

**RURAL ELECTRIFICATION  
CORPORATION LIMITED**

**(MINISTRY OF POWER)**

**COMMITTEE ON  
PUBLIC UNDERTAKINGS**

**1995-96**

**FIFTY-FOURTH REPORT**

**TENTH LOK SABHA**



**LOK SABHA SECRETARIAT  
NEW DELHI**

# **FIFTY-FOURTH REPORT**

## **COMMITTEE ON PUBLIC UNDERTAKINGS (1995-96)**

**(TENTH LOK SABHA)**

**RURAL ELECTRIFICATION CORPORATION LIMITED  
(MINISTRY OF POWER)**



***Presented to Lok Sabha on 12th March, 1996  
Laid in Rajya Sabha on 12th March, 1996***

**LOK SABHA SECRETARIAT  
NEW DELHI**

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**CORRIGENDA TO 54th REPORT OF  
COMMITTEE ON PUBLIC UNDERTAKINGS  
(TENTH LOK SABHA)**

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(1995-96)

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\* Elected w.e.f. 22nd August, 1995 *vice* Shri Vilas Muttemwar resigned from the Committee. Ceased to be a Member of the Committee consequent on his appointment as Minister in the Council of Ministers w.e.f. 14th September, 1995.

\*\* Ceased to be a Member of the Committee consequent on his appointment as Minister in the Council of Ministers w.e.f. 15th September, 1995.

## INTRODUCTION

1. The Chairman, Committee on Public Undertakings having been authorised by the Committee to present the Report on their behalf, present this 54th Report (Tenth Lok Sabha) on Rural Electrification Corporation Limited.

2. The Committee took evidence of the representatives of Rural Electrification Corporation Limited on 20th and 21st June, 1995 and the representatives of Ministry of Power on 23rd August, 1995.

3. The Committee considered and adopted the Report at their sitting held on 8th March, 1996.

4. The Committee wish to express their thanks to Ministry of Power and Rural Electrification Corporation Limited for placing before them the material and information they wanted in connection with examination of the subject. They also wish to thank in particular the representatives of the Ministry of Power and Rural Electrification Corporation Limited who appeared for evidence and assisted the Committee by placing their considered views before the Committee.

5. They would also like to place on record their sense of deep appreciation for the invaluable assistance rendered to them by the officials of the Lok Sabha Secretariat attached to the Committee.

NEW DELHI;  
11 March, 1996  
17 Phalgun, 1917 (S)

KAMAL CHAUDHRY,  
*Chairman,*  
*Committee on Public Undertakings.*

# CHAPTER I

## INTRODUCTORY

### *A. History and Objectives*

1.1 The Rural Electrification Corporation a wholly owned Government of India Company, under Companies Act, 1956 was set up in July, 1969 on the recommendation of All India Rural Credit Committee, set up by RBI for comprehensive review of Rural credit. It was conceived mainly as an instrument to providing financial assistance for a larger programme of rural electrification with a view to utilising ground water resources through energisation of pumpsets for increasing agricultural production. In 1974, when the Minimum Needs Programme (MNP) was taken up, the role of the Corporation was enlarged to optimise the development potential of the areas covered under MNP and to extend the benefit of electricity to as large a population as possible.

1.2 The authorised capital of Rural Electrification Corporation at the time of its setting up in 1969, was only Rs. 10 crores, which over a period of time has been increased to Rs. 600 crores. The paid up capital of the Corporation at present is Rs. 486.60 crores and this is wholly owned by the Central Government.

1.3 The main objectives of the Corporation are as follows:—

- (i) To finance rural electrification schemes in the country;
- (ii) To subscribe to special rural electrification bonds that may be issued by the State Electricity Boards on conditions to be stipulated from time to time;
- (iii) To promote and finance rural electric cooperatives in the country; and
- (iv) To administer the moneys received from time to time from the Government of India and other sources as grants or otherwise for the purpose of financing rural electrification in the country in general.

1.4 One of the Micro Objectives of the company is to devise policies and draw up programme aimed at encouraging accelerated electrification in the States which are lagging behind in rural electrification and the backward areas, specially under-developed areas and tribal areas.

1.5 When asked about the extent to which the REC had achieved its objectives, the Committee were informed that with the setting up of Rural Electrification Corporation, significant progress has been made in taking electricity to villages. For



the fulfilment of its objectives, the Corporation is engaged in various activities to support the main programme, which include:—

- (a) Standardisation of equipment, materials and construction practices with a view to effecting economies in the project costs;
- (b) Technical support to the SEBs in the form of planning and design of network;
- (c) Special projects for conservation of energy by improvement of existing distribution network; and
- (d) Training of personnel engaged in rural electrification.

1.6 During evidence, the Secretary, Ministry of Power apprised the Committee that at the time of setting up of REC, the level of village electrification in the country was 12.8% and pumpsets energisation was only 9%. As on 31st March, 1995, out of 5.79 lakh inhabited villages, 86 percent villages viz. 4.97 lakh have been electrified and 74 percent pumpset potential has been exploited with the energisation of 107 lakh pumpsets. The work of REC extends from villages to hamlets, harijan bastis and all the tribal villages.

#### *B. Role of REC*

1.7 During evidence, the CMD, REC in his opening remarks informed the Committee that REC is primarily a financing organisation which finances the State Electricity Boards and advises them in relation to whatever rural electrification programme they take up for extending power from existing power sources into the villages. On this basis, till 31.3.1995 from the inception in 1969, 29412 projects have been taken up by the REC through the aegis of the Electricity Boards. The financial sanctions which have been given are of the order of Rs. 11,344 crores and out of this, an amount of Rs. 8,191 crore has been disbursed.

1.8 The witness further submitted:—

"Earlier the priority was to get the power line to the villages and now the priority is to see that more number of pumpsets are provided with electricity... Project approach would be helpful to assess the cost and the time factors for the execution. Only then the REC would be able to focus attention of the Planning Commission and the Government of India to the type of work still remaining to be done, the order of funds required, the managerial and other arrangements that need to be made, etc. At the present moment REC has been doing this kind of work."

## CHAPTER II

### PROJECTS

#### A. Sanctioning of Projects

2.1 As regards sanctioning of REC schemes, the CMD, REC during evidence stated:—

“REC schemes are formulated on the basis of loads/services which can possibly be realised during the project period (normally five years) and not on the basis of demand saturation.”

2.2 When asked about the criteria adopted for the approval of rural electrification projects, the CMD stated:

“The approval is based on the minimum Economic Rate of Return (ERR) and financial rate of return prescribed for different categories of projects in order to be eligible for financial assistance from the Rural Electrification Corporation.”

2.3 During evidence of Ministry of Power, when asked, the criteria for evaluating the REC projects, the Secretary, Power stated:—

“That in the advanced areas the ERR should be 20 percent and in case of MNP, it should be 10 percent for getting approval of any project. In the case of Rural Electric cooperative projects, these are sanctioned on the basis of financial viability and are required to break even by the end of fifth year.”

2.4 REC, furnished the following details in a post evidence reply in regard to the criteria for approval of various categories of projects:

Terms, Conditions of loan and viability criteria applicable to Rural Electrification Projects under various categories (As on 1.4.1995):—

Sl. No.	Category	Normal Loan of (Rs./Lakh)	Period Loan of (Year)	Period Moratorium (Years)	Rate of Interest (%age)	Viability criteria
1	2	3	4	5	6	7
1.	Ordinary Cooperatives (OC)					As stipulated in the projects
	a. Project Loan	250	30	5	—	—
	Upto 5 years				5.00	—
	6 to 10 years				7.75	—
	11 to 15 years				8.75	—
	16 to 20 years				9.75	—
	21 to 25 years				10.75	—
	26 to 30 years				11.75	—

1	2	3	4	5	6	7
	b. Pre-construction loan(PCL)	1	5	—	5.00	—
	c. Special Development Reserve (SDR)	45	15	—	5.00	—
2.	Harijan Bastis (HB)	15	15	—	7.00	—
3.	Schemes for unelectrified and Specially Under-developed Area (OB)	250	20	5	12.50	ERR of 15%
4.	Minimum Needs Programme (MNP)	250	30	5	12.50	ERR of 10%
5.	Schemes for Intensive Electrification (OA)	250	10	4	13.00	ERR of 20%
6.	Special Loan (Training Technology Develop. etc.)	25	5	—	12.20	—
7.	Special Loan (Short Term)	250	5	—	16.00	—
8.	Special Project Agriculture (SPA)	80	7	2	14.00	ERR of 25%
9.	Ordinary Pumpset (OP)	250	7	2	14.00	ERR of 20%
10.	Special Project Agriculture Bank participation(SPA-BP)	100	7	2	14.00	ERR of 20%
11.	Special Projects Industries(SPI)	40	8	2	14.00	Gross return of 15% of investment/ Capital base
12.	Conservation of Energy in Network (CEN/SI)	500	7	2	16.00	Gross return of 12% on investment/ Capital base
13.	Special projects for Decentralised Generation & Supply (SP:DGS)	250	10	2	14.00	As stipulated
14.	Inventory Loan					
	(i) North-Eastern States and J&K			—	13.50	
	(ii) Others	—	—	—	16.00	

Notes: 1. 3% Tax on gross interest earnings of the Corporation will be collected from SEBs w.e.f. 1.10.1991 as stipulated in the finance Bill 1991-92 in respect of all categories of loans.

