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STANDING COMMITTEE ON ENERGY

(2011-12)

FIFTEENTH LOK SABHA

MINISTRY OF POWER

**FUNCTIONING OF CENTRAL ELECTRICITY
REGULATORY COMMISSION (CERC)**

THIRTIETH REPORT



सत्यमेव जयते

**LOK SABHA SECRETARIAT
NEW DELHI**

August, 2012/Shravana, 1934 (Saka)

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REGULATORY COMMISSION (CERC)

Presented to Lok Sabha on 24.08.2012

Laid in Rajya Sabha on 24.08.2012



LOK SABHA SECRETARIAT
NEW DELHI

August, 2012/Shravana, 1934 (Saka)

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COMPOSITION OF THE STANDING COMMITTEE ON ENERGY (2011-12)

Shri Mulayam Singh Yadav - Chairman

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3. Mohammad Azharuddin
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RAJYA SABHA

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SECRETARIAT

- | | | |
|----|-------------------|---------------------|
| 1 | Shri Brahm Dutt | Joint Secretary |
| 2. | Shri N.K.Pandey | Additional Director |
| 3. | Shri Manish Kumar | Executive Assistant |

* Nominated as member of the Committee w.e.f. 04.05.2012 vice Smt. Shobhana Bhartia

@ Nominated as members of the Committee w.e.f. 15.05.2012 vice Shri Govindrao Adik and Shri Veer Pal Singh Yadav

INTRODUCTION

I, the Chairman, Standing Committee on Energy having been authorized by the Committee to present the Report on their behalf, present this Thirtieth Report on Functioning of Central Electricity Regulatory Commission (CERC) pertaining to the Ministry of Power.

2. The Committee had a briefing followed by oral evidence of the representatives of the Ministry of Power/CERC on 9th November, 2011 and 12th June, 2012 respectively. The Committee wish to express their thanks to the representatives of the Ministry of Power /CERC for appearing before the Committee for evidence and furnishing the information, desired by the Committee in connection with the issues relating to the subject.

3. The Report was considered and adopted by the Committee at their sitting held on 16th August, 2012.

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. For facility of reference and convenience, the observations and recommendations of the Committee have been printed in bold letters in Part-II of the Report.

NEW DELHI

August 22, 2012

Shravana 31, 1934 (Saka)

MULAYAM SINGH YADAV

Chairman,

Standing Committee on Energy

PART – I

NARRATION ANALYSIS

I. INTRODUCTORY

1.1.1 The Electricity Regulatory Commissions Act, 1998 paved the way for creation of the Regulatory Commissions at the Centre and in the States. The 1998 Act was enacted with the objective of distancing Government from the tariff regulation. The Act provided for Electricity Regulatory Commissions at the Center and in the States for rationalization of electricity tariff, transparent policies regarding subsidies etc. Under the provisions of this Act, the Central Government constituted the Central Electricity Regulatory Commission (CERC) in July, 1998. The ERC Act, 1998 has since been replaced by the Electricity Act, 2003. The CERC created under the provisions of the ERC Act, 1998 has been recognized as the Central Electricity Regulatory Commission under the Electricity Act, 2003.

1.1.2 Considering the fact that the Government was the biggest stakeholder, it was felt that it would be prudent for the Government to distance itself from Regulation in order to instill confidence in the investors in terms of providing a level playing field. The Regulatory Commissions were therefore given all powers of Regulation with the larger objective of bringing in transparency, accountability, professional approach to regulate the sector and impartially balancing the interest of investors as well as consumers.

1.1.3 The Commission functions in a quasi-judicial manner. It has the powers of Civil Courts. It consists of a Chairperson, three full time Members and the Chairperson of the Central Electricity Authority (CEA) as Ex-officio Member. In recognition of the need for a multi-disciplinary approach while addressing issues

related to independent regulation, the Act prescribes that the Chairperson and Members shall be persons having adequate knowledge and experience in engineering, law, economics, commerce, finance or management. It also prescribes a broad mix of disciplines to be represented in the Commission. The Chairperson and Members are appointed by the President of India on the recommendation of a selection committee constituted by the Central Government as prescribed under the Act. The Act also provides for the appointment of a Secretary of the Commission whose powers and duties are defined by the Commission.

1.1.4 The Electricity Act, 2003 has significantly enlarged the spectrum of responsibility of CERC. Under the ERC Act, 1998 only the tariff fixation powers were vested in CERC. The Electricity Act 2003 has entrusted the CERC with several other responsibilities in addition to the tariff fixation powers like the powers to grant license for inter-State transmission, inter-State trading and consequently to amend, suspend and revoke the licence, the powers to regulate the licensees by setting performance standards and ensuring their compliance, etc.

II. MANDATE VIS-À-VIS PERFORMANCE OF CERC

1.2.1 The Electricity Act 2003 has widened the mandate of CERC to make the sector modern, vibrant, responsive and productive. As entrusted by the Act the Commission has the responsibility to discharge the following functions:-

- a) To regulate the tariff of generating companies owned or controlled by the Central Government;
- b) To regulate the tariff of generating companies other than those owned or controlled by the Central Government specified in clause(a), if such generating companies enter into or otherwise have a composite scheme for generation and sale of electricity in more than one State;
- c) To regulate the inter-State transmission of electricity;
- d) To determine tariff for inter-State transmission of electricity;
- e) To issue licenses to persons to function as transmission licensee and electricity trader with respect to their inter-State operations;
- f) To adjudicate upon disputes involving generating companies or transmission licensee in regard to matters connected with clauses (a) to (d) above and to refer any dispute for arbitration;
- g) To levy fees for the purposes of the Act;
- h) To specify Grid Code having regard to Grid Standards;
- i) To specify and enforce the standards with respect to quality, continuity and reliability of service by licensees;
- j) To fix the trading margin in the inter-State trading of electricity, if considered, necessary;
- k) To discharge such other functions as may be assigned under the Act.
- l) To advise the Central Government on:
 - i. Formulation of National Electricity Policy and Tariff Policy;
 - ii. Promotion of competition, efficiency and economy in the activities of the electricity industry;
 - iii. Promotion of investment in electricity industry;
 - iv. Any other matter referred to the Central Commission by the Central Government.

1.2.2 According to the Mission Statement of the CERC the Commission intends to promote competition, efficiency and economy in bulk power markets, improve the quality of supply, promote investments and advise government on the removal of institutional barriers to bridge the demand supply gap and thus foster the interests of consumers. In pursuit of these objectives the Commission aims to:

- Improve the operations and management of the regional transmission systems through Indian Electricity Grid Code (IEGC), Availability Based Tariff (ABT), etc.
- Formulate an efficient tariff setting mechanism, which ensures speedy and time bound disposal of tariff petitions, promotes competition, economy and efficiency in the pricing of bulk power and transmission services and ensures least cost investments.
- Facilitate open access in inter-state transmission
- Facilitate inter-state trading
- Promote development of power market
- Improve access to information for all stakeholders.
- Facilitate technological and institutional changes required for the development of competitive markets in bulk power and transmission services.
- Advise on the removal of barriers to entry and exit for capital and management, within the limits of environmental, safety and security concerns and the existing legislative requirements, as the first step to the creation of competitive markets.

1.2.3 To pursue the mission statement and its goals' the Commission has informed that it is guided by the following principles:

- Protect the Interest of Society including Consumer Interest and Supplier Interest while remaining fair, transparent and neutral to all stakeholders
- Remain equitable in conflict resolution brought to it through petitions after providing sufficient and equal opportunity to participants to be heard.
- Maintain regulatory certainty by remaining consistent in views on one hand and being open minded to adopting change in the evolving power sector on the other
- Adopt a stakeholder consultation and participative process in formulation of its regulations to ensure that the regulation are in line with the expectations of stakeholders,
- Ensure optimal allocation of resources in the power sector using regulatory and market based mechanism
- Encourage sustainable development by promoting renewable sources in the power generation.

III. CERC ESTABLISHMENT

1.3.1 The CERC consists of a Chairperson, three full time Members and the Chairperson of the Central Electricity Authority (CEA) as Ex-officio Member. According to section 89(1) of the Electricity Act, 2003 the Chairperson or other Member shall hold office for a term of five years from the date he enters upon his office. It is further provided that no Chairperson or Member shall hold office as such after he has attained the age of sixty-five years. The Act also provides that the salary, allowances and other terms and conditions of service of the Chairperson and Members shall be such as may be prescribed by the Appropriate Government.

1.3.2 The Commission has a very wide mandate under the Act. The efficiency of the Commission in discharging its responsibilities depend upon the quality and functional specialization of its staff with the requisite expertise and experience in engineering, economics, financial management, accounting, law, environment, management information system and other related skills. In addition, the Commission intends to utilise the human resources with their wide range of expertise and experience available within the Government, industry and research institutions. Further, the CERC informed that to supplement the in-house skills and experience available to it, the Commission engages consultants and for this purpose it has framed regulations.

1.3.3 Sanctioned Strength and Pay Scales of Staff in CERC as on 23- 11-2011 are as under:

Name of the post	Scale of Pay/Pay Band	Grade Pay	Total Sanctioned Posts
Secretary	PB-4/Rs.37400-	Rs.10,000	01

	67000		
Chief	-do-	-do-	04
Joint Chief	-do-	Rs.8700	05
Deputy Chief	PB-3/Rs.15600-39100	Rs.7600	13
Integrated Financial Advisor	-do-	-do-	01
Assistant Secretary	-do-	Rs.6600	02
Assistant Chief	-do-	-do-	16
Bench Officer	-do-	-do-	02
Pr. Pvt Secy	-do-	-do-	04
PAO/Senior Accounts Officer	-do-	Rs.5400	02
Private Secretary	PB-2/Rs.9300-34800	Rs.4600	05
Assistant	-do-	Rs.4200	06
Personal Assistant	-do-	-do-	07
Stenographer	PB-1/Rs.5200-20200	Rs.2400	03
Receptionist cum Tele operator	-do-	Rs.1900	01
Driver	-do-	Rs.1900	04
Senior Peon/Peon	PB-1/Rs. 5200-20200 -1S Rs.4440 -7440	Rs.1800 Rs. 1300	04
Total			80

1.3.4 *When the Committee desired to know whether the present strength at different levels in CERC is sufficient for smooth functioning of the organization, CERC in their written reply has stated as under:*

“CERC has been facing difficulties due to inadequate staff-strength. When Central Electricity Regulatory Commission was set up in 1999 only the bare minimum staff strength was approved for it. The sanctioned staff strength of CERC is 80 only. Almost all of these posts are required to be filled up on deputation basis from Govt. Deptts./ Autonomous Bodies/PSUs etc. Some of these posts are mandatorily to be filled up from amongst the officers of the Central Electricity Authority. The pay structure and other conditions of service of the employees of CERC are strictly based on the pay structures of Central Govt. employees. However, certain benefits available to Central Govt. Employees are not available to CERC officials like Pension, CGHS facility, Govt. accommodation etc.

Independent regulation is an emerging concept and the Commission needs manpower with adequate qualification and skill level to discharge the challenging role entrusted to it under the Act. People from Government may not necessarily have the

desired skill sets and in cases where they have, the various constraints highlighted above discourage them from applying for posts in CERC.

People from PSUs or open market may have the required qualification and skill sets but the existing pay scales structure on Government lines are not adequate to attract them.

In view of the above, the entire staffing pattern of CERC needs to be restructured. On the one hand the number of posts is to be increased in view of the functional needs; on the other hand adequate compensation package is to be introduced to attract people of adequate talent and skill capable of dealing with the challenges ahead.

The Commission being a knowledge based organisation also needs flexibility on some other fronts, for instance in sending its officers abroad for exposure on global practices.

A detailed proposal is being prepared to take up the matter with Ministry of Power.”

1.3.5 The Committee enquired that whether a large number of consultants have been engaged by CERC for looking after perennial nature of work. They also desired to know the terms and conditions for their engagement and mechanism to ensure that they abide by the conditions of engagement. In their written reply CERC stated as under:

“The Act has provided for meeting manpower requirement of the Commission by two means – through regular staffing as per regulations framed in this regard with the approval of the Government; and through appointment of consultants.

Constraints on appointment through regular staffing have been highlighted above. Moreover, for specialised tasks the Commission needs to look for people in the open market.

So far, only a few Consultants have been engaged by CERC in such cases when the Commission felt the need for availing of consultancy services which could be more efficiently performed by a Consultant. They have been appointed in accordance with the terms and conditions laid down in CERC(Appointment of Consultant) Regulation, 2008 and its amendment in 2010. They constitute only 10% of the total sanctioned manpower.

Consultants are engaged in accordance with the provisions of CERC (Appointment of Consultants) Regulation, 2008 and its amendment in 2010. Whenever any Consultant is engaged, an agreement is executed which contains all the terms and conditions of their engagement. The performance of the Consultants is closely monitored by the Commission. The fees of the Consultants are released subject to satisfactory performance.”

Funding of CERC:

1.3.6 Section 99 of Electricity Act, 2003 has provided for establishment of CERC

Fund comprising the following to meet its expenditure:

- (i) any grants and loans made to the Central Commission by the Central Government under section 98 of the Act;
- (ii) all fees received by the Central Commission under the Act;
- (iii) all sums received by the Central Commission from other sources as may be decided upon by the Central Government from time to time.

1.3.7 *When the Committee wanted to know that under which authority income and expenditure of CERC is regulated and whether the expenditure of CERC is scrutinized and audited at regular intervals, they were informed by CERC as under:*

“The income of CERC i.e. fee receipts are regulated as per the Central Electricity Regulatory Commission (Payment of Fee) Regulations amended from time to time. The expenditure of CERC is being regulated as per the CERC Fund (Constitution and the manner of application of the Fund) Rules, 2007, CERC (Recruitment, Control and Service Conditions of Staff) Regulations, 2007, CERC (Indoor/Outdoor Medical Facilities) Regulations, 2005 and other general instructions of GoI, as applicable.

Under the Section 100 of the Electricity Act, 2003 and as per the CERC fund rules, the Accounts and transactions of the Commission are being audited by the Comptroller and Auditor-General of India (C&AG) regularly from the year 2004-05 and annual accounts of the Commission upto FY 2009-10 duly audited by C&AG were placed before the both houses of Parliament. The Annual Accounts for the year 2010-11 along with Audit Report of C&AG is being placed before the both houses of Parliament.”

1.3.8 *Explaining the accountability and independent functioning of CERC, the Chairman, CERC deposed before the Committee as under:*

“We are accountable to the Parliament. That is why the role of the Committee becomes very important: we get this opportunity to discuss what we are doing. Under the law, our reports are laid on the Table of Parliament. That is the accountability that we are talking about. The new Act has also given us financial freedom. We are not dependent on Government funding. Since we issue licences, we levy licence fees and also we collect hearing fees. So, you will find that in the last two years we have been taking a token money of Rs.1 lakh from the Central Government. All our expenditure is managed through our own funds.”

1.3.9 *In reply to a query about the apprehension regarding establishment of Regulatory Bodies being burden on the exchequer, the Secretary, the Ministry of Power defending the existence of CERC stated as under:*

“If, you look at the cost actually incurred at the time of setting up of the State Electricity Regulatory Commissions, we also would have gone through the likely cost, particularly, the Central Electricity Regulatory Commission. Then, you try to estimate the cost. So, I would not think that the costs are very high. The costs are that what we actually require to incur to develop this sector.

As far as the duplication is concerned, there was a time when Government was fixing tariffs and so on. That job has been given to the Central Electricity Regulatory Commission (CERC) or to the State Electricity Regulatory Commissions (SERC). Now, what we see is that what they are doing today is far more than what was done before. It may be that to begin with some part of Government work was hived off and given to them. But what CERC or SERCs do today is far beyond that what the Government was doing. So, to that extent, it could have started with some duplication. Today, there is nothing at all. What they are doing, the Government does not do.”

