal Forums, the Committee note that in Madhya Pradesh, the State Government has introduced the facility of on-line-registration of complaints and fifty-eight per cent of the cases have been reported to be gone in favour of the consumers. Madhya Pradesh Electricity Regulatory Commission (MPERC) held workshops with 125 NGOs that have been registered with it who in turn educate the consumers in the State. As satisfactory work is being done by Electricity Commission in the aforesaid States, the Committee feel that all such reform processes should also be put in place in other States also so that there is greater involvement of consumer groups in the policy decisions having a bearing on the interests of the consumers and redressal of their grievances. For this, the CERC/FOR need to take proactive role in consultation and coordination with Electricity Commissions of those States.

Reply of the Government

The Forum of Regulators (FOR) has informed that in its report on 'Protection of Consumer Interest' it has recommended *inter alia* that 'CGRF should be located at a place which is easily accessible by the consumer'.

FOR has also recommended a model consumer charter stipulating the rights and obligations of consumers. Other relevant recommendations include:

- NGOs should be involved for consumer education and empowerment.
- Leaflets highlighting the consumers' rights under the standards of performance regulations should be distributed for dissemination of information amongst the consumers.
- This would be best achieved by printing the "consumers rights" on the back of the electricity bill. This would ensure wider access of message and improve awareness amongst the consumers.
- Knowledgeable retired personnel could be appointed by SERCs as consumer advocates for participating in: (a) tariff hearing to represent interests of domestic, agricultural, and Small Scale Industries Low Tension (SSI-LT) category consumers; (b) hearing for load shedding protocols; and (c) hearing for framing standards of performance.

[Ministry of Power O.M. No. 47/5/2009-R&R Dated 18.8.2009]

Recommendation (Serial No. 12)

The Committee find that Section 173 of the Electricity Act, 2003 provides that nothing contained in this Act or any rule or regulation made thereunder or any instrument having effect by virtue of this Act, rule or regulation shall have effect in so far as it is inconsistent with any other provisions of the Consumer Protection Act, 1986 or the Atomic Energy Act, 1962 or the Railways Act, 1989. The said Act thus does not interfere with the rights of the consumers within the Consumer Protection Act, 1986. Any consumer of electricity is, therefore, at liberty to approach any of the Consumer Courts for a legal redressal of his/her grievance. The Electricity Act, 2003, however, provides a more expeditious mode of consumer redressal whereunder it has been made obligatory on the distribution company – a licensee to establish forum which shall be addressing consumer grievances. Not satisfied with the decision of this forum, the consumer can appeal to Ombudsman appointed for the purpose. Taking note of the fact that the Consumer Grievance Redressal Forums (CGRFs) have been set up and Ombudsmen have been appointed in almost all the States, the Committee are of the view that the CERC/SERCs should ensure that these bodies function independently out of any Governmental control(s), whatsoever.

Reply of the Government

The Electricity Act, 2003 provides that every distribution licensee shall, within six months from the appointed date of grant of licence, whichever is earlier, establish a forum for redressal of grievances of the consumers in accordance with the guidelines as may be specified by the State Commission.

Almost all State Electricity Regulatory Commission have notified guidelines for establishing of Consumer Grievance Redressal Forums by the licensees in the States.

According to Forum of Regulators (FOR) on the issue of functioning of CGRF and ombudsman the FOR has made the following recommendations in regard to the independence of these institutions:—

- The qualification and experience required for the appointment of a chairperson of the Forum should be specified in such a manner as to ensure that the person is not serving as a regular employee of the licensee.
- It is necessary to ensure that the consumer who has a grievance should have the right to approach the CGRF directly without any precondition of approaching a particular staff or other committee set up by the licensee. Though the consumer should have a right to directly approach the CGRF, periodic meetings and interactions by the local utility staff with the consumers may also be encouraged as these have proved useful in resolving petty and routine issues.
- All SERCs should make provisions in their regulations clearly stipulating that non-compliance of the orders of CGRF would be treated as contravention of the regulations of SERC making the licensee liable for action under section 142 of the Act.
- Each SERC, while specifying the regulation under section 42(5) and (6), should provide a time limit (say 45 days or 60 days) for disposal of grievances by the CGRF. In the event of the CGRF not disposing off the grievances within the stipulated time period, the consumer should have the right to approach the ombudsman for settlement of non-redressal of his grievance by the CGRF. In addition, the provisions of section 142 of the Act may also be invoked for non-compliance of the regulations of the State Commission.

- Institution of the ombudsman should be created on a full-time basis so that proper attention is given to the resolution of the grievances of consumers. It is, therefore, suggested that the practice of designating an officer of SERC as ombudsman should be discontinued.
- Expenses of the office of the ombudsman should not be met by the distribution licensee, as it might raise a question on the independence of the ombudsman. The office of the Ombudsman should be funded by SERCs and a separate budgetary allocation could be made in the budget of SERC for this purpose. The SERC may recover such expenses from the licensees directly.
- The institution of the ombudsman should be created on a full-time basis so that proper attention is given to the resolution of the grievances of consumers.

[Ministry of Power O.M. No. 47/5/2009-R&R Dated 18.8.2009]

Recommendation (Serial No. 14)

The Committee are surprised to note that only after the Committee chose to take up for detailed examination the subject 'Role of CERC and SERCs in Protection of Interests of Consumers', the Ministry decided examine issues related thereto. A study on the consumer redressal mechanisms was entrusted to Indian Institute of Public Administration and Administrative Staff College of India (ASCI) for conducting the study and give a report within a period of three months. The Committee have been informed that ASCI has submitted the draft report which is being examined by the Ministry. The Committee would like to be apprised of the details of this study Report and the precise action taken by the Government thereon

Reply of the Government

The Indian Institute of Public Administration (IIPA) was assigned a study on impact of reorganisation of State Electricity Boards, *vide* Ministry's letter dated December 29, 2005.

The Administrative Staff College of India (ASCI) was assigned to undertake a study to assess the functioning of Consumers Grievances Redressal Mechanism in the States of Kerala, Andhra Pradesh, Tamil Nadu, Gujarat, Chhattisgarh, Madhya Pradesh, Uttar Pradesh, Punjab, Delhi, West Bengal, Orissa, Jharkhand, Assam, Tripura and Meghalaya *vide* Ministry's letter dated February 13, 2008.

The ASCI has since completed the study and covered almost all the terms of reference in their study and submitted its draft reports in three volumes, *inter-alia*, containing its recommendations/comments.

The Ministry sought clarifications on the recommendations on two of the terms of reference. The ASCI has since furnished the clarifications. ASCI's Reports are now being examined in the Ministry.

[Ministry of Power O.M. No. 47/5/2009-R&R Dated 18.8.2009]

Comments of the Committee

(Please see Para 18 of Chapter-I of the Report)

Recommendation (Serial No. 19)

The Committee observe that the Central Electricity Authority (CEA) has been capturing 'Outrage duration' and 'Number of Outrages' of 11 KV feeders in respect of State capitals, district headquarters and towns with population of more than 8 lakhs. Subsequently, the CEA has now covered the towns with a population of more than 1 lakh. Since, National Electricity Policy also requires that the data of Reliability Index of supply of power to consumer should be completed and published by the CEA, the Committee desire that speedy action needs to be taken up in the matter so that relevant data collected by the Distribution Companies/State agencies could be compiled by the CEA. The Committee would like to be apprised of the steps taken by the Government in this regard.

Reply of the Government

Central Electricity Authority is collecting information in respect of number and duration of outages of power supply to consumer and reliability index besides the outages of 11 KV feeders in respect of State Capital and major towns with population more than eight lakhs as well as other towns having population of more than one lakh on monthly basis. So far only data in respect of Delhi, Gujarat, Madhya Pradesh, Orissa, Punjab, Karnataka and Maharashtra have been received. Since consumer indexing based on geographical information system has not so far been completed in most of the towns. The data in respect of other towns could not be made available by the Distribution Utilities. So far data in respect of 70 towns at 11 KV feeder level and 56 towns at consumer level are being received. It is expected that data from more number of towns will be received after implementation of schemes sanctioned under Restructured Accelerated Power Development and Reforms Programme by the Government.

A copy of the information in respect of 11kV feeder and consumer for the month of April 2009 is placed at **Annexure-6**. This data is captured directly from the Distribution Utilities and compiled on monthly basis and is made available in the CEA website for wider access. Central Electricity Authority has also been directed to take action as desired by the Committee.

In addition, section 59(2) of the Electricity Act, 2003 provides that the Appropriate Commission shall at least once in every year arrange for publication, in such form and manner as it considers appropriate, of such of the information furnished to it by licensee (s), in respect of the Standards of Performance specified by the Commission.

[Ministry of Power O.M. No. 47/5/2009-R&R Dated 18.8.2009]

Recommendation (Serial No. 20)

The Committee note that the Forum of Regulators (FOR) which was constituted as per Section 166(2) of the Electricity Act, 2003, consists of the Chairperson of the Central Electricity Regulatory Commission (CERC) and Chairperson of State Electricity Regulatory Commissions (SERCs). The Forum is envisaged with functions like analysis of the tariff orders and other orders of the Central Commission and the State Commissions, harmonization of regulation in power sector, laying of Standards of Performance of licensees as required under the Act, sharing of information among members of the Forum on issues of common approach, evolving measures for the protection of consumers and promotion of efficiency, economy, competition and also undertaking research work-in-house or through outsourcing on the issues relevant to power sector regulation. The Committee observe that one of the main functions assigned to the Forum of Regulators is to strive for the harmonization of regulation in power sector. The Committee are, however, constrained to find that so far the FOR has held only six meetings since its inception (February, 2005) where certain important issues like strengthening the consumer advocacy system, Return on Equity (ROE) for distribution, operationalisation of open access in distribution, harnessing of surplus captive generation and Depreciation Rates for distribution were discussed and consensus on them was evolved. The Committee recommend that it would be only – and in line with the mandate of the Forum of Regulators under the Act, if the FOR holds its meetings more frequently and analyse the important issues/challenges facing the power sector like tariff orders of State Commissions, especially those which have been challenged by the respective State Governments/Distribution companies. At the same time,

the Committee would also like the FOR to evolve consensus and common approach on other important issues of common interest like fixing of Power Purchase Obligations from the renewable energy sources, implementation of power sector reform programmes, etc.

Reply of the Government

FOR was constituted in February, 2005. During the period from February, 2005 to March, 2007 six meetings were held. During the period from March, 2007 to June, 2008 no meeting was held because the post of Chairperson, FOR was vacant. From June 2008 till date six meetings of FOR have been held. FOR deliberates issues of importance facing the power sector and evolves consensus. For detailed analysis on the critical issues, FOR constituted Working Groups on "Protection of Consumer's Interest", "Open Access : Theory and Practice", "Loss Reduction Strategies", "Policies on Renewables", "Demand Side Management and Energy Efficiency", "Multi Year Tariff Framework and Distribution Margin", "Staffing of Electricity Regulatory Commissions", and "Metering Issues". Based on the inputs of the Working Groups, FOR has finalized reports on these issues (except on metering which is likely to be finalized shortly).

[Ministry of Power O.M. No. 47/5/2009-R&R Dated 18.8.2009]

Recommendation (Serial No. 21)

The Committee have been informed that the Forum of Regulators has appointed the Indian Institute of Management, Ahmedabad as consultant for conducting a study on Electricity Reforms and Regulations – a Critical Review of last 10 years experience with the main objectives (a) To review the role of various authorities involved in the process of reforms in the electricity sector in India, more importantly, the role played by the Government (Central as well as State), Government agencies, the Regulatory Commission, Appellate Authorities and (b) To assess the roles envisaged for various stakeholders including the Government (Central as well as State), Government agencies, Regulatory Commissions, Appellate Authorities and the constraints and gaps on achievements of the objectives set, and the way forward etc. According to the Ministry, draft Report in this regard is expected shortly. The Committee would like to be informed of the main findings of this study and the remedial action taken by the Government thereon.

Reply of the Government

The Forum of Regulators (FOR) has informed that the Indian Institute of Management (IIM), Ahmedabad, has submitted its final report on "Electricity Reforms and Regulations - a Critical Review of last 10 years experience" which was discussed and approved in 12th Meeting of FOR. Key findings and issues captured in the study

are enclosed at **Annexure-7**. The Forum has informed that it is in the process of finalizing the action to be taken.

[Ministry of Power O.M. No. 47/5/2009-R&R Dated 18.8.2009]

Recommendation (Serial No. 27)

The Committee note that the CERC has issued guidelines in February 2007 for the setting up of power exchanges in the country. The rules, byelaws and procedures for operation of a power exchange are approved by the CERC and the promoters of the exchange(s) have the freedom to develop, manage and operate the power exchange within the ambit of such approved rules, byelaws and procedures. Further, the Ministry have also specified that power exchange is a voluntary platform and no existing power purchase agreements or bilateral agreements are disturbed as a result of the setting up of a power exchange. The Committee find that the CERC has given permission to M/s. India Energy Exchange Ltd. and the first power exchange has started operation on 9th June, 2008. Further, the CERC has also given permission to Power Exchange India Ltd. to set up the power exchange. The application of M/s. NTPC Ltd. seeking permission to set up and operate a power exchange (with other stakeholders *viz.* M/s. NHPC and NCDEX) is, however, reported to be pending with the CERC. According to the Government, power exchange should be an option available to the utilities apart from other ways in which they can buy and sell power. Although, the Committee feel that the very purpose of the setting up of power exchanges should have been to bring down the cost of electricity, the Committee are concerned to take note of a candid submission made by a representative of CERC 'it will give another option to both the buyers and the sellers. Thus, if the buyers are more and sellers are less, then prices will go up and if there are more sellers and less number of buyers, then prices will come down.' The Committee apprehend that in the present scenario of power shortage in the country, where the number of buyers are always going to be more than the number of sellers, the power exchanges programme may end-up in the increase in the rates of electricity and may not benefit the consumers as envisaged originally. The Committee, therefore, recommend the Government/CERC to formulate guidelines whereby a higher limit of trading margin upto which the sellers should be allowed to benefit, is fixed. The Committee would like to be apprised of the action taken by the Government in this regard.

Reply of the Government

Fixing trading margin for inter state and intra state trading of electricity is the function of Central Electricity Regulatory Commission/ State Electricity Regulatory Commissions. The matter of trading margin is *sub-judice* before the Hon'ble Supreme Court in the matter of PTC Vs. CERC, 3902 of 2006.

According to the CERC, it had published a Staff Paper on "measures for restraining the prices of electricity in short term sale/trading". The Commission after considering the relevant aspects involved in the matter and views of the stakeholders, issued order in December, 2008. The Commission ruled *inter alia* that the purpose of imposition of price cap would not be met without addressing the other crucial aspects such as review of unscheduled interchange (UI) mechanism and absence of mechanism to regulate price on sale of free power by the State Government.

[Ministry of Power O.M. No. 47/5/2009-R&R Dated 18.8.2009]

Recommendation (Serial No. 29)

The Ministry of New and Renewable Energy have informed the Committee during evidence that it is working on a different proposition whereby those States who do not have the potential renewable sources, can purchase from other States and that too not exactly through transmission lines, but by the issue of certificates which would be called 'renewable certificates' or 'green certificates'. According to the Ministry, these certificates can be obtained by the power generators. The Ministry of New and Renewable Energy have reportedly engaged some consultants to work out the modalities for the same. The Committee would like to know the outcome of the study carried out by the consultants as well as the action taken by the Government thereon in due course. The Committee also recommend the Government to ensure that the 'green certificates' be strictly issued only in those States which do not have enough renewable sources of energy.