2. The rate of interest on MNP category loans is effective from 1.6.1993. No specific targets are for fixed sanction of various schemes.

2.5 When asked, who formulated the plans whether REC or SEBs, the representative of REC stated in evidence:—

"It is actually the responsibility of the electricity Boards. The SEBs prepare the project. We guide them and check whether it is generally conforming to the accepted standard or not."

2.6 The organisational structure for project sanction was explained by CMD, REC as follows:—

"In case of project offices in the States, we have a Chief Project Manager. The CPM can be from the discipline of engineering or he can be an economist or from the finance stream. And where there is a lot of ground water potential, we also place a hydrogeologist in that particular office."

**2.7 The witness further explained:**

**"Based on an area approach, REC has covered the entire country district-wise under various schemes. The schemes are roughly for five years. We go through the technical details to find out whether such areas can be electrified or not. Based on the Planning Commission's allocations routed through us, the SEBs and State Governments and the elected bodies decide as to how annual resources are to be spent."**

***B. Electrification of Villages***

**2.8 The Committee desired to know when a village is said to be electrified. They were informed by the CMD, REC during evidence that according to the present definition of electrification.**

**"A village is said as electrified if at least one service connection has been provided within the revenue boundary of the village."**

**2.9 When asked, how far this definition of the electrified village is realistic and what is the number of one point connection villages, the Director (Technical) REC clarified:-**

**"We declare the village electrified as soon as we bring low tension lines to the village and electricity connection is given. But the process of development is continuous and one point connection villages are almost nil, may be less than one percent."**

**2.10 In a post evidence reply, the Committee have further been informed that the present definition of village electrification does not serve the real purpose and objective of rural electrification, where electric power should become the prime mover of development by increasing agricultural and industrial productivity, generation of employment, increase in income levels besides improving the quality of life in the villages by providing electricity to all household which is possible only when electricity is proximate and available on demand. Hence the definition of village electrification may have to be reviewed and suitably modified in consultation with State Government, CEA, SEBs and other concerned.**

**2.11 Out of the suggestions that could be considered is that the village may be treated as electrified only when the electrical infrastructure has been extended upto the main inhabited locality of the village in a manner that connections can be released on demand for all categories. It is, however, to be noted that actual connections will be dependent on availability of adequate quantum of power and demand from consumers.**

**2.12 On the definition of village electrification, the Secy. (Power), informed the Committee that "Since 86% villages and 31% of the households have been electrified, a stage has come for us to have a re-look at the definition of a village electrification. Such an exercise was made in the past. Since no consensus as to what should constitute 'village electrification' could be arrived at between the various State Govts. the existing definition continued."**

**2.13 The Secy. (Power) further elaborated:**

"Earlier, there was a Sub-Committee that was appointed to look into the question of village electrification. Their recommendation was that if the power goes to an inhabited area, then it should be treated as village electrified. Many States have not accepted it. As far as we are concerned presently definition of village electrification is totally archaic and it has to be changed. In the Ministry we are now planning review of definition, we will get in touch with the States in this regard."

**2.14 When asked about the reasons of not availing the benefit of electricity, the CMD, REC stated:-**

"The impression I get from the discussions I had with the State Electricity Boards is that there is no adequate power even though there is a great deal of demand for connections."

**2.15 As regards the villages yet to be electrified, the position was explained by the CMD as under:**

"Out of a total of 84648 villages, which remain to be electrified, 69741 villages are in four States UP 27444 villages, Bihar 19784 villages, Orissa 13605 villages and in West Bengal 8908 villages."

**2.16 During evidence, the Secretary (Power) apprised the Committee that 86% villages viz 49429 have been electrified, whereas at the time of setting up of REC in 1969, the level of village electrification in the country was only 12.8 percent.**

**2.17 Asked to give his suggestions about the rural electrification programmes, the CMD, REC stated:**

"There are a large number of hamlets in the villages where we have not carried power and a lot of work has to be done in this regard. We have a large number of Harijan Bastis which need to be provided power. The expansion of the electric line from the main village to the harijan bastis and to the hamlets should not be expensive. A large number of houses in the villages do not have power. It may be due to so many reasons such as shortage of transformers, inadequate power, more power being consumed by agriculture-consumers as compared to domestic and other consumers. But I would like to submit here that we want to control the immigration of rural population to urban areas and keep them in the rural areas. The quality of life is dependent on power being available in the house. What is required is that electricity should be made available for all requirements such as rural industrialisation, cold-storage for reservation of vegetables or fruits or things or some sort of processing etc."

**2.18 During evidence, the Secretary, Ministry of Power informed the Committee that Rural Electrification though essential from the point of view of the social and economic objectives of the country, is an unremunerative programme for the agencies implementing the scheme. The financial losses incurred in rural electrification are making the State Electricity Boards reluctant to accord the requisite priority.**

2.19 In a post evidence reply on release of village-wise number of power connections, the Committee have been apprised of the position by REC as follows:

"The information with regard to village-wise number of electric connections are not being maintained centrally and collection of the data from the field will take considerable time. It may, however, be mentioned that nearly 107 lakh electric pumpset connections and 250 lakh domestic connections (estimated) have been provided in 4.97 lakh villages electrified so far. This gives an average of nearly 70 electric connections per village. Thus even though a village is declared electrified with the release of the first connection, the load development work continues to be taken up depending on the funds availability, demand from the consumers, capabilities of the implementing agencies to implement the programme etc."

2.20 Most of the remaining left out villages are widely scattered, thinly populated and their geographical locations poses problems in the extension of electricity. Poor prospects of load development coupled with high cost of electrification make the programme highly unremunerative. Most of the SEBs where these villages are located are facing serious financial problems and are reluctant to take up electrification of such areas in the absence of adequate financial support from the State Government in meeting RE losses. Because of the poor financial viability of the programme, the SEBs of their own, may not be able to sustain the programme. According to REC, there is therefore, need to take the electrification of balance villages as social programme and provide funds for their electrification as grant or mix of grant on a soft terms loan. It will also be desirable to earmark part of the plan funds for electrification of such areas so that there are compulsions on SEBs/State Governments to invest earmarked funds in these areas only.

2.21 On the feasibility of non-conventional means being used to electrify the remote area villages by REC, the Committee have been informed by the Company in a written reply as under:—

"For the 8th Five Year Plan period the Planning Commission has given a target of 10,000 villages to be electrified under the alternate and renewable energy sources of the MNES. During 8th Plan no villages are electrified so far under REC schemes with non-conventional sources of energy."

### *C. Electrification of Harijan Bastis and Tribal Areas*

2.22 REC is stated to have been funding Harijan Basti Schemes on regular basis. The interest rate charged for Harijan Basti Schemes is 7% per annum. The period of loan is 15 years and the ceiling on loan outlay Rs. 15 lakh.

2.23 When asked whether they spent a fixed percentage of money for SC/ST people, the CMD, REC said, "No percentage has been fixed."

2.24 Planning Commission, while approving REC Programme on year to year basis, does not allocate separate funds for electrification of Tribal villages and harijan Bastis. However, the Planning Commission has been insisting on Central Ministries to formulate separate Tribal Sub-Plan (TSP) and Special Component Plan (SCP) on yearly basis. As per the guidelines issued sometime in March, 1995 it is stipulated

that out of Ministries/ Departments' total plan outlay, an outlay equivalent to SC/ST population percentage that is 15% for Scheduled Castes and 7.5% for Scheduled Tribes (now revised to 16% for SCs and 8% for STs) should be set apart and used for programmes and schemes related to the development needs and priorities of these two weaker sections of the population. The Ministry of Welfare has suggested to Ministry of Power that suitable action plans for TSP or SCP should be prepared under REC Programme.

2.25 During evidence, when the Committee asked about the allocations, made for SC & ST villages/hamlets' electrification, the Secretary, Ministry of Power informed the Committee that from the current year (1995-96) onwards they are making allocations for the Tribal Sub-Plan and Special Component Plan. Tentatively, around Rs. 127 crore has been earmarked for electrification of 884 tribal villages and 2784 harijan Bastis during 1995-96.