1.3.10 *When the Committee desired to know as to how the existence of CERC has benefitted the common man in getting adequate reliable power at reasonable rates, the Secretary, the Ministry of Power, stated as below:*

“You need to have a much bigger development in the power sector. It was identified that only the Central PSUs or the State generation companies cannot fulfil the needs of the country. It was important that we bring in the private sector. In 1991, we made an attempt to bring in the private sector through liberalisation. It did not happen. The reason for it not happening was that there was no credible regulatory mechanism, which will indicate to a developer that he is likely to recover his cost. That is why, since 2003 there has been a big spurt in setting up of the private sector capacity in the power sector. All this is an attempt to help the people of the country. You need more power and you have to get it through some way. If, you feel that public sector cannot do it, then private sector will come in. How do you bring in the private sector? All this has been done to facilitate the entry of private sector. He has mentioned about the finding of tariff through competition. Earlier, it was cost-plus but even there the feeling was that whatever you had in terms of inefficiency of the public sector, would actually get pass through, may be less and may be more. Through discovering tariff in a competitive mode, you are finding lower tariffs. This should definitely help the common man. We have to see the broad approach. Today, we might not be able to exactly compute the costs and benefits. But when we see the sector developing, it had because of the stability of the Commissions. The faith people have is that there would be a transparent non-interference mechanism to fix the tariffs.”

IV FORM OF REGULATORS (FOR)

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

1.4.2 The Forum shall discharge the following functions, namely:-

- analysis of the tariff orders and other orders of the Central Commission and State Commissions, and compilation of data arising out of the said orders, especially highlighting the efficiency improvements of the utilities;
- harmonization of regulation in power sector;
- laying of standards of performance of licensees as required under the Act;
- sharing of information among the members of the Forum on various issues of common interest and also of common approach;
- undertaking research work in-house or through outsourcing on issues relevant to power sector regulation;
- evolving measures for protection of interest of consumers and promotion of efficiency, economy and competition in power sector; and
- Such other functions as the Central Government may assign to it from time to time.

Funding of Forum of Regulators

1.4.3 THE FORUM OF REGULATORS RULES, 2005 notified by the Ministry of Power vide Gazette notification G.S.R. 75(E) dated 16th February, 2005 inter-alia provide that the Central Commission may take financial contributions from the State Commissions for carrying out the activities of the Forum. Accordingly,

annual subscription is being collected from SERCs and CERC for the activities of Forum. The Ministry of Power has also transferred corpus of Rs.3.75 crores and the interest earned on same is also being utilized for the activities of Forum. During the 11th Plan period Forum has also been given plan assistance for the capacity building and consultancy.

1.4.4 Head-Wise details of Annual Income and Expenditure for the Years 2006-2007 to 2010-2011 (cash basis)

(Amount in Rs. crore)

Sl. NO.		YEAR 2006-2007	YEAR 2007-2008	YEAR 2008-2009	YEAR 2009-2010	YEAR 2010-2011
	Heads of Income					
1.	Grants/ Subsidies	5.65	6.00	7.27	4.00	0.00
2.	Fee/ Subscription	6.18	6.53	9.27	21.01	31.72
3.	Interest Earned	0.14	1.57	0.93	0.18	4.98
4.	Other Income	0.03	0.03	0.04	0.01	0.00
	Total (A)	12.01	14.12	17.50	25.19	36.70
	Heads of Expenditure					
1.	Salary	2.20	2.31	3.82	6.43	5.96
2.	Domestic Travelling Expenses (DTE)	0.14	0.13	0.21	0.49	0.54
3.	Foreign Travelling Expenses (FTE)	0.23	0.08	0.10	0.31	0.30
4.	Other Charges	0.04	0.06	0.11	0.22	0.30
5.	Professional Fee (PFS)	0.10	0.14	0.71	4.04	5.94
6.	Rent, Rates & Taxes (RRT)	3.54	8.56	6.73	5.32	7.85
7.	RIMS & IT (RIMS)	0.00	0.00	0.00	0.08	1.03
8.	Office Expenses (OE)	0.92	3.89	3.27	2.74	3.84
	TOTAL (B)	7.17	15.17	14.96	19.64	25.77

1.4.5 *Explaining the relation between CERC and SERCs and the role of FOR, the Secretary, the Ministry of Power during the oral evidence stated as under:*

“CERC is not the appellate or the regulatory authority. He is not the monitor for those Regulatory Commissions (SERCs). The only thing that he exercises is that he has a body where he has all of them together and tries to bring them on common platform with regard to several regulations. That is one of the points that I would like to mention. On the regulation side, what one attempts

through the FOR is to bring about model regulations which can be adopted by the Regulatory Commissions. The regulations adopted by the Regulatory Commissions become the standard for measurement. If there is any Commission which is departing from that regulation, he is subject to challenge. That is one thing which we have been working on for some time. On different aspect, common regulations have been framed and regulators are adopting them. In any case if there is a violation of regulation made by that regulator, then the aggrieved party will have to go and appeal. That is the legal process. He will have to go to the APTEL to appeal against that. But in the absence of a regulation decided upon by that regulator, there will be no yardstick like how you mentioned. So, this is what one is attempting to do. We have done that in terms of tariff rationalisation. A lot of things have also been done. We talked about open access. In the distribution side also, we went through model regulations to ensure that all the regulators fall on the same side of the regulation. They have a uniform regulation which they will adopt with that particular standard. This is one thing that has been done.”

1.4.6 On being desirous to know about the manner in which FOR serve as an instrument for coordination between CERC and SERCs towards effective implementations of the regulations for the ultimate benefit to the consumers, the Committee was informed by CERC as under:

“FOR provides a platform for the regulators at the Centre and state level to exchange ideas and best practices. Issues of importance facing the sector (at inter-state level or intra-state level) are discussed and consensus is evolved in FOR.

In order to encourage uniformity of regulations among SERCs, the Forum has evolved several Model Regulations. These help bring regulatory certainty in the sector. Some of the important Model Regulations are mentioned below:

- Model Regulations for Multi Year Distribution Tariff
- Model Regulations for Protection of Consumer Interest
- Model Terms and Conditions of Intra-State Open Access Regulations
- Model DSM Regulation for SERCs
- Model Regulation for SERCs for Renewable Energy Certificate (REC) Framework
- Model Regulation on Standards of Performance for Distribution Licensees
- Model Supply Code”

1.4.7 When asked by the Committee about the intervention of FOR in issues relating to over-drawl of electricity by States, tariff fixation in distribution sector and promotion of open access have been taken up at FOR, it was stated as under:

“FOR interventions on the three issues are summarized below:

- *Over-drawal of Power from the Grid:*

Regarding over-drawal of power, the recommendation made by the Standing committee on Energy regarding additional UI charges was discussed in FOR meeting. The inclusion of additional Unscheduled Interchange (UI) charge imposed on the utilities under CERC's UI Regulation for over-drawal during the time blocks when frequency was below 49.2 Hz was discussed. It was decided that the SERCs should not allow the same in the Annual Revenue Requirement (ARR).

- *Tariff Fixation in Distribution sector:*

Tariff revision and tariff adequacy are the primary issues with respect to the financial viability of Distribution companies. The financial viability of State Distribution has been deliberated at length in various meeting of FOR.

In this regard the Forum of Regulator conducted a study – Assessment of Financial viability of Discoms which analysed the tariff orders of various State commissions and the reasons for increasing revenue gap in state utilities. The study brought out the following facts:

1. Barring a few states, tariffs have not been increasing vis à-vis the increase witnessed in the cost of supply.
2. Requirement of increase in tariff is primarily on account of increase in power purchase cost and certain inflationary impact on other input costs.
3. Estimation of distribution loss level remains a concern considering the large quantum of un-metered sales to agriculture consumers in certain states.
4. Time lag in tariff change (including true-up exercise) is impacting the finances of the utility
5. A few SERCs have created regulatory asset primarily to contain the tariff increase.

Further, Model Tariff Regulations have been framed to address the above issues.

Highlighting the facts in the study report of FOR, Ministry of Power wrote a letter to the Appellate Tribunal raising the issues of tariff revisions and tariff adequacy. Subsequently, the Appellate Tribunal (APTEL) issued a suo motu order dated 4th February, 2011 asking all State Commission /Joint Commissions to send the status report with reference to the determination of annual revenue requirement/ tariff for all the years from the date of the constitution of the Commission. The status report was directed to be compiled by Forum of Regulators secretariat.

The judgment on the aforesaid petition filed with Appellate Tribunal was given on 11th Nov 2011 which directs all State Commissions to revise tariffs every fiscal year and initiate suo motu hearings on tariffs in case the Discoms have not filed for tariff revision.

- *Promotion of Open Access:*

FOR undertook a study on Open Access: Theory and Practice which recommended the standard practices that need to be followed to remove the hurdles to open access. Salient points of the study which highlight the hurdles and possible solutions to implementation of Open Access are:

- **Independence of SLDC**

- SLDC not to report to transmission or trading licensee.
- Reporting requirements could be on lines of State Electoral Officer under Election Commission.

- **Operation of SLDC**

- with STU as a subsidiary of transmission utility as stop-gap arrangement;
- by a separate entity as soon as possible

- **State Governments be advised to phase out single buyer model.**

- **A model scheme for technological upgradation of SLDCs recommended.**

- **Urgent need of financial autonomy to SLDCs.**

- CERC to make regulations for RLDCs
- Similar pattern to be adopted by SERCs for LDCs.

- Display of information on OA charges in the websites of SERC/FOR for transparency and to enable informed decision on open access.
- Standby arrangement for open access consumers
 - by levying retail tariff as applicable for respective consumer categories only for the period during which such standby support is requested.
- The cross-subsidy surcharge needs to be calculated as per the formula given in the Tariff Policy unless there are valid reasons for deviation.

Subsequently, model regulations on distribution open access were evolved by the Forum. The model seeks to address several critical issues like processes and procedures, nodal agencies for seeking open access, various charges including transmission and wheeling charges and surcharge, imbalance settlement, metering, billing etc. This Ministry has also written to States/SERCs for coming out with similar regulations.”

1.4.8 The Electricity Act, 2003 empowers the State/Joint Electricity Regulatory Commissions (SERCs / JERCs) to fix tariffs for consumers. The Act also requires under section 61 that the SERCs while fixing the tariff should be guided by the factors inter-alia that the tariff progressively reflects the cost of supply of electricity and also, reduces cross-subsidies in the manner specified by the Appropriate Commission. Section 63 of the Act provides for tariff determination through competitive bidding.

1.4.9 The Committee was informed that one of the functions of FOR includes harmonization of regulations. Model Tariff Regulations have been formulated by Forum of Regulators to *inter alia* address the major issues responsible for financial distress of the distribution companies. The Model Tariff Regulations have been designed to arrive at a set of uniform practices that the various State Electricity Regulatory Commissions could adopt. The major objective of these model regulations is to standardize the process of determination of tariff for a distribution utility, which smoothens out the cost pass through in retail tariff appropriately.

1.4.10 *Regarding financial health of the Discoms, the Chairman, CERC, during the oral evidence stated as under:*

“As you are aware, recently, the 13th Finance Commission came out with startling figures. The losses of the SEBs, which are now the Discoms, have mounted up to Rs.70,000 crore. Their financial health is poor. It appears that it has gone back to where we started in 1998. We took up this issue. The Secretary, Power also had attended our FOR meeting. We framed draft tariff regulations. The idea was that there has to be a regular tariff revision at the State level.”

1.4.11 *The Committee pointed out about poor financial health of Discoms and desired to know the steps taken by CERC and FOR to address the issue. The Secretary, Ministry of Power stated as under:*

“At this distance, there was a mention of the plight of the Electricity Boards and the financial difficulties they are in, what they were in 2001 and what they are today. So, from the point of view of the Ministry of Power, what we are trying to do is, the Electricity Commission should ensure that tariff is rationalised. We are not saying that tariff should be increased. Tariff should be rationalised. Tariff rationalisation would also take into account the attempt to bring down the losses. These are different things that the Regulatory Commissions are expected to do. They also set up a trajectory for ensuring that the losses come down. An extremely important aspect here has been the lack of rationalisation of tariff for many years. There are State Commissions which have not rationalised tariff for seven to eight years and there, even if they had taken up any kind of rationalisation exercise, it had been more of a formality. All this has contributed to the Electricity Boards coming back to the situation which they were in 2001 and probably getting worse... Now, if you try to look as how these Commissions are functioning, in a country where 26 Commissions are functioning, it will be very difficult to say who is doing how. But you can also definitely see certain trends. Certain Commissions have done well. They have been able to administer or regulate their distribution companies and they were able to bring them out into much healthier organisations. There are some States where nothing much is happening.”

V TARIFF REGULATION

1.5.1 Section 62 of the Electricity Act, 2003 provides that *the Appropriate Commission shall determine the tariff in accordance with provisions of this Act for:*

- (a) *supply of electricity by a generating company to a distribution licensee: Provided that the Appropriate Commission may, in case of shortage of supply of electricity, fix the minimum and maximum ceiling of tariff for sale or purchase of electricity in pursuance of an agreement, entered into between a generating company and a licensee or between licensees, for a period not exceeding one year to ensure reasonable prices of electricity;*
- (b) *transmission of electricity ;*
- (c) *wheeling of electricity;*
- (d) *retail sale of electricity.*

Process and Principles of Tariff Determination

1.5.2 Prior to the creation of CERC, the tariff of Central generating companies namely NTPC, NHPC, NLC and NEEPCO were being determined by the Government of India through project specific notifications. The Central Electricity Regulatory Commission came into existence in July, 1998 under the Electricity Regulatory Commissions Act, 1998. The determination of tariff inter-alia of Central generating companies was entrusted to CERC. In order to discharge this task, the Commission was required to finalize terms & conditions of tariff. After going through transparent process of hearing all stakeholders, the Commission finalized and notified Terms & Conditions of tariff initially for a three-year period i.e. 2001-04 in March 2001.

1.5.3 After the enactment of the Electricity Act, 2003 (which repealed *inter-alia* the Electricity Regulatory Commissions Act, 1998) the Commission notified new

Terms & Conditions of tariff for a further five year period i.e. 2004-09 in March 2004. The above notifications provide for determination of generation tariff station-wise and transmission tariff line or system-wise. The tariff is determined as per the terms & conditions of tariff as applicable from time to time. The terms & conditions contain the financial norms and technical norms.

1.5.4 The tariff is usually called the cost plus tariff because the capital cost of the project is the starting point for tariff calculations. It is also known as regulated tariff because other than actual capital expenditure, most of the financial & technical parameters adopted for tariff are normative and not actual. The variable charges of thermal stations are corrected for fuel price variation as per monthly weighted average price and heat value of fuel. The tariff calculations are quite elaborate, as various elements going into the tariff are computed individually to arrive at the full tariff. The tariff is different for each generating station depending on its admitted capital cost, base fuel price and gross calorific value and applicable norms of efficient operation. The exercise is time consuming but nevertheless essential to ensure that the utilities function in an efficient and economic manner and do not misuse their dominant position to extract high prices from the buying utilities.

1.5.5 Explaining the relation between Multi Year Tariff (MYT) and Availability Based Tariff (ABT), the CERC stated that MYT implies that the various financial and operational norms specified by the Commission would remain valid and unchanged during the control period (presently 5 years) of the MYT regime. For instance, if the norms of availability have been fixed at 85%, such norms will remain valid for the entire control period (presently 2009-14). ABT is a tariff principle – the principle of recovery of fixed cost based on the achievement target

availability. This principle has been adopted by the Commission for adoption in the MYT period since its introduction. Thus the ABT principles are like any other principles which remain in force during the currency of the MYT control period. Normally the terms and condition of tariff for the five year period remain same but in some exceptional circumstances, the same may be reviewed also.

1.5.6 Further, in MYT the tariff principles and their application generally remain same during the tariff period, the annual fixed charges and the energy charges do not remain static and vary from year to year and month to month respectively on account of inflation and increase in O&M cost, changes in the interest rates and due to variation in quality and price of fuel.