Reply of the Government

The Ministry of New & Renewable Energy has informed that they had engaged Consultant M/s. ABPS Infrastructure Advisory Pvt. Ltd. for development of Renewable Energy Certificate mechanism for India. The Consultant is yet to submit their final report although the modalities of the proposed design have been discussed.

[Ministry of Power O.M. No. 47/5/2009-R&R Dated 18.8.2009]

Comments of the Committee

(Please see Para 27 of Chapter-I of the Report)

NEW DELHI;
09 March, 2010
18 Phalguna, 1931 (Saka)

MULAYAM SINGH YADAV,
Chairman,
Standing Committee on Energy.

**STATUS OF CHAIRPERSON AND MEMBERS OF ERCs
(AS ON 27.04.2009)**

| Sl. No. | Name of ERC | Name | Designation | Date of Appointment | Date of Retirement |
|---------|---------------|-------------------------|-------------|---------------------|--------------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 01. | | Sh. A. Raghotham Rao | Chairperson | 16.07.2008 | 24.04.2013 |
| 02. | APERC | Sh. R. Radha Kishen | Member | 16.06.2006 | 15.06.2011 |
| 03. | | Sh. C.R. Sekhar Reddy | Member | 14.08.2008 | 13.08.2013 |
| 04. | | Sh. Jayanta Barkakati | Chairperson | 06.06.2008 | 05.06.2013 |
| 05. | AERC | Sh. Himdari Dutta | Member | | |
| 06. | | Sh. J.P. Saikia | Member | | |
| 07. | | Sh. Berjinder Singh | Chairperson | 16.02.2006 | 25.09.2010 |
| 08. | DERC | Sh. K. Venugopal | Member | 19.01.2005 | 19.01.2010 |
| 09. | | Sh. Shyam Wadhera | Member | | |
| 10. | | Dr. P.K. Mishra | Chairperson | 02.09.2008 | 01.09.2013 |
| 11. | GERC | Sh. Man Mohan | Member | 11.05.2004 | 10.05.2009 |
| 12. | | | Member | VACANT | |
| 13. | | Sh. Bhaskar Chatterjee | Chairperson | 28.08.2006 | 27.08.2011 |
| 14. | Haryana ERC | Sh. Tej Singh Tewatia | Member | 25.02.2005 | 24.02.2010 |
| 15. | | Sh. Rohtash Dahiya | Member | | |
| 16. | HPERC | Sh. Yogesh Khanna | Chairperson | 31.01.2006 | 30.01.2011 |
| 17. | | Sh. Mukhtiyar Singh | Chairperson | 16.07.2008 | 31.12.2012 |
| 18. | Jharkand ERC | Sh. P.C. Verma | Member | 30.09.2004 | 29.09.2009 |
| 19. | | | Member | VACANT | |
| 20. | | Sh. K.P. Pandey | Chairperson | 15.12.2004 | 14.12.2009 |
| 21. | Karnataka ERC | Sh. Vishwanath Hiremath | Member | | |
| 22. | | Sh. K. Srinivasa Rao | Member | | |

| 1 | 2 | 3 | 4 | 5 | 6 |
|-----|-----------------|-----------------------|-------------|------------|------------|
| 23. | | Sh. C. Balakrishnan | Chairperson | 05.09.2005 | 10.06.2009 |
| 24. | Kerala ERC | Sh. C. Abdullah | Member | 05.09.2005 | 04.09.2010 |
| 25. | | Sh. Ayyappan | Member | 15.12.2005 | 14.12.2010 |
| 26. | | Dr. J.L. Bose | Chairperson | 15.02.2007 | 12.01.2010 |
| 27. | MPERC | Sh. K.K. Garg | Member | 21.01.2008 | 11.12.2011 |
| 28. | | Sh. C.S. Sharma | Member | 09.07.2008 | 08.07.2013 |
| 29. | | Sh. V.P. Raja | Chairperson | 18.12.2008 | 17.12.2013 |
| 30. | MERC | Sh. A. Velayutham | Member | 18.08.2004 | 17.08.2009 |
| 31. | | Sh. S.B. Kulkarni | Member | 13.09.2005 | 12.09.2010 |
| 32. | | Sh. B.K. Das | Chairperson | 20.11.2006 | 23.09.2011 |
| 33. | OERC | Sh. K.C. Badu | Member | 04.04.2007 | 03.04.2012 |
| 34. | | Sh. B.K. Misra | Member | | |
| 35. | | Sh. Jai Singh Gill | Chairperson | 10.02.2006 | 19.01.2011 |
| 36. | Punjab ERC | Ms. Baljit Bains | Member | 07.01.2005 | 06.01.2010 |
| 37. | | Sh. Satpal Singh Pall | Member | 10.02.2006 | 09.02.2011 |
| 38. | | Sh. D.C. Samant | Chairperson | 27.02.2009 | 26.02.2014 |
| 39. | RERC | Sh. K.L. Vyas | Member | 01.06.2005 | 01.06.2010 |
| 40. | | Sh. S.K. Mittal | Member | 05.09.2008 | 05.09.2013 |
| 41. | | Sh. S. Kabilan | Chairperson | 03.01.2007 | 02.01.2012 |
| 42. | TNERC | Sh. R. Rajupandi | Member | | |
| 43. | | Sh. B. Jeyaraman | Member | 30.06.2004 | 29.06.2009 |
| 44. | | Sh. Rajesh Awasthi | Chairperson | 29.12.2008 | 28.12.2013 |
| 45. | UPERC | Sh. P.N. Pathak | Member | 15.06.2004 | 14.06.2009 |
| 46. | | Sh. R.D. Gupta | Member | 02.07.2004 | 01.07.2009 |
| 47. | | Sh. V.J. Talwar | Chairperson | 03.08.2007 | 02.08.2012 |
| 48. | Uttarakhand ERC | Sh. Anand Kumar | Member | 18.03.2008 | 17.03.2013 |
| 49. | | | Member | VACANT | |

| 1 | 2 | 3 | 4 | 5 | 6 |
|-----|----------------------------|-------------------------|---------------------|------------|------------|
| 50. | | Sh. Prasad Ranjan Ray | Chairperson | 01.10.2008 | 12.09.2013 |
| 51. | WBERC | Sh. R.P. Samaddar | Member | 01.01.2006 | 31.12.2010 |
| 52. | | Sh. Prititosh Ray | Member | 04.11.2004 | 03.11.2009 |
| 53. | Chhattisgarh SERC | Sh. S.K. Misra | Chairperson | 01.07.2004 | 30.06.2009 |
| 54. | | Sh. B.K. Sharma | Member | 24.03.2008 | 03.01.2012 |
| 55. | Tripura ERC | Sh. Manoranjan Karmakar | Chairperson | 12.01.2009 | 11.01.2014 |
| 56. | J&K SERC | Sh.K.B. Pillai | Chairperson | 23.06.2004 | 21.05.2009 |
| 57. | Bihar ERC | Sh. B.K. Halder | Chairperson | 10.04.2008 | 14.12.2010 |
| 58. | | Sh. S.K. Jayaswal | Member | 26.07.2005 | 25.07.2010 |
| 59. | MSERC | | Chairperson | VACANT | |
| 60. | JERC for Manipur & Mizoram | Sh. Hemam Bihari Singh | Member from Manipur | 24.01.2008 | 23.01.2013 |
| 61. | | Sh. Rin Sanga | Member from Mizoram | 24.01.2008 | 31.07.2009 |
| 62. | JERC for UTs except Delhi | Dr. V.K. Garg | Chairperson | 22.10.2008 | 03.07.2013 |
| 63. | | Sh. R.K. Sharma | Member | | |

AT&C LOSS(%) FOR SEBs, PDs & DISCOMS

| Region | State | 2001-02 | 2002-03 | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 |
|---------------|-------------------|---------|---------|---------|---------|---------|---------|---------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Eastern | Bihar | 66.02 | 77.64 | 66.25 | 82.50 | 78.17 | 42.63 | 43.83 |
| | Jharkhand | 60.21 | 72.63 | 62.47 | 62.83 | 51.66 | 52.51 | 59.95 |
| | Orissa | | | | | | | |
| | CESCO | 48.81 | 29.40 | 49.97 | 55.81 | 42.55 | 46.97 | 42.89 |
| | NESCO | 51.02 | 40.26 | 45.05 | 39.52 | 41.31 | 32.52 | 30.57 |
| | SESCO | 40.47 | 36.76 | 38.21 | 35.65 | 45.10 | 42.17 | 45.62 |
| | WESCO | 46.42 | 39.70 | 38.32 | 35.88 | 33.95 | 36.93 | 38.4 |
| | Sikkim | 81.33 | 80.12 | 66.67 | 38.44 | 44.77 | 40.72 | 39.2 |
| | West Bengal | 35.29 | 26.62 | 32.87 | 23.91 | 26.60 | 30.90 | 23.53 |
| | Total | 47.34 | 44.37 | 44.81 | 43.16 | 41.80 | 38.21 | 35.98 |
| North Eastern | Arunachal Pradesh | 61.94 | 61.73 | 16.34 | 25.43 | 37.17 | 52.03 | 45.19 |
| | Assam | 36.97 | 39.43 | 43.35 | 39.31 | | | |
| | CAEDCL | | | | | 37.35 | 42.59 | 40.07 |
| | LAEDCL | | | | | 27.83 | 31.71 | 25.31 |
| | UAEDCL | | | | | 39.45 | 38.55 | 35.88 |
| | Manipur | 74.11 | 76.81 | 69.70 | 88.50 | 77.83 | 94.32 | 80.62 |
| | Meghalaya | 21.60 | 42.39 | 39.35 | 38.16 | 33.36 | 37.32 | 35.03 |
| | Mizoram | 76.10 | 49.63 | 38.70 | 24.62 | 17.17 | 44.97 | 19.31 |
| | Nagaland | 60.89 | 53.74 | 55.63 | 43.22 | 44.76 | 52.19 | 42.92 |
| | Tripura | 31.60 | 34.27 | 14.84 | 20.93 | 24.92 | 23.46 | 22.53 |
| | Total | 40.65 | 44.10 | 40.56 | 39.01 | 35.92 | 41.33 | 36.45 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-----------------|----------------|-------|-------|-------|-------|-------|-------|-------|
| Northern | Delhi | 60.06 | | | | | | |
| | BRPL | | 51.78 | 45.72 | 41.98 | 41.25 | 32.93 | 40.17 |
| | BYPL | | 62.49 | 55.54 | 51.70 | 48.58 | 43.24 | 42.65 |
| | NDPL | | 56.39 | 48.16 | 35.89 | 28.01 | 28.33 | 31.95 |
| | Haryana | | | | | | | |
| | DHBVNL | 40.70 | 41.40 | 40.53 | 43.96 | 40.78 | 34.48 | 31.79 |
| | UHBVNL | 45.93 | 42.54 | 40.09 | 43.37 | 41.90 | 28.96 | 32.58 |
| | H.P. | 28.30 | 29.52 | 9.26 | 21.71 | 15.15 | 13.18 | 16.15 |
| | J&K | 68.22 | 68.22 | 68.79 | 68.33 | 66.69 | 67.56 | 73.43 |
| | Punjab | 27.66 | 26.45 | 25.52 | 24.00 | 25.84 | 24.87 | 21.18 |
| | Rajasthan | | | | | | | |
| | AVVNL | 49.03 | 41.22 | 46.21 | 49.76 | 47.55 | 42.61 | 38.83 |
| | JDVVNL | 52.77 | 41.99 | 45.75 | 47.57 | 47.03 | 37.21 | 37.24 |
| | JVVNL | 59.32 | 39.99 | 41.68 | 43.22 | 42.26 | 38.06 | 34.49 |
| | Uttar Pradesh | | | | | | | |
| | UPPCL | 46.92 | 31.78 | | | | | |
| | DVVN | | | 51.46 | 58.02 | 55.59 | 50.21 | 44.03 |
| | MVVN | | | 39.48 | 38.72 | 47.20 | 45.12 | 33.33 |
| | PaVVN | | | 38.29 | 32.40 | 42.43 | 31.51 | 31.29 |
| | PoVVN | | | 45.36 | 58.07 | 46.08 | 63.55 | 26.2 |
| | KESCO | | | | 60.89 | 47.06 | 49.14 | 47.78 |
| | Uttarakhand | | 37.59 | 43.48 | 45.62 | 38.20 | 42.86 | 40.63 |
| | Total | 46.01 | 37.85 | 40.14 | 41.54 | 40.44 | 37.18 | 33.61 |
| Southern | Andhra Pradesh | | | | | | | |
| | APCPDCL | 28.90 | 30.19 | 18.99 | 23.96 | 18.82 | 18.24 | 14.9 |
| | APEPDCL | 14.48 | 17.62 | 16.57 | 14.27 | 12.67 | 12.46 | 8.74 |
| | APNPCL | 26.50 | 27.09 | 9.80 | 21.91 | 19.20 | 26.61 | 10.92 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---------|----------------|-------|-------|-------|-------|-------|-------|-------|
| | APSPDCL | 24.47 | 27.44 | 17.06 | 20.55 | 16.51 | 17.20 | 7.29 |
| | Karnataka | | | | | | | |
| | KPTCL | 40.50 | | | | | | |
| | BESCOM | | 35.70 | 28.91 | 29.99 | 35.75 | 26.88 | 26.58 |
| | GESCOM | | 43.53 | 43.86 | 42.99 | 52.74 | 46.98 | 40.69 |
| | HESCOM | | 47.72 | 31.65 | 41.78 | 40.38 | 37.40 | 40.72 |
| | MESCOM | | 35.68 | 25.82 | 27.03 | 20.83 | 12.09 | 21.45 |
| | CHESCOM | | | | | 46.03 | 40.58 | 40.82 |
| | Kerala | 31.83 | 36.19 | 32.73 | 32.12 | 25.95 | 25.02 | 22.9 |
| | Pondicherry | 38.94 | 41.67 | 20.53 | 16.46 | 16.05 | 16.55 | 17.21 |
| | Tamil Nadu | 19.26 | 20.02 | 20.64 | 19.41 | 20.53 | 20.10 | 18.98 |
| | Total | 27.63 | 28.05 | 22.71 | 24.18 | 23.93 | 22.69 | 19.85 |
| Western | Chhattisgarh | 39.02 | 37.48 | 30.99 | 32.12 | 37.84 | 36.12 | 34.62 |
| | Goa | 48.53 | 22.99 | 21.28 | 18.34 | 15.18 | 19.39 | 14.24 |
| | Gujarat | 23.28 | 31.24 | 35.48 | 35.15 | | | |
| | DGVCL | | | | | 22.40 | 20.59 | 19.36 |
| | MGVCL | | | | | 24.61 | 20.08 | 23.07 |
| | PGVCL | | | | | 43.05 | 38.27 | 40.39 |
| | UGVCL | | | | | 27.57 | 20.15 | 23.6 |
| | Madhya Pradesh | 48.60 | 49.42 | 41.52 | 54.27 | 50.35 | | |
| | MPMKVVCL | | | | | 43.20 | 56.64 | 55.79 |
| | MPPKVVCL | | | | | 46.91 | 39.24 | 44.36 |
| | MPPuKVVCL | | | | | 47.90 | 52.14 | 47.18 |
| | Maharashtra | 46.34 | 44.25 | 38.95 | 27.98 | 50.22 | | |
| | MSEDCL | | | | | 36.74 | 39.35 | 35.19 |
| | Total | 39.60 | 40.45 | 37.55 | 35.19 | 38.29 | 37.37 | 35.93 |
| | Grand Total | 38.86 | 36.64 | 34.90 | 34.82 | 35.18 | 33.07 | 30.56 |

Source: PPC

Figures of 2007-08 are tentative.