2.26 As regards the types of loans being extended to the weaker sections of society and the terms and conditions for the same and the number of Tribal villages and harijan Bastis, so far, benefited by these preferential loans, the Committee have been informed that REC does not directly provide loans to the weaker sections of the society but extends financial assistance to the SEBs/State Governments for the electrification of the areas inhabited by them.

2.27 The Committee pointed out that after taking up the electricity line up to the entry point in a village, Panchayat funds and the funds allocated especially for the development of SCs & STs could be utilised for electrification of Harijan Bastis. On this, the CMD, REC stated as under:-

"It is a very important point which we have to bring to the attention of the Government. We have to find out as to what is the special component plan for the Harijans. We have taken it up with the Planning Commission. We have to discuss it with the Ministry of Rural Development and the Ministry of Non-Conventional Energy Sources also as to what is the exercise that is currently going on."

#### *D. Kutir Jyoti Scheme*

2.28 Government of India through REC has launched a programme in 1988-89 called 'Kutir Jyoti' for extending single point connections to the households of rural poor falling below the poverty line including Harijans and adivasi families, Under this scheme one time cost of internal wiring and service connection charges is provided by way of grant to State Governments/SEBs. The grant amount has been enhanced gradually from Rs. 200/- per connection in 1989-90 to Rs. 400/- per connection in 1992-93. This programme is in addition to the similar schemes/programmes, if any, already in operation in some States and would not replace the ongoing programmes.

2.29 In a written reply, the Committee have been informed by REC that during the initial years 1988-89 to 1989-90, there were logistic problems with the SEBs to identify the beneficiaries below the poverty line and the electrified villages (with adequate LT distribution network) where the connections could be released. In the subsequent phase of the programme, the Corporation geared up the SFR ensuring full

utilisation of sanctioned grant of Rs. 45 crores. The Scheme remained suspended during 1990-91 and 1991-92.

2.30 In view of Social relevance of the Scheme, Ministry of Power took up the matter with the Planning Commission and the programme was revived w.e.f. 1992-93.

2.31 REC has stated that for Kutir Jyoti Programme most of the States have requested for allocation of additional grant but the funds outlays for this programme, which was initially of the order of Rs. 10-15 crores has, now been scaled down to Rs. 5 crore for the years 1994-95 and 1995-96. Even for the year 1995-96, REC has already requested the Ministry of Power to enhance the funds outlays to Rs. 10 crore to provide benefit of single point light facility to more and more rural poor households. The approval of the Kutir Jyoti Scheme of 1994-95 (Rs. 5 crores) was received by REC only in September, 1994.

2.32 When the Committee insisted on the reasons for delay occurring in disbursement of funds during 1994-95 and also in 1995-96, a representative of the Ministry of Power stated during evidence:—

“After the Budget is approved, it is the REC which makes the proposal or demand. It takes a few months after the beginning of the financial year. After that, we ask them as to whether the actual work has started, etc. The release of funds has never been a problem.”

2.33 In this connection, the Secretary (Power) stated:—

“We will see that the delay does not take place in future.”

2.34 The Secretary (Power) assured the Committee that depending upon the progress of the programme by SEBs/State Governments, they would make all possible efforts for increasing the allocation for “Kutir Jyoti Programme” in consultation with the Ministry of Finance and Planning Commission at the stage of revised estimates.

### *E. Pumpset Energisation*

2.35 Ground water resource is the most dependable source of irrigation and its utilisation through pumpset energisation provides individual farmer an insurance to agricultural production. The total cultivable land in the country is 199 million hectares, out of which 142 million hectares are sown.

2.36 Based on the norms framed by the Ground Water Estimation Committee 1984, the Central Ground Water Board in 1993 compiled the assessment made by the different Working Groups of different States and have shown the Ground Water Resources and Irrigation Potential as:

- (a) Ultimate irrigation potential in terms of area 71.16 m. ha; and
- (b) Total rechargeable G.W. resources is computed at 43.19 m. ha. m; of which utilisable G.W. resource for irrigation 36.08 m.ha.m/year.
- (c) There exists a large scope for further G.W. development in the country.

2.37 As per the information furnished to the Committee by REC, the irrigation potential created to the ultimate irrigation potential from ground water that level of



development is 158% in Punjab (highest), 98% in Haryana, 76% in Rajasthan, 75% in UP, 62% in Tamil Nadu and 60% in Gujarat. In other States it is less than 50% and low to negligible in Eastern and North Eastern States.

2.38 The pumpset energisation programme in the country is mostly carried out by REC under two types of funding (a) Normal; and (b) participative Special Project of Agriculture (SPA). Under the Normal Programme, the fund is allocated by the Planning Commission as per annual budget, based on the overall allocation under Five Year Plan. The participative programme Special Project Agriculture (SPA) comprises of funds which are obtained through Commercial Banks, NABARD and REC in equal ratios.

2.39 The Committee have been informed that out of the total estimated potential of 145 lakhs electric pumpsets in the country over 107 lakh pumpsets have been energised by the end of March 1995, utilising 74% of the potential. This includes 61.9 lakhs pumpsets energised under REC programmes. Of the balanced 37 lakhs pumpsets energised under REC programmes, nearly 60% of the potential is in four States of UP (32%), Bihar (14%), Orissa (8%) and West Bengal (72%), REC has stated that prompt payment of subsidies by the States to the SEBs to cover Rural Electrification losses, introduction of cost related tariff, provision of extension services for generating demands of pumpset and adequate provision of funds by Planning Commission, are some of the major remedial measures necessary for exploitation of balance ground water potential of these areas.

2.40 As regards any special efforts made for exploitation of balance ground water potential in less exploited areas of U.P., Bihar, West Bengal and Orissa, the REC furnished the information as under:—

“State Governments of UP, Bihar, West Bengal and Orissa should launch special drive to co-ordinate the efforts of various agencies in providing adequate loan/finance, technical expertise to exploit ground water potential and ensuring that farmers could avail the same without going from pillar to post. A single window concept may have to be adopted. In addition the electric infrastructure will have to suitably sharpen to ensure quality of supply. REC has initiated dialogues with SEBs, and State Governments of these States.”

2.41 Asked about the reasons for very low pumpsets utilisation in Assam, Meghalaya, Nagaland, West Bengal, Tripura and Orissa, the CMD, REC submitted before the Committee during evidence:—

“I would submit that it is necessary to educate the people living in Nagaland etc. about the usefulness of pumpsets. Now, the “Jhoom” cultivation has since been banned, they will have to go for terrace cultivation. If we educate the local people and the farmers about the benefit of pumpsets, more and more pumpsets will come up. So far as West Bengal and Orissa are concerned, there are some shallow tubewells. They do not really want to use pumpsets because the water table is very high.”

2.42 The witness further stated:—

"In certain area, probably if there is a type of single window work where concentrated attention is given, we may be able to do better."

2.43 When the attention of the Secretary, Power was drawn towards the fact that as per the Working Group's Report on Minor Irrigation, no pumpsets had been energised as on 31 March, 1995 in Arunachal Pradesh and Mizoram, he explained the position as under:—

"In North-Eastern States, the scope of having pumpsets is limited basically because of the terrain. The reason for non-energisation of pumpsets is the financial health of the State Governments. They do not have much electricity and their per capita income is very low."

2.44 In a post evidence note on estimation of ultimate potential of ground water, the Committee have been informed by REC that ground water potential varies over the years depending upon the rainfall, the rate of exploitation and the rate of recharge. The ground water availability can be improved by method of recharge such as construction of percolation tanks etc.

2.45 The Committee enquired about the system of coordination among the Ministry of Power, Ministry of Water resources, Central Ground Water Board, the REC and the State Electricity Boards in regard to ground water utilisation and pumpsets energisation Programmes, the Secretary (Power) explained during evidence as follows:—

"The Coordination is really carried out down at the State level between various agencies. It is the State which comes to the conclusion that the potential will be so much for energising the pumpsets. Based on the figures REC goes into that. A certification is given by the Ground Water Department to the effect that water is so much and you energise a particular number of pumpsets. A programme is prepared by the SEB based on the finding of the Ground Water Supply Board. Whenever there is a better potential, the Schemes are taken up there."

2.46 When the Committee enquired whether any target date for energising all the potential pumpsets, has been fixed, the witness stated:—

"This particular target has not been fixed because it depends upon the availability of power."

2.47 The CMD, REC, accepted during evidence that if the REC could set a target date to complete this task, then only it would be able to make better efforts to achieve this or guide or pressurize the SEBs for achieving these targets.