1.5.7 The role of CERC in tariff fixation under the Electricity Act, 2003 is governed by the provisions of Section 79 read with sections 61 and 62 of the Act which inter-alia provides that the Central Commission shall discharge the following functions, namely:-

- (a) *to regulate the tariff of generating companies owned or controlled by the Central Government;*
- (b) *to regulate the tariff of generating companies other than those owned or controlled by the Central Government specified in clause (a), if such generating companies enter into or otherwise have a composite scheme for generation and sale of electricity in more than one State;*
- (c) *to regulate the inter-State transmission of electricity ;*

1.5.8 In reply to a specific query of the Committee regarding scope of tariff fixation by CERC, they were informed as under:

“The tariff is determined as per the terms & conditions of tariff as applicable from time to time. The terms & conditions contain the financial norms and technical norms. The scope of tariff fixation by CERC covers determination of following components:

- (1) Thermal generating station: Fixation of capacity charge (for recovery of annual fixed cost) and energy charge (for recovery of primary fuel cost and limestone cost where applicable).
- (2) Hydro generating station: Fixation of capacity charge and energy charge, for recovery of annual fixed cost through the two charges.
- (3) Inter-State transmission system: Fixation of transmission charge for recovery of annual fixed cost.
- (4) Commission sets the principles for rewarding performance through incentive/ disincentive scheme under Tariff Regulation keeping in view the interest of consumers by setting operating norms.”

1.5.9 The structure of Tariff Fixation covers following Financial and Technical norms:

1)	Capital Cost
	Debt: Equity Ratio
	Initial Spares
	Additional Capital Expenditure
	R&M Expenditure
2)	Annual Fixed Cost
	Return on equity;
	Interest on loan capital;
	Depreciation;
	Interest on working capital;
	Operation and maintenance expenses;
	Cost of secondary fuel oil (for coal-based and lignite stations only);
	Special allowance in lieu of R&M
3)	Technical Norms
	Normative Annual Plant Availability Factor
	Gross Station Heat Rate
	Secondary fuel oil consumption
	Auxiliary Energy Consumption

1.5.10 *When the Committee asked that as to how far the CERC has been successful in bringing down the prices of electricity, CERC in their written reply have stated as under:*

“The Central Commission in exercise of its powers under section 79 read with sections 61 and 62 of the Act determines the tariff of bulk power supply by the generating companies to State Utilities/ Distribution Companies based on the CERC "Terms & Conditions" of tariff Regulations.

The Central Commission, as a regulatory philosophy, has been providing incentives for efficiency gains and penalizing under-performing stations by providing disincentive if they perform below the targeted level. In 2009-14 tariff regulations also the Commission has tightened the operational norms based on the actual past performance while keeping rooms for efficiency gains. It can be seen that the Central Commission has endeavoured to safeguard the interest of the consumers while remaining fair to the generators for getting their reasonable return on their investment.

Under the Availability Based Tariff (ABT), the annual bulk power tariff for supply of electricity from a generating station as determined by the Central Commission comprises the following two components :-

- (i) Annual Fixed Charges (AFC)
- (ii) Energy Charge.

The Annual Fixed Charge is determined based on the admitted capital cost as on the date of commercial operation (COD) and consists of Return on Equity (RoE), Interest on Loan capital (IoL), Depreciation, Interest on working capital, Operation and maintenance expenses, Cost of secondary fuel oil (in case of coal & lignite based stations), etc..

The fixed charges are payable based on the availability of the station. Each beneficiary pays the fixed charges corresponding to the availability and in proportion to their allocation of power from the station.

The Energy Charges for recovery of fuel cost depends upon the scheduled generation, gross station heat rate, auxiliary energy consumption, gross calorific value of fuel and the price of fuel.

Energy Charge Rate in paisa/ kWh is calculated based on the specified norms and considering actual heat value (GCV) and prices of fuel on month to month basis. The energy charges are payable based on the power scheduled from the station. The beneficiaries may prefer their drawal schedule on the basis of merit order of the stations depending upon the energy charges.

The Central Commission does not have any control over the quality and price of fuel used for power generation and the fuel prices are passed-through in tariff.

As a result of bringing further improvement in the operation norms of heat rate, auxiliary power consumption, and specific fuel oil consumption, there should be reduction in the energy charges, provided fuel price and the Gross Calorific Value (GCV) of fuel remains same. However, in actual practice, there is deterioration in the GCV and increase in the prices of fuel viz. coal / lignite / gas / RLNG and liquid fuel. Further, the generating stations based on coal are required to blend imported coal due to shortage of domestic coal. This also leads to increase in prices of fuel and corresponding increase in the energy charges despite improvement in operation norms.”

1.5.11 There was no concept of competitive bidding or tariff discovery through competitive bidding under the 1948 Act. Electricity Act, 2003 has brought in the concept of tariff discovery through competitive bidding process and the Commission is required to adopt the tariff so discovered. As per section 63 of the Act, the CERC has to adopt the tariff if such tariff has been determined by the competitive bidding process in accordance with the guidelines framed by the Central Government in this regard.

1.5.12 On being enquired whether any study has been carried out to find out which method discovers cheaper rate, competitive bidding or cost plus approach, it was informed that in 2011, CERC had carried out a study of 14 competitively bid power plants with commercial date of operation between 2011-2014, comparing the bids with cost plus approach. The prices under cost plus

approach were found higher in respect of 11 of the 14 projects. Two plants in Maharashtra and one plant in MP were the cases in which competitive bids were found higher than cost plus approach. It was concluded that in general, competitive bid can lead to lower tariff. However, these were levelized prices and actual payment over years depends on bid structure (particularly proportion of variable part in the tariff), and how the parameters really vary in future.

1.5.13 *In reply to a specific question of the Committee that 85% tie up of power through competitive bidding will not stall the process of development of thermal power projects by private developers, it was stated as under:*

“The provision of 85% tie up of private power through competitive bidding is to ensure availability of power to the distribution licensee at a relatively cheaper rate in power shortage condition. The 85% tie up of power would not stall the development of thermal power stations by the project developers because by this, the developer would be assured of the customer for his 85% output and balance 15% power could be sold by him based upon prevailing power merchant rate.”

VI GRID DISCIPLINE & TRANSMISSION

1.6.1 For smooth conveyance of electricity across States, it is necessary to have a robust Inter-State Transmission System. To achieve this, the Electricity Act, 2003 has entrusted CERC with the responsibility of regulating Inter-State Transmission System and also notifying Grid Code.

1.6.2 CERC stated that in discharge of above mentioned responsibility, they have taken the following major initiatives:

“CERC issued the revised Regulation on Indian Electricity Grid Code (IEGC) in April, 2010. IEGC brings together a single set of technical rules, encompassing all the utilities connected to or using the Inter-State Transmission System. It lays down the rules, guidelines and standards to be followed by the various agencies and participants in the system to plan, develop, maintain and operate the power system in the most efficient, reliable, economic and secure manner, while facilitating healthy competition in the generation of supply of electricity”.

1.6.3 In respect of regulation for Unscheduled Interchange (UI) it was informed that the Commission had introduced the concept of availability based tariff (ABT) which primarily has two components, namely fixed cost and variable cost. Fixed cost is allowed to be recovered on the basis of a normative plant availability factor determined by CERC whereas recovery of variable charges is linked to achieving operational norms such as station efficiency in terms of heat rate and auxiliary consumption specified by CERC. In the case of hydro-stations, there is no fuel component and the Average Fixed Cost is notionally divided into capacity charge and variable charge. The full recovery of capacity charge for a hydro generating station is linked to achieving target availability corresponding to normative annual plant availability factor (NAPAF).

1.6.4 Under Availability Based Tariff (ABT) a generator is allowed to recover the fixed cost only if it is able to make its capacity available for use. The energy charge is recoverable as per the pre-committed schedule of supply. This mechanism also provides for a charge of Unscheduled Interchange (UI) for supply and drawal of energy in variation from pre-committed schedule.

1.6.5 The States / DISCOMs are entitled to draw electricity from the grid equivalent to the generation from the generating stations owned by them or with which they have PPA. However, since the grid is interconnected, States, and DISCOMs can draw power over and above their entitlement.

1.6.6 When the generation of power is equal to drawal of power from the grid, the frequency would remain at an ideal 50 Hz. When some States draw more than their entitlement from the grid they deprive other States from their share, also resulting in lowering of frequency and endangering the grid security.

1.6.7 Low frequency also causes damage to various equipments connected to the grid and at very low levels the grid may also suffer a break down which causes huge amount of tangible and intangible losses. Overdraw from the grid is thus a serious problem and to address this problem a commercial mechanism of UI charges (unscheduled interchanges charges) has been devised by the CERC which discourages States/DISCOMS from overdrawing power in a shortage condition and disincentivises generators from generating less than their schedule in a shortage condition. This commercial mechanism aims to restore the frequency to the normal frequency of 50Hz.

1.6.8 UI charges are imposed when a generator generates less than the schedule thereby decreasing the frequency or when a beneficiary overdraws power thereby decreasing the frequency. The UI charges are charged for overdrawal of power at rates which are linked to the frequency. At certain high frequency level (50.2 Hz and above), there are no charges for overdrawal. The UI charges increase per unit as the frequency decreases and reach the highest level at certain threshold level (below 49.5 Hz). When the frequency is low it is important to encourage greater generation of power and to discourage overdrawal of power. A high UI rate (payable by the overdrawer and payable to the generator for generation greater than the schedule or payable to the beneficiary drawing less than his entitlement) would encourage high cost generating stations to come on stream and discourage overdrawing entities from overdrawing from the already low frequency grid.

1.6.9 UI charges are thus a commercial mechanism to maintain grid discipline. They are not payable if the beneficiary maintains its drawal of electricity consistent with its entitlement and the schedule given by them.

1.6.10 *The Chairman, CERC, during the oral evidence before the Committee, has elucidated the problem of grid indiscipline as under:*

“Grid discipline... this is very important in the Indian context. You must have experienced that if you go to the remote rural areas, the voltages drop; you find that a tube light is not working. When you have shortage of electricity, which is a reality, the tendency is that when you do not have contracted power, the unpleasant alternative is that you have to go for load shedding or you tend to overdraw. If you overdraw, that affects the frequency. If you go to any developed country, you will find that the frequency of 50/60 Hz is maintained. Here, in the Indian context, this is a big problem. This has been addressed through a commercial mechanism. We do not have that option like the electricity company has – if you have the 10 KW sanctioned load and if you start using 20 KW, they will come and disconnect. It is not possible. If you find that if a particular State

is overdrawing, the only thing you can do is to give a signal which is given through an unscheduled interchange mechanism. We keep issuing warning messages. A system operator plays a very important role. We had recommended that the Government should create a subsidiary of the Power Grid Corporation. Otherwise, this body was a part of that. Now it is a subsidiary; the idea is that this will become independent. A similar thing has to happen in the States. In fact, you will find that in the last 2-3 years, the frequency has stabilized and we are approaching a stable stage. But still we have persistent shortages and this creates a problem. So, we have to take action.”

1.6.11 *When the Committee desired to know the provisions for elimination of gaming to ensure that the UI does not result in short supply and non supply to pre-committed schedule, it was informed by the CERC as under:*

“The gaming under UI regulation means an intentional mis-declaration of declared capacity by any generating station or seller to make an undue commercial gain through UI charges. The Commission may, either suo-moto or on a petition made by RLDC, initiates proceedings against any generating company or seller on charges of gaming and if required, may order an inquiry in such manner as decided by the Commission. When the charge of gaming is established in the above inquiry, the Commission may, without prejudice to any other action under the Act or regulations there under, disallow any unscheduled interchange charges received by such generating company or the seller during the period of such gaming. In fact there is commercial disincentive to upset the pre-committed schedule by overdrawing in deficit conditions. The deviations from schedules as mentioned above prevent short supply or no supply to a utility by imposing a harsh penalty of 40% additional charge to an overdrawing utility over the UI charge when frequency is below 49.5Hz (i.e. Rs 8.73 + Rs 3.49 = Rs 12.22 per unit) and penalty of 100% over the UI charge, when the frequency is below 49.0Hz (i.e. Rs 8.73 +Rs 8.73 = Rs 17.46 per unit).”

1.6.12 When the Committee enquired that how far the provision of imposing UI charges has proved to be successful in enforcing grid discipline it was stated by CERC that imposition of UI charges has resulted in substantial improvement in the frequency profile in the grid through successful enforcement of grid discipline. The grid frequency which used to operate at frequency below

49.0Hz most of the time prior to introduction of UI commercial mechanism now operates most of the time above 49.5Hz. This is the reason that Commission could in stages, narrow down the operating grid frequency range from 49.2Hz – 50.3Hz to 49.5Hz – 50.2Hz with effect from 03.05.2010.

1.6.13 The CERC furnished the following details about the Grid Frequency Status:

Year	Below 49.2Hz (% of times)	Between 49.2- +50.3Hz (% of times)	Above 50.3Hz (% of times)	Average Frequency	Max. Freq.	Min. Freq.
2009-10						
NEW Grid	8.98	89.58	1.44		50.74	48.73
SR Grid	4.73	94.07	1.20		50.78	48.61
2010-11(upto October 2010)						
NEW Grid	11.50	82.66	5.84	49.85	50.69	48.87
SR Grid	8.68	85.77	5.55	49.80	50.77	48.84
2011-12						
NEW Grid	7.54	89.10	3.36	49.86	50.68	48.85
SR Grid	6.11	91.76	2.13	49.80	50.70	48.95

1.6.14 The Committee were further informed that as a result of enforcement of grid discipline through UI commercial mechanism, there has been no major grid failure in any region since January, 2001. It can be seen that despite increase in UI volumes there has been reduction in average UI prices indicative of improved grid discipline and improved grid frequency profile.

1.6.15 *On being desirous to know whether it was possible to dispense with provisions of UI charges to enforce the scheduled pattern of supply and drawal of electricity strictly to ensure grid discipline and if not, what were the other options, the Committee were informed by the CERC as under:*

“It is difficult for a State to maintain its schedule exactly in an A.C. connected grid due to fluctuation of consumer load. The option of dispensing with UI provisions could be considered when generation is in excess of demand. i.e. there are adequate reserves of generation. When that happens ancillary services can be provided by the system operator. The other option is to introduce ancillary services to be provided by the system operator. A petition of National Load Dispatch Centre (NLDC) for the introduction of ancillary market is before the Commission.”

1.6.16 When the Committee enquired about the recovery of penalties imposed by CERC for grid indiscipline, it was stated that the power given to the Commission under the Act is limited with regard to the penalties for grid discipline. The Commission has only been given the power under section 142 of the Act to impose penalty of an amount of Rs.1 lakh for each instance of non-compliance with the provisions of the Act, rules and regulations framed there under and the orders of the Commission. The Commission has also been given the power to impose penalty under section 143 of the Act upto an amount of Rs. 15 lakh for non-compliance of the directions of the Regional Load Dispatch Centre for maintenance of grid discipline by the erring entities. These amounts are insufficient to act as effective deterrent against the tendencies of the erring utilities to violate the grid discipline.

1.6.17 It has been further stated that as per section 170 of the Act, any penalty payable by a person under the Act, if not paid may be recovered as if it were an arrear of land revenue. Since, the Commission does not have any power to execute its orders, the Commission is required to approach the Civil Courts for execution of the orders. Execution of the orders by the Civil Court is a labyrinthine process. Further, function of penalty as a deterrent will be lost due to the time gap between the date of imposition of penalty and realization of the same as land revenue after following the due procedure. Therefore, the Commission needs to be provided with better ways for execution of the orders passed by it and for realizing the penalty imposed. This issue needs to be examined and finalized in consultations with all concerned.

1.6.18 On being enquired by the Committee about quantum of the amount that has been collected by CERC through UI charges and from which units/entities it has been collected, the CERC furnished the following details:

“UI Charges are collected from overdrawing & under-injecting entities and disbursed to under-drawing and over-injecting entities.