**STEPS TAKEN BY STATE COMMISSIONS ON TARIFF
RATIONALIZATION**

| Sl.No. | Name of State | Comments |
|--------|---------------|---|
| 1 | 2 | 3 |
| 1. | Assam | <ul style="list-style-type: none"> • Overall increase in tariff was 3.66% over the approved ARR in 2004-05 (against claim to increase 26.16%); • Re-categorization of consumers has been done into two broad groups of HT & LT; • Introduction of lifeline tariff for those consumers who are in need of minimum quantum of electricity at a low price; • Abolition of un-metered category; • Reduction of cross subsidy from previous level of Rs. 80 crores to Rs. 60 crores; • Rationalization of tariff for major groups whose productive activities contribute spin-off benefits to the economy of the State; • Special care in tariff design to avoid tariff shock to any group of consumers; • Sharing of benefits of loss reduction between consumers and licensee to encourage loss reduction. |
| 2. | Bihar | <ul style="list-style-type: none"> • First tariff order issued in September, 2006 wherein attempt has been made to rationalize tariff to some extent. |
| 3. | Chhattisgarh | <ul style="list-style-type: none"> • After formation of SERC in July, 2004, three tariff orders have been issued; • In every tariff order steps have been made to reduce cross subsidy. By way of rationalization in tariff 29 categories HT consumers have been reduced to 17, number of LT consumers categories has been reduced from 24 to 12; |

- Cost of supply which was Rs. 3.45 per unit in the first tariff has been progressively brought down to Rs. 3.20 (2006-07) and Rs. 2.98 (2007-08);
 - Average tariff has come down from Rs. 3.87 per unit to Rs. 3.47 per unit in HT category and from Rs. 2.49 per unit to Rs. 2.02 per unit in LT category;
4. Delhi
- Tariff rationalization measures taken by SERC include :
 Number of slabs in domestic category were reduced from 4 to 3;
 Slabs in domestic category have been introduced based on sanctioned load;
 Definition of sanctioned load rationalized.
 - Discoms are required to submit detailed monthly figure on their AT&C losses.
5. Gujarat
- During initial period, the retail tariff of distribution licensees were rationalized by reducing number of tariff categories and by clubbing certain types of charges. However, subsequently these tariff categories were retained.
6. Haryana
- Distribution and retail tariff has not been revised since FY 2001.
7. Himachal Pradesh
- Cross subsidy has been reduced and slabs within a category have also been rationalized;
 - Introduction of two part KVAh based tariff for all consumers except domestic category having connected load above 20 KW;
 - Rationalisation of the Peak Load Exemption Charge (PLEC) and the Peak Load Violation Charge (PLVC);
 - Introduction of a night time concessional tariff for select consumer categories to flatten load curve;

| 1 | 2 | 3 |
|-----|-----------------|---|
| | | <ul style="list-style-type: none"> • Adoption of Cost to Serve Model; • Introduction of high voltage rebate and low voltage surcharge to encourage high voltage Distribution, a step towards-reduction of T&D Loss. |
| 8. | Jammu & Kashmir | <ul style="list-style-type: none"> • Only one tariff order issued; • Power tariff for industries has been changed from KWh to KVAh unit of power supply; • Demand chart has been introduced for HT power supply. |
| 9. | Jharkhand | <ul style="list-style-type: none"> • Number of slabs in domestic category and HT category have been reduced; • In domestic there are only three categories, in commercial (urban and LT industries) there is only one category. |
| 10. | Karnataka | <ul style="list-style-type: none"> • Levels of cross subsidy have been reduced – for HT industries from 60% in 2000 to 25% in 2006, for LT industries from 48% in 2000 to 26% in 2006; • Separate tariff for urban and rural areas introduced. |
| 11. | Kerala | <ul style="list-style-type: none"> • Govt. of Kerala <i>vide</i> G.O.No. 34/06/Power (A) Department issued u/s 108 of the Electricity Act, 2003, has directed to reduce cross subsidy ratio. This has been questioned in the High Court by some stakeholders and is pending with the Court. |
| 12. | Madhya Pradesh | <ul style="list-style-type: none"> • Road map for ensuring that tariffs should be within plus & minus 20% of average cost of supply by 2010-11, has been notified in pursuance of Tariff Policy; • SERC has focused on tariff rationalization which includes aligning tariffs with the average cost of supply and improving cost average. |
| 13. | Maharashtra | <ul style="list-style-type: none"> • SERC has been steadily reducing the cross-subsidy over the years, by increasing tariffs for subsidizing categories in proportion to the cost of supply; |

| 1 | 2 | 2 |
|-----|-----------|---|
| | | <ul style="list-style-type: none"> While designing the tariffs for each category, the Commission has considered the average cost of supply by including only the non-costly sources of power and has attempted to ensure that the cross-subsidy is reduced as regards base tariffs. |
| 14. | Meghalaya | <ul style="list-style-type: none"> Only one tariff determination so far. Too early to determine trends towards rationalization. |
| 15. | Orissa | <ul style="list-style-type: none"> Tariff rationalization efforts by SERC include – introduction of cost based tariff, relating energy charges at different voltage levels to reflect cost of supply; While determining voltage charges, the principle of higher rates for supply at low voltage level and gradually reduced rate as per voltage levels cost, has been adopted. |
| 16. | Punjab | <ul style="list-style-type: none"> At the time of tariff revision the Commission ensures that the cross subsidy being provided by subsidizing categories does not increase and cross subsidization of subsidized categories gets reduced. |
| 17. | Rajasthan | <ul style="list-style-type: none"> Tariff rationalization efforts include abolition of minimum charges for all categories consumers except agricultural; Directions to the DISCOMS to file petition for tariff revision with the consideration that tariff of BPL supply shall be at-least 50% of the cost supply; Cross subsidy within the different categories of consumers to be limited to +/- 25% of the cost supply by 2010-11; Provision of ToD tariff to be incorporated for consumers having contract demand of 1500KVA and above; |

| 1 | 2 | 3 |
|-----|---------------|--|
| | | <ul style="list-style-type: none"> • Reduction in number of tariff schedules for different consumers categories etc.; • Power purchase cost adjustment has been passed through to the extent of 50% only of the actual variation. |
| 18. | Tamil Nadu | <ul style="list-style-type: none"> • SERC has issued following rationalization in its tariff order of March, 2003 : • Concept of different tariff to metro and non-metro areas has been removed; • Number of slabs has been reduced from 6 to 5 in domestic tariff; • Previous tariff has been merged with the present tariff by removing the lighting load restriction of tariff; • For LT consumers new category introduced; • Incentive to off-peak hour consumption introduced. |
| 19. | Tripura | <ul style="list-style-type: none"> • SERC has issued two tariff orders; • Progressive reduction of higher tariff for industry/commercial/bulk supply made; • Attempt of low tariff for domestic consumers. |
| 20. | Uttar Pradesh | <ul style="list-style-type: none"> • Gap between average estimate rate approved by SERC and average cost of supply to consumers as a ratio of average cost of supply indicate consistent reduction in the levels of cross subsidy; • Standard deviation of revenue assessment rates of categories with respect to overall cost of supply has been accepted as proxy measure of prevailing cross subsidy in the tariff; • In applying the principle of assessment rates approved by the SERC for the past four years and for 2004-05, a consistent reduction in the levels of cross subsidy over the years is perceptible; |

| 1 | 2 | 3 |
|-----|-------------|--|
| 21. | Uttarakhand | <ul style="list-style-type: none"> • The tariff is rationalized by supplying improved efficiency standards for the generating stations by Regulations. • UERC rationalized the tariff structure, apart from reducing tariff ; • Existing 31 sub-categorization in various categories brought down to 23 sub-categories; • Separate category for the consumers, living in snow-bound areas for providing them concessional tariff; • Rebate for consumers using solar water heating system; • To simplify tariff structure, minimum charges and meter rent have been done away with. |
| 22. | West Bengal | <ul style="list-style-type: none"> • Cross subsidy has been brought down within the range of +/-20%(except agricultural irrigation); • TOD tariff has been introduced. Already applicable to bulk consumers. TOD tariff has been optionally offered for agriculture consumer. Prepaid meters have been introduced as a pilot project, in 2007-08; • Unmetered supply to agricultural consumers has been reduced significantly. Only metered supply is given to all new consumers; • Upto 11KV, all supplies affected by WBSEDCL – one of the entities succeeding the WBSEB after the latter's unbundling – are now metered supply only; • All new connections have static meters. Electro magnetic meters are being replaced by static meters of approved quantity. |

**NUMBER OF CASES WHERE COMPENSATION HAS BEEN PAID
BY THE LICENSEE TO THE AFFECTED CONSUMERS**

| Sl.No. | Name of State | Comments |
|--------|---------------|--|
| 1 | 2 | 3 |
| 1. | Assam | <ul style="list-style-type: none"> Provisions for compensation are provided in the Regulations on Standards of Performance; Till now no imposition of penalty has been made. |
| 2. | Bihar | <ul style="list-style-type: none"> Procedure for payment of compensation, in case of non-compliance of standards of performance to the licensees, specified in Performance Standards Regulations; So far no complaints have been received from the consumers in this regard. |
| 3. | Chhattisgarh | <ul style="list-style-type: none"> Licensees are required to submit quarterly reports on number of cases for which compensation was payable under the Regulations and the amount of compensation paid/payable; First report for the year ending 2007 was published by the Commission inviting comments from the public; Non response from the public so far and licensee has reported that no claim for compensation has been made. |
| 4. | Delhi | <ul style="list-style-type: none"> Provision for penalty/compensation in case of violation of performance standards, specified by SERC; Matter regarding automatic compensation to the consumers presently under consideration of the Commission/under discussion with DISCOMS; |

| 1 | 2 | 3 |
|----|------------------|---|
| | | <ul style="list-style-type: none"> • Commission hears all cases of violation of Regulations u/s 142 of the Electricity Act, 2003; • 23 cases of penalty imposed on the Discoms ranging from Rs. 500/- to Rs. 100000/-; • In 8 cases compensation , ranging from Rs. 1000/- to Rs. 10000 has been awarded to the affected consumers. |
| 5. | Gujarat | <ul style="list-style-type: none"> • The Regulations notified by the SERC provide that the compensation to the affected consumers shall be paid by a licensee automatically following the decision by Redressal Forum/ Ombudsman in the next billing cycle. |
| 6. | Haryana | <ul style="list-style-type: none"> • No claims have been received by the SERC; • The payment is 'automatic' in case of normal fuse-off, line- breakdown, distribution transformer failure, period of load shedding, voltage variation, meter complaint, new connection, billing problem etc. ; • Due to lack of infrastructure, there has been little success in implementing the relevant regulation. |
| 7. | Himachal Pradesh | <ul style="list-style-type: none"> • No claim has been lodged with the Commission; • If the Licensee fails to meet the guaranteed SoP, compensation shall be paid by the Licensee. |
| 8. | Jammu & Kashmir | <ul style="list-style-type: none"> • No complaint or case has been received, on quality of power supplied or related matters. |
| 9. | Jharkhand | <ul style="list-style-type: none"> • In five cases compensation has been awarded; |

| 1 | 2 | 3 |
|-----|----------------|---|
| | | <ul style="list-style-type: none"> • Licensees have been directed to establish consumer's complaints cell as part of implementing Standards of Performance failing which energy charges would be reduced from January, 2008. |
| 10. | Karnataka | <ul style="list-style-type: none"> • Provision for compensation specified in Standards of Performance Regulations. |
| 11. | Kerala | <ul style="list-style-type: none"> • Details of compensation to be provided by licensees are specified in the Regulations on Standards of Performance. |
| 12. | Madhya Pradesh | <ul style="list-style-type: none"> • To ascertain the amount of compensation payable by Discoms, SERC instituted a <i>suo-motu</i> petition; • Commission also convened a meeting with NGOs of the State to disseminate information regarding claiming compensation for any aggrieved consumer and for making consumers aware of the services they deserve from licenses; • Six lakh pamphlets on Performance Standards published by the SERC to empower consumers to claim compensation for any under performance by Utilities; • Discoms were directed to spread over messages through electronic and print media on Performance Standards; |
| 13. | Maharashtra | <ul style="list-style-type: none"> • Level of compensation payable to consumers for failure to meet Standards of Performance (SoP) is provided in the Regulations on Standards of Performance of distribution licenses; • SERC follow ups and directs all CGRFs to submit six-monthly reports; • To develop CGRFs an institution, all licensees have been asked to provide necessary infrastructure to CGRFs. |

| 1 | 2 | 3 |
|-----|------------|---|
| 14. | Meghalaya | <ul style="list-style-type: none"> • No complaint from consumers has been reported as yet. |
| 15. | Orissa | <ul style="list-style-type: none"> • Provision for compensation to the consumers for default in service by Licensees, specified in Performance Standards Regulations; • OERC effectively implementing procedure laid down in the Regulations; • No compensation so far paid by the Licensees to the Consumers on the ground; • Licensees have reported that consumers complaints have been attended to within the specified time limit; • SERC has entrusted the job of verifying the authenticity of data/claims of licensees to the consumers representatives' and its officials; • Compensation rules have been specified under Regulations on Standards of Performance. |
| 16. | Punjab | <ul style="list-style-type: none"> • Performance Standards Regulations specify that compensation shall be made within 90 days to the consumers for not providing specified services by the licensees within the stipulated time schedule. |
| 17. | Rajasthan | <ul style="list-style-type: none"> • SERC is in the process of specifying mechanism of compensation by the Discoms to the aggrieved persons, in case of non-adherence of standards of performance; |
| 18. | Tamil Nadu | <ul style="list-style-type: none"> • The regulations relating to payment of compensation came into force in 1.1.2007; • No compensation was paid by the TNEB between 1.1.2007 and 31.3.2007. |

| 1 | 2 | 3 |
|-----|---------------|--|
| 19. | Tripura | <ul style="list-style-type: none"> • The provision has been kept in the Regulations on SoP; • No case of compensation is yet reported. |
| 20. | Uttar Pradesh | <ul style="list-style-type: none"> • Mechanism for automatic compensation within 90 days, put in place by SERC; • Data being collected in terms of consumers having filed manual claims. |
| 21. | Uttarakhand | <ul style="list-style-type: none"> • The Regulations on Performance Standards on restoration of power supply and voltage fluctuation shall come into effect w.e.f. 01.04.2008; • The Regulations provide that licensee shall register every complaint regarding power failure, quality of power, meters, bills at the complaint centers and also maintain consumer-wise records etc. to avoid any violation of SoP; • Regulations also provide that compensation shall be adjusted against electricity bill within 90 days from the date of violation; • On failure of payment of compensation within time limit, aggrieved consumer(s) can approach CGRFs for redressal. Provisions of additional penalty in such a case. |
| 22. | West Bengal | <ul style="list-style-type: none"> • 666 cases (including 90 cases in which compensation to the consumers has been allowed) have been sorted out in favour of the consumers, till December 2007. |