2.48 When asked about the duration for which the pumpsets are provided electricity, Director (Tech.), REC informed the Committee that REC insists in its scheme report that minimum period of six hours in a day should be ensured by SEBs to the farmers for running their pumpsets.

2.49 The CMD, REC further elaborated on this point:

"Generally we insist on a minimum of six hours continuous supply in a day for the pumpsets. We also have a system of monitoring the reports from SEBs where

they confirm that they are giving this power continuously. But we are receiving complaints that the farmers are not receiving power for six hours. In some States (like Maharashtra) where the power situation is good, they are supplying power for 24 hours. But in many States, they do not give it according to the stipulated timings. Nobody knows when they will give power and when they will not. Most of times, the farmers actually keep starter on by putting stick or something like that so that whenever the power comes, it will be started. Whenever the farmers take the power, generally they are supposed to utilise it for raising two crops. But many of them want to raise even three crops. They can raise it provided the power is available."

2.50 When asked about the low voltage situation even during these six hours a day supply of power to pumpsets, the witness replied that the voltage depends on grid conditions. They have suggested to the Electricity Boards that they should roster the pumpsets and then create a new system whereby certain pumpsets get power for a particular time.

2.51 On a query about low voltage and erratic power supply, the Secretary (Power) admitted during evidence:—

"I fully agree with you that the supply position to rural sector is very weak. Power system does not sustain the demand. The quantity is neither good nor the quality is efficient."

#### *F. Closure of Schemes*

2.52 Out of 29412 REC Schemes of various categories sanctioned since 1969, 19423 schemes were stated to have been accepted for closure upto 31.3.1995. According to REC closure of a scheme means preparing completion report of the sanctioned scheme wherein either (a) envisaged physical targets have been achieved, or (b) sanctioned loan amount has been fully drawn, (c) envisaged scheme period of five years and extended time of two years is over and it is not possible to achieve the remaining targets within the balance sanctioned loan amount.

2.53 The Committee were also informed by REC that before closing any scheme, it ensures that:—

- (a) the scheme proposed for closure satisfies the prescribed norms of economic/financial viability on the basis of the actual physical achievements made under the project and the expenditure incurred thereupon;
- (b) the reported physical/financial progress is as per the ground realities and this is test verified by undertaking detailed monitoring of the scheme area if not carried out in recent past;
- (c) SEB submits a replacement scheme for the area for financial assistance from REC to complete the unfinished targets of closed scheme; and
- (d) the unutilised loan amount drawn under the scheme has been proposed for recovery/adjustment.

2.54 Asked about the level of achievement of the schemes approved for closure, the REC in a post evidence reply have furnished the following information to the Committee:—

"The data with regard to number of schemes completed as envisaged originally or otherwise is not readily available. However, based on the analysis of the closed schemes conducted in 1991-92, the level of achievement of targets in the 4802 schemes closed upto 31.3.1991 was as under:—

	No. of schemes	%age
(a) 100%	2339	49
(b) 75—100%	1002	21
(c) 50—75%	798	16
(d) Less than 50%	683	14

The data is being updated to complete the analysis for the schemes closed upto 31.3.95. It may be mentioned that in the case of villages not electrified under the closed scheme, a replacement scheme for the area is allowed to be prepared which also includes additional villages and new load development."

2.55 The Committee desired to know the reasons for closing a scheme before its targets are achieved. REC stated in a written reply that while all out efforts are made by the Corporation to see that the physical targets envisaged under the scheme are achieved before closure of the project, keeping in view the ground realities, many projects have to be closed without realising the targets in full even after the extended scheme period. This is mainly on account of the socio/political compulsions of the implementing agencies to simultaneously take up rural electrification works spread all over the State which necessitates sanction of relatively large number of schemes, many of which have to be kept in operation for longer period. This spread of the limited resources over large number of schemes results in slippages in many schemes and their not getting completed in stipulated period. Such schemes are required to be closed considering that balance sanctioned loans would also be inadequate to complete the balance project targets. However, as stated earlier, on closure of schemes of an area, a replacement scheme is generally sanctioned to cover the balance targets under the closed scheme as also to exploit further load potential in the area. On closure, the sanction for undisbursed funds if any lapses and the Boards are entitled to obtain fresh loans under the replacement/new scheme.

2.56 When the Committee enquired about the time taken by various projects for completion after these have been sanctioned, the CMD, REC stated in evidence:—

"In the case of agricultural projects, the period is two to three years. In the case of rural electrification project, it is four to five years with a grace period of two years more. If it goes beyond two years, we request that project may be closed."

2.57 CMD, REC further explained:—

"REC schemes are formulated on the basis of the loads/services which can possibly be realised during the project period (normally five years) and not on the basis of demand saturation. The incomplete projects are closed on the basis of the actual physical and financial performance."

2.58 During evidence, when the Committee enquired whether it was not desirable to revise or review the cost of REC projects as is being done in case of other projects

run by Government of India, instead of treating it as closed, the Secretary, Ministry of Power explained that the entire Programme is only meant for socio-economic development of rural sector:

“When a new scheme was prepared in place of old schemes, it gave an opportunity to the people who reviewed the progress of the scheme whether it is really fulfilling the objectives for which the original scheme was prepared.”

2.59 He added:—

“Otherwise, like most of the Government schemes, they go on indefinitely for years and years. Everybody will say it is continuing, finally what happens, that nobody knows.”

## CHAPTER III

### FINANCIAL MATTERS

#### (A) Availability of funds

3.1 The Working Group appointed by Planning Commission on REC for 8th Five Year Plan had recommended an outlay of Rs. 11,979 crores. However, the Planning Commission approved an outlay of Rs. 4000 crores (both under REC and State Plans). The funding of REC programme is decided by the Planning Commission on year to year basis.

3.2 The year-wise outlay and disbursement of funds during 8th Plan period, has been made as under:

Year	(Rs. in crores)	
	Financial Outlay	Fund Disbursement
1992-93	510.00	474.26
1993-94	600.00	691.98
1994-95	710.00	1027.97
1995-96	800.00	800.00 (Anticipated)
1996-97(Anticipated)	1070.00	1070.00

3.3 During evidence, when the Committee enquired about the difference between sanctioned and disbursement figures, the CMD, REC explained the position as under:

“There will always be a difference between the figure of sanction and the figures of disbursal because it covers a period of five years. If in a particular year, money remains undisbursed in a particular State, we carry it forward to next year. Since it is an interest bearing loan, there is a need to complete as quickly as possible.”

3.4 When enquired from Ministry of Power to give their views on sanctioning of only Rs. 4000 crores to REC for 8th Plan period, the Secretary, Power informed during evidence:

“It is not in consonance with the target. For 50,000 villages if we are given Rs. 4000 crore, we will not be able even to do 50 percent of it.”

3.5 On being enquired about the funds requirements of the company over the next ten years, REC informed the Committee in a note that at the current rate, the funds requirement of REC for the next 10 years (1995—2004) was likely to be of the order of Rs. 13,232 crores. These estimates were based on constant prices assuming 10% increase in allocation of funds per annum by Planning Commission. The funds requirement would be met with the budgetary support of 60% from Govt. for normal

and MNP programmes, and 40% by internal resource generation and by raising market borrowing of the requisite order depending upon the gap between annual outlays and budgetary support."

3.6 The Committee desired to know how the remaining villages were Proposed to be electrified in the wake of inadequacy of resources, the CMD, REC stated in evidence:

"Electricity is the prime requisite in rural areas, we ought to actually see that electricity is taken to rural areas for which the State may have to step in and give the money to the extent of rural electrification. We can assist them on the total requirement for doing it provided we know the portion by way of grant or low rate of interest, etc. It appears, that given the present set of finances of Electricity Boards and the reluctance to take up the schemes, it may be taking a lot of time to achieve our objective unless the States make the funds available."

3.7 The Government of India is stated to have initiated Minimum Needs Programme (MNP) with the objective of extending essential benefits to rural poor including electricity. A part of the funds are provided as grant and the other part as loans to the States. Considering that most of the identified backward areas including tribal areas are covered under MNP, the Corporation is stated to have taken up with Government of India the matter regarding providing MNP funds on grant-cum-loan basis in the ratio 50:50.

3.8 When asked about the progress made for providing MNP funds on the basis of 50:50 ratio, the CMD, REC explained:

"We took up this case with the Ministry of Power. I propose to take it with the Planning Commission so that we can marginally improve the position. At one time we asked for 50:50 ratio. We may have to further redefine it to see how best the success can be achieved."

3.9 Enquired about the reply, if any, received in this regard, the CMD, REC stated:

"No, Sir, we have not yet received any reply. The Ministry of Power has taken it up with the Planning Commission and the Finance Ministry requesting that there should be a review in the matter."