The summary of the UI Charges billed is as follows:

SUMMARY OF REGION WISE UI CHARGES BILLED							
F.Y.	Western Region Rs crores	Northern Region Rs crores	Southern Region Rs crores	Eastern Region Rs crores	North Eastern Region Rs crores	All India Rs crores	
2002-03	583	202	107	-	-	892	
2003-04	551	1182	554	509	70	2846	
2004-05	1040	1816	321	730	219	4627	
2005-06	1393	1991	344	997	145	5170	
2006-07	1348	2581	342	1747	216	6814	
2007-08	2362	4156	1120	2544	503	10685	
2008-09	3409	4358	3204	2805	513	14289	
2009-10	3784	4652	1328	2978	249	12987	
2010-11	2818	4224	378	2112	225	10357	
2011-12*	1450	2302	444	1191	127	5514	
Cumulative	18738	27423	10139	15612	2268	74181	

* (Up to 18th Oct'11)

1.6.19 When the Committee asked that who is the custodian of this corpus and whether it has been remitted to its lawful custodian, the CERC replied as under:

“Prior to capping of the UI rates for the generators, UI was a zero sum mechanism. The UI charges collected from the overdrawing entities were disbursed among the over injecting entities. After the capping of UI rates for generators, some funds are available which are maintained as Regional Unscheduled Interchange Pool Account Fund maintained by respective Regional Load Despatch Centre. The fund is created and operated in accordance with the provisions of the Regulation 9(2) of the Central Electricity Regulatory Commission (Unscheduled Interchange charges & related matters) Regulations, 2009 as amended from time to time. Subsequently, the Commission has specified Central Electricity Regulation Commission (Power System Development Funds) Regulations, 2010 (PSDF Regulations). In accordance with Regulation 3 of the said Regulations, the UI charges standing to the credit of Unscheduled Interchange Pool Account Fund has been credited to the Power System Development Fund. The said regulation is under examination in this Ministry and final decision in this regard will be taken in consultation with Ministry of Finance.”

1.6.20 In regard to the amount of Rs. 74,181 crore, it was clarified by the CERC that it is the total amount of UI charges billed by the RLDCs

for the period from 2002-03 to 2011-12 (upto October, 2011). It was also clarified that UI charges are collected from overdrawing and under injecting entities and disbursed to under drawing and over injecting entities. The surplus amount of UI charges inter alia are deposited in the PSDF. At present, the total amount of funds in PSDF is Rs. 3404 crore only as on 31st May, 2012.

Transmission

1.6.21 The Committee were informed that for meeting the evacuation requirement of Independent Power Producers (IPPs) coming up in clusters in Chhattisgarh, Odisha, Madhya Pradesh, Sikkim, Jharkhand, Tamil Nadu and Andhra Pradesh, CERC has already granted regulatory approval for 9 High Capacity Power Transmission Corridors (HCPTCs) at an estimated cost of about Rs. 58,000 crore. Implementation of these corridors has been taken up by Powergrid in a phased manner and partly by private sector. These HCPTCs are progressing matching with commissioning of generation projects. Most of these HCPTCs are scheduled to be commissioned within XII Plan i.e. by 2016-17. Further, CERC has recently granted regulatory approval for 2 more HCPTCs for evacuation of power from IPPs coming up in Vemagiri and Nagapattinam/ Cuddalore area and 2 up-gradation of earlier HCPTCs for IPPs coming up in Maharashtra/ Madhya Pradesh and Chhattisgarh area at an estimated cost of about Rs. 23,000 crore. Parts of these corridors were placed for implementation through tariff based competitive bidding.

1.6.22 The Committee was informed that as per the provisions under section 63 of the Electricity Act, 2003 and the National Electricity Policy, the Ministry of Power, on 13-4-2006 issued "Guidelines for Encouraging Competition in Development of Transmission Projects" and "Tariff Based Competitive Bidding Guidelines for Transmission Services". These guidelines aim at laying down a transparent procedure for facilitating competition in the transmission sector through wide participation in providing transmission services and tariff determination through a process of tariff based competitive bidding.

1.6.23 The Committee were informed that 8 transmission projects awarded through the process of competitive bidding introduced in the inter-State transmission system are as per following detail:

Sl. No.	Name and Scope of Transmission Projects	Name of Selected Bidder	Name of project company
1.	Name: Transmission scheme for enabling import of NER/ER surplus power by NR	Sterlite Grid Limited (Erstwhile Sterlite Technologies Limited)	East-North Interconnection Company Ltd.
2.	Name: System Strengthening common for WR and NR	Sterlite Grid Limited (Erstwhile Sterlite Technologies Limited)	Jabalpur Transmission Company Ltd.
3.	Name: System Strengthening for WR	Sterlite Grid Limited (Erstwhile Sterlite Technologies Limited)	Jabalpur Transmission Company Ltd.
4.	Name: Transmission System associated with IPPs of Nagapattinam/ Cuddalore Area – Package A	Power Grid Corporation of India Limited (PGCIL)	Nagapattinam – Madhugiri Transmission Company Ltd.
5.	Name: System Strengthening in Northern Region for import of power from North Karanpura and other projects outside NR and System Strengthening in Western Region for import of power from North Karanpura and other projects outside WR and also for power evacuation from projects within WR Scope.	M/s Reliance Power Transmission Limited	North Karanpur Transmission Company Limited
6.	Name: Augmentation of Talcher-II Transmission System Scope.	M/s Reliance Power Transmission Limited	Talcher-II Transmission Company Limited
7.	Name: Transmission System associated with Krishnapattinam UMPP- Synchronous interconnection between Southern Region and Western Region.	Consortium of M/s Patel Engineering Limited, M/s Simplex Infrastructures Limited & M/s BStTransComm Limited	Raichur Sholapur Transmission Company Limited
8.	Name: Transmission System associated with IPPs of Vemagiri Area.	M/s Power Grid Corporation of India Limited	Vemagiri Transmission System Limited

1.6.24 *When the Committee enquired whether any of the above mentioned projects are facing any problems, the following details were furnished:*

“(A) East-North Interconnection Company Ltd.

(i) Enhancement in transmission tariff due to the change in the geographical co-ordinates viz. “start” and “end” points of the transmission lines

(ii) Allowing additional expenditure towards forest clearance of 1.84 km (8.46 Ha forest land).

(B) North Karanpura Transmission Company Ltd.

(i) Persistent delay in the issuance of approval under Section 164 of the Electricity Act, 2003 by the Ministry of Power.

(ii) Persistent delay in the notification of suitable sponsoring authority in terms of the Projects Import Regulations, 1986 for inter-State transmission projects being implemented by private entities to avail of the concessional custom duty under Heading 9801 of the First Schedule to the Customs Tariff Act 1975 read with Section 157 of the Customs Act 1962 .

(iii) Cost escalations in major components viz steel, zinc and aluminum due to the enhancement of excise duty.

(iv) Risk of lapsing of approval under Section 68 of the Electricity Act.

(C) Talcher II Transmission Company Ltd.

(i) Inordinate delay in the issuance of approval under Section 164 of the Electricity Act, 2003 by the Ministry of Power.

Delay in the notification of suitable sponsoring authority for private inter-State transmission projects to avail of the concessional custom duties”

VII ELECTRICITY TRADING

1.7.1 In regard to background of initiating the inter-state trading of electricity in India it was stated that prior to the Electricity Act, 2003, the electricity industry recognized generation, transmission and supply as the three principal activities, and the legal provisions were also woven around these concepts. Bulk purchase and sale, although a regular phenomenon between State Electricity Boards and/or licensees was construed as part of the activity of supply of electricity. It is only with the enactment of the Electricity Act, 2003 that the transaction involving purchase and sale of electricity has been recognized as a distinct licensed activity. This has been termed as 'trading' and defined in section 2(71) of the Act as "*purchase of electricity for resale thereof...*" The Regulatory Commissions have been given the powers to grant trading license.

1.7.2 It has been reported by the CERC that trading in electricity has helped optimum utilization of resources between deficit and surplus areas. The price of electricity transacted in the short-term electricity market (through traders and Power Exchanges) has declined over the last three years.

1.7.3 It was stated by CERC that recognition of trading as a separate activity is in sync with the overall framework of encouraging competition in all segments of the electricity industry. The entry barriers have been sought to be removed and the State Electricity Boards have been mandated to be reorganized within a definite time frame. This is expected to result in multiplicity of players in generation, transmission and distribution, a sine qua non for competition. In such a scenario, traders are expected to add value by facilitating the transfer of surplus power available in one region to the regions experiencing deficit of supply. The next step

in the direction of inducing competition, as the Act envisages, is to create a framework of market in electricity where buyers and sellers could meet and engage in purchase and sale of electricity. The responsibility of developing the market in electricity has been vested with the Regulatory Commission. To promote trading in electricity the Central Commission has formulated the following regulations:

1. Inter-State Trading Regulations
2. Power market Regulations
3. Trading Margin Regulations
4. Short term Open Access Regulations

1.7.4 The SEBs/Discoms who have the obligation to provide electricity to their consumers mainly rely on supplies from long-term contracts. However, it is neither feasible nor economical to meet short term, seasonal or peaking demand through long-term contracts. Be it a deficit scenario or otherwise, power trading is essential for meeting the short-term demand at an optimum cost. Similarly, power trading is essential for distribution utilities for selling short-term surpluses in order to optimize the cost of procurement. A few captive generating plants participate in trading in order to optimize their operating cost and in the process, supply electricity to the grid.

1.7.5 *When the Committee desired to know the functioning of inter-state trading machinery and the role of CERC in it, the CERC in their written reply stated as under:*

“The institutions involved in Inter State trading include inter-State Trading Licensees and Power Exchanges:

1. Role of Inter-State Trading licensees:
 - (i) Traders enter into long term contract with generators and this transfer of power off take risk and power price risk from

generator to trader helps in financial closure of many generation projects.

(ii) Power Trading has also helped in optimal utilization of generating assets by facilitating transfer of power between surplus and deficit regions.

2. Role of Power Exchanges:

Ensure fair, neutral, efficient and robust price discovery to provide equal opportunity to all participants (small and large) in the market.

(i) Power Exchange being anonymous platform provides equal bargaining power to buyers and sellers. This is important in a market which has supply deficit.

(ii) Provide extensive and quick price dissemination to reduce information asymmetry in the market and improve informed pricing decisions for participants. eg. (a buyer / seller in Arunachal Pradesh or in Mumbai has equal access to price information and ability to participate in national power market to buy power competitively)

(iii) Design standardised contracts and work towards increasing liquidity in such contracts. As liquidity improves the pricing becomes more efficient.

(iv) Power exchanges have introduced robust risk management practices, clearing and settlement process which reduce payment and credit risk between parties. This helps generators in light of the poor financial condition of the Discoms.

(v) Power exchanges have also helped to facilitate open access and a large number of consumers (around 1000 consumers) especially small and medium enterprises are using the exchange platform.

3. Role of CERC:

CERC grants interstate trading license to electricity traders and registration to the power exchanges. It constantly monitors the function of these institutions through regular reporting of transactions undertaken by them. In case of traders the trading margin charged by them is also monitored.”

1.7.6 Section 12 of the Electricity Act 2003 provides that no person shall undertake trading in electricity unless it is authorized to do so under section 14 or is exempt under section 13. Therefore, a license issued by the Appropriate Commission is a pre-requisite for undertaking trading in electricity.

1.7.7 In regard to issuance of Licences, it was informed by CERC that these issued in accordance with the criteria specified by the Commission in Trading Licence Regulations and after following the due procedure. In accordance with Regulation 3 of Central Electricity Regulatory Commission (Procedure, Terms and Conditions for Grant of Trading License and Other Related Matters) Regulations 2009, an applicant for inter-state trading license shall be a citizen of India or a partnership firm registered under the Indian Partnership Act, 1932 or a company incorporated under the Companies Act, 1956 or an association or body of individuals who are citizens of India whether incorporated or not or an artificial juridical person recognized under the Indian laws. The Regulation does not make any distinction between the Government and Private Sector operators. Also under 3rd proviso to section 14 of the Electricity Act 2003, in case an appropriate Government undertakes trading electricity, such Government shall be deemed to be a licensee under the Act and shall not be required to obtain a license under the Act.

1.7.8 *When the Committee asked the manner in which CERC controls the trading mechanism ensuring that it is done as per the laid down norms, the CERC in their written reply have stated as under:*

“The Commission controls the inter-state trading through the provisions of the trading license Regulations, trading margin Regulations and Power Market Regulations and the terms and conditions of the license. The Commission has put in place a Market Monitoring Cell which monitors the activities of the traders in accordance with the regulations and any trader found lacking or violating provisions of the Act or Regulations are liable for suspension or revocation of the license, apart from other penalties provided under the Act.”

1.7.9 The Committee were informed that there are two Power Exchanges operational presently namely Indian Energy Exchange and Power Exchanges of

India Limited. These are operational from June, 2008 and October, 2008 respectively.

1.7.10 *Asked by the Committee that in which way competition is being promoted in trading of electricity and what impact does it make on the tariff of electricity transmission, it was replied as under:*

“Markets function efficiently when there are a large number of market players leading to competition and price discovery. Considering the imminent capacity addition, a large pool of trading licensees to cater to the growing market in electricity would be needed. The Commission has re-aligned trading volumes amongst different categories of licence. The Commission has also introduced new category of inter-state trading licence with lower requirement of net worth to bring small open access consumer and captive power producers in the short term market. It is expected that the new category would act as a new marketing channel, further penetrating the market and accommodating the marginal players.

The steps taken by Commission through Inter-State Trading Regulations, Power market Regulations and Short term Open Access Regulations have promoted competition and provided sufficient choice to generating companies and distribution licensees for selling and buying power.

Impact of competition in trading of electricity on tariff of transmission

Competition in trading of electricity results in more power flowing from surplus area to deficit areas thereby resulting in optimum utilization of the generation assets and, therefore, lower effective generation tariff.

Competition in trading of electricity also results in better utilization of transmission assets as the inherent margins in the transmission capacity are utilized for transfer of power traded through short term bilateral and collective transaction.

In accordance with Regulation 25 of the Central Electricity Regulatory Commission (Open Access in Inter State Transmission) Regulation, 2009 75% of the transmission charges for Inter-state transmission network collected through trading of power under short term open access are directly reimbursed to the long term customers of the concerned region in proportion to

the monthly transmission charges payable by them. This effectively reduces the transmission charge liability of long term customers (state utilities) of the inter-state transmission system which effectively benefits the ultimate consumer.”

1.7.11 *The Committee enquired about the criteria of finalizing the rates of purchase and sale of electricity by the traders and the role of CERC in this regard. They also desired to know the steps taken to ensure that the cost of electricity does not rise to the disadvantage of consumers and advantage of traders. In reply the CERC stated as under:*

“In the short term market (contracts where power supply is for less than 1 year period) traders work through negotiated contracts between buyers (Discoms) and sellers (Captive plants, IPP, MPP, states with surplus power). Buyers would agree to contract only if they find power price is acceptable to them. The buyers have a choice of a large number of traders through whom they can procure power. Competition among the traders ensures buyers get competitive power rates offered to them. Also, in light of the general supply deficit scenario the trading margin that can be charge by the trader is also capped at 4 paise/ kwh and 7 paise /kwh for power prices less than Rs 3.5/kwh and above Rs 3.5/kwh respectively. This also ensures that traders do not take undue advantage of a shortage scenario. Growth rate of transactions through traders was 6.5% in 2009-10.

Buyers can also procure power bilaterally, directly from any other Discoms without interference of any trader if they wish to. As per the data for 2009-10, such transactions have grown by 26% in 2009-10.

Power is also transacted on a day ahead basis (buyers and seller can procure power one day in advance) through Power Exchanges. The mechanism adopted is a double sided closed bid auction with a uniform price. The buyers and seller anonymously give their bids into an electronic platform. The aggregated demand and supply is matched to determine one single price for all buyers and sellers. However, in case of transmission constraint (when power cannot flow from one region to another due to congestion in transmission network), the price reduces in surplus region and increases in deficit region. Presently, transactions through Power Exchange constitute around 1% of the total electricity generated in the country. However, this recorded a growth rate of 53% in 2009-10.