**STATUS OF SERCS WHICH HAVE NOTIFIED SOPs
CONTAINING RIs**

| Sl.No. | Name of State | Comments |
|--------|---------------|--|
| 1 | 2 | 3 |
| 1. | Assam | <ul style="list-style-type: none"> • Distribution Licensees Standards of Performance Regulations, 2004 notified; • Utilities are regulated by predetermined indices on quality of power supply, voltage variation limits and neutral voltage displacement. |
| 2. | Bihar | <ul style="list-style-type: none"> • Specified standards with respect to quality, continuity and reliability of services to be maintained by a Distribution Licensee in its Standards of Performance of Distribution Licensee Regulation, 2006; • Licensee would be liable for payment of compensation to the affected consumers. |
| 3. | Chhattisgarh | <ul style="list-style-type: none"> • Standards of performance in distribution of electricity, notified in July, 2006; • These Regulations cover issues like restoration of power supply, attending normal fuse of call complaints, replacement of failed distribution transformers, complaints regarding unscheduled load shedding, complaints regarding voltage variation beyond permissible limits, replacement of failed meters, providing new connections etc; • Quarterly reports on compliance of performance standards, published by SERC at least once in a year; |

| 1 | 2 | 3 |
|----|---------|--|
| 4. | Delhi | <ul style="list-style-type: none"> • Method to compute distribution system reliability index also specified. • Reliability indices viz. system average interruption frequency index (SAIFI), system average interruption duration index (SAIDI), monthly average interruption frequency index (MAIFI), laid down in Electricity Supply Code and Performance Standards Regulations, 2007; • These indices indicate reliability of services being offered by distribution companies (Discoms); • Other standards specified by DERC include procedure and time limit for Discoms to attend to problems of consumers on metering, billing etc.; • Compensation for non-compliance of performance standards by Discoms; • Pre-determined indices on quality of power supply like requirement of maintaining not less than 99% in case of fuse-off calls rectification within 3 hours for urban areas/8 hours for rural areas. |
| 5. | Gujarat | <ul style="list-style-type: none"> • Standard of Performance of Distribution Licensees Regulations notified in March, 2005 which deals with the matters relating to quality, continuity and reliability of services; • Specified formats for submission of information related parameters like — interruption, period of scheduled outages to performance; • Regular compliance reports from the distribution licensees to SERC; |

| 1 | 2 | 3 |
|-----|------------------|--|
| | | <ul style="list-style-type: none"> • SoP Regulations provide for various limits/time period for the, voltage variations, harmonics – related to quality of power. |
| 6. | Haryana | <ul style="list-style-type: none"> • SoP regulations notified in July, 2004 which incorporate quality, continuity and reliability of service that a licensee shall achieve in discharge of its obligation; • Guaranteed standards of performance specify the rate of compensation if licensee fails to meet them; • Reliability Indices viz. SAIFI, SAIDI and MAIFI has been specified in the regulation. |
| 7. | Himachal Pradesh | <ul style="list-style-type: none"> • SoP specified for the Licensee and in case the licensee fails to meet the standards specified, the licensee is liable to pay compensation; • Guaranteed SoP has been formulated; • Determination of base line indices is under process. |
| 8. | Jammu & Kashmir | <ul style="list-style-type: none"> • Distribution Performance Standard Regulations 2006, which contain the indices on the quality power supply, notified by the J&K SERC. |
| 9. | Jharkhand | <ul style="list-style-type: none"> • Standard of performance for distribution licensee notified by the Commission in 2005; • SERC ordered in one case, reduction of energy charge on tariff by 2.5% for failure to implement the regulations. |
| 10. | Karnataka | <ul style="list-style-type: none"> • Standard of supply, continuity and quality of power supply, specified in Grid Code; |

| 1 | 2 | 3 |
|-----|----------------|--|
| | | <ul style="list-style-type: none"> • Frequency limits being maintained through implementation of Availability Based Tariff (ABT). This has helped in ensuring grid discipline; • The Commission, through monthly reports, is monitoring the interruptions and reliability of supply. |
| 11. | Kerala | <ul style="list-style-type: none"> • Overall standards of performance specified by KSERC; • Quality of Supply for voltage and frequency is specified in Kerala Electricity Supply Code, 2005. |
| 12. | Madhya Pradesh | <ul style="list-style-type: none"> • Regulation of distribution performance standards notified by MPERC on 28.10.2005; • Quarterly and annual report on performance standards are published in newspapers/available in MPERC website; • NGOs workshop held by MPERC in August, 2007 to disseminate information on performance standards amongst consumers; • Discoms directed by MPERC to display performance standards at their offices. Field visit by MPERC to ensure compliance of directions; • Ombudsman directed to review performance standards bi-annually; • As per directions of MPERC, six lakh pamphlets containing details of performance standards, distribution along with electricity bills in Bhopal, Indore and Jabalpur; • Pre-identified indices like total number of 11KV feeders, sum of outage duration of all feeders, outage duration per feeder, number of outage per feeder, total number of tripping, feeder reliability index of area etc.; |

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|-----------------|---|---|
| 13. Maharashtra | <ul style="list-style-type: none"> • Monthly information on power reliability indices, published in newspapers every year; • Quality Monitoring Cell constituted in MPERC. • Regulations on Standards of Performance (SoP) viz. Electricity Supply Code & Other Conditions of Supply, Terms & Conditions of Tariff and General Conditions of Distribution License, have been issued; • SERC through different orders also gives directives to utilities for enforcing standards with respect to quality, continuity and reliability of service, however, due to sever demand-supply gap in the State, SERC regulated quantity of supply to ensure that no category of consumers is discriminated against; • Reliability in indices have been specified in the Regulations on SoP; • Reports on various indices are hosted by licensees in their websites which are monitored by SERC. SERC has also engaged an agency to carry out field inspections on behalf of Commission. | |
| 14. Meghalaya | <ul style="list-style-type: none"> • Promulgated the Meghalaya Electricity Supply Code, 2006 and the MSERC (Standards of Performance) Regulations, 2006; • These Regulations provide consumers with the necessary means of securing their rights in accordance with the provisions of Act. | |
| 15. Orissa | <ul style="list-style-type: none"> • Regulation on Licensee's Standard of Performance notified in May, 2004, | |

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| | | <p>which specifies minimum standard with respect to quality, continuity and reliability of services by Licensees; Guaranteed Standard of Performance and overall Standard of Performance;</p> <ul style="list-style-type: none"> • Under Guaranteed Standard of Performance, performance of licensees is monitored on parameters like restoration of power supply, voltage variation, harmonics, complaints about meters, applications for new connection/ additional load, complaints about consumer's bills etc; • Methods of computing distribution system reliability indices like SAIFI, SAIDI, MAIFI, are specified in overall Standards of Performance; • Under the standards of performance, licensees are required to attend to the service within a fixed period of time. Provision of incentive or disincentive linked to performance; • Monthly, quarterly and annual reports are being submitted by the Discoms on guaranteed standards of performance and overall standards of performance. |
| 16. | Punjab | <ul style="list-style-type: none"> • Specified in Electricity Supply Code and Related Matters Regulations (w.e.f. 01-01-2008); • Licensee shall be liable to pay compensation for violation. |
| 17. | Rajasthan | <ul style="list-style-type: none"> • Already specified various standards of performance (SoP) for the licensees to ensure quality, continuity and reliability of services, and system availability, voltage management, voltage unbalance, current unbalance, system adequacy, frequency management, service reliability, harmonic distortion for transmission licensees. |

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| 18. | Tamil Nadu | <ul style="list-style-type: none"> • Standard of Performance Regulations came into force in Sept., 2004 with salient features – effective new service connections, change of tariff, shifting & transfer of service connection, quality of supply, interruption and restoration of supply, handling of complaints, payment of compensation, level of overall performance, to be achieved by the licensee etc.; • Regulations related to payment of compensation when the licensee fails to meet the specified performance standards came into force in Jan, 2007; • SERC has set standards in respect of effecting new service connection, duration of interruption, voltage parameters, transformer failure rates, waiting time for restoration of supply etc.; • SERC has directed the utility (as per CEA Regulations on connectivity standards on harmonics) to measure the harmonics and its impact on distribution system. |
| 19. | Tripura | <ul style="list-style-type: none"> • Regulations on Performance Standards and Supply Code notified. |
| 20. | Uttar Pradesh | <ul style="list-style-type: none"> • Reliability index at the feeder level and at consumer level determined by UPERC. Also defined are guaranteed time limits for various break downs, voltage variations, rectification of billing disputes, installation/replacement of meters; • SAIFI, SAIDI, MAIFI indices of reliability defined; • Licensees directed to do rostering based on AT&C losses of a particular division; |

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| | | <ul style="list-style-type: none"> • Incentive/disincentive schemes linked with the loss levels at distribution transformers introduced for the benefit of consumers and staff of the licensee. |
| 21. Uttarakhand | | <ul style="list-style-type: none"> • Regulations specifying standards with respect to quality, continuity and reliability of services by licensee have been issued; • SERC has also taken steps to streamline the billing system of the licensee by issuing time bound action plan to eliminate billing deficiencies and often visited different parts of the State for effective compliances of the same; • Standards of Performance Regulations have specified the power supply on quality, restoration, voltage variations/unbalance and period of schedule outages; • Reliability indices viz. System Average Interruption Frequency Index (SAIFI), System Average Interruption Duration Index (SAIDI) and Momentary Average Interruption Frequency Index (MAIFI) specified by the SERC. |
| 22. West Bengal | | <ul style="list-style-type: none"> • Standards have been laid down by notifying the allowable periods of unplanned interruption of supply to consumers to ensure quality, continuity and reliability of supply; • Indices on quality of power supply are yet to be developed which require collection of data (voltage level of supply, the terrain, climate condition, salinity of atmosphere and such other natural characteristics of different localities within the area of supply of distribution licensee, consumer mix, the character of various loads under different categories of consumers, the predominant mode of supply etc. |