3.10 Asked about the money required to provide electricity to all the remaining villages, the Secretary, Power explained the position during evidence:

"Many of the remaining villages are in inaccessible and difficult areas. If we have to give only for electrification of remaining 84,000 villages, we will require Rs. 16,000 to 18,000 crores."

3.11 The Committee have been informed by REC that at the time, the MNP was introduced, the funds provided as loans were made available at interest rates lower than the funds provided under the budgetary support for rural electrification by the Government of India. However, over a period of time, rates of interest charged under the MNP & the normal budgetary support were made equal with the result that the

SEBs have to bear the burden of higher rates of interest for these very uneconomical programmes.

3.12 During evidence when the Committee asked how the rate of interest of MNP funds became equal to rates under normal budgetary support, the Secretary Ministry of Power explained that earlier it used to be only eight percent, gradually it went up to 12 percent. Reason may be increase in plan allocation every year. Earlier it used to be Rs. 500 crore and now it is Rs. 800 crore. They are pressing the Govt. of India and Planning Commission that since money is going to backward areas and so, it should be given as grant and thus it should be lesser. They have rejected it earlier. They have said that these are really decided by a formula which was referred by the National Development Council. They said that during the current plan, it would be difficult for them to change and in the Ninth Plan they would consider it. The Ministry of Power said that there should be no interest at all. It should be free as grant and there should be no refund, etc.

3.13 From 1985-86 onwards, the REC is successfully raising Taxable/Tax Free Bonds from the Market and meeting its loan outlay except during 1990-91 to 1992-93 when it could not raise its Tax Free Bonds due to unstable market conditions such as extremely high interest rates (13%) and bad money market conditions. The Rural Electrification Corporation through Ministry of Power approached Ministry of Finance for increasing the allocation of SLR Govt. guaranteed Bonds approved by the RBI from Rs. 54 crores to Rs. 100 crores in order to augment its resources. But the proposal was not agreed to because of the overall reduction of SLR.

3.14 Asked to state the reasons for not accepting the REC's proposal, the Secretary Ministry of Power stated during evidence:

"This proposal was not cleared. We have taken up the matter with Finance Ministry and pursuing it with them. They have still not taken a final decision."

3.15 Asked about the benefits the REC would get after the increase in SLR Bonds, the witness stated:

"If it is increased by another 50 crores, to that extent they (REC) will be able to give more funds to the Electricity Boards."

3.16 The Committee have been informed by REC that a loan agreement was signed in January 1991 between Government of India (borrower) and Overseas Economic Co-operation Fund (OECF) for an assistance of 24379 million yen for implementation of system improvement and small hydro electric projects for which REC was one of the executing agencies. Government of India gets the loan from OECF 117 2.5% for 30 years with a 10 years moratorium. In turn, the Government of India charges 12% rate of interest from REC with five years moratorium and 15 years repayment period. Finally the SEBs get loan from REC at a rate of interest of 14 to 16% with two years moratorium and 7 to 8 years repayment period.



## B. Working Results

3.17 The working results of REC of the last five years have been as under:—

(Rs. in Lakhs)

Year	Total Interest	Personnel & Adm. Expenses	Interest on borrowings	Depreciation	Profit/Loss before tax	Profit/Loss after tax
1990-91	43861	755	32632	21	10474	7490
1991-92	50340	861	36201	26	12531	8641
1992-93	33021 ●	949	39395	23	(-)9377	(-)9377
1993-94	52687 ●	957	42373	25	6702	6702
1994-95	53898 ●	1088	47187	2124	1927	1927

● Income arrived at on Cash Basis.

3.18 When asked about the reasons for steep decline in profitability after 1991-92 and steps being taken to improve the position, the REC in a written reply have explained the position as under:

"Non-recovery of the Corporation's dues from some of the State Electricity Boards in the last few years has been a major source of concern. To depict a correct picture of the operation of the Corporation, the REC had changed its basis of accounting interest income from "accrual" to "cash" basis from the financial year 1992-93 onwards. As a result of the change over the Corporation reported a loss of Rs. 93.77 crores in the financial year 1992-93. In the previous two years i.e. 1993-94 and 1994-95 the Corporation made vigorous efforts for collection of its dues and as result of this the carried forward loss at the end of the financial year stood at Rs. 40.97 crores."

## C. Outstanding Dues of REC

3.19 The Rural Electrification Corporation during its 26 years of existence since 1969, has provided financial assistance to the State Electricity Boards (SEBs) over Rs. 8000 crores. Most of this assistance is stated to have been provided by way of low interest rate bearing loans, repayable over a period of 20/30 years, with disbursement for the year 1994-95 being over Rs. 1000 crores.

3.20 With the increase in the operations, particularly from the year 1985- 86 onwards, it has been observed that the amount due from the SEBs/ State Government has not been forthcoming. The details of outstanding dues are as given below:

### OUTSTANDING DUES IN RESPECT OF SEVEN MAJOR DEFAULTING STATES

.....As on	31.3.90	31.3.94	31.3.95 Provisional	31.3.96 Projections
1. ASEB	1.59	44.25	48.02	67.14
2. BSEB	26.23	159.72	21.97	249.06
3. MPSEB	20.88	66.27	78.39	78.39
4. MeSEB	0.45	6.90	15.35	25.37
5. OSEB	22.91	62.36	79.78	126.22
6. UPSEB	33.80	219.36	285.56	424.36
7. WBSEB	12.26	82.52	134.77	202.33
Sub-Total	118.12	641.38	843.84	1172.87
8. Others	11.62	10.28	7.13	7.62
<b>TOTAL</b>	<b>129.74</b>	<b>651.66</b>	<b>850.97</b>	<b>1180.49</b>

1	2	3	4	5
Break up : Interest	60.58	279.62	377.23	671.64
Repayment	60.16	372.04	473.74	508.85
Total	129.74	651.66	850.97	1180.49

It would be observed from above that the dues which were at the level of Rs. 130 crores at the end of March 1990 had gone up to Rs. 852 crores as on 31st March, 1995. Of this, the major amount was due from Electricity Boards of Seven States viz Assam, Bihar, Madhya Pradesh, Maghalaya, Orissa, UP and West Bengal. It is estimated that by the end of year 1995-96, dues would be around Rs. 1200 crores if the same trend were to continue. With this mounting increase in the overdues, the Corporation has been of late finding it very difficult to honour its debt service commitments to Government. This has eroded its creditability and ability to raise more funds from the market to some extent.

3.21 Asked about the reasons for heavy outstanding dues in respect of these seven States, the REC has stated in a written reply:—

"The Corporation is funding rural electrification programmes which are financially unremunerative in nature and need to be subsidised by the State Governments to a large extent. Most of the State Governments have not released the subsidy amount due to SEBs and as a result of this, the SEBs in turn have not been in a position to clear the dues to REC."

3.22 In this connection, the Committee were also informed by the Company that various measures taken by the Corporation to collect its dues have been of limited effect because REC lacks the necessary teeth. Equally difficult is REC's predicament if it were to seek encashment of State Govt. guarantees which could lead to strained relations.

3.23 While the NTPC, NHPC, Coal India and Railways are better placed to follow a policy of "cash and carry", REC is not in a position to enforce the conditionalities of the loans for recovering its dues because major part of works of REC for village electrification and pumpset energisation relates to those very States which are lagging behind in rural electrification and have been defaulting in payments, hence it could prove counterproductive in regard to achievement of its objectives.

3.24 REC has stated that it is making sincere efforts to solve the problem of recovery of its dues from defaulting States. Last year it employed an innovative method "sale and lease back" of assets of defaulting SEBs and compulsory adjustment of around 80% of leased assets/sale towards REC's outstanding dues.

3.25 Under this scheme, the SEBs can sell their existing old assets to the Corporation at their present market value, determined by authorised valuers approved by Government/Tax Authorities. After the equipment in question is purchased by REC, it is leased back to the original owner on payment of requisite monthly/quarterly lease rentals. Through this arrangement, SEB gets the facility of additional finance at reasonable rates and at the same time allowed continued use of their assets. However, a condition imposed by REC for this facility is that the scheme can be availed only by the SEB defaulting in their payments to REC and for settlement of said dues.

Compulsarily 80% of the finance arranged has to be paid/adjusted towards their dues. The advantages to REC is that it can get a part of its dues from the SEB. And the advantage that SEB gets is to indirectly get funds cheap i.e. 11-12% interest. In this manner SEB's liability of 17% p.a. is indirectly converted to a much lower rate.

3.26 During 1994-95 REC conducted a successful lease transaction for Rs. 50 crores with MPEB and thus recovered its dues for like amount. In 1995-96, a leasing transaction for a substantial amount is being negotiated with UPSEB which owes REC more than Rs. 280 crores.