Role of CERC

The Market Monitoring Cell of the Commission monitors the short term markets by collecting data from electricity trader, power exchanges and National Load Dispatch Centre. It publishes three reports, The Monthly Market Monitoring report, Monthly analysis of weekly transaction of traders and Annual Market report.

The Commission has intervened in the short term markets through issue of a Price Cap order in September 2009 when the short term power price had increased significantly in 2008. The price cap was applicable in interstate day ahead transactions due to failed monsoon and prolonged high temperatures in Northern and Western India undertaken by traders and Power Exchange for a period of 45 days.

The Commission floated a discussion paper “Principles and methodologies for intervention in short term markets” to lay down the principle for any intervention in market and ensure that there is no regulatory uncertainty created due to interventions. This was also discussed in Central Advisory Committee meeting of the Commission.”

1.7.12 *When the Committee asked as to how introduction of traders in electricity has furthered the interest of the consumers, CERC informed as under:*

“The power prices in the short term market have decreased in the last three years and the volume has increased. Both Discoms and open access consumers, who participate in this market actively, have benefited due to the price decrease in this market.

The creation of a liquid short term market also ensures that Discoms can procure power at a short notice and adjust their power procurement based on demand fluctuation which may be difficult to forecast sometimes. This helps consumers to get reliable power supply and improves the quality of service provided by the Discoms.

In states where Discoms are unable to serve their consumers, short term markets have helped open access consumers to access the national market and procure power competitively. Presently, more than 1000 Small and Medium Enterprise (SME) with load around of 1- 2 MW are procuring power through power exchanges regularly. This number is expected to further increase.

It is also observed that many generators (IPPs) seeing the constant reduction in prices over this period, now prefer to undertake more long term contracts with Discoms. This helps Discoms to procure power through longer contracts and bring assured supply to consumers.

Short term markets have helped build investor confidence and attract investments. The fact that a power generator today has an alternative avenue to sell power, through the market, over and above the long term PPAs acts as strong risk mitigation for their business. Availability of an alternative market reduces risk for their business. The perceived risk reduction not only helps attract capital but also reduces the cost of capital, making the business more competitive. This is evident from the enthusiasm displayed by private generators to set up new generation capacity and this interest has resulted in actual investments on the ground. The share of private generation has increased from 11% to 23 % in the last five years. Increase in supply serves consumers interests, as having no power is the costliest form of power.”

VIII OPEN ACCESS

1.8.1 Open access is central to bring about competition in the power sector. After de-licensing of Generation, it was necessary that a generator can sell its power anywhere in India. For the consumer also it is beneficial to have a "choice" to procure power from reliable and efficient source. This objective can be achieved through Open access. It also facilitates power to flow from surplus to deficit areas.

1.8.2 The Electricity Act, 2003 provides under section 42 that open access for consumers with load of one megawatt and above has to be allowed by SERCs by 24th January, 2009.

1.8.3 The relevant clause 5.4.5 of the National Electricity Policy states that:

"The Electricity Act 2003 enables competing generating companies and trading licensees, besides the area distribution licensees, to sell electricity to consumers when open access in distribution is introduced by the State Electricity Regulatory Commissions. As required by the Act, the SERCs shall notify regulations by June 2005 that would enable open access to distribution networks in terms of sub-section 2 of section 42 which stipulates that such open access would be allowed, not later than five years from 27th January 2004 to consumers who require a supply of electricity where the maximum power to be made available at any time exceeds one mega watt. Section 49 of the Act provides that such consumers who have been allowed open access under section 42 may enter into agreement with any person for supply of electricity on such terms and conditions, including tariff, as may be agreed upon by them. While making regulations for open access in distribution, the SERCs will also determine wheeling charges and cross-subsidy surcharge as required under section 42 of the Act."

1.8.4 During the oral evidence the Chairman, CERC, describing the benefits of open access and hindrances in implementation of the same, stated as under:

“As far as the common wires and how does the consumer get a choice, this is something which is at the heart of the Electricity Act. Unlike in the telecom, you have the option. Once mobile

phones came, you found that because of the competition, the price dropped. But you cannot have two wires. For example, the Parliament House gets power from the NDMC. But if a private player can give power tomorrow at a cheaper rate, you have the option. You do not have to have other lines. You can have the same lines; NDMC cannot say that it would not allow getting that power. This is the choice. Under the law, from 1st January 2009, one MW and above customers have that choice. Obviously there are many difficulties because we still have State discoms who do not have that tendency to allow, then we do not have State load dispatch centres, which are not functioning independently, like we have done at the Centre. So, section 11 is invoked, which is in the Supreme Court, though these are matters of detail.

You must also get cheaper power. If you see the industry today, nobody pays less than Rs.5. Industry will be very happy to pay at Rs.2.50-Rs.3. Even if they have to pay Re.1 extra for wheeling charge, transmission charge, then it becomes an option; they can do that. But this power has to be available on a medium term basis; then it can happen.”

1.8.5 The CERC informed the Committee that they have brought out the following Regulations on Open Access:-

- I. Short Term Open Access in Inter State Transmission.
- II. Grant of Connectivity, Long Term Access and Medium term open Access in Inter State Transmission and related matters.

1.8.6 The CERC further informed that Open Access at inter-state level is fully operational. With regard to Open Access at Inter-State level, during the F. Y. 2010-11, the total number of transactions under Open Access was 19,883 as against 778 in 2004-05. Further, Central Transmission Utility (CTU) is reported to have received 225 applications in F.Y. 2009-10 from private developers for Long Term Open Access amounting to 1,62,898 MW. At State level, as per information available with Forum of Regulators Secretariat, 24 SERCs have notified terms and conditions of Open Access Regulations, 20 SERCs have determined cross subsidy surcharge, 25 SERCs have allowed Open Access up to 1 MW and above,

22 SERCs have determined transmission charges and 18 SERCs have determined wheeling charges.

1.8.7 Open access in transmission has helped make generation more competitive and has provided choice to Discoms as well as open access consumers. This is helping many captive generators and well as open access consumers to buy and sell electricity in the short-term market. Over 1000 open access consumers are buying power through Power Exchanges.

1.8.8 Electricity traders and Power Exchanges have started functioning. Short term trading in electricity through traders and power exchange has provided an alternative market for electricity other than long term PPA. This has reduced the Discom default risk for generators significantly.

1.8.9 The function of Central Commission in accordance with section 79(c) of the Act is to regulate the inter-state transmission of electricity and other role of the Commission (under section 66 of the Act) is development of market in power including trading. For power market development, it is necessary that open access is facilitated through regulations. Hence Commission brought out Open access Regulation 2004 and later Open access in Inter State Transmission Regulation, 2008 was issued. Also, Grant of Connectivity, Long Term Access and Medium term open Access, 2009 was issued.

1.8.10 In regard the role of CERC in prompting Open Access in transmission and trading it was stated that the CERC promotes Open Access through Regulations on the same, and also hearing petitions if an entity violates these Regulations. In accordance with the Regulation, the concurrence of State load

dispatch center for open access can be denied only when surplus transmission capacity is not available in the State network or metering infrastructure is not available for energy metering and accounting in accordance with the Grid Code. In case no communication is received from State load dispatch center within a stipulated time period from the date of receipt of application, open access, shall be deemed to have been granted.

1.8.11 Also the Commission has specified the Central Electricity Regulatory Commission (Open Access interstate transmission) Regulations, 2004 and Central Electricity Regulatory Commission (Open Access interstate transmission) Regulations, 2008 for facilitating open access in inter-state transmission. Without open access in inter-state transmission, inter-state trading in electricity is not possible.

1.8.12 However, due to shortage conditions, some of the States through their Load Despatch Centers have tried to impose restrictions upon inter-state open access. The Commission has issued appropriate orders in the cases filed before it for ensuring non discriminatory open access. Further, the Commission has introduced the concept of deemed concurrence / clearance / no objection if the concerned SLDCs do not act within the period specified in the Regulation. This has facilitated open access in inter-state transmission and the number of the cases involving the dispute regarding open access has drastically come down.

1.8.13 On being asked by the Committee that how far the CERC has succeeded in promoting Open Access in their domain, the CERC stated that their interventions have facilitated Open Access in inter-state transmission system. They furnished the table below to illustrate this:-

	2008-09	2009-10	2010-11	2011-12 (Apr-Sept, 2011)
No. of Transactions	15414	18128	19883	11403
Energy (in MU)	30521	39547	55232	37558

1.8.14 When the Committee asked about the impact of open access in electricity sector and whether the progress is as per the desired objective, it was stated that open access has had a remarkable positive impact on power market development and the volume in both segments of the power market, bilateral and collective transaction (i.e. through Power Exchange) have increased. More power has been transferred from surplus to deficit areas.

1.8.15 Open access in distribution implies choice to a consumer to choose his supplier or choice to a supplier to choose his buyer. CERC informed that as a secretariat to the Forum of Regulators they have helped analyse the issues at stake in implementation of open access and evolve consensus on the way forward.

1.8.16 *When the Committee asked about the role of FOR/CERC in promotion of open access in distribution sector, it was replied by CERC as under:*

“FOR undertook a study on Open Access: Theory and Practice which recommended the standard practices that need to be followed to remove the hurdles to open access. Salient points of the study which highlight the hurdles and possible solutions to implementation of Open Access are:

- **Independence of SLDC**
 - SLDC not to report to transmission or trading licensee.
 - Reporting requirements could be on lines of State Electoral Officer under Election Commission.
- Operation of SLDC

- with STU as a subsidiary of transmission utility as stop-gap arrangement;
- by a separate entity as soon as possible
- State Governments be advised to phase out single buyer model.
- A model scheme for technological up-gradation of SLDCs recommended.
- Urgent need of financial autonomy to SLDCs.
 - CERC to make regulations for RLDCs
 - Similar pattern to be adopted by SERCs for LDCs.
- Display of information on OA charges in the websites of SERC/FOR for transparency and to enable informed decision on open access.
 - Standby arrangement for open access consumers
 - by levying retail tariff as applicable for respective consumer categories only for the period during which such standby support is requested.
- The cross-subsidy surcharge needs to be calculated as per the formula given in the Tariff Policy unless there are valid reasons for deviation.

Subsequently, model regulations on distribution open access were evolved by the Forum. The model seeks to address several critical issues like processes and procedures, nodal agencies for seeking open access, various charges including transmission and wheeling charges and surcharge, imbalance settlement, metering, billing etc. This Ministry has also written to States/SERCs for coming out with similar regulations.”

1.8.17 On being asked by the Committee about the slow implementation of Open Access, the CERC informed that some of the Discoms are resistant to give open access to industrial consumers (bulk consumer category) since industrial tariffs are usually high. This impasse is one of the biggest hurdles for open access implementation. SLDCs play an important role in implementation of open access. Instances of their non-impartial action in granting consent for open access have been observed. Ring fencing of SLDCs from Utilities and empowerment of Load dispatch centres would remove the hurdles from Open Access Implementation.

1.8.18 It was further stated that some States invoked section 11 of the Electricity Act to disallow open access to the generators within the State. As per the Electricity Act 2003, section 11 is meant to be invoked only in extraordinary circumstances (e.g. threat to security of state, public order, natural calamity etc) and is not meant to restrict open access. CERC has raised the issue in its statutory advice to the Government and requested the Government to engage with the States and also address the issue legally. Accordingly, the Ministry of Power has also filed SLPs in the Supreme Court against such orders by State and the matter is sub-judice before the Supreme Court.

IX. PROMOTION OF RENEWABLE ENERGY

1.9.1 The preamble of the Electricity Act, 2003 states that one of the key objectives of the law is to promote environmentally benign policies. Section 86(1) (e) of the Act mandates the State Electricity Regulatory Commissions to promote, *inter alia*, generation of electricity from 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. Further, section 61 of the Act provides that the Electricity Regulatory Commissions, while specifying the terms and conditions for the determination of tariff, shall be *inter-alia* guided by the imperatives of the promotion of generation of electricity from renewable sources of energy.

1.9.2 The CERC informed that several regulatory initiatives have been taken in this direction by them since the enactment of the Act. A number of SERCs have already specified such percentage of the electricity to be procured in the area of a distribution licensee and have also notified cost plus tariff for different technologies of renewable energy exploitation. These measures have resulted in faster capacity addition of renewable energy in our country. As per one estimate about 3.9% of the electricity generated in India comes from renewable sources of energy.

1.9.3 However, the level of Renewable Energy Purchase Obligation (RPO), i.e. the percentage of electricity to be procured from such sources varies significantly in various States. States like Tamil Nadu and Karnataka have already achieved a

RPO level of more than 10%, there are number of States which have not even touched RPO level of 2%.

1.9.4 The Central Government published the National Action Plan on Climate Change (NAPCC) in year 2008. The Plan envisages the RPO to be 5% in year 2010 and thereby increasing 1% every year to reach 15% in year 2020. The CERC have further informed that while the estimated impact of enhanced RPOs on tariff in terms of paisa per unit is not significant, it would require the distribution utilities to claim and get approved higher Annual Revenue Requirements (ARRs) before their respective Electricity Regulatory commissions.

1.9.5 The Committee was informed that the experience with most of the Government owned distribution utilities shows reluctance on their part in claiming higher ARR even for passing on the increased power purchase costs for electricity from conventional sources. A number of SERCs have expressed this apprehension during discussions in the Forum of Regulators. Therefore, keeping in view the facts that electricity is a concurrent subject and most of the utilities are owned by State Governments, attainment of national goals for enhancing RPOs would require cooperation of the States.

1.9.6 *In regard to introduction of Renewable Energy Certificates, the Chairman, CERC, during the oral evidence before the Committee deposed as under:*

“Another important area for consumer benefits is green power. Green power is something, which is very important. If, you see India’s energy security and the long-term future, we do not have to really worry about climate change issues. Of course, that will become important. I would like to add one last thing that we are introducing Renewable Energy Certificates. I would like to say about Delhi. Delhi is not using any green energy. Under the law, each State Electricity Regulatory Commission has to prescribe

the percentage. Today, you will find that Tamil Nadu is using 11 per cent green energy because they have a good wind potential whereas Delhi Electricity Regulatory Commission has prescribed two per cent. In Mumbai, 6 per cent of the power comes from green energy today. How do we really get this electricity here? It is very difficult to do the scheduling in respect of wind potential. So, we came out with the mechanism called Renewable Energy Certificates, which is the green part of the electricity. Like Tamil Nadu has a shortage, they do not mind buying more electricity, whether it is generated from coal or from wind. They will buy that electricity. But in case of other electricity sources, Renewable Energy Certificates can be purchased and Delhi can meet its requirement. In the context of the market, this is something, which is very important.”

RECOMMENDATIONS/ OBSERVATIONS OF THE COMMITTEE

Mandate vis-a-vis Performance of CERC

2.1 The Committee note that the Electricity Act 2003 has given the CERC a renewed mandate vis-à-vis its status emanating from Regulatory Commission Act, 1998. After 2003, it was expected to make the power sector modern, vibrant efficient, responsive and productive. To achieve this the Commission has been entrusted with the responsibilities which among others include tariff determination, regulating inter-state transmission and grid code, regulating market development, licensing, adjudication and giving advice to the Government. These objectives are sought to be achieved by notifying regulations, passing orders and tendering policy advices to the Government of India. The Mission Statement of the Commission intends to promote competition, efficiency and economy in bulk power market, improve the quality of supply, promotes investment and to advice the Government on the removal of institutional barriers to bridge the demand supply gap and foster the interest of the consumers. The Committee observe that despite given mandate for transforming the power sector, CERC has done precious little in discharge of its duties to achieve the objectives. The duties assigned in principle, are efficacious to shape and revive the sagging sector into its new and ideal incarnation making it efficient, economic, energized and ebullient. However, it is regretted that it is still a controlled, traditional and non-resilient labyrinth confounding the consumers. The Committee, therefore, strongly recommend that the CERC, adopting the true spirit of the Electricity Act 2003 must shed its inhibition,

laid back approach and be in the forefront of heralding a new era in the Power Sector. The importance this Sector hold to the development of this Country, its economy, people, agriculture, industry etc. cannot be over-emphasized and hence it dwells more on CERC to function in an efficient and responsive manner. The Commission cannot ignore the fact that while developing the Sector in a competitive manner it has to protect the large sections of the society and hence its action should be guided not only by the letter and spirit of the Act but also by the invisible yet important element of the welfare of the poor of the Country.