RELIABILITY INDEX-FEEDER LEVEL COMPARATIVELY FINANCIAL YEAR DATA

| Sl. No. | State Capital/Urban Agglomeration | Utility | Type | Number of Feeders | | | | Outage duration per feeder (Hours) | | | | No. of Outages per feeder | | | | Average Duration of an Outage (Hours) | | | | Feeder Reliability | | | |
|----------------|-----------------------------------|---------|------|-------------------|---------|---------|---------|------------------------------------|---------|---------|---------|---------------------------|---------|---------|---------|---------------------------------------|---------|---------|---------|--------------------|---------|---------|---------|
| | | | | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2014-15 | 2015-16 | 2016-17 | 2017-18 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| Andhra Pradesh | Hyderabad | CTOCL | SC | 432 | 471 | 363 | 619 | 4337 | 4613 | 5360 | N.A. | 117 | 143 | 134 | N.A. | 08.22 | 08.19 | 08.24 | N.A. | 99.6 | 99.07 | 99.38 | N.A. |
| Andhra Pradesh | Amaravati | CTOCL | O | 18 | 25 | 27 | 27 | 1146 | 7644 | 39334 | N.A. | 22 | 78 | 248 | N.A. | 08.32 | 08.39 | 01.35 | N.A. | 99.87 | 99.12 | 95.5 | N.A. |
| Andhra Pradesh | Kanuru | CTOCL | O | 18 | 22 | 22 | 21 | 3415 | 4853 | 12529 | N.A. | 143 | 128 | 165 | N.A. | 08.23 | 08.19 | 08.46 | N.A. | 99.38 | 99.53 | 98.57 | N.A. |
| Andhra Pradesh | Mahabubnagar | CTOCL | O | 7 | 10 | 10 | 11 | 3834 | 2834 | 35289 | N.A. | 117 | 93 | 265 | N.A. | 08.16 | 08.19 | 01.23 | N.A. | 99.65 | 99.67 | 95.98 | N.A. |
| Andhra Pradesh | Nalgonda | CTOCL | O | 9 | 9 | 9 | 9 | 9405 | 0111 | 3116 | N.A. | 46 | 15 | 35 | N.A. | 08.06 | 08.05 | 08.34 | N.A. | 99.55 | 99.79 | 99.64 | N.A. |
| Andhra Pradesh | Sungu Baddy | CTOCL | O | N.A. | 7 | 7 | 6 | N.A. | 8529 | 81141 | N.A. | N.A. | 176 | 98 | N.A. | N.A. | 08.29 | 08.28 | N.A. | N.A. | 99.82 | 97.81 | N.A. |
| Andhra Pradesh | Venkatapuram | EPDCL | MT | 67 | 82 | 139 | 173 | 1928 | 11588 | 49238 | N.A. | 1 | 9 | 51 | N.A. | 01.28 | 1.18 | 08.39 | N.A. | 99.78 | 99.87 | 99.03 | N.A. |
| Andhra Pradesh | Srikalahasti | EPDCL | O | N.A. | 7 | 7 | 7 | N.A. | 2189 | 2831 | N.A. | N.A. | 37 | 77 | N.A. | N.A. | 08.22 | N.A. | N.A. | N.A. | 99.76 | 99.67 | N.A. |
| Andhra Pradesh | Vizianagaram | EPDCL | O | N.A. | 16 | 16 | 19 | N.A. | 2631 | 12337 | N.A. | N.A. | 185 | 169 | N.A. | N.A. | 08.15 | 08.44 | N.A. | N.A. | 99.69 | 98.59 | N.A. |
| Andhra Pradesh | Kalavoti | EPDCL | O | N.A. | 28 | 30 | 30 | N.A. | 6383 | 18345 | N.A. | N.A. | 115 | 284 | N.A. | N.A. | 08.31 | N.A. | N.A. | N.A. | 99.28 | 97.9 | N.A. |
| Andhra Pradesh | Eluru | EPDCL | O | N.A. | 17 | 18 | 18 | N.A. | 6486 | 29815 | N.A. | N.A. | 187 | 282 | N.A. | N.A. | 08.36 | 01.88 | N.A. | N.A. | 99.27 | 96.59 | N.A. |
| Andhra Pradesh | Machilipatnam | SPDCL | O | N.A. | 9 | 9 | 9 | N.A. | 9336 | 28422 | N.A. | N.A. | 221 | 263 | N.A. | N.A. | 08.26 | 01.30 | N.A. | N.A. | 98.88 | 96.75 | N.A. |
| Andhra Pradesh | Guntur | SPDCL | O | N.A. | 31 | 31 | 48 | N.A. | 3235 | 6388 | N.A. | N.A. | 142 | 112 | N.A. | N.A. | 08.23 | N.A. | N.A. | N.A. | 99.48 | 99.51 | N.A. |
| Andhra Pradesh | Ongole | EPDCL | O | N.A. | 11 | 12 | 21 | N.A. | 2735 | 4885 | N.A. | N.A. | 61 | 66 | N.A. | N.A. | 08.26 | N.A. | N.A. | N.A. | 99.69 | 99.54 | N.A. |
| Andhra Pradesh | Nellore | SPDCL | O | N.A. | 32 | 32 | 36 | N.A. | 6589 | 3723 | N.A. | N.A. | 133 | 51 | N.A. | N.A. | 08.29 | 08.37 | N.A. | N.A. | 99.28 | 99.57 | N.A. |
| Andhra Pradesh | Chittoor | EPDCL | O | N.A. | 15 | 15 | 28 | N.A. | 3928 | 18846 | N.A. | N.A. | 47 | 138 | N.A. | N.A. | 08.09 | 01.11 | N.A. | N.A. | 99.35 | 97.88 | N.A. |
| Andhra Pradesh | Kalypa | SPDCL | O | N.A. | 16 | 17 | 25 | N.A. | 9488 | 38812 | N.A. | N.A. | 197 | 228 | N.A. | N.A. | 08.29 | N.A. | N.A. | N.A. | 98.88 | 96.12 | N.A. |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|-------|-----------|------------------|----|------|------|------|------|-------|-------|-------|-------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| Cajon | Cable Ngr | Turnel Power AEC | SC | N.A. | N.A. | 22 | 24 | N.A. | N.A. | 04:14 | 03:49 | N.A. | N.A. | 2 | 3 | N.A. | N.A. | 02:48 | 01:11 | N.A. | N.A. | 99:55 | 99:58 |
| Cajon | Abundant | Turnel Power AEC | MT | 65 | 78 | 77 | 812 | 00:40 | 07:57 | 07:14 | 06:22 | 4 | 4 | 4 | 4 | 01:31 | 01:31 | 01:36 | 01:37 | 99:41 | 99:52 | 99:52 | 99:53 |
| Cajon | Sant | DOYCL | MT | N.A. | 35 | 185 | N.A. | N.A. | N.A. | 20:22 | N.A. | N.A. | N.A. | 183 | N.A. | N.A. | N.A. | 01:57 | | | N.A. | 97:52 | N.A. |
| Cajon | Sant | Turnel Power SEC | MT | 26 | 33 | 36 | 36 | 1817 | 09:50 | 37:38 | 08:25 | 8 | 4 | 6 | 1 | 02:38 | 02:25 | 09:34 | 08:32 | 99:29 | 99:48 | 99:34 | N.A. |
| Cajon | Vadillo | DOYCL | 0 | N.A. | 23 | N.A. | 165 | N.A. | N.A. | N.A. | 14:28 | N.A. | N.A. | N.A. | 28 | N.A. | N.A. | N.A. | 08:31 | N.A. | N.A. | N.A. | 99:13 |
| Cajon | Cedra | DOYCL | 0 | N.A. | N.A. | N.A. | 13 | N.A. | N.A. | N.A. | 99:34 | N.A. | N.A. | N.A. | 115 | N.A. | N.A. | N.A. | 08:31 | N.A. | N.A. | N.A. | 99:38 |
| Cajon | Dubai | DOYCL | 0 | N.A. | N.A. | N.A. | 6 | N.A. | N.A. | N.A. | 27:14 | N.A. | N.A. | N.A. | 112 | N.A. | N.A. | N.A. | 08:15 | N.A. | N.A. | N.A. | 99:69 |
| Cajon | Amel | DOYCL | 0 | N.A. | N.A. | N.A. | 12 | N.A. | N.A. | N.A. | 18:28 | N.A. | N.A. | N.A. | 60 | N.A. | N.A. | N.A. | 08:18 | N.A. | N.A. | N.A. | 99:29 |
| Cajon | Medid | DOYCL | 0 | N.A. | N.A. | N.A. | 12 | N.A. | N.A. | N.A. | 13:54 | N.A. | N.A. | N.A. | 99 | N.A. | N.A. | N.A. | 08:49 | N.A. | N.A. | N.A. | 99:44 |
| Cajon | Bojot | CS | MT | N.A. | 30 | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| Cajon | Plampor | DOYCL | 0 | N.A. | N.A. | 6 | 6 | N.A. | N.A. | 7:53 | 7:55 | N.A. | N.A. | 16 | 16 | N.A. | N.A. | 08:29 | 08:31 | N.A. | N.A. | N.A. | 99:12 |
| Cajon | Huamanga | DOYCL | 0 | N.A. | N.A. | 7 | 7 | N.A. | N.A. | 43:59 | 35:38 | N.A. | N.A. | 125 | 187 | N.A. | N.A. | 08:21 | 08:29 | N.A. | N.A. | N.A. | 99:5 |
| Cajon | Melasma | DOYCL | 0 | N.A. | N.A. | 12 | 12 | N.A. | N.A. | 31:59 | 28:49 | N.A. | N.A. | 92 | 92 | N.A. | N.A. | 08:28 | 08:28 | N.A. | N.A. | N.A. | 99:66 |
| Cajon | Puan | DOYCL | 0 | N.A. | N.A. | 7 | 7 | N.A. | N.A. | 61:12 | 48:10 | N.A. | N.A. | 128 | 112 | N.A. | N.A. | 08:27 | 08:28 | N.A. | N.A. | N.A. | 99:65 |
| Cajon | Kadi | DOYCL | 0 | N.A. | N.A. | 8 | 7 | N.A. | N.A. | 79:16 | 38:35 | N.A. | N.A. | 139 | 139 | N.A. | N.A. | 08:34 | 08:23 | N.A. | N.A. | N.A. | 99:1 |
| Cajon | Vadid | DOYCL | 0 | N.A. | N.A. | 9 | N.A. | N.A. | N.A. | 99:05 | N.A. | N.A. | N.A. | 136 | N.A. | N.A. | N.A. | 08:41 | N.A. | N.A. | N.A. | N.A. | 99:94 |
| Cajon | Nerari | DOCL | 0 | N.A. | N.A. | 9 | N.A. | N.A. | N.A. | 85:05 | N.A. | N.A. | N.A. | 110 | N.A. | N.A. | N.A. | 08:46 | N.A. | N.A. | N.A. | N.A. | 99:83 |
| Cajon | Baracha | DOYCL | 0 | N.A. | N.A. | 10 | N.A. | N.A. | N.A. | 63:3 | N.A. | N.A. | N.A. | 78 | N.A. | N.A. | N.A. | 09:12 | N.A. | N.A. | N.A. | N.A. | 99:89 |
| Cajon | Neranda | DOYCL | 0 | N.A. | N.A. | 1 | N.A. | N.A. | N.A. | 24:44 | N.A. | N.A. | N.A. | 11 | N.A. | N.A. | N.A. | 02:49 | N.A. | N.A. | N.A. | N.A. | 99:23 |
| Ca | Panji | Ca Bery Dept | SC | N.A. | 0 | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|-------------------|-----------|---|-------------------|----|------|------|------|------|------|--------|--------|------|------|------|------|------|------|-------|-------|------|------|-------|-------|------|
| Con | Yelland | | Con Elec. Dept. | 0 | N.A. | 1 | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| Con | Mango | | Con Elec. Dept. | 0 | N.A. | 4 | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| Harvey | Fortified | | DEBWE | MT | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| Harvey | Gargen | | DEBWE | MT | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| Harvey | Panchala | | UEBWE | 0 | N.A. | 3 | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| Hansel Pradish | Shank | | HPSEB | SC | N.A. | 27 | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| Jensen and Kuhnir | Stranger | | Power Deep. Dept. | SC | N.A. | 0 | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| Jensen and Kuhnir | Jensen | | Power Deep. Dept. | MT | N.A. | 0 | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| Jurkland | Barr's | | SEB | SC | N.A. | 0 | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| Jurkland | Dunland | | SEB | MT | N.A. | 0 | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| Jurkland | Jurkander | | SEB | MT | N.A. | 0 | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| Kernala | Ingapore | | BESCOM | SC | N.A. | 64 | 712 | N.A. | N.A. | 25.34 | 26.69 | N.A. | N.A. | 69 | 75 | N.A. | N.A. | 02.26 | 02.23 | N.A. | N.A. | 99.66 | 99.67 | N.A. |
| Kernala | Kohr | | BESCOM | 0 | N.A. | 4 | 5 | N.A. | N.A. | 134.08 | 92.08 | N.A. | N.A. | 68 | 279 | N.A. | N.A. | 02.28 | 02.21 | N.A. | N.A. | 98.47 | 98.49 | N.A. |
| Kernala | Tunkur | | BESCOM | 0 | N.A. | 14 | 17 | N.A. | N.A. | 98.13 | 22.33 | N.A. | N.A. | 157 | 78 | N.A. | N.A. | 02.34 | 02.17 | N.A. | N.A. | 98.97 | 99.78 | N.A. |
| Kernala | Chinderga | | BESCOM | 0 | N.A. | 7 | 8 | N.A. | N.A. | 107.31 | 109.18 | N.A. | N.A. | 258 | 220 | N.A. | N.A. | 02.25 | 02.39 | N.A. | N.A. | 98.77 | 98.75 | N.A. |
| Kernala | Dennagen | | BESCOM | 0 | N.A. | 18 | 18 | N.A. | N.A. | 46.16 | 15.02 | N.A. | N.A. | 77 | 79 | N.A. | N.A. | 02.36 | 02.11 | N.A. | N.A. | 99.07 | 99.83 | N.A. |
| Kernala | KCF | | BESCOM | 0 | N.A. | 14 | 14 | N.A. | N.A. | 105.91 | 112.38 | N.A. | N.A. | 194 | 231 | N.A. | N.A. | 02.38 | 02.31 | N.A. | N.A. | 98.09 | 98.45 | N.A. |
| Kernala | Hedite | | BESCOM | 0 | N.A. | 2 | 2 | N.A. | N.A. | 153.25 | 42.28 | N.A. | N.A. | 227 | 136 | N.A. | N.A. | 02.41 | 02.21 | N.A. | N.A. | 98.25 | 99.45 | N.A. |
| Kernala | D.B. Pura | | BESCOM | 0 | N.A. | 4 | 4 | N.A. | N.A. | 143.60 | 63.56 | N.A. | N.A. | 160 | 113 | N.A. | N.A. | 02.54 | 02.27 | N.A. | N.A. | 98.36 | 99.27 | N.A. |
| Kernala | Ran Nagar | | BESCOM | 0 | N.A. | 3 | 3 | N.A. | N.A. | 161.14 | 46.18 | N.A. | N.A. | 254 | 193 | N.A. | N.A. | 02.41 | 02.15 | N.A. | N.A. | 98.16 | 99.45 | N.A. |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-------|----------|-------|---|----|----|----|----|----|------|------|----|----|----|----|----|----|----|-----|-----|-----|----|-----|-----|----|
| Kenya | Quampana | RECOM | 0 | NA | 2 | 2 | NA | NA | 1851 | 316 | NA | NA | NA | 27 | 26 | NA | NA | 823 | 829 | NA | NA | 919 | 815 | NA |
| Kenya | Obusoni | RECOM | 0 | NA | 4 | 4 | NA | NA | 1327 | 922 | NA | NA | NA | 24 | 26 | NA | NA | 823 | 823 | NA | NA | 923 | 917 | NA |
| Kenya | C.L. Pao | RECOM | 0 | NA | 7 | 7 | NA | NA | 1327 | 1321 | NA | NA | NA | 24 | 26 | NA | NA | 823 | 823 | NA | NA | 923 | 917 | NA |
| Kenya | Harben | RECOM | 0 | NA | 4 | 4 | NA | NA | 823 | 813 | NA | NA | NA | 31 | 23 | NA | NA | 823 | 823 | NA | NA | 918 | 912 | NA |
| Kenya | Hale | RECOM | 0 | NA | 8 | 8 | NA | NA | 1768 | NA | NA | NA | NA | 37 | NA | NA | NA | 823 | 823 | NA | NA | 919 | NA | NA |
| Kenya | Darrel | RECOM | 0 | NA | 8 | 18 | 19 | NA | NA | 2754 | NA | NA | NA | NA | 37 | NA | NA | NA | 823 | 823 | NA | NA | 919 | NA |
| Kenya | Coley | RECOM | 0 | NA | 8 | 6 | 7 | NA | NA | 1625 | NA | NA | NA | NA | 37 | NA | NA | NA | 827 | NA | NA | NA | 918 | NA |
| Kenya | Karner | RECOM | 0 | NA | 8 | 9 | 9 | NA | NA | 1845 | NA | NA | NA | NA | 34 | NA | NA | NA | 823 | NA | NA | NA | 919 | NA |
| Kenya | Flori | RECOM | 0 | NA | 8 | 4 | 4 | NA | NA | 1227 | NA | NA | NA | NA | 18 | NA | NA | NA | 829 | NA | NA | NA | 918 | NA |
| Kenya | Belgum | RECOM | 0 | NA | 3 | 36 | 42 | NA | NA | 1419 | NA | NA | NA | NA | 26 | NA | NA | NA | 823 | NA | NA | NA | 918 | NA |
| Kenya | Dawson | RECOM | 0 | NA | 8 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Kenya | Reper | RECOM | 0 | NA | 8 | 13 | 13 | NA | NA | 7723 | NA | NA | NA | NA | 49 | NA | NA | NA | 827 | NA | NA | NA | 918 | NA |
| Kenya | Angela | RECOM | 0 | NA | 8 | 10 | 9 | NA | NA | 2123 | NA | NA | NA | NA | 38 | NA | NA | NA | 821 | NA | NA | NA | 917 | NA |
| Kenya | Calary | RECOM | 0 | NA | 4 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Kenya | Mangore | RECOM | 0 | NA | 27 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Kenya | Udaji | RECOM | 0 | NA | 16 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Kenya | Shang | RECOM | 0 | NA | 10 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Kenya | Budwerth | RECOM | 0 | NA | 4 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Kenya | Ochongor | RECOM | 0 | NA | 3 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Kenya | Melton | RECOM | 0 | NA | 2 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

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| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|--------|--------------|-----|---|----|----|----|----|------|-------|-------|-------|----|-----|-----|-----|------|------|------|------|------|------|------|------|
| People | CHS/BD | PSB | 0 | NA | 6 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| People | Zen/Melinda | PSB | 0 | NA | 3 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| People | Melissa | PSB | 0 | NA | 11 | 14 | 16 | NA | 11645 | NA | 6242 | NA | 86 | NA | 72 | NA | 6121 | NA | 0833 | NA | 9857 | NA | 9926 |
| People | Belle | PSB | 0 | NA | 13 | 14 | 16 | NA | 27358 | NA | 68648 | NA | 244 | NA | 320 | NA | 6187 | NA | 6131 | NA | 9627 | NA | 9644 |
| People | Cardeney | PSB | 0 | 8 | 9 | 9 | 10 | 3145 | 25449 | NA | 47523 | 66 | 219 | NA | 323 | 0829 | 6118 | NA | 6122 | 9944 | 9789 | NA | 9698 |
| People | Peterson | PSB | 0 | NA | 11 | 10 | 11 | NA | 25126 | NA | 47524 | NA | 265 | NA | 334 | NA | 0837 | NA | 6125 | NA | 9713 | NA | 9657 |
| People | Atari | PSB | 0 | NA | 1 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| People | Chapman | PSB | 0 | NA | 1 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| People | Melissa | PSB | 0 | NA | 3 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| People | Allyce | PSB | 0 | NA | 1 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| People | Melissa | PSB | 0 | NA | NA | NA | 35 | NA | NA | NA | 13615 | NA | NA | NA | 10 | NA | NA | NA | 1417 | NA | NA | NA | 864 |
| People | Esperanza | PSB | 0 | NA | NA | NA | 10 | NA | NA | NA | 3115 | NA | NA | NA | 108 | NA | NA | NA | 6817 | NA | NA | NA | 9664 |
| People | Brendan | PSB | 0 | NA | 1 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| People | F.C. Charrin | PSB | 0 | NA | 1 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| People | Isabelle | PSB | 0 | NA | 2 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| People | Tara Tamm | PSB | 0 | 4 | 3 | 5 | 7 | 3315 | NA | NA | 38817 | 85 | NA | NA | 326 | 0823 | NA | NA | 6110 | 9959 | NA | NA | 9566 |
| People | Suzanne | PSB | 0 | NA | 8 | 9 | 14 | NA | NA | 38743 | 55436 | NA | NA | 69 | 56 | NA | NA | 6538 | 6931 | NA | NA | 9537 | 9522 |
| People | Rayne | PSB | 0 | NA | 4 | 5 | 5 | NA | NA | 3134 | 1828 | NA | NA | 71 | 34 | NA | NA | 6811 | 6828 | NA | NA | 9985 | 9978 |
| People | Elaine | PSB | 0 | NA | 14 | 20 | NA | NA | NA | NA | 2843 | NA | NA | 56 | NA | NA | NA | 6822 | NA | NA | NA | 9826 | NA |
| People | Henderson | PSB | 0 | NA | 14 | 17 | 21 | NA | NA | NA | 6362 | NA | NA | 120 | NA | NA | NA | NA | 6831 | NA | NA | NA | 9922 |