3.27 As regards the steps the Corporation propose to take to avoid the recurrence of such situation in future, the Committee were informed by REC as follows:—

“The rural electrification is an unremunerative programme for the State Electricity Boards and unless this programme is funded in a subsidised manner, the SEBs cannot sustain this programme. Keeping this in view the Corporation had proposed that the SEBs be allocated the MNP funds by way of grant instead of the interest bearing loans. Proposals have also been given to the State Governments for releasing the amount of subsidy towards the loss incurred by the SEBs on the RE Programme. There is also a need to increase the agricultural tariff. Once these measures are taken, it is expected that the States like UP, Bihar, Madhya Pradesh, West Bengal, Orissa etc. will be in a better position to repay the loans of the Corporation.”

3.28 According to REC the most effective method for timely and total recovery of REC's due from defaulting SEBs is one of Central Appropriation from releases due to States. Even though, from time to time, Ministry of Power has been approached for the Central Appropriation, but after the one case of adjustment of Rs. 212 crores as on May, 1992, further adjustment of dues through Central Appropriation has not been agreed to so far, because of some misgivings about its effect i.e. that it would lead to diversion of State Plan funds to Non-plan use. This position, as far as REC is concerned is not true. Although REC is a central PSU, it operates on entirely State Plan Funds and all its receipts and disbursements and internal resources go to supplement State Plan in RE sector. Thus Central Appropriation of REC's due does not lead to diversion of plan funds to Non-plan. On the contrary central appropriation helps to ensure that more than Funds are available for recycling back to States for RE works.

3.29 REC has also stated that the impact of Central Appropriation is also not severe, as recovery is usually made in 4 annual instalments. The maximum burden on a large State like UP, would be Rs. 66 crores and for a smaller State like Assam, Rs. 12 crores. If the total plan allocation of these States is considered, the amounts in question may not be very significant. On the other hand, recovery of nearly Rs. 800 crores of REC's due through Central Appropriation would vastly improve REC's ability to service its debt and to fund further RE projects. Without the benefit of Central Appropriation, it is feared that REC would face a resource crunch particularly w.e.f. 1997-98 when it is required to redeem old liabilities to the tune of Rs. 792 crores.

3.30 In this regard, the Ministry of Power stated in a post evidence reply that they have taken up the matter of Central Appropriation of outstanding dues of REC with both Ministry of Finance and Planning Commission. The issue of outstanding dues of REC has also been taken up at various fora including the Power Minister's Conferences, Meetings, personal discussions, correspondence, etc. REC has been advised by the Ministry to make necessary safeguards in future so as to ensure that their overdues are paid back by SEBs.

#### *D. Agricultural-Tariff*

3.31 Rural Electrification Corporation has informed the Committee that since fixation of electricity tariff for agriculture is a State subject, State Governments are generally unwilling to hike the tariff commensurate with the generating/ transmission cost or the cost of supply for socio-economic or other socio- political considerations. This problem needs to be solved. It has also been stated that the matter has been discussed in the Power Minister's Conferences from time to time and in April, 1992, the minimum tariff of 50 paise per unit was recommended. But as on 1.3.1995 only 13 states are reported to have been charging 50 paise or more per unit from the agricultural consumers.

3.32 When enquired, whether the agricultural tariff has since been raised to 50 paise per unit, the following information was furnished to the Committee by REC in a post evidence reply:—

#### ENERGY CHARGES APPLICABLE TO AGRICULTURE CATEGORIES OF CONSUMERS AS ON 1.3.95

Sl. State No.	(Paise/Kwh) Agriculture Tariff (10 HP, 20% LF)
1. Andhra Pradesh	19.59
2. Arunachal Pradesh	0
3. Assam	80
4. Bihar	29.09
5. Delhi	52.50
6. Goa	50
7. Gujarat	61.22
8. Haryana	55.10
9. Himachal Pradesh	45
10. Jammu & Kashmir	12.20
11. Karnataka	0
12. Kerala	14.21
13. Madhya Pradesh	27.55
14. Maharashtra	22.96
15. Manipur	72.20
16. Meghalaya	56
17. Mizoram	45
18. Nagaland	110
19. Orissa	55
20. Punjab	52.75

1	2	3
21.	Rajasthan	41.96
22.	Sikkim	95
23.	Tamil Nadu	0
24.	Tripura	60
25.	Uttar Pradesh	47.90
26.	West Bengal	75

3.33 CMD, REC during evidence suggested that there should be a tariff regulatory body to look at the rates which are reasonable in terms of efficiency.

3.34. In a written reply, the REC has informed the Committee that some of the States which are taking financial assistance from the world Bank, the ADB and the PFC are obliged to structure their financial operations in a manner that they show a positive return of 3%.

3.35. When the Committee pointed out that the power supply to rural areas is poor and the tariff structure is also unremunerative, the Secretary, Ministry of Power explained that position during evidence as under:

"I fully agree with you that the supply position to rural sector is very weak. Power system does not sustain the demand. The quantity is neither good and nor the quality is efficient. There is no proper tariff structure in agricultural sector. In 1993-94, the average cost of power supply was Rs. 1.53 per unit and the average realisation from the agriculturists was only 18 paise. So, far every unit of power supplied there was a gap of one rupee and 35 paise. The net loss that is suffered by most of the Electricity Boards comes to Rs. 7000 crore to Rs. 8000 crore. If we really have to provide quantity wise and quality wise supply we should make the Electricity Boards function on commercial lines."

3.36. He also stated:

"Most of the problems arise from unremunerative Tariff. When we are trying to reform the electricity boards, we are contemplating having independent boards, regulatory commissions etc. who will look into the problems. That commission will fix up the tariff for various categories of people and if the State Governments have to provide subsidy, the onus will be with the State Government only and that money will have to come from the State Governments.

3.37. On other efforts made by Ministry of Power in this regard, Committee were apprised during evidence:

"We have raised this issue in the Sub-Committee of National Development Council. They have suggested a tariff which should be uniformly made applicable all over the country."

## CHAPTER IV

### OTHER MATTERS

#### A. Rural Electric Cooperatives

4.1 One of the main objectives of REC is to promote and finance Rural Electric Cooperatives in the country. However, only 38 Rural Electric Cooperatives in 11 States (i.e. U.P. M.P., A.P., T.N., West Bengal, Bihar Maharashtra, Karnataka, J&K, Orissa, Rajasthan) have so far been promoted (excluding those taken over) by the Corporation out of which 34 cooperatives have since completed cent-percent electrification in their villages. It has also been stated that these cooperatives are ideally suited for effective implementation of the programme of de-centralised distribution of electricity and that their performance is quite favourable *vis-a-vis* the REC schemes operating in the district in which the respective cooperative societies are located both in regard to pump-set energisation and other services.

4.2 During evidence, the CMD, REC further elaborated:

"Originally the scheme was that the Electricity Board would actually give its assets on as is where is basis to the cooperatives. The cooperative would actually pay 50% of the cost and the remaining 50% is treated as the contribution of the Electricity Board towards share capital of the cooperative societies. The State Governments would also pay the share capital to the cooperative societies. The cooperative societies really are dependent on the Electricity Board for the initial support in terms of giving them whatever power they require and what is the rate at which they would actually collect from the consumers in their area. Initially SEBs were not very sure whether the cooperatives will function properly. So they actually gave them only agricultural loads and later on domestic and commercial loads, but did not give them high tension industrial loads. The net result is that they have to look after agriculture loads. The number of pumpsets energised in the cooperatives area is much larger than in the case of electricity Boards of adjacent areas."

4.3 As regards spreading of the Rural Electric cooperatives all over India, REC have informed the Committee during evidence that the state of development of cooperatives varies from State to State. Probably REC will have to try out a pilot scheme giving the best conditions for them and if it succeeds well, when it can replicate them in other areas. According to CMD, REC, in AP, TN, Maharashtra, Karnataka & MP, there are some good prospects immediately. In other States, it may take some more time before the cooperative movement becomes stronger.

4.4 The CMD has written a letter to all Chief Secretaries requesting them to identify the areas in each State, where at least two cooperative societies could be tried out during 1995-96.

4.5 On a query by the Committee, the impediments coming in the way of promoting Rural Co-operative Societies in the country, were stated as under:

- (a) Lack of willingness on the part of the concerned SEB/Electricity Departments to part with the areas, HT/Semi-Urban/Urban loads to Societies. The areas handed over by many of the SEBs are such that they constitute predominantly, unremunerative/agricultural loads.
- (b) Lack of local leadership to create awareness among the masses in the matter of promoting RE co-operatives in their areas.
- (c) Lack of enthusiasm on the part of the State Governments to promote the new Co-operative Societies in their areas. In Some cases, the State Governments have taken over the existing Societies by cancelling their electrical licence after the Societies have been in operation for a considerable length of time.
- (d) Operational bottlenecks such as:
  - (i) Dispute in fixation of cost of power to be charged by the SEBs from the societies with reference to the tariff.
  - (ii) Inadequate power supply to the society area.
  - (iii) Restrictions on the Societies to fix their own tariff and follow the SEB tariff, including free agricultural supply/flat rate tariff without adequate subsidy to compensate for the same.
  - (iv) Multiplicity of controlling agencies resulting in confusion and lack of autonomy.