(Recommendation Sl. No.1, Para No.2.1)

2.2 The Committee note that regulatory provisions under the Electricity Act 2003 are being implemented through of the CERC. Functions of CERC relate to important areas of power sector, viz. regulating tariff of generating companies owned and controlled by the Central Government, of such companies having composite scheme for generation and sale of the electricity in more than one States, regulating inter-state transmission of the electricity, determining tariff for inter-state transmission of the electricity, issuing licenses to transmission licensees and the electricity traders with respect to their inter-state operations, specifying grid code, levying fee, specifying and enforcing quality, continuity and reliability of services by the licensee, fixing inter-state trading margin etc. The Commission is also responsible for balancing consumer interest and promoting investments besides being responsible for oversight of the market. In pursuit of these

objectives, the CERC has taken steps for formulating an efficient tariff setting mechanism, improving the operations and management of the regional transmission centers, facilitating open access in inter-state transmission, facilitating inter-state trading, promoting development of power market, facilitating technological and institutional changes required for development of competitive market in bulk power and transmission services, advising on removal of barriers to entry and exit for capital and management etc. The Commission has also adopted certain guiding principles which inter-alia include protection of the interest of the society including the consumer and supplier, remaining equitable in conflict resolution, maintaining regulatory certainty, adopting participative process in formulation of its regulation etc. The Committee feel that had these activities been taken to their logical conclusion and been implemented in letter and spirit, the consumers/citizens of the country would have been in a better position than the prevailing situation in terms of cost and availability of the electricity. Similarly, open access to the common consumer is a far cry. The Committee are of the strong view that with more effective role of CERC the scenario could have been transformed phenomenally. Further, the collapse of Northern Grid on July 30, 2012 affecting 7 States and again total breakdown of Northern, Eastern and North-Eastern Grid on July 31, 2012 affecting 22 States across the Country has exposed the ineffectiveness of CERC as national electricity regulator. The Committee, therefore, recommend that the Commission should introspect and identify as to why the optimal results are not coming forth. Such a detailed analysis should identify whether there are legislative limitations, functional constraints, absence of entrepreneurship, lack of resources, dearth of qualified

manpower or un-enabling environment, which jointly or severally, are hampering the growth of the Sector. The Committee also strongly recommend that reasons so identified be followed up with remedial measures with utmost promptitude. The Government should not shy away from bringing amendment to the Electricity Act, 2003 if such measures are required to improve the efficacy of CERC. The Committee also recommend that the Government should take necessary steps to appoint an independent Committee of experts to review the functioning of CERC and identify the areas which require improvements in the working of the organization and limitations of the autonomy and legislation. Needless to emphasize such an exercise should be conducted in a time-bound manner and followed up with necessary action wherever required.

(Recommendation Sl. No.2, Para No.2.2)

Establishment of CERC

2.3 The Committee find that the evolutionary process of CERC dates backs to early 1980s when the National Development Council recommended the constitution of independent professional tariff Boards at the regional levels for regulating the tariff policies of public and private utilities. The need was further reiterated in 1996 in the Conference of Chief Ministers which felt that reforms and restructuring of State Electricity Boards are urgent and must be carried out in definite time frame and identified the creation of regulatory commission as a step in this direction. In 1998 with the enactment of the Regulatory Commission Act, way was paved for the creation of regulatory commissions at Centre and in the States with the objective to distance the

Government from tariff regulation which was later replaced by the Electricity Act, 2003.

The Commission functions in a quasi-judicial manner and consist of a Chairperson, three full time Members and the Chairperson of Central Electricity Authority as ex-officio Member. Owing to the efficient functional requirement the Act mandates that Chairperson and the Members shall be persons having adequate knowledge and experience in Engineering, Law, Finance, Management, Commerce etc. The Chairperson and the Members are appointed by the President of India on the recommendation of a Selection Committee as prescribed under the Act. The Act also provides for the appointment of a Secretary of the Commission whose powers and duties are defined by the Commission.

The Committee find that given the functions of the Regulatory Commissions to transform the electricity sector, the constitution of a Board was enshrined in the Act itself to make these Commissions the proper bodies with adequate powers to develop and regulate the sector. However, over the years it has been found that the spirit of the Act has not been carried in the right perspective. Most of the Regulatory Commissions have become the refuge for the superannuated but influential officials. Their primary objective is to remain in employment rather than making any meaningful contribution with regard to the activities of the Commissions in the pursuit of their objectives. Hence these bodies have lost sheen and the authority, which they were designed to represent. In the process they have also lost the autonomy, which the Act has provided them for functional purposes. Had these Commissions acted as mandated under the Act, there would have been hardly any justification for

languishing electricity sector in the Country. The Committee is inclined to infer that Regulatory Commissions have squarely failed in performing their assigned duties. The Committee, therefore, recommend that with a view to revolutionize the Sector it has become imperative to recast these Commissions at Board level. These establishments should not become the sanctuaries for senior citizens to secure sinecure positions without any accountability and stakes. Hence, these positions should be manned by the senior technical brains of the respective areas who are alive in services, having sense of accountability.

(Recommendation Sl. No.3, Para No.2.3)

2.4 The Committee find that there is shortage of adequate manpower in the Commission. As of now the sanctioned staff strength of CERC is 80 only and almost all of these post are required to be filled up through deputation from other Government Departments. The pay structure, service conditions and other amenities available to CERC employees are also discouraging. Certain benefits which are available to the Central Government employees are denied to the officials of the CERC. These benefits among others include pensions, CGHS facilities and Government accommodations etc. Independent regulation is an emerging concept and to make it a reality adequate manpower with required qualification and skill have to be arranged for making CERC more dynamic and result oriented. The certainty of service with career progression on a regular basis is an essential motivating factor in any organization to succeed. The Committee, therefore, strongly recommend that the personnel policy of the organization should be well laid down having its own cadre with

adequate promotional prospects and better amenities to the officials of the Commission corresponding to the job profile to ensure the high standards of professional approach and dedication in the accomplishment of the task cut out for the Commission. Needless to emphasize, deputation should be an exception rather than the main source of meeting man power needs of CERC.

(Recommendation Sl. No.4, Para No.2.4)

Forum of Regulators (FOR)

2.5 The Committee note that The Forum of Regulators (FOR) was constituted *vide* the Ministry of Power's Notification dated 16th February, 2005 in pursuance of the provision under section 166(2) of the Electricity Act, 2003 with the primary objective of harmonization of regulation in the power sector. The Forum consists of Chairperson of CERC and Chairpersons of SERCs. The Chairperson of CERC is the Chairperson of the Forum. The Committee were informed that FOR provides a platform for the regulators at the Centre and State level to exchange ideas and best practices. Issues of importance (at inter-state level or intra-state level) are discussed and consensus is evolved in FOR. In order to encourage uniformity of regulations among SERCs, the Forum has evolved several Model Regulations which can be adopted by the State Regulatory Commissions. The Committee were also informed that the FOR has issued various guidelines/ regulations for implementations of Open Access, reduction of AT&C losses, Grid Discipline, rationalization of tariff etc.

The Electricity being the concurrent subject, the Committee find FOR a vital instrument to bring all the State Regulatory Commissions at a platform where consensus can be built for smooth and effective implementation of regulations

meant for bringing reforms, restructuring and revitalizing of power sector of the Country. However, to the agony of the Committee, the FOR has miserably failed to achieve the desired result due to some or other reasons. The Committee find that in regard to implementation of model regulations on various issues viz. open access, rationalization of tariff, reduction of AT&C losses etc. there is great disparity in States as some have done well while the others' performances are far from being satisfactory. It is matter of concern that even regulations made with consensus are either not being implemented satisfactorily or not being implemented at all. The Committee are surprised that FOR has failed to enforce even the decisions/regulations arrived at through consensus among SERCs. The present situation somehow indicates to the ineffectiveness of the Forum as it has reduced itself to a platform of unsubstantive deliberations with executive power to give a new orientation and definite direction to power sector. The area which require utmost attention of FOR is area of reduction of AT&C losses where there is hardly any progress across the country. This single issue has damaged the sector most and has blurred the reforms. And here FOR has done precious little to make any impact. This has raised questions about the usefulness of this body itself. The Committee, therefore, recommend that that the Government should come up with some orders/regulations providing much needed teeth to the Forum to make it effective in enforcing the model regulations/ guidelines prepared by FOR itself in all the participant States in a time bound manner. The Committee, further desire that the FOR should meet more frequently to discuss issues/obstacles coming in way to implementation of regulations/ guidelines of FOR in respect of promotion of open access, implementation of R-APDRP to reduces the distribution losses, grid discipline, tariff regulations etc. so that

the remedies for their speedy and effective implementation can be chalked out. The Committee also desire that the SERCs should be given due autonomy as envisaged under the Electricity Act, 2003 enabling them to discharge their mandated duties effectively without any pressure from respective State Governments.

(Recommendation Sl. No.5, Para No.2.5)

2.6 The Committee note that the Electricity Act, 2003 empowers the State/Joint Electricity Regulatory Commissions (SERCs / JERCs) to fix tariffs for consumers. The Act also stipulates under section 61 that the SERCs while fixing the tariff should be guided by the factors which *inter-alia* include that tariff progressively reflects the cost of supply of electricity and also, reduces cross-subsidies in the manner specified by the Appropriate Commission. The Committee were informed that Model Tariff Regulations have been formulated by Forum of Regulators which *inter-alia* address the major issues responsible for financial distress of the distribution companies. The Model Tariff Regulations have been designed to arrive at a set of uniform practices that the various State Electricity Regulatory Commissions could adopt. The major objective of these model regulations is to standardize the process of determination of tariff for a distribution utility and which smoothen the cost transfer in retail tariff appropriately. The Committee note that under section 131 of Electricity Act 2003, it has been mandated to reorganize the State Electricity Boards in the country to separate entities of Generation, Transmission and Distribution segments with the purpose of making them self sustaining. A

study conducted by the Indian Institute of Public Administration (IIPA) on the impact of reorganization of the State Electricity Boards has revealed that despite some shortcomings, the overall impact of restructuring has been positive and in the right direction. The Committee have been informed that so far 18 SEBs have been reorganized. Out of the remaining States, Bihar, Jharkhand and Kerala are in the process of formulating schemes for reorganization of their SEBs.

Against this backdrop the Committee note that over the years, owing to factors such as very high Transmission and Distribution losses, irrational tariffs and several shortcomings on the distribution side, the financial health of the SEBs have deteriorated. Also the 13th Finance Commission has projected the losses of the SEBs, which are now the Discoms, to the tune of Rs.70,000 crore. The Secretary of the Ministry of Power while explaining this situation stated that there are State Commissions which have not rationalized tariff for seven to eight years. All this has contributed to the State Electricity Boards coming back to the situation which they were in 2001 and probably getting even worse. The Committee are aghast to note the critical financial situation of the State Electricity Boards (SEBs)/ Discoms. More surprisingly, the precarious financial positions of the Discoms were known and need for rationalization of tariff was felt for a very long time. Nonetheless, any concrete remedial efforts in this regard have been delayed for reasons which are not known to the Committee. The losses have been allowed to accumulate to the extent that it cannot be cleared by the Discoms themselves. The Committee are concerned that due to negligence and non-performance of concerned organizations ultimately the common man has to bear the brunt of these huge losses either in

the form of increase in tariff or taxes or surcharges. The Committee believe that delay in taking corrective measures will only exacerbate the issue. The Committee, therefore, strongly recommend the followings:

(i) Work related to reorganization of SEBs in remaining States should be expedited as it is an important strategy in the pursuit of reforms for encouraging competition, promoting greater efficiency by streamlining operations of distribution, transmission, generation and trading, while promoting transparency and accountability.

(ii) FOR should ensure that adequate steps are taken by every State's Regulatory Commission and Discoms to rationalize their tariff annually by taking into account all the aspects including distribution losses and their management inefficiency. The endeavor should be that the price of inefficiency of Discoms in the form of distribution losses should not be passed on to the common man in the form of increase in tariff. Also a target should be fixed to reduce the AT&C losses in a time bound manner failing which this component should be dealt within a manner wherein DISCOMs are made accountable for their inefficiency without passing it on to the consumers.

(iii) Energy audit of each and every Discoms should be mandatorily by third party, which should invariably be taken into account for tariff rationalization purposes.

(iv) The Government, CERC and FOR should come up with some innovative ideas to overcome the menace of huge losses incurred by various SEBs, which in the view of the Committee is nothing but the result of inefficiency, lack of vision and will power of the Government on this

issue. The Committee would like to be apprised of the sincere efforts taken by the Government/CERC/FOR in this regard.

(Recommendation Sl. No.6, Para No.2.6)

Tariff Regulation

2.7 The Committee note that provisions of section 79 read with 61 and 62 of the Electricity Act 2003 empowers the CERC to determine the tariff as per the provisions of the Act for supply of the electricity, transmission of the electricity, wheeling of the electricity and retail sale of the electricity. With a view to discharge this task the Commission notified terms and conditions of tariff initially for a period of three years with effect from March 2001. After the enactment of the Electricity Act 2003 new terms and conditions of tariff were notified in March 2004 for a period of five years providing for determination of generation tariff, station-wise and transmission tariff line-wise. The terms and conditions contain financial as well as technical norms. Capital cost of the projects being starting point for tariff calculation is called cost plus tariff. Introduction of Availability Based Tariff (ABT) and Multi Year Tariff (MYT) are also implemented by the CERC based on certain principles. ABT mechanism allows a generator to recover the fixed cost only if it is able to make its capacity available for use. The Committee find that the parameters which form basis for determining annual fixed charges and energy charges are not uniform and have been changing from time to time. Tariff regulation 2004-09 provided for computation of base energy charge rate by the Commission based on preceding three months price and Gross Calorific Value (GCV) of fuel and also provided fuel price adjustment

formula for month to month variation in fuel price and GCV of fuel. However, tariff regulation 2009 has provided a formula for energy charge rate calculation on month-to-month basis based on specified operational norms and monthly price and GCV of fuel. However, specified operational norms have not been illustrated and it has also not been stated as to what prompted the change in formula adopted in the year 2004. It has also not been clarified whether the latter formula is more consumer friendly. Similarly, regarding energy charge rate, the Committee have been apprised that the energy charges depends on scheduled generations, gross stations heat rate, auxiliary energy consumption, gross calorific value of fuel and price of fuel. Simultaneously, it has also been stated that the Central Commission does not have control over the quality and price of the fuel used for power generation and the fuel prices are passed through in tariff. The Committee are amazed at the gear sifting about the norms laid down for determination of tariff. Though, it is technical and relatively complex issue for common man yet the bottom line theory is the cost (inclusive of all factors of fixed cost and energy charges) of the project including the trading or profit margin that should form the parameter for determination of the tariff. Despite the so-called elaborate formula laid down for tariff fixation, the general perception about it reflects that it is an extremely mystifying exercise devoid of transparency and accountability. Reported involvement of the common people, NGOs, Resident Welfare Associations in the process is superficial cover and therefore needs to be taken in meaningful and realistic manner. The Committee, therefore, strongly recommend that the tariff fixation is an exercise having pervasive consequences about the sector to the extent of exploiting larger segment of stakeholders whereas

enriching or thriving the minuscule percentage of stakeholders and hence requires to be undertaken in a truly participatory and transparent manner leaving no scope for any apprehension as to the genuineness of the exercise about the tariff fixation. All the stages and various constituents involved in the process should be clearly spelt out with a view to allay any misgiving in the mind of the people for an objective handling of the entire process.