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|------------|------------------|-------------|---|----|------|----|------|------|-------|-------|-------|--------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| People | Miss Shuler | PSB | | 0 | N.A. | 0 | 3 | 4 | N.A. | N.A. | N.A. | 42.6 | N.A. | N.A. | N.A. | 98 | N.A. | N.A. | N.A. | 08.28 | N.A. | N.A. | N.A. | 99.51 |
| People | Absher | PSB | | 0 | N.A. | 6 | 10 | 11 | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| People | Pendickery | Elery Dept. | | 0 | N.A. | 8 | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| Reptiles | Jasper | Jasper VNL | | SC | N.A. | 0 | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| Reptiles | Jellyer | Jellyer VNL | | MT | N.A. | 27 | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| Reptiles | Reynolds/Tankers | Ajmer VNL | | 0 | N.A. | 2 | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| Reptiles | Udinger | Ajmer VNL | | 0 | N.A. | 14 | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| Reptiles | Nagor | Ajmer VNL | | 0 | N.A. | 3 | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| Reptiles | Bennett | Ajmer VNL | | 0 | N.A. | 2 | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| Reptiles | Dangeyer | Ajmer VNL | | 0 | N.A. | 2 | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| Reptiles | Siler | Ajmer VNL | | 0 | N.A. | 1 | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| Slitkin | Campert | Power Dept. | | SC | N.A. | 4 | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| Slitkin | Maschi | Power Dept. | | 0 | N.A. | 1 | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| Slitkin | Gyeling | Power Dept. | | 0 | N.A. | 1 | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| Slitkin | Morgan | Power Dept. | | 0 | N.A. | 1 | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| Tamil Nale | Chenai | TNE3 | | SC | 68 | 67 | 65 | 715 | 17.35 | 23.09 | 18.54 | 18.59 | 9 | 165 | 62 | N.A. | 08.13 | 08.4 | N.A. | 08.28 | 08.41 | 08.51 | 08.71 | 08.78 |
| Tamil Nale | Chandore | TNE3 | | MT | 49 | 52 | 53 | 54 | 34.31 | 71.53 | 82.50 | 177.37 | 84 | 165 | 123 | 211 | 08.41 | 08.41 | 08.41 | 08.41 | 08.41 | 08.41 | 08.41 | 08.41 |
| Tamil Nale | Mahanti | TNE3 | | MT | 28 | 30 | 52 | 59 | 13.13 | 22.53 | N.A. | 73.13 | 31 | 38 | N.A. | 169 | 08.28 | 08.28 | N.A. | 08.43 | 08.43 | 08.43 | 08.43 | 08.43 |
| Tamil Nale | Tricky | TNE3 | | MT | 38 | 35 | 37 | 38 | 25.34 | 19.17 | 13.18 | 13.31 | 34 | 37 | 29 | 37 | 08.45 | 08.31 | 08.27 | 08.25 | 08.25 | 08.25 | 08.25 | 08.25 |
| Tamil Nale | Selen | TNE3 | | 0 | 25 | 25 | 24 | 24 | 62.25 | 64.48 | 64.44 | 107.42 | 182 | 179 | 179 | 272 | 08.28 | 08.33 | 08.28 | 08.41 | 08.45 | 08.47 | 08.47 | 08.47 |

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | |
|------------|------|---|---|---|---|----|----|----|----|--------|--------|--------|--------|-----|-----|-----|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| Tamil Nadu | TNE3 | 0 | | | | 22 | 25 | 26 | 27 | 27.56 | 28.12 | 28.18 | 41.88 | 65 | 56 | 69 | 70 | 82.35 | 82.41 | 82.29 | 82.35 | 99.67 | 99.38 | 99.62 | 99.53 |
| Tamil Nadu | TNE3 | 0 | | | | 24 | 24 | 24 | 24 | 131.84 | 138.47 | 206.68 | 206.51 | 111 | 139 | 215 | 317 | 01.10 | 02.57 | 02.57 | 02.54 | 02.5 | 98.54 | 97.65 | 96.73 |
| Tamil Nadu | TNE3 | 0 | | | | 2 | 2 | 2 | 2 | 68.31 | 56.88 | 38.17 | 35.47 | 36 | 27 | 28 | 34 | 01.41 | 02.05 | 01.58 | 01.84 | 99.51 | 99.35 | 99.35 | 98.29 |
| Tamil Nadu | TNE3 | 0 | | | | 1 | 1 | 1 | 1 | 185.47 | 189.54 | 48.29 | 75.56 | 152 | 168 | 72 | 78 | 01.13 | 02.39 | 02.41 | 02.58 | 99.28 | 98.75 | 99.44 | 99.13 |
| Tamil Nadu | TNE3 | 0 | | | | 3 | 3 | 3 | 3 | 48.55 | 46.12 | 31.51 | 97.28 | 165 | 98 | 78 | 184 | 02.28 | 02.28 | 02.27 | 02.35 | 99.44 | 99.47 | 99.84 | 98.89 |
| Tamil Nadu | TNE3 | 0 | | | | 3 | 3 | 3 | 3 | 65.29 | 57.34 | 17.34 | 157.44 | 38 | 25 | 28 | 115 | 01.21 | 01.38 | 02.38 | 01.23 | 99.23 | 99.57 | 99.4 | 98.2 |
| Tamil Nadu | TNE3 | 0 | | | | 2 | 2 | 2 | 2 | 99.65 | 34.68 | 47.55 | 08.19 | 121 | 91 | 167 | 70 | 02.49 | 02.23 | 02.17 | 02.67 | 98.67 | 99.68 | 99.16 | 99.91 |
| Tamil Nadu | TNE3 | 0 | | | | 2 | 2 | 2 | 2 | 41.65 | 15.38 | 08.43 | 07.17 | 32 | 18 | 15 | 25 | 01.56 | 02.51 | 02.44 | 02.18 | 99.3 | 99.82 | 99.88 | 99.92 |
| Tamil Nadu | TNE3 | 0 | | | | 6 | 6 | 6 | 6 | 11.55 | 49.15 | 76.48 | 136.07 | 154 | 282 | 144 | 186 | 02.05 | 02.18 | 02.32 | 02.51 | 99.88 | 99.44 | 99.12 | 98.2 |
| Tamil Nadu | TNE3 | 0 | | | | 8 | 8 | 8 | 8 | 38.52 | 33.53 | 46.29 | 41.28 | 83 | 66 | 38 | 71 | 02.42 | 02.49 | 02.48 | 02.35 | 99.33 | 99.38 | 99.47 | 99.47 |
| Tamil Nadu | TNE3 | 0 | | | | 4 | 6 | 5 | 4 | 42.38 | 31.18 | 31.44 | 25.28 | 78 | 39 | 25 | 33 | 02.34 | 02.43 | 01.24 | 02.54 | 99.51 | 99.64 | 99.66 | 99.66 |
| Tamil Nadu | TNE3 | 0 | | | | 2 | 2 | 2 | 2 | 72.72 | 38.13 | 08.58 | 121.16 | 288 | 225 | 149 | 216 | 02.16 | 02.16 | 02.02 | 02.34 | 99.17 | 99.34 | 99.88 | 98.42 |
| Tamil Nadu | TNE3 | 0 | | | | 4 | 4 | 4 | 4 | 44.07 | 44.27 | 76.29 | 62.86 | 118 | 129 | 6 | 76 | 02.35 | 02.32 | 02.48 | 02.49 | 99.22 | 99.22 | 99.13 | 98.29 |
| Tamil Nadu | TNE3 | 0 | | | | 2 | 2 | 2 | 2 | 71.01 | 76.27 | 63.22 | 176.08 | 113 | 138 | 212 | 139 | 02.38 | 02.33 | 02.34 | 01.18 | 99.19 | 99.13 | 99.85 | 98.01 |
| Tamil Nadu | TNE3 | 0 | | | | 2 | 2 | 2 | 2 | 47.28 | 104.24 | 78.55 | 24.82 | 61 | 98 | 68 | 26 | 01.35 | 01.84 | 01.56 | 02.55 | 99.89 | 98.51 | 99.89 | 99.73 |
| Tamil Nadu | TNE3 | 0 | | | | 9 | 9 | 9 | 9 | 96.01 | 42.22 | 36.65 | 46.37 | 184 | 178 | 283 | 229 | 02.31 | 02.14 | 02.17 | 02.15 | 98.4 | 99.52 | 99.36 | 99.31 |
| Tamil Nadu | TNE3 | 0 | | | | 3 | 3 | 3 | 3 | 43.28 | 26.25 | 27.55 | 65.28 | 48 | 88 | 74 | 45 | 02.53 | 02.18 | 02.23 | 01.81 | 99.5 | 99.78 | 99.68 | 99.88 |
| Tamil Nadu | TNE3 | 0 | | | | 2 | 2 | 2 | 2 | 55.41 | 31.59 | 22.17 | 25.49 | 33 | 51 | 36 | 52 | 01.84 | 01.82 | 02.38 | 02.29 | 99.29 | 99.41 | 99.75 | 99.71 |
| Tamil Nadu | TNE3 | 0 | | | | 3 | 3 | 3 | 3 | 68.48 | 62.36 | 49.19 | 19.54 | 24 | 51 | 138 | 207 | 02.89 | 02.83 | 02.84 | 02.85 | 99.88 | 99.87 | 99.89 | 99.77 |
| Tamil Nadu | TNE3 | 0 | | | | 1 | 1 | 1 | 1 | 65.25 | 41.52 | 44.11 | 49.56 | 116 | 178 | 257 | 329 | 02.23 | 02.14 | 02.11 | 02.89 | 99.68 | 99.52 | 99.5 | 99.43 |

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---------------|---------------|----------------------|----|---|------|------|------|------|--------|--------|--------|--------|-----|-----|-----|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| Tamil Nadu | Uthamapett | TNE3 | 0 | | 3 | 3 | 3 | 3 | 71.10 | 118.25 | 116.36 | 257.29 | 34 | % | 141 | 238 | 01.17 | 01.14 | 02.20 | 02.40 | 99.2 | 96.45 | 96.57 | 97.96 |
| Tamil Nadu | Pollachi | TNE3 | 0 | | 2 | 2 | 2 | 2 | 135.21 | 186.79 | 123.25 | 225.40 | 138 | 198 | 151 | 304 | 01.08 | 02.57 | 02.49 | 02.44 | 98.23 | 97.57 | 98.29 | 97.43 |
| Tamil Nadu | Dharmapuri | TNE3 | 0 | | 1 | 1 | 1 | 1 | 96.25 | 146.14 | 105.25 | 204.29 | 22 | 74 | 139 | 349 | 02.29 | 02.37 | 02.43 | 02.49 | 98.1 | 97.78 | 98.15 | 97.46 |
| Tripura | Agartala | Elect. Deptt. | SC | | N/A | 11 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Uttaranchal | Dehra Dun | Uttaranchal PC Ltd. | SC | | N/A | 0 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Uttar Pradesh | Lucknow | Madhyanchal V VNL | SC | | N/A | 0 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Uttar Pradesh | Kanpur | KESCO | MT | | N/A | 246 | 274 | 290 | N/A | N/A | 137.19 | N/A | N/A | N/A | 138 | N/A | N/A | N/A | 02.09 | N/A | N/A | 98.2 | N/A | N/A |
| Uttar Pradesh | Vareansi | Poweranchal V VNL | MT | | N/A | 22 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Uttar Pradesh | Azamgarh | Poweranchal V VNL | 0 | | N/A | 1 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Uttar Pradesh | Mirzapur | Poweranchal V VNL | MT | | N/A | 0 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Uttar Pradesh | Almohad | Poweranchal V VNL | MT | | N/A | 86 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Uttar Pradesh | Ghaziabad | Poweranchal V VNL | MT | | N/A | 0 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Uttar Pradesh | Agra | Dakshinanchal V VNL | MT | | N/A | 34 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Uttar Pradesh | Greater Noida | Noida Power Company | 0 | | N/A | 22 | 21 | 44 | N/A | 257.29 | 171.06 | N/A | N/A | 184 | 182 | N/A | N/A | 01.08 | 01.38 | N/A | 71.14 | 02.39 | N/A | N/A |
| West Bengal | Kolkata | CESC | SC | | 1129 | 1151 | 1222 | 1331 | 63.28 | 162.36 | 22.48 | 45.15 | 1 | 2 | 31 | 60 | 02.42 | 06.40 | 02.44 | 02.46 | 99.96 | 99.74 | 99.48 | N/A |
| West Bengal | Asansol | DPSCL | MT | | N/A | 113 | 113 | N/A | N/A | 64.38 | 02.27 | N/A | N/A | 91 | 129 | N/A | N/A | 02.45 | 02.42 | N/A | 99.22 | 98.99 | N/A | N/A |
| West Bengal | Baldanagar | WBSE Dist. Com. Ltd. | 0 | | N/A | N/A | 63 | N/A | N/A | N/A | 05.51 | N/A | N/A | N/A | 22 | N/A | N/A | N/A | 02.16 | N/A | N/A | 99.93 | N/A | N/A |
| West Bengal | Durgapur | WBSE Dist. Com. Ltd. | 0 | | N/A | N/A | 6 | N/A | N/A | N/A | 122.18 | N/A | N/A | N/A | 95 | N/A | N/A | N/A | 01.17 | N/A | N/A | 98.61 | N/A | N/A |
| West Bengal | Asansol | WBSE Dist. Com. Ltd. | 0 | | N/A | N/A | 29 | N/A | N/A | N/A | 103.25 | N/A | N/A | N/A | 282 | N/A | N/A | N/A | 02.38 | N/A | N/A | 97.9 | N/A | N/A |
| West Bengal | Haldia | WBSE Dist. Com. Ltd. | 0 | | N/A | N/A | 17 | N/A | N/A | N/A | 155.56 | N/A | N/A | N/A | 128 | N/A | N/A | N/A | 01.13 | N/A | N/A | 98.22 | N/A | N/A |