4.6. On being asked for suggestions for improving revenue earnings of R.E. co-operatives, the Committee were informed in a post evidence reply by REC as follows:—

“Even though load in the society may be higher, the revenue earnings are lower due to higher percentage of non-remunerative loads. In the States, agricultural tariff is very low and in some cases even nil. In order to counter the situation, following steps may be considered:

- (i) Agricultural tariff may be raised.
- (ii) Societies may be allowed to fix their own tariff.

Alternatively, the Societies may be subsidised by the State Govt. for the losses incurred on account of flat rate (or Nil) agricultural tariff charged from the consumers.

- (iii) In order to improve the revenue the Societies may be allowed to serve urban and semi-urban loads without restriction on the Horse Power rating of the loads.
- (iv) There is need for change in the attitude of SEBs for fixing the cost of power chargeable from Societies on the basis of load mix and the consumer tariff for various categories of consumer. The guiding factor may be the extent of profit or loss which the SEB would have made in

the particular area if it was under its own control and not the average cost of power to the SEB. the extent of cross-subsidisation made by the SEB from the revenue accruing from urban areas on account of Industrial and Domestic loads, etc. should also be taken into account. Besides the Decentralised distribution, cooperative societies could also venture into small generation projects including co-generation, small hydel units etc. within the areas subject to available potential and techno-economic feasibility."

### **B. Small Power Generation**

4.7 The REC has stated that the ongoing system of generating power and transmitting the same on longer distances to the load centres or to isolated pockets of meagre loads have established the fact that exploiting local generation sources and supplying power to the nearby loads is more economical and effective solution in appropriate situations. A large number of sites have been identified by SEBs but the same have not been exploited for generation of power for want of appropriate lending window from any institutional resource. Introduction of financing of small generation projects by REC has now encouraged the SEBs to take up such sites for generation of power in a bid way.

4.8 Planning Commission makes a combined allocation for Rural Electric Cooperatives and mini and small generation projects.

4.9 The Committee have been informed that the Corporationn has successfully completed a few pilot projects in the area of small generation and the Government have permitted the REC to take up funding of upto 15 MW Mini/Micro hydel and gas based power projects and non-conventional energy projects on regular basis. REC can also take up leasing of capital equipment used in rural electrification works. It has sanctioned four small hydel projects one each in AP, MP, Nagaland and Arunachal Pradesh and they have been completed and commissioned. In addition, two projects in Arunachal Pradesh, one in MP and a mini-hydel project in Punjab have also been sanctioned.

4.10 The Committee enquired about the potential of the Wind energy all over India. The CMD, REC stated:

"As per Ministry of Non-conventional Energy Sources, the estimated total wind power all over India is 20,000 MW, and for small hydel it is 10000 MW. The sites physically identified for wind power projects by REC and project report prepared is for 1500 MW. It is in the States of Gujarat, Tamil Nadu and Andhra Pradesh. In Karnataka also there are some areas where there are good prospects. Similarly in Hydel Projects about 600 MW potential is there mostly in Himachal Pradesh, in the sub-Himalayan Region, in Arunachal Pradesh and to a small extent in other States where such areas are there."

4.11 When Asked about the cost of power per MW, for wind energy, the CMD, REC state in evidence.

"For wind energy the installation cost is Rs. 3.5 crore to Rs. 4 crore per megawatt. The unit cost of power comes to Rs. 2.25 to Rs. 2.75 per kilowatt/Hour. The economic viability depends on the wind speed, the time of the year, the speed of the wind in a particular period of the year etc."



4.12 In this connection the Secretary, Ministry of Power state in evidence as follows:

"Whether it is solar or wind energy, unless you support it by tax incentives, it is not viable. All the States which are promoting the wind power projects, are giving sales tax benefits and other benefits. The Central Government is also giving certain benefits. Then only, it becomes viable."

4.13 In a post evidence reply, REC has stated that in order that the programmes for electrification for the remote, far flung and difficult villages is expedited, there is a need for co-ordinating the financial, technical and managerial inputs of the Indian Renewable Energy Development Agency (IREDA) and REC. As most of the programmes are implemented by the State Electricity Boards and State Electricity Departments themselves, as per the existing rules, they are not entitled for the IREDA assistance. The Ministry of Non-conventional Energy Sources (MNES) which provides 25% to 50% grant assistance for electrification of new villages may have, therefore, to earmark funds for the purpose and transfer the same to the REC for a co-ordinated implementation. the REC can formulate suitable schemes taking into account the grants from the MNES and the balance funds required for generation and generation-cum-distribution in the farflung villages. The Rural Electrification Corporation with its Project Offices spread over the whole country and the rapport it has already established with the State Electricity Departments, will be the best vehicle for implementing such a programme for which special managerial skills and contact with the field are required. It is, therefore, suggested that the MNES provide grants to the REC for electrification of such villages in an expeditious manner."

4.14 Regarding setting up of Gas based power plant, Committee have been informed that REC has commissioned a 3 megawatt plant in Rajasthan.

4.15 When asked whether the REC has prepared any time frame to cover the whole country under small generation schemes, the Committee have been informed in a written reply:

"No data is now being collected from the various States and the total potential available and the sites where the potential can be exploited on a commercially viable basis. The Ministry of Non-conventional Energy Sources (MNES) has been declared as a nodal agency for small generation schemes (up to 3 MW) at this stage and is likely to go up to 15MW."

4.16 According to the Ministry of Power, as on 31.3.1995, there are 7873 villages/hamlets electrified by Non-conventional Energy Sources, out of these, 1531 villages have since been converted to Grid. The Ministry of Non-conventional Energy Sources has reported that as per the evaluation study conducted it has been found that Solar Photovoltaic (SPV) Power Plants are quite useful to the remotely located communities and their working is quite satisfactory subject to the essential condition that the operations and maintenance programme are attended to regularly.

4.17 To a query on the allocation of funds for the purposes of small power generation, the Secretary, Ministry of Power state:

"The allocation in 1992-93 was Rs. 15 crores, 1993-94 it was Rs. 20 crore, in 1994-95 it was Rs. 32 crore and in 1995-96 it was Rs. 15 crores. Basically these

are small schemes, funded by both the REC as well as the Ministry of Non-conventional Energy Sources. In addition, the States have to take up the activities. Our provision is a token amount, I submit that we will try our best to give them more in future."

4.18 Asked to explain the efforts made by Ministry of Power towards co-ordination between Ministry of Non-conventional Energy Sources, Indian Renewable Energy Development Agency and REC, the Ministry of Power has in a post evidence reply, stated:

"There is however, a close coordination involved between REC, MNES and IREDA in all schemes of the REC pertaining to mini-micro hydel generation and other small power generation projects through Non-conventional Energy Sources. This coordination is also maintained by the CMD, REC being on the Board of Directors of IREDA. Similarly, the Ministry is examining a proposal to have a representative of MNES and IREDA on the Board of Directors of REC."

4.19 The Committee asked about the leasing of equipment to co-operatives in sugar sector and suggested, if the proposal is accepted, it may produce about 3000 megawatt electricity, the CMD accepted the proposal and said "it is a good suggestion. We will examine it."

#### C. Transmission and Distribution Losses

4.20 Since 1987-88, the Planning Commission is allocating separate funds for system improvement, reliability of supply, reduction of transmission and distribution (T & D) losses. The REC has also launched 'Operation Efficiency' since 1991-92 for concentrating on areas facing the acute problems of low voltages and high line losses. The present level of allocation for the programme (i.e. about Rs. 100 crores annually) according to REC is inadequate in view of heavy under investment in the T&D Sector.

4.21 Asked about the proposal if any, to raise the funds from the level of Rs. 100 crores annually for System Improvement programme and if so, to what extent and from what sources REC will be able to raise the funds, the Committee were informed in a written reply:

"The Corporation has now proposed an amount of Rs. 200 crores under the plan outlay of 1995-96. Even if more funds are sought for this important programme, the Planning Commission would not be in a position to provide higher outlays on account of paucity of funds. REC on the other hand has been able to attract OECF funding, a major part of which is earmarked for Integrated System Improvement Programmes. This will provide considerable fillip for improving the power system."