(Recommendation Sl. No.7, Para No.2.7)

2.8 The Committee find that Multi Year Tariff (MYT) regime are meant for generating companies and transmission licensees. This kind of tariff is determined as per the terms and conditions based on financial and technical norms. This tariff is usually called the cost plus tariff because the capital cost of the project is the starting point for the tariff calculation. In this formula except for the actual capital expenditure most of the financial and technical parameters adopted for tariff are normative and not actual. The tariff calculations are quite elaborate as various elements going into the tariff are computed to arrive at full tariff. This tariff is different for each generating station depending on its admitted capital cost, base fuel price, gross calorific value and applicable norms for the efficient operation. This exercise is done to ensure that the utilities do not misuse their dominant position to strike the high price from the buyer besides making them function in an efficient and economic manner. The MYT implies that various financial and operational norms specified by the Commission would remain valid and unchanged during the controlled period during the MYT regime.

The principle of Availability Based Tariff has been adopted by the Commission for adoption in MYT period since its introduction. Thus ABT principles are like any other principle that remains in force during the currency of MYT period. The Committee are surprised to find that normally the terms and conditions of the tariff for five year period remains the same but in some exceptional cases the same may be reviewed also. Similarly, it is also not convincing that whereas the tariff principles and their applications generally remains same during the tariff period, the annual fixed charges and the energy charges do not remain static and vary from year to year and month to month respectively on account of inflation and increase in O&M cost, changes in interest rate and due to variation in quality and price of fuel. It is self-contradictory that various financial and operational norms specified by the Commission would remain valid and unchanged during the controlled period of MYT regime and the factors responsible for these norms have been stated to be changing on monthly and yearly basis. This incoherence provides the scope for tweaking in the tariff structure without any justification. More so when the ABT principle has also been included in it. The Committee therefore, strongly recommend that the concept of MYT should be re-evaluated with a view to provide stability in tariff regime and consistency to its different tariff structure.

(Recommendation SI. No.8, Para No.2.8)

2.9 The Committee note that prior to the Electricity Act 2003 there was no concept of competitive bidding or tariff discovery through competitive bidding. The Electricity Act 2003 has brought in the concept of tariff

discovery through complete bidding process and the Commission is required to adopt the tariff so discovered. Section 63 of the Act provides that the CERC has to adopt the tariff if such tariff has been determined by the complete bidding process in accordance with the guidelines framed by the Central Government in this regard. In response to Committee's inquest whether any study has been carried out to find out as to which category of tariff is cheaper between the two i.e. tariff through competitive bidding or through cost plus process, it was informed that in the year 2011 CERC had carried out a study of 14 competitively bid power plants with commercial date of operation between 2011 and 2014 comparing the bids with cost plus approach and the prices under cost plus approach were found higher in respect of 11 of the 14 projects. In 3 plants (2 in Maharashtra and 1 in Madhya Pradesh) tariff for competitive bids were found higher than the cost plus approach. It was concluded that in general competitive bid can lead to lower tariff. The Committee have also been apprised that "however, these were levelized prices and actual payments over the years depends on bid structure (particularly proportion of variable part in tariff) and how the parameters really vary in future. While replying to a specific question of the Committee whether 85% tie up of power through bidding will not stall the process of development of thermal power projects by private power developers, the Committee were informed that "the provisions of 85% tie up of private power through competitive bidding is to ensure availability of power to the distribution licensee at a relatively cheaper rate in power shortage condition. The 85% tie up of power would not stall the development of thermal power stations by the project developers because by this, the developer would be assured of the customer for his 85% output

and balance 15% power could be sold by him based upon prevailing power merchant rate.” The Committee find that the exercise of tariff determination through competitive bidding is not akin to reality. The comparison between the two systems of tariff determination with the projects whose COD are between 2011-14 with the running plants is nothing but chimera. The justification of tariff discovered thorough competitive bidding being lower in 11 plants is specious for the fact that despite tariff being quoted for these plants none of these plants are operational, neither there is any likelihood of them becoming operational as scheduled. It is a near certainty that most of them will be mired with the several issues including tariff for final decision or adjudication before concrete action is taken for them becoming a reality. The contention of the Ministry that 85% power tie-up will not stall the development of the plants as it assures developers the market of their product is also not sustainable on the ground that the situation in the Country regarding availability of power is still far from the satisfactory leading to scarcity and hence any prior tie-up of sale is not going to reassure developers to keep pace of the plant as planned particularly when they find the tariff uneconomical due to several factors. The Committee as such are not averse to idea of competitive bidding per se but definitively have inhibition about the shoddy manner in which it has been done and projected thereafter. The Committee, therefore, strongly recommend that entire process of competitive bidding for determination of tariff has not been tested on the touchstone of the system and hence there is nothing to cheer about this policy. It should be framed in such a way so as to encompass the future variables also of the various constituents within the

policy otherwise it is not going to fructify as conceived and projects attained through this process are highly unlikely to reach their logical stage.

(Recommendation Sl. No.9, Para No.2.9)

Grid Discipline/Transmission

2.10 The Committee note that the Electricity Act, 2003 has entrusted CERC the responsibility of regulating Inter-State Transmission System and also notifying Grid Code for smooth conveyance of electricity across States. In discharge of this responsibility CERC issued the revised Regulation on Indian Electricity Grid Code (IEGC) in April, 2006. IEGC brings together a single set of technical rules, encompassing all the utilities connected to or using the Inter-State Transmission System. The Committee further note that in respect of regulation for Unscheduled Interchange (UI) the concept of Availability Based Tariff (ABT) which primarily has two components, namely fixed cost and variable cost has been introduced by the Commission. Under ABT a generator is allowed to recover the fixed cost only if it is able to make its capacity available for use, whereas, the energy charge is recoverable as per the pre-committed schedule of supply. This mechanism also provides for charges of Unscheduled Interchange (UI) which are imposed when a generator generates less or beneficiary overdraws power than the schedule thereby decreasing the normal frequency of 50Hz. The Committee find that though this mechanism has been helpful in containing the problem of UI to some extent but the scrutiny by the Committee of the data as provided by the CERC regarding grid frequency leaves much to be

desired. The minimum frequency of Grid has dropped even below 49.Hz during all the three years i.e. 2009-10 to 2011-12 putting the smooth functioning of the Grid at stake. The scrutiny of the Committee have revealed that UI charges for the period 2002-03 to 2011-12 have cumulative value of Rs. 74,181 crore which itself indicates to the degree of problem of Unscheduled Interchange and misuse of the mechanism. The UI charges system has perhaps failed to enforce the desired grid discipline as it is found to be an easy alternative of short term electricity trading by overdrawing power from the grid by Discoms at the cost of lesser power supply to the actual beneficiary and also resulting in lowering of frequency endangering the safety of the grid. This set up also indicate to the possibility of gaming - an intentional mis-declaration of declared capacity by any generating station or seller to make an undue commercial gain through UI charges. The Committee strongly feel that the safety and smooth functioning of the Grid is of utmost importance so that the legitimate beneficiaries and generators should not suffer due to malpractices indulged by some Discoms/Generators. The Committee also notice that there is no uniformity in realization of UI charges due to several reasons like stay granted by the Court, petition for waiver of penalty, setting aside of penalty by APTEL and also without any genuine reasons. Since 2005, 46 cases of indiscipline were reported of which in 24 cases penalties were imposed and only in 17 cases the penalty were paid. The Committee, therefore, recommend that necessary changes may be effected in Indian Electricity Grid Code (IEGC)/ and the UI charges/ penalty should be increased to the extent that it effectively deter Discoms/ Generators from Unscheduled Interchange and this practice should be resorted to only under emergency

and unforeseen circumstances rather to be misused as ill-practice of gaming and short term electricity trading. For repeated offences of overdrawing and putting the grid safety at risk, penal provisions, apart from hefty financial penalty, should be made harsh enough to pose as deterrence. The required amendments to provide more authority to CERC/FOR for effective realization of financial penalty imposed for the offenses should also be made in the regulation. Simultaneously, the Government should also explore the possibility of ancillary market for the purpose of ensuring strict grid discipline as prevalent in Western Countries.

(Recommendation Sl. No.10, Para No.2.10)

2.11 The Committee note that it is difficult to dispense with UI mechanism as there is deficit in generation of electricity vis-à-vis its demand. Surplus electricity is a distant dream and may take decades before becoming a reality. Hence, the UI System will be in place till the time the generation outpace the demand. As it involves financial transactions, a relative degree of transparency with regard to fixation of such charges, the process of their realization from overdrawing and under-injecting entities, disbursement of these charges to entitled entities (under-drawing and over-injecting entities) and upkeep of the amount so collected, will go a long way to ensure the seemly fairness of the affairs. In reply to a question about the amount collected by CERC through UI charges, the Committee have been informed that cumulative amount of Rs.74,181 crore from the year 2002-03 till October, 2011 has been charged under this head. After the capping of UI rates for generator, some funds are available which are maintained as

Regional Unscheduled Interchange Pool Account Fund maintained by respective Regional Load Dispatch Centre. Subsequently, the UI charges standing to the credit of Unscheduled Interchange Pool Account Fund has been credited to the Power System Development Fund. As on May 2012, the surplus amount of UI charges is Rs. 3404 crore as deposited in PSDF. The utilization of this amount for the purposes identified by CERC in PSDF Regulation 2010 is yet to be notified as the consultation with the Ministry of Finance are on. The Committee, therefore strongly recommend a final decision with regard to the utilization of money may be taken at the earliest in the best interest of this sector and it should be in consistent with the concept of public money with regard to its deposit and usage.

(Recommendation Sl. No.11, Para No.2.11)

2.12 The Committee note that provisions under Section 63 of the Electricity Act, 2003 and the guidelines of National Electricity Policy, issued by the Ministry of Power, on 13-4-2006 aim at laying down a transparent procedure for facilitating competition in the transmission sector through wide participation in providing transmission services and tariff determination through a process of tariff based competitive bidding. They further note that since 6.1.2011, all the ISTS transmission schemes are to be implemented through Tariff based Competitive Bidding as given in the Tariff Policy. Selection of transmission service provider (TSP) for implementation of the transmission project is through the bidding process. The Committee were informed that 8 transmission projects have been awarded through the process of competitive bidding. 3 projects have been awarded to Sterlite

Grid Limited, 1 project to Consortium of M/s Patel Engineering Limited, M/s Simplex Infrastructures Limited & M/s BSTRansComm Limited, while Reliance Power Transmission Limited and Power Grid Corporation of India Limited bagged 2 projects each.

When enquired by the Committee as to why any of the awardees have approached Government/ CERC expressing their inability to carry out the work on terms and conditions agreed to at the time of competitive bidding / award of work, it has been informed that three awardees have approached the CERC due to one difficulty or the other which includes inordinate delay in the issuance of approval under section 164 of the Electricity Act, 2003 by the Ministry of Power, cost escalations of various component, delay in notification of suitable sponsoring authority etc. The Committee feel that the work related to construction of transmission projects will play a vital role in evacuation of electricity from the surplus to deficient regions and are disappointed to note that it is not progressing satisfactorily. It is well known that the upcoming power stations generation capacity will be of no use if required transmission lines for transmission of electricity to the designated regions are not put in place in time. Thus augmentation of transmission lines proportionate to capacity addition in generation of power is of equal importance. The Committee feel that the problems plaguing the transmission projects are neither unexpected nor insurmountable. The Committee are of the opinion that in the cases of competitive bidding, the issues like approvals and notification of sponsoring authority are automatically taken care of. Any delay in this regard will enable the bidders to take the plea of cost escalation and thus abandon the project. This

nullifies the entire exercise and process come to a naught. The Committee are unhappy to note response on specific issues raised such as alternative course of action, action proposed against the defaulters or any contingency plan and future event have been intentionally evaded. The Committee observe that in most of the cases of competitive bidding, the successful lower bidder, starts complaining about the non-viability even before the start of the project. The Committee, therefore, recommend that the Government should ensure that necessary clauses should be inserted in the terms and conditions of projects meant for award through competitive bidding to the effect that this problem of projects becoming economically unviable due to cost escalation or other reason can be taken care of at the time of bidding itself. Further, the Committee also recommend the Ministry to expedite the process of issue of approval under section 164 of the Electricity Act, 2003 to the concerned transmission companies. They also desire the progress of the above mentioned transmission projects as well as 9 High Capacity Tower Transmission Corridors projects involving investment to the extent of Rs.58,000 crores approved by CERC, should be closely monitored and appropriate remedial action should be taken to overcome the impediments being faced, if any. The Committee would also like to be apprised of the action taken by the Government with regard to progress of three transmission projects which have been held up following the inability of the successful bidder to carry on the work.

(Recommendation Sl. No.12, Para No.2.12)

Trading of Electricity

2.13 The Committee note that Electricity Act, 2003 has recognized the transaction involving purchase and sale of electricity as a distinct licensed activity. Prior to that the electricity industry recognized generation, transmission and supply as the three principal activities. The SEBs/Discoms who have the obligation to provide electricity to their consumers mainly rely on supplies from long-term contracts. However, it is neither feasible nor economical to meet short term, seasonal or peaking demand through long-term contracts. Be it a deficit scenario or otherwise, power trading is essential for meeting the short-term demand at an appropriate cost. Similarly, power trading is essential for distribution utilities for selling short-term surpluses in order to optimize the cost of procurement. A few captive generating plants participate in trading in order to optimize their operating cost and in the process, supply electricity to the grid.

The responsibility of developing the market in electricity has been vested with the Regulatory Commissions. CERC grants inter-state trading license, which is mandatory under the provisions of the Electricity Act, 2003, to electricity traders and registration with the power exchanges. It constantly monitors the function of these institutions through regular reporting of transactions undertaken by them. In case of traders, the trading margin charged by them is also monitored. The Committee were informed that there are two Power Exchanges operational presently namely Indian Energy Exchange and Power Exchanges of India Limited. These are operational from June, 2008 and October, 2008 respectively. Regarding benefits of

electricity trading the Committee were apprised that the power prices in the short term market have decreased in the last three years and the volume has increased. Both Discoms and open access consumers, who participate in this market actively, have benefited due to the price decrease in this market. The Committee express their satisfaction over the fact that trading has helped bringing down the power price. However, the Committee feel that the electricity trading in the Country is still at rudimentary stage, characterized by low volume and fewer number of transactions limited to specific section of society and absence of favourable rule and regulations attracting more traders to take part in the process. The Committee, therefore, recommend that the Government/CERC should take steps in framing such set of rules and regulations that should prove not only conducive for electricity trading and invite more and more players in this field to make it more competitive but also effectively prevent/ tackle any malpractices by big players of the Sector.

(Recommendation SI. No.13, Para No.2.13)

Open Access

2.14 The Committee observe that the concept of open access is central to bring about competition in distribution power. After de-licensing of generation a generator can sell its power anywhere in the country. For consumers also it is beneficial to have a choice to procure power from a reliable and efficient source. This can be achieved through open access besides facilitating flow of power from surplus to deficit areas. National

Electricity Policy states that non-discriminatory open access shall be provided to the competing generators supplying power to licensees. As a result, during last five years the share of private sector in total generation has increased from 11% to 23%. In the last two years alone 12000 MW generation has come up from private sector.