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|-------------|-----------------|-------------------------|---|---|----|----|----|----|----|--------|--------|----|----|-----|-----|----|----|-------|-------|----|----|-------|-------|----|
| West Bengal | Slipari | WISE Dist. Com. Ltd. O | | | NA | NA | 27 | NA | NA | NA | 148.09 | NA | NA | NA | 108 | NA | NA | NA | 01.22 | NA | NA | NA | 98.31 | NA |
| West Bengal | Kolkata (Part) | WISE Dist. Com. Ltd. MT | | | NA | NA | 6 | NA | NA | NA | 98.18 | NA | NA | NA | 123 | NA | NA | NA | 00.48 | NA | NA | NA | 98.08 | NA |
| West Bengal | Barrack | WISE Dist. Com. Ltd. O | | | NA | NA | 13 | NA | NA | NA | 133.28 | NA | NA | NA | 126 | NA | NA | NA | 01.04 | NA | NA | NA | 98.48 | NA |
| West Bengal | Bangor | WISE Dist. Com. Ltd. O | | | NA | NA | 4 | NA | NA | NA | 127.25 | NA | NA | NA | 131 | NA | NA | NA | 00.31 | NA | NA | NA | 98.35 | NA |
| West Bengal | Hemraih (Part) | WISE Dist. Com. Ltd. MT | | | NA | 8 | 8 | NA | NA | 190.01 | 92.28 | NA | NA | 184 | 8 | NA | NA | 00.49 | 00.38 | NA | NA | 98.29 | 98.44 | NA |
| West Bengal | Hopghy-Chamraih | WISE Dist. Com. Ltd. O | | | NA | NA | 5 | 13 | NA | NA | 54.35 | NA | NA | NA | 60 | NA | NA | NA | 00.35 | NA | NA | NA | 98.37 | NA |
| West Bengal | Bardwan | WISE Dist. Com. Ltd. O | | | NA | NA | 14 | NA | NA | NA | 127.29 | NA | NA | NA | 99 | NA | NA | NA | 01.18 | NA | NA | NA | 98.34 | NA |
| West Bengal | Suri | WISE Dist. Com. Ltd. O | | | NA | NA | 4 | NA | NA | NA | 62.25 | NA | NA | NA | 57 | NA | NA | NA | 01.06 | NA | NA | NA | 99.29 | NA |
| West Bengal | Bahadurpur | WISE Dist. Com. Ltd. O | | | NA | NA | 5 | NA | NA | NA | 200.35 | NA | NA | NA | 138 | NA | NA | NA | 01.49 | NA | NA | NA | 97.82 | NA |
| West Bengal | Krishnanagar | WISE Dist. Com. Ltd. O | | | NA | NA | 6 | NA | NA | NA | 93.16 | NA | NA | NA | 80 | NA | NA | NA | 01.05 | NA | NA | NA | 98.94 | NA |
| West Bengal | Maldah | WISE Dist. Com. Ltd. O | | | NA | NA | 11 | NA | NA | NA | 110.49 | NA | NA | NA | 105 | NA | NA | NA | 01.03 | NA | NA | NA | 98.73 | NA |
| West Bengal | Dumkai | WISE Dist. Com. Ltd. O | | | NA | NA | 4 | NA | NA | NA | 234.24 | NA | NA | NA | 218 | NA | NA | NA | 01.45 | NA | NA | NA | 92.32 | NA |
| West Bengal | Mahisvara | WISE Dist. Com. Ltd. O | | | NA | NA | 7 | NA | NA | NA | 96.45 | NA | NA | NA | 100 | NA | NA | NA | 00.33 | NA | NA | NA | 98.41 | NA |
| West Bengal | Bardwan | WISE Dist. Com. Ltd. O | | | NA | NA | 6 | NA | NA | NA | 134.28 | NA | NA | NA | 146 | NA | NA | NA | 00.32 | NA | NA | NA | 98.44 | NA |
| West Bengal | Paradi | WISE Dist. Com. Ltd. O | | | NA | NA | 3 | NA | NA | NA | 148.35 | NA | NA | NA | 142 | NA | NA | NA | 00.35 | NA | NA | NA | 98.3 | NA |
| West Bengal | Bangor | WISE Dist. Com. Ltd. O | | | NA | NA | 5 | NA | NA | NA | 125.07 | NA | NA | NA | 107 | NA | NA | NA | 00.30 | NA | NA | NA | 98.36 | NA |
| West Bengal | Bahadurpur | WISE Dist. Com. Ltd. O | | | NA | NA | 3 | NA | NA | NA | 112.18 | NA | NA | NA | 109 | NA | NA | NA | 01.02 | NA | NA | NA | 98.72 | NA |
| West Bengal | Dumkai | WISE Dist. Com. Ltd. O | | | NA | NA | 7 | NA | NA | NA | 149.28 | NA | NA | NA | 97 | NA | NA | NA | 00.32 | NA | NA | NA | 98.29 | NA |
| West Bengal | Imphar | WISE Dist. Com. Ltd. O | | | NA | NA | 7 | NA | NA | NA | 139.33 | NA | NA | NA | 94 | NA | NA | NA | 01.29 | NA | NA | NA | 98.41 | NA |
| West Bengal | Chandabari | WISE Dist. Com. Ltd. O | | | NA | NA | 4 | NA | NA | NA | 191.57 | NA | NA | NA | 129 | NA | NA | NA | 00.29 | NA | NA | NA | 97.81 | NA |

RELIABILITY INDEX-CONSUMER LEVEL FINANCIAL YEAR DATA

| State | State Capital/Urban Agglomeration | Utility | Type | No. of Consumer | Outage duration per Consumer (hh:mm) | No of Outages per Consumer | Average Duration of an Outage (hh:mm) | Consumer Reliability |
|-------------------|---|-------------------------|------|--------------------|--|-------------------------------------|---|-------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Arunachal Pradesh | Itanagar | Deptt. of Power | SC | 13643 | NA | NA | NA | NA |
| Chandigarh | Chandigarh | Chandigarh Elec. Deptt. | SC | 210571 | 00:01 | 5.86 | 00:00 | 99.9998 |
| Delhi | Delhi (NDPL Area) | NDPL | SC | 949100 | 00:03 | 0.02 | 02:18 | 99.999 |
| Gujarat | Gandhi Nagar | Torrent Power AEC | SC | 57034 | 02:27 | 5.82 | 00:25 | 99.97 |
| Gujarat | Ahmedabad | Torrent Power AEC | MT | 1350682 | 11:45 | 13.52 | 00:52 | 99.86 |
| Gujarat | Surat | Torrent Power SEC | MT | 303775 | 09:41 | 20.06 | 00:29 | 99.89 |
| Gujarat | Vadodra | MGVCL | MT | 501025 | 00:00 | 0.23 | 00:01 | 99.99995 |
| Gujarat | Godhra | MGVCL | O | 39588 | 00:01 | 10.56 | 00:00 | 99.9998 |
| Gujarat | Dahod | MGVCL | O | 27546 | 00:00 | 10.81 | 00:00 | 99.9999 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-----------|-------------|--------|---|--------|------|--------|-------|-------|
| Gujarat | Anand | MGVCL | 0 | 49078 | 2008 | 86.82 | 00:14 | 99.77 |
| Gujarat | Nadiad | MGVCL | 0 | 57880 | 1354 | 103.75 | 00:08 | 99.84 |
| Gujarat | Palampur | UGVCL | 0 | 30001 | NA | NA | NA | NA |
| Gujarat | Himatnagar. | UGVCL | 0 | 28907 | NA | NA | NA | NA |
| Gujarat | Mehsana | UGVCL | 0 | 49448 | NA | NA | NA | NA |
| Gujarat | Patan | UGVCL | 0 | 36245 | NA | NA | NA | NA |
| Gujarat | Kalol | UGVCL | 0 | 32994 | NA | NA | NA | NA |
| Karnataka | Hubli | HESCOM | 0 | 160515 | NA | NA | NA | NA |
| Karnataka | Dharwad | HESCOM | 0 | 77248 | NA | NA | NA | NA |
| Karnataka | Gadag | HESCOM | 0 | 43043 | NA | NA | NA | NA |
| Karnataka | Karwar | HESCOM | 0 | 21810 | NA | NA | NA | NA |
| Karnataka | Haveri | HESCOM | 0 | 16482 | NA | NA | NA | NA |
| Karnataka | Belgaum | HESCOM | 0 | 142728 | NA | NA | NA | NA |
| Karnataka | Bijapur | HESCOM | 0 | 69164 | NA | NA | NA | NA |
| Karnataka | Bagal Kot | HESCOM | 0 | 31047 | NA | NA | NA | NA |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|----------------|--------------------|------------|----|--------|--------|--------|--------|-------|
| Kerala | Thiruvananthapuram | KSEB | SC | 352827 | 47.47 | 3.85 | 12.25 | 99.45 |
| Kerala | Kollam | KSEB | MT | 109634 | NA | NA | NA | NA |
| Kerala | Alappuzha | KSEB | O | 49498 | 03.38 | 0.59 | 06.12 | 99.96 |
| Kerala | Kozhikode | KSEB | O | 141884 | 03.07 | 1.27 | 02.28 | 99.96 |
| Kerala | Palakkad | KSEB | O | 52602 | 113.48 | 222.00 | 00.31 | 98.68 |
| Kerala | Ernakulam | KSEB | MT | 208529 | 06.36 | 1.49 | 04.26 | 99.92 |
| Kerala | Kesaragod | KSEB | O | 18509 | 00.23 | 0.58 | 00.39 | 99.96 |
| Kerala | Kottayam | KSEB | O | 34148 | 31.32 | 0.14 | 232.50 | 99.64 |
| Kerala | Thrissur | KSEB | O | 149709 | 03.31 | 0.67 | 05.13 | 99.96 |
| Madhya Pradesh | Indore | MPPK V VCO | MT | 370923 | NA | NA | NA | NA |
| Madhya Pradesh | Khandwa | MPPK V VCO | O | 35602 | NA | NA | NA | NA |
| Madhya Pradesh | Burhanpur | MPPK V VCO | O | 35736 | NA | NA | NA | NA |
| Madhya Pradesh | Khargone | MPPK V VCO | O | 22580 | NA | NA | NA | NA |
| Madhya Pradesh | Barwani | MPPK V VCO | O | 10478 | NA | NA | NA | NA |
| Madhya Pradesh | Dhar | MPPK V VCO | O | 17622 | NA | NA | NA | NA |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|----------------|---------------|------------------------|----|--------|---------|--------|---------|--------|
| Madhya Pradesh | Jhabua | MPPK V VCO | O | 7743 | NA | NA | NA | NA |
| Madhya Pradesh | Jabalpur | MPPo K V VCO | MT | 206442 | 00:07 | 0.11 | 01:05 | 99.999 |
| Mizoram | Aizawl | Power & Electy. Deptt. | SC | 49198 | 35:26 | 31.33 | 01:08 | 99.59 |
| Mizoram | Champhai | Power & Electy. Deptt. | O | 10620 | 00:11 | 0.08 | 02:14 | 99.998 |
| Mizoram | Lunglei | Power & Electy. Deptt. | O | 7013 | 1851:31 | 0.51 | 3617:54 | 78.53 |
| Mizoram | Saiha | Power & Electy. Deptt. | O | 3676 | 02:11 | 8.69 | 00:15 | 99.98 |
| Mizoram | Lawngtlai | Power & Electy. Deptt. | O | 5077 | 01:20 | 10.15 | 00:08 | 99.98 |
| Mizoram | Kolasib | Power & Electy. Deptt. | O | 4320 | 00:06 | 0.16 | 00:37 | 99.999 |
| Mizoram | Serchhip | Power & Electy. Deptt. | O | 2809 | 144:11 | 211.80 | 00:41 | 98.32 |
| Mizoram | Manit | Power & Electy. Deptt. | O | 1296 | 292:11 | 173.13 | 01:41 | 96.56 |
| Maharashtra | Mumbai (City) | BEST | SC | 943099 | 01:24 | 1.78 | 00:47 | 99.98 |
| Maharashtra | Mumbai (City) | Tata Power Co. Ltd. | MT | 24109 | 01:11 | 2.28 | 00:31 | 99.99 |
| Orissa | Bhubneshwar | CESCO | SC | 117291 | NA | NA | NA | NA |
| Orissa | Puri | CESCO | O | 30290 | NA | NA | NA | NA |
| Orissa | Khunda | CESCO | O | 8633 | NA | NA | NA | NA |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|--------|---------------|-------|----|--------|-------|-------|-------|----------|
| Orissa | Nayagarh | CESCO | 0 | 4137 | NA | NA | NA | NA |
| Orissa | Cuttak | CESCO | 0 | 65670 | NA | NA | NA | NA |
| Orissa | Dhenkanal | CESCO | 0 | 23600 | NA | NA | NA | NA |
| Orissa | Angul | CESCO | 0 | 18575 | NA | NA | NA | NA |
| Orissa | Kendrapara | CESCO | 0 | 20270 | NA | NA | NA | NA |
| Orissa | Jagatsinghpur | CESCO | 0 | 18200 | NA | NA | NA | NA |
| Punjab | Anantnagar | PSEB | MT | 256917 | 00:11 | 11.47 | 00:01 | 99.998 |
| Punjab | Ludhiana | PSEB | MT | 425124 | 56:29 | 1.21 | 46:46 | 99.35 |
| Punjab | Jalandhar | PSEB | MT | 23518 | 00:07 | 0.31 | 00:22 | 99.9999 |
| Punjab | Patiala | PSEB | MT | 112082 | 00:02 | 0.03 | 01:14 | 99.9996 |
| Punjab | Bathinda | PSEB | 0 | 61586 | 00:01 | 11.17 | 00:00 | 999.9998 |
| Punjab | Mansa | PSEB | 0 | 48194 | 00:00 | 11.91 | 00:00 | 99.9999 |
| Punjab | Faridkot | PSEB | 0 | 20006 | 00:02 | 1.04 | 00:02 | 99.9997 |
| Punjab | Moga | PSEB | 0 | 34650 | 00:01 | 0.73 | 00:02 | 99.9998 |
| Punjab | Muktsar | PSEB | 0 | 25789 | 00:26 | 0.56 | 00:45 | 99.997 |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---------------|------------|-------|----|--------|-------|-------|-------|---------|
| Punjab | Batala | PSEB | 0 | 36955 | 00:13 | 11.88 | 00:01 | 99.998 |
| Punjab | Gurdaspur | PSEB | 0 | 19478 | 00:14 | 11.90 | 00:01 | 99.997 |
| Punjab | Pathankot | PSEB | 0 | 39782 | 00:08 | 11.96 | 00:01 | 99.998 |
| Punjab | Mohali | PSEB | 0 | 37520 | 00:08 | 0.62 | 0:12 | 99.999 |
| Punjab | Kapurthala | PSEB | 0 | 19298 | 00:01 | 0.06 | 00:17 | 99.9998 |
| Punjab | Tarn Taran | PSEB | 0 | 16457 | 00:10 | 11.38 | 00:01 | 99.998 |
| Punjab | Sangrur | PSEB | 0 | 22228 | 00:21 | 3.90 | 00:05 | 99.996 |
| Punjab | Ropar | PSEB | 0 | 15382 | 00:03 | 5.70 | 00:00 | 99.9999 |
| Punjab | Khanna | PSEB | 0 | 29012 | 04:53 | 11.17 | 00:26 | 99.94 |
| Punjab | Hoshiarpur | PSEB | 0 | 47766 | 00:02 | 0.05 | 00:31 | 99.9997 |
| Punjab | Nava Shahr | PSEB | 0 | 14812 | 00:01 | 0.03 | 00:26 | 99.9999 |
| Punjab | Abohar | PSEB | 0 | 31217 | 00:17 | 0.33 | 00:52 | 99.997 |
| Uttar Pradesh | Kanpur | KESCO | MT | 459830 | NA | NA | NA | NA |

*SC—State Capital

MT—Major Towns-Towns with population more than eight lakhs

*O—other towns-Towns with population more than one lakh

KEY FINDINGS OF THE IIMA REPORT ON "ELECTRICITY
REFORMS AND REGULATIONS — A CRITICAL REVIEW
OF LAST 10 YEARS EXPERIENCE"

1. Competitive Procurement, ABT and Trading

Issue:

- High cost of traded power

Reasons:

- While long-term procurement is on the basis of "two part tariffs", the short term competition is essentially based on "energy-only price" or a single price.
- Given no compulsion to procure adequate capacity and option to ration supply, utilities have an incentive to rely on UI under ABT or short-term traded power to meet peak shortages or short-term requirements.
- Peak power or short-term merchant power is likely to be expensive due to uncertainty of capacity utilization and need to recover capital costs over a shorter period of time.
- Competitive Procurement, ABT and Trading

Recommendations:

- There is a case for empowering the SERCs to insist on adequate contracting of capacities by the utilities rather than relying on UI and rationing for matching demand and supply.
- High price for peaking power and high prices through out the day are symptoms of different problems and should be dealt with accordingly.
- Peaking power price, which is available on energy-only or a single price is expected to be high whereas high price of traded power through the day is clear indication of inadequate capacity contracting by the utilities.
- Demand side management through different and higher prices during peak hours, should be used more aggressively to flatten the load curve.

- Trading margin regulations are not likely to be very helpful in dealing with the problem.

2. Trading

Issues:

- Can the trading margin be regulated?
- Should the trading margin be regulated?

Difficulties and Recommendations:

- Distribution utilities can retain or create capacities for trading to provide benefit to their consumers.
- Generators can create trading arms and can bypass the regulation through suitable transfer pricing unless there is a cap on prices charged by the generators.
- If the objective is that the traders should help in matching supply and demand, then trading margin regulations are not warranted.

3. Creating Competitive Electricity Market

Issues:

- ABT based management of imbalances does not provide incentives over medium to long term for balancing the demand and supply.
- While most of the long-term contracted power is dispatched on the basis of "energy charge" or variable costs, the traded power is dispatched on total costs.
- In the absence of bidding for dispatch, the dispatch decisions are based on charges payable rather than the costs revealed by the bidding.
- In the absence of a consolidated market revealing a single price, the short-term trades are on the basis of bilateral contracts with associated counter-party and contract failure risks.

Recommendations:

- An alternative to ABT based management of imbalances would be creating real time market (gross pool).

- For developing the market, the existing bilateral contracts between generators and utilities can be honored. The transmission assets should be common carrier and be free from bilateral contracts.
- The capacity and energy need to be separately contracted for in the real time market, *i.e.*, capacity and energy contracted for can be sold separately and there is a single price for each during each slot of time.
- All players pay or get the same price for capacity and energy but the bilateral contracts as financial contracts can continue to be respected through settlement between the two parties.
- Another alternative to above is to have real time imbalance market based on bids and offers (net pool). In such a case, the prices may be more volatile.

Caveats:

- Care has to be taken against the possibility of exercise of market power. Gross pool with extensive long-term contracting lessens the incentive to game the market.
- Price caps can be specified as in case of Australian market. But the price cap should neither be too low nor too high.
- Extensive use of TOD meters wherever feasible would be required if the objective is to have a greater share of dispatchable load in the market allowing demand side response.
- Real time markets require real time management and control of transmission network including assessment of losses at different nodes and congestion besides security constraints in dispatch.
- Greater centralized coordination by the market operator and ISO is required for effective real time markets to operate.

4. Open Access and Competition

Issues:

- Open Access has been allowed but not availed due to—
 - cross-subsidy surcharge and applicable tariffs.

- Reduction in or expectation of reduction in industrial tariffs
- lack of availability of firm and long-term power at reasonable prices
- weak bargaining power *vis-à-vis* utility, perceived threat.
- utilities' indirect control over STU and SLDC

Recommendations:

- Cross-subsidy surcharge and standby charged need to be reviewed and lowered.
- Independence of STU/SLDC needs to be ensured to reduce threat perception.

5. Independent System Operations

Issues:

- Transmission utilities and Load dispatch centers are expected to provide non-discriminatory access to transmission system by all eligible participants is necessary to promote competition.
- SLDCs/STUs have currently too close a linkage with the other state utilities for historical reasons and administrative structure post unbundling are preserving these links.

Recommendations:

- STUs and SLDCs should be ring-fenced financially and administratively from direct or indirect influence of utilities/ State Governments.
- SLDCs should report functionally to SERCs and the manpower of SLDCs may require training in system operations without commercial or political considerations.
- STUs and SLDCs should disclose system related information and decision-rules in the public domain for facilitating non-discriminatory open access.

6. Transmission Tariffs and Competition

Issues:

- Currently, the transmission costs are recovered through postage stamp pricing, which are not sensitive to direction and distance of flow.

- Since the basis of pooling is geographical, it penalizes the consumers of producing areas.
- Cost of expanding transmission network is not factored while determining generation costs/prices.

Recommendations:

- A substantial part of capacity costs of existing transmission assets should be allocated to consumers based on some distance related measure.
- Losses and congestion costs should be based on typical load flows even if real time approach like “nodal pricing” is found difficult to implement.
- Generation capacity costs should include cost associated with expansion required for transmission network.

7. Competition among DISCOMS/through Multiple Licensees

Issues:

- Desire of the State Governments to keep tariffs same across state has resulted in no effective competition.
- This has been achieved through dynamic allocation of generation capacity and subsidy distribution.
- Administrative structure and HR policies preclude any effective competition and also make intra-State ABT meaningless.
- In such a scenario, any attempt to introduce competition through multiple licensees would be difficult. In any case, open access to distribution system of competitor is not allowed.

Recommendations:

- Meaningful competition is possible only if the capacity allocations, subsidies are fixed for multiple years in advance and administratively the utilities are made independent.

8. Competition through Captive Generation

Issues:

- Open access related issues affect use of captive generation capacity.

- Postage stamp transmission may become hindrance unless dedicated lines are used.
- Terms are not as favorable as traded power and/or UI charges.

Recommendations:

- The terms of offtake from captive generators should be at least as favorable as short-term traded power/UI charges.
- Despite problems in Pune, bringing captive capacity for peaking power may still be socially beneficial.

9. Addition of Generation Capacity

Issues:

- Some of the States are not keen on adding capacity for exports outside the state whereas some others are keen on it.
- Lack of clarity on the basis of coal and rail linkages.
- Gas availability problems. Existing capacities under utilized but no restriction on creation on new gas based capacity under gas utilization policy.
- The framework for transmission charges being based on location of assets penalizes the consumers of exporting States/regions to the advantage of consumers of importing States/regions.
- No mechanism exists to ensure that utilities contract for adequate capacity.
- Some of the States continue to have poorly performing generating capacity. Addition of new capacity is costlier than improving utilization of existing capacity.
- Imported coal based capacity may be subject to price and supply risks.

Recommendations:

- To incentivise States
- Collective (regional) framework such as UMPPs and central interventions.

- Alternatively, an incentive mechanism like free power.
- Another alternative—to allow tax on production rather than on sale of electricity.
- For creating incentive for the States to create transmission capacity, a framework such as “Uttarakhand Integrated Transmission Project” may be useful so that the transmission costs are paid for by the end consumers (of importing States).
- Single-window clearance mechanism for capacity addition or prior clearances as in case of UMPPs for identified locations.
- No new gas based plants should be allocated gas.
- SERCs should have the power to insist that utilities contract for adequate capacity.
- Tanda, Unchahar and Talcher experience suggests that takeover of State plants in case they do not perform adequately would be in the consumers’ interest as compared to addition of new capacities.

10. Distribution Loss Reduction

Issues:

- Improvement is limited to urban areas in some of the States.
- While APDRP facilitated much needed investment in distribution network, its impact on loss reduction limited.
- Metering at all levels patchy and agricultural connections remain unmetered. Even when metering done, quality of consumer metering data suspect (NA/NR).
- Baseline loss estimates are still not available with the SERCs. Data quality from DISCOMS remains poor.
- Lack of consistency in reporting losses across utilities and time-periods. Inclusion of transmission losses, traded power in input energy etc. can bias reported loss levels besides assessed consumption.
- Despite overall improvements in some States, it is still not possible to segregate technical and commercial losses.

11. Role of State Government and Distribution Loss Reduction

Issues:

- State utilities have close administrative linkages with the State Government and are not functioning as commercial entities.
- In some States, State Government has rolled back tariffs determined by the regulator.
- In some States, utilities have not filed their ARR and in some cases have asked for lower returns to keep the tariffs low, uncharacteristic of a commercial entity.
- State Governments continue to either directly or indirectly intervene in HR policies of the State utilities undermining their independence.
- Despite anti-theft provisions in the EA 2003, enforcements are weak and some States have not even created special courts as provided in the Act. Some States have informally directed utilities to be softer on first time violators than what is specified under EA 2003.

Recommendations:

- Direct subsidy to the beneficiaries would be required to target the beneficiaries without causing distortions in the sector.
- Reporting by the utilities on loss has to be standardized segregating all losses.
- Economics of AMR for all feeders and large consumers need to be explored.
- Quality of supply (load-shedding) could be linked with collective losses on a feeder by the SERCs.
- Unless State Governments exhibit will to let go the State utilities as independent commercial entities and support the enforcement against theft, the problems will remain. This includes accepting SERC determined tariff, payment of subsidy on time as per sec 65 of EA.
- SERCs should demand proof of payment of subsidies by the State Government and not allow lower return while determining tariffs.

12. Privatization

Experiences:

- Four different models conceived or implemented
- Orissa's sale of equity: Failed experiment
- Delhi's privatization based on bids to reduce AT&C loss: By and large successful
- Karnataka's proposed distribution margin approach
- Maharashtra distribution franchisee: Successful

Learning:

- Sale of equity approach for a large heterogeneous territory will not work unless loss levels are brought down.
- For large commercial urban centers, Delhi model is better in terms of risk allocation as it creates high incentive for the private sector and requires minimal intervention from State.
- For smaller urban centers, franchisee model is less risky for private sector and consumers pay same tariff as in other parts of the State.
- Regulatory Independence and Powers

Issues:

- Providing enforcement support to regulators by the State is necessary but there is an in-built conflict of interest when the State owned entities are to be regulated.
- Ability of the regulators to take matters *suo-moto* to discharge their functions.
- Governments, courts and legislatures have still not evolved the understanding of regulatory role and there have been conflicts.
- Consultative processes between various levels of Governments and regulators are yet to be institutionalized.

Recommendations:

- Periodic review of regulatory independence and dissemination of such reviews would identify and highlight problem areas.

- There is a need for consultative framework between SERCs, MoP and the State Governments.
- National level forum rather than State advisory committees to insulate SERCs from direct pressures.

13. Regulating Private Sector

Issues:

- Private sector has greater incentives to—
 - Pad up costs in case of cost plus regulations
 - Under-report revenue or over-report expenditures
 - Exploit legal/regulatory loopholes and inconsistencies
 - Walk-out if continuing is commercially detrimental
 - Capture “regulators”

Recommendations:

- Use of “price cap” regulations or competitive bids wherever possible.
- Extra effort in auditing (or cross auditing) and prudent checks.
- Terms and conditions should factor in walk-out possibility and there should be a contingency plan.
- Code of conduct for regulators

14. Regulatory Resources: Financial

Issues:

- Quite a few SERCs are dependent on the State Governments financially despite EA allowing setting up regulatory fund subject to oversight by CAG and the legislature.
- Financial autonomy and independence is prerequisite for functional independence.

Recommendations:

- ERCs should be financial autonomous and should build-up regulatory fund by charging fees from the licensees subject to CAG and legislature oversight.

15. Regulatory Resources: HR

Issues:

- Most of the ERC personnel are on deputation and retirees.
- SERCs find it difficult to attract legal and finance professionals.
- Some of the SERCs have successfully used consultants.
- There has been little attempt to build capability/training for their existing staff in required professional skills.
- There is a lack of exposure to developments in regulation even if there is exposure to the sector.

Recommendations:

- Compensation and career path needs to be reviewed to attract better quality HR in professional categories.
- Adequate budget is required to take help of outside consultants whenever required.
- A certain minimum training/exposure/capability enhancement is required for the staff with ERCs.

16. Harmonizing Regulations and Building Case Laws

Issues:

- Regulations and rulings need to be consistent across ERCs and APTEL to reduce regulatory risks and to minimize exploitation of inconsistencies and loopholes
- Building case laws and cross referencing is useful to minimize inconsistencies.

Recommendations:

- Building Repository of Rulings and Regulations with indexing would be useful for building case laws and harmonizing the regulations.
- Research support and adequate staff may be required for cross-referencing in rulings and regulations.

APPENDIX I

STANDING COMMITTEE ON ENERGY

MINUTES OF THE NINTH SITTING OF THE STANDING COMMITTEE ON ENERGY (2009-10) HELD ON 5TH FEBRUARY, 2010 IN COMMITTEE ROOM NO. '62' PARLIAMENT HOUSE, NEW DELHI

The Committee sat from 1130 hrs. to 1230 hrs.

PRESENT

Santosh Bagrodia—*In the Chair*

MEMBERS

Lok Sabha

2. Shri P.C. Chacko
3. Shri Adhir Ranjan Chowdhury
4. Shri Arjun Munda
5. Shri Jagdambika Pal
6. Shri M.B. Rajesh
7. Dr. K.S. Rao
8. Shri Radha Mohan Singh
9. Shri E.G. Sugavanam

Rajya Sabha

10. Shri Ram Chandra Khuntia
11. Shri Shyamal Chakraborty
12. Shri Veer Pal Singh Yadav
13. Shri Govindrao Wamanrao Adik
14. Shri Mohammad Shafi

SECRETARIAT

- | | | |
|--------------------|---|------------------------|
| 1. Shri Brahm Dutt | — | <i>Joint Secretary</i> |
| 2. Shri Shiv Singh | — | <i>Director</i> |

2. In the absence of the Chairman, the Committee chose Shri Santosh Bagrodia, a Member of the Committee to act as Chairman for the sitting in accordance with Rule 258(3) of the Rules of Procedure and Conduct of Business in Lok Sabha.

3. At the outset, the Chairman, welcomed the members of the Committee to the sitting of the Committee and mentioned that the sitting has been convened for consideration of draft Report on Action Taken by the Government on the Recommendations contained in the 30th Report (14th Lok Sabha) on the subject 'Role of Central Electricity Regulatory Commission and State Electricity Regulatory Commission in Protection of Interests of Consumers'. After discussing the Draft Report the Committee adopted the same with slight modification. However, the Committee desired that officers of some of State Governments/SERCs who have not implemented the recommendations of the Committee may be called for discussion.

4. The Committee then authorized the Chairman to finalize the above mentioned Report taking into consideration consequential changes and present the same to both the Houses of Parliament.

The Committee then adjourned.

APPENDIX II

(Vide Introduction of Report)

ANALYSIS OF ACTION TAKEN BY THE GOVERNMENT ON THE OBSERVATIONS/RECOMMENDATIONS CONTAINED IN THE 30TH REPORT (14TH LOK SABHA) OF THE STANDING COMMITTEE ON ENERGY

| | |
|---|--------|
| (i) Total number of Recommendations | 29 |
| (ii) Recommendations/Observations which have been accepted by the Government: Sl. Nos. 3, 4, 6, 7, 8, 9, 15, 17, 18, 22, 23, 24, 25, 26 and 28 | |
| Total | 15 |
| Percentage | 51.72% |
| (iii) Recommendations/Observations which the Committee do not desire to pursue in view of the Government's replies: Sl. Nos. 1 and 13 | |
| Total | 02 |
| Percentage | 06.90% |
| (iv) Recommendation/Observation in respect of which the reply of the Government has not been accepted by the Committee and which require reiteration: Serial No. 16 | |
| Total | 01 |
| Percentage | 03.45% |
| (v) Recommendations/Observations in respect of which final replies of the Government are still awaited: Serial Nos. 2, 5, 10, 11, 12, 14, 19, 20, 21, 27 and 29 | |
| Total | 11 |
| Percentage | 37.93% |

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The Souvenir Items with logo of Parliament are also available at Sales Counter, Reception, Parliament House, New Delhi. The Souvenir items with Parliament Museum logo are available for sale at Souvenir Shop (Tel. No. 23035323), Parliament Museum, Parliament Library Building, New Delhi. List of these items are available on the website mentioned above.”