4.22 Director (Technical), REC further state during evidence:

Our technologies are available to SEBs and to the nation as a whole.

4.23 Asked about the efforts made to make good the losses under T&D Sector, the REC has stated in a written note:

"For correcting the T&D losses situation, REC has launched:—

1. Integrated System Improvement programmes which provide for installation of new sub-stations, augmentation of existing capacities, installation of capacitors, autoreclosers, sectionalisers, etc. for reducing the line losses and for improving the reliability.

2. Installation of 11 KV online and LTs Switched capacities for improving the *power factors* to .9 and above, which *inter-alia* reduce the line losses substantially.

3. Introduction of LT Less and Less LT distribution systems and Single Phase distribution all of which contribute to substantial reduction in line losses."

4.24 As regards the funds to bring about these System Improvements the CMD, REC stated in evidence:

"We have got System Improvement Conservation of Energy Network where the loan component is Rs. 500 lakh, period of loan is seven years with 16% rate of interest and two years moratorium."

4.25 Enquired about the percentage of line losses in India and its rural and urban percentage, the representative of REC stated during evidence:

"The national average for the line losses which was of the order of 16% in 1965, is around 23% as of today, which is quite an alarming figure taking into account such losses in developed countries-which is in single digit. But it is very difficult to assess it. the scientific technical losses will be around 14 to 15% and the balance about 7% is commercial losses. The rural losses may be around 30% to 35% REC does not have the rural and urban bifurcation. They have got the transmission losses and the sub-transmission level losses."

4.26 The Committee asked the Ministry of Power as to what should be done to save or reduce T&D losses in rural electrification Schemes, the Secretary Power stated during evidence:

"We have to give more and more connections to strengthen the entire distribution system and lay more and more lines so that transmission and distribution losses can be reduced."

4.27 The witness further stated:

"In fact, our distribution system is very very weak. Our transformer capacity is very very weak. Normally 20 connections can be given in a transformer. But we have given 200 connections. With the result, the losses are very heavy. Now we are concentrating on the system improvement schemes."

4.28 On being asked, the Committee have been informed by CMD, REC during evidence that generally for a compact area where the losses are beyond a certain limit and the system needs improvement, a scheme is formulated for the compact area as a whole and the system improvement is done in that area.

4.29 In a post evidence reply the REC has submitted that out of 1312 system Improvement Schemes sanctioned since 1987-88, 690 schemes involving a loan assistance of Rs. 419 crore have been completed which would result in saving of line losses to the extent of 264 MW per year which is equivalent to reduction of 0.35% on all India basis.

4.30 In their post evidence reply the Ministry of Power have supplied the following information about the sample survey done on saving of line losses by System Improvement Schemes:

4.31 Out of the 690 schemes, which have been implemented, sample evaluation in respect of 52 schemes have been completed as per details given below:

Year of evaluation	No. of schemes evaluated	Year of sanction	Loss Savings (lakh Units)	
			As estimated in the scheme	At the time of evaluation
1990-91	4	1987-88	22.08	37.55
1991-92	20	1987—90	87.79	155.08
1992-93	13	1987—92	208.30	180.18
1993-94	2	1990—92	17.32	17.34
1994-95	13	1987—92	81.05	70.72
<b>Total</b>	<b>52</b>		<b>416.54</b>	<b>460.87</b>

Based on evaluation of the schemes, it has been observed that the actual energy loss savings were of the order of 460.87 LU (18.4 MW) per annum as against the projected energy loss savings of 416.54 LU (16.64 MW) per annum estimated in the schemes.

## PART B

## CONCLUSIONS/RECOMMENDATIONS OF THE COMMITTEE

1. Rural Electrification Corporation set up in July, 1969 was conceived mainly to provide financial assistance for rural electrification with a view to utilising ground water resources through energisation of pumpsets for agricultural production. In 1974, when the Minimum Needs Programme (MNP) was taken up, the role of the Corporation was enlarged to optimise the development potential of the areas covered under MNP and to extend the benefit of electricity to a large population as possible. Presently the Corporation is primarily engaged in administering the moneys received from Government of India and other sources for the purpose of financing rural electrification schemes in the country. Although 86 per cent of the villages are stated to have been electrified as per the present definition of electrification of a village and 74 per cent pumpset potential exploited as on 31st March, 1995, there is still much to be done as brought out in the succeeding paragraphs.

2. The Committee are informed that REC schemes are formulated on the basis of viability criteria prescribed for different categories of projects. Based on the Planning Commission's allocations, it is the State Electricity Boards and State Governments who decide on how the annual resources are to be spent. Although the allocations are routed through REC, no specific targets are fixed for sanction of various schemes. The Committee are of the opinion that in the case of schemes to be implemented with REC assistance, depending upon the requirements of a particular State, REC should specify the amount to be spent by the State on different categories of schemes.

3. According to the present definition of 'village electrification', a village is said to be electrified if at least one service connection has been provided within the revenue boundary of the village. On the basis of this definition, 86% of villages are said to have been electrified, though only 31% of households have been covered. Even though there is great deal of demand for connections, the availability of power is not adequate to meet the demand. In the opinion of the Committee, the purpose of rural electrification can be said to have been achieved only when the electricity is proximate and available on demand. That this is admittedly not so, renders the claims of rural electrification unrealistic. The Committee, therefore, recommend that as agreed by the Secretary, Power, the term village electrification should be redefined in consultation with the State Governments, CEA, SEBs etc. and they be apprised of the outcome within three months of presentation of this Report.

4. The Committee have been informed that most of the villages which remain to be electrified are located in four States of UP, Bihar, Orissa and West Bengal. Most of the villages are widely scattered, thinly populated and their geographical locations pose problems in the extension of electricity. Further because of poor financial viability of the programmes, the SEBs on their own particularly in the absence of adequate financial support from the States might not be able to sustain the programme. The Committee, therefore, recommend that as suggested by

REC, Government should provide funds as mix of grant and loans for electrification of such villages. The feasibility of earmarking part of the plan funds for electrification of such remote areas should also be seriously examined. The Committee desire that small generation projects for generation of energy by non-conventional means in these areas should also be encouraged.

5. According to the present guidelines, out of the total plan outlay of Ministries/ Departments, 16% should be set apart for Scheduled Caste population and 8% for Scheduled Tribes and used for programmes and schemes related to the development needs and priorities of these two weaker sections of the population. However, the Committee are constrained to observe that no separate percentage of funds was being allocated for harijan Bastis and Tribal villages under REC schemes, although the Planning Commission has been insisting on Central Ministries to formulate separate Tribal Sub-Plan (TSP) and Special Component Plan (SCP) on yearly basis. It is only during the current year (1995-96) that Rs. 127 crore is stated to have been tentatively earmarked for electrification of 884 tribal villages and 2784 harijan Bastis. The Committee deprecate that such earmarking of funds was not being done by the Ministry during all these years although the guidelines in this regard were issued as far back as in March, 1985. They desire that such allocations should continue to be made every year.

6. Government of India through REC, launched a programme in 1988-89 called "Kutir Jyoti" for extending single point connections to the households of rural poor falling below the poverty line including Harijan and Adivasi families. The Committee are surprised to observe that after implementing the scheme for two years the scheme remained suspended for two years in 199-91 and 1991-92 for reasons best known to Government. Even when the programme was revived in 1992-93, it was not taken up in right earnest. While most of the States have requested for more grants for this programme, the outlay for the same has been scaled down to Rs. 5 crore each for 1994-95 and 1995-96 against Rs. 10 crores to 15 crores in the earlier years. The funds have also been disbursed to REC quite late in the respective financial years. In view of the importance of this scheme for the rural poor falling below the poverty line, the Committee recommend that the allocation under this scheme should be substantially increased and its timely availability ensured.

7. Ground water resources is the most dependable source of irrigation and its utilisation through pumpset energisation cannot be over emphasised for increasing the agricultural production. The Committee are informed that out of the total estimated potential of 145 lakh electric pumpsets in the country, 107.07 lakh pumpsets have been energised by the end of March, 1995, utilising 74% of the potential. This includes 61.9 lakh pumpsets energised under REC programmes. Of the balance potential, nearly 60% is stated to be in the States of UP, Bihar, Orissa and West Bengal. The Committee recommend that REC, in consultation with the State Governments should prepare a time bound programme for energizing all the potential pumpsets in the country including the North-eastern States. In order to achieve this target, a high level monitoring committee may be

set up consisting of representatives from Ministry of Power, REC, SEBs and other concerned State Government agencies.

8. The availability of adequate power for the pumpsets is of paramount importance. While REC insists on a minimum of six hours continuous supply in a day for the pumpsets, this stipulation is not reportedly being followed. Not only that, there are problems