Open access in transmission has helped make generation more competitive and has provided choice to Discoms as well as open access consumers. This is helping many captive generators as well as open access consumers to buy and sell electricity in the short-term market. Over 1000 open access consumers are buying power through Power-Exchanges. Electricity traders and Power Exchanges have started functioning. Short term trading in electricity through traders and power exchange has provided an alternative market for electricity other than long term PPA. This has reduced the Discom default risk for generators significantly. However, problems are also staring the system. They have been identified as difficulty of market access for buyers and seller of electricity, problems of evacuation infrastructure for seamless flow of electricity and safe and secure operation of Grid etc. These bottlenecks have been attempted to be resolved through regulations and orders for short-term open access in transmission and the regulations of “grant of connectivity, long-term access and medium term open access in inter-state transmission”. CERC has also provided for the deemed concurrence of SLDCs for open access if their decision is not given within a specified time frame. Short-term open access provides generators and open access buyer access to transmission corridors for period upto three months while the long-term and medium-term open access regulation

provide upcoming generators grid connectivity to inter-state transmission grid to a period from 12 years to 25 years and medium-term from 3 months to 3 years respectively. The short-term open access regulation has facilitated development of short-term power market where trader, power exchange are allowed to indulge in electricity transactions. Also in medium-term and long-term frame work the generator is allowed access to the national market and sell power to any buyer across the country. The Committee feel that all these developments are welcome sign but the entire frame work of open access is of limited significance to the majority of the consumers in the country. So long as the generation does not out pace the demand in the Country, the benefits of open access will be a distant dream to an ordinary consumer. Presently, the mechanism of open access does not provide any safety to common man from exploitation from high tariff of electricity. It is only the power exchanges, electricity traders, generators who have been benefited by the exercise of open access and its achievements so far. Although distribution licensees and Discoms are also within the periphery of the open access but the gap between the demand and supply nullifies the benefits to common consumers that may have possibly accrued to them due to the presence of the multiple distribution licensees. Besides the network of distribution licensees wherever it exist is mostly monopolized and hence to conceive the situation of consumer having options of choosing a distribution company of his own choice at a competitive rate will remain a far cry in coming decades. While acknowledging the efforts made by the CERC to ease the system in electricity sector the Committee express their dissatisfaction over the fact that no strategy has been thought of to assess the possibility whether this

sector can be developed on the lines of telecommunications sector providing multiples options to consumers. The Committee, therefore, recommend that despite the inherent bottlenecks, efforts should be made to strategize the sector in such a fashion wherein this could be developed with the objective of benefiting the common consumer having option to choose the agency of his preference amongst the multiple distribution companies.

(Recommendation Sl. No.14, Para No.2.14)

2.15 The Committee note that the function of Central Commission in accordance with section 79 of the Act is to regulate the inter-state transmission of electricity and other role of the Commission (under section 66 of the Act) is development of market in power including trading. For power market development, it is necessary that open access is facilitated through regulations. Hence Commission brought out Open Access Regulation 2004 and later Open Access in Inter-state Transmission Regulation, 2008 was issued. Also, Grant of Connectivity, Long Term Access and Medium term open Access, 2009 was issued. Open Access regulations also provide DISCOMs and eligible consumers the choice of contracting powers to meet demand on long term medium and short term basis. However, regulation provides that the concurrence of States load dispatch center for open access can be denied only when surplus transmission capacity is not available in the State network or metering infrastructure is not available for energy metering and accounting in accordance with the Grid Code. The Committee are of the opinion that it will take a long time before the concept of Open Access, as envisaged, become

a reality for common consumer. Presently, it is available in a limited manner, to generators giving them certain perceived protections with regard to evacuation of electricity, default payment, operation and liquidity risk etc. and also to certain extent in the inter-state transmission of electricity. The short term transaction of electricity facilitated through Open Access during the last three years is 9 per cent, 10 per cent and 11 per cent respectively of the total electricity generated. This amplifies that even at the market level the concept of Open Access is yet to bloom. As if, this was not enough, some States have issued orders under section 11 or section 108 of the Electricity Act, 2003 for restricting the sale of surplus power of the State thereby, prohibiting the sale to the consumers and utilities outside the State. They have also fixed the price for sale of power to the distribution licenses in the State. This has been done despite the ruling of the CERC on the matter which is contrary to the stand taken by these States. This exercise by some States negates the very concept of Open Access. The Committee feel that such issues can be settled only through bodies like FOR having enough power to deal with such issues. The action by some States is well within the foreseeable possibilities and cannot be handled by invoking section of the Electricity Act. It has to be dealt with within the ambit of ground realities and making the electricity sector a competitive and commercially viable entity. The Committee, therefore, strongly recommend that the limited scope of Open Access which has developed hitherto should be ensured to grow as conceived. It cannot be allowed to be mired into legal wrangling sending disappointing signals to stakeholders and efforts should be made to resolve the issues without invoking legal devices.

(Recommendation Sl. No.15, Para No.2.15)

Promotion of Renewable Energy

2.16 The Committee note that section 86(1) (e) of the Electricity Act mandates the State Electricity Regulatory Commissions to promote, *inter alia*, generation of electricity from 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 Committee were informed that a number of SERCs have already specified such percentage of the electricity to be procured in the area of a distribution licensee and have also notified cost plus tariff for different technologies of renewable energy exploitation. However, the Committee found that the level of Renewable Energy Purchase Obligation (RPO), i.e. the percentage of electricity to be procured from such sources varies significantly from State to State. A few States like Tamil Nadu and Karnataka have already achieved a RPO level of more than 10%, but there are number of States which have not even touched RPO level of 2%. Further, the Committee were informed that though Delhi Electricity Regulatory Commission has prescribed two per cent but actually Delhi is not using any green energy. To overcome the issue of mismatch between availability of RE Resources in a State and the requirement of the obligated entities to meet the renewable purchase obligation (RPO), the Secretary of CERC stated that they have come up with a mechanism of renewable energy certificates under which States endowed with abundant renewable energy potential generates more power than required under RPO and can sell the certificate of excess generation to States bereft of renewable energy source so that they can fulfill their RPO. The Committee while endorsing this

concept feel that it is a step in the right direction to promote the optimum utilization of renewable energy as it incentivises the production of energy from renewable sources and will encourage the endowed States to fully utilize their renewable sources. The Committee, therefore, recommend that RPO should be fixed uniformly for each State at 7% for the year 2012 and thereby increasing 1% every year to reach 15% in year 2020 as envisaged under National Action Plan on Climate Change (NAPCC) in year 2008. The Committee expect that the Government will take sincere and prompt action in this regard under their intimation.

(Recommendation SI. No.16, Para No.2.16)

New Delhi;
August 22, 2012,
Shravana 31, 1934 (Saka)

MULAYAM SINGH YADAV
Chairman,
Standing Committee on Energy

STANDING COMMITTEE ON ENERGY

**MINUTES OF THE SECOND SITTING OF THE STANDING COMMITTEE ON ENERGY
(2011-12) HELD ON 9TH NOVEMBER, 2011 IN COMMITTEE ROOM '62'
PARLIAMENT HOUSE, NEW DELHI**

The Committee sat from 1030 hrs. to 1245 hrs.

PRESENT

Shri Motilal Vora

- in the Chair

Members

LOK SABHA

2. Shri Baliram Jadhav
3. Shri Gurudas Kamat
4. Shri Sanjay Nirupam
5. Shri Jagdambika Pal
6. Shri Ravindra Kumar Pandey
7. Shri C.Rajendran
8. Shri Bajju Ban Riyani
9. Shri Sushil Kumar Singh
10. Shri Radha Mohan Singh
11. Shri Vijay Inder Singla
12. Shri Makan Singh Solanki

RAJYA SABHA

13. Shri Govindrao Adik
14. Shrimati Shobhana Bhartiya
15. Shri Bhagat Singh Koshyari
16. Shri Jesudasu Seelam

SECRETARIAT

1. Shri Brahm Dutt - Joint Secretary
2. Smt. Abha Singh Yaduvanshi - Director
3. Shri N.K. Pandey - Additional Director
4. Shri Rajesh Ranjan Kumar - Deputy Secretary

List of Witnesses

Ministry of Power

Sl. No.	Name	Designation
1.	Shri P. Uma Shankar	Secretary (Power)
2.	Shri Ashok Lavasa	Addl. Secretary
3.	Shri I.C.P.Keshari	Joint Secretary
4.	Smt. Rita Acharya,	Joint Secretary

Central Electricity Authority

1.	Shri A.S.Bakshi	Chairperson, CEA
2.	Shri Ravinder	Member, CEA
3.	Shri K.P.Singh	Member, CEA
4.	Shri K.K. Agarwal	Member, CEA

Public Sector Undertakings/ Autonomous Bodies/Statutory Bodies

1.	Shri Arup Roy Choudhury	CMD, NTPC
2.	Shri A.B.L. Srivastava	CMD, NHPC
3.	Shri R.N. Nayak	CMD, Powergrid
4.	Shri H.D. Khunteta	CMD, REC
5.	Shri R.P.Singh	CMD, SJVNL
6.	Shri R.S.T. Sai	CMD, THDC
7.	Shri P.C. Pankaj	CMD, NEEPCO
8.	Shri R.N.Sen	Chairman, DVC

Central Electricity Regulatory Commission

1.	Dr. Pramod Deo	Chairman, CERC
2.	Shri Rajiv Bansal	Secretary, CERC
3.	Shri Pankaj Batra	Chief (Engg.)
4.	Dr. V.M. Deshpande	Chief Advisor (Eco.)

2. In the absence of the Chairman, the Committee chose Shri Motilal Vora, 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 and the representatives of the Ministry of Power and Central Electricity Regulatory Commission (CERC) and other PSUs/Organizations to the sitting of the Committee and emphasized the need for effective functioning of the Central Electricity Regulatory Commission (CERC) for the benefit of the common man.

4. Thereafter, the representatives of the Ministry of Power/CERC made a brief power-point presentation on 'Functioning of Central Electricity Regulatory Commission' followed by a briefing on the subject.

5. The Committee inter-alia discussed with the representatives of the Ministry of Power and CERC on the following important points:

- i) General functioning of CERC;
- ii) Roles and responsibilities of CERC vis-à-vis their performance;
- iii) Regulation of tariff in connection with inter-state electricity transmission and trading and the extent to which it has benefitted the consumers.
- iv) Issuing license for inter-state transmission and trading and setting performance standards for the licensees;
- v) Promotion of competition in electricity transmission and trading and promotion of open access; and
- vi) Coordination between Centre and States as also CERC and SERCs with regard to electricity regulation.
- vii) Regulation of the regulator.

The Members sought clarifications on various issues relating to the subject and the representatives of the Ministry/CERC responded to the same. The Committee directed the representatives of the Ministry to furnish written replies to the queries which could not be responded to immediately.

6. The Committee decided to have further evidence of the representatives of the Ministry of Power and CERC on the subject on a later date.
7. A verbatim record of the proceedings of the sitting of the Committee has been kept.

The Committee then adjourned.

STANDING COMMITTEE ON ENERGY

MINUTES OF THE ELEVENTH SITTING OF THE STANDING COMMITTEE ON ENERGY (2011-12) HELD ON 12TH JUNE, 2012 IN COMMITTEE ROOM 'C' PARLIAMENT HOUSE ANNEXE, NEW DELHI

The Committee sat from 1100 hrs. to 1200 hrs.

PRESENT

Shri Mulayam Singh Yadav - Chairman

**Members
LOK SABHA**

2. Shri Syed Shahnawaz Hussain
3. Shri Baliram Jadhav
4. Shri Jagdambika Pal
5. Shri Ravindra Kumar Pandey
6. Shri Bajju Ban Riyan
7. Shri Sushil Kumar Singh
8. Shri Radha Mohan Singh
9. Shri Vijay Inder Singla

RAJYA SABHA

10. Shri Shyamal Chakraborty
11. Shri Rama Chandra Khuntia
12. Shri Hishey Lachungpa
13. Shri D.P. Tripathi
14. Shri Moti Lal Vohra
15. Shri Darshan Singh Yadav

SECRETARIAT

1. Shri Brahm Dutt - Joint Secretary
2. Smt. Abha Singh Yaduvanshi - Director

List of Witnesses

Ministry of Power

- | | | | |
|----|-------------------------|---|------------------------|
| 1. | Shri P. Uma Shankar | - | Secretary |
| 2. | Shri Ashok Lavasa | - | Addl. Secretary |
| 3. | Shri Devendra Chaudhary | - | Addl. Secretary |
| 4. | Shri I.C.P. Keshari | - | Joint Secretary |
| 5. | Smt. Jyoti Arora | - | Joint Secretary |
| 6. | Smt. Rita Acharya | - | Joint Secretary |
| 7. | Shri Rakesh Jain | - | Joint Secretary & F.A. |

Central Electricity Authority

- | | | | |
|----|------------------|---|-------------|
| 1. | Shri A.S. Bakshi | - | Chairperson |
|----|------------------|---|-------------|

Public Sector Undertakings/ Autonomous Bodies/Statutory Bodies

- | | | | |
|----|-------------------------|---|----------------------------|
| 1. | Shri Arup Roy Choudhury | - | CMD, NTPC |
| 2. | Shri R.N. Nayak | - | CMD, PowerGrid |
| 3. | Shri Rajeev Sharma | - | CMD, REC |
| 4. | Shri R.N. Sen | - | Chairman, DVC |
| 5. | Shri M.K. Goel | - | Director (Commercial), PFC |

Central Electricity Regulatory Commission

- | | | | |
|----|-------------------|---|-----------------|
| 1. | Dr. Pramod Deo | - | Chairman, CERC |
| 2. | Shri Rajiv Bansal | - | Secretary, CERC |

2. At the outset, the Chairman on behalf of the Committee welcomed the representatives of the Ministry of Power/CEA/PSUs and Central Electricity Regulatory Commission to the sitting of the Committee and apprised them of the provisions of Directions 55(1) and 58 of the Directions by the Speaker regarding confidentiality of proceedings.

3. After introduction of the witnesses to the Committee, with the approval of the Chairman, the representatives of the Ministry of Power/CERC made a power-point presentation on the role and Functioning of Central Electricity Regulatory Commission (CERC).

4. The Committee *inter-alia* discussed with the representatives of the Ministry of Power/CERC, the following important points:-

- i) Role of CERC in tariff regulations and mechanism for tariff determination in Introduction of Availability Based Tariff (ABT), Multi-year tariff principles and competitive bidding for generating companies and transmission licensees regulated by CERC.
- ii) Role of CERC in ensuring reliability of Grid Operation – Impact of Regulatory Intervention on frequency in new grid and realization of penalties imposed by CERC on drawing entities or generators deviating from the norms.
- iii) Work done by CERC in respect of development of Power Market – license to electricity traders, power exchanges, open access etc.
- iv) Approval by CERC for investment of Rs. 58,000 crore to CTU for Nine High capacity transmission corridors and its funding.
- v) Promotion of Renewable Energy by CERC – preferential tariff, renewable purchase obligation, grid integration etc.

The Members sought clarifications on various issues relating to the subject and the representatives of the Ministry/CERC responded to the same. The Committee directed the representatives of the Ministry to furnish written replies to the queries which could not be responded to.

5. A verbatim record of the proceedings of the sitting of the Committee has been kept.

The Committee then adjourned.

STANDING COMMITTEE ON ENERGY

MINUTES OF THE FOURTEENTH SITTING OF THE STANDING COMMITTEE ON ENERGY (2011-12) HELD ON 16th AUGUST, 2012 IN COMMITTEE ROOM 'B' PARLIAMENT HOUSE ANNEXE, NEW DELHI

The Committee met from 1000 hrs. to 1030 hrs.

PRESENT

Shri Motilal Vora - (in the Chair)

2. Dr. Baliram
3. Shri Jagdambika Pal
4. Shri Ravindra Kumar Pandey
5. Shri C. Rajendran
6. Shri Bajju Ban Riyan
7. Shri Radha Mohan Singh

RAJYA SABHA

8. Shri Ram Chandra Khuntia
9. Shri Bhagat Singh Koshyari
10. Shri Jesudasu Seelam
11. Shri Mohammad Shafi
12. Shri D.P.Tripathi
13. Shri Darshan Singh Yadav

SECRETARIAT

1. Shri Brahm Dutt - Joint Secretary
2. Smt. Abha Singh Yaduvanshi - Director
3. Shri N.K.Pandey - Additional Director

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

3. At the outset, the Chairman welcomed the Members of the Committee.

X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X

4. The Committee then took up for consideration the following draft reports:-

- i) 29th Report on Availability of identified non-conventional resources of energy – their potential vis-à-vis utilization.
- ii) 30th Report on Functioning of Central Electricity Regulatory Commission.

After discussion, the Committee adopted the above draft Reports without any change.

5. The Committee also authorized the Chairman to finalize the above-mentioned Reports taking into consideration consequential changes arising out of factual verification, if any, by the concerned Ministries and also to present the same to both the Houses of Parliament.

The Committee then adjourned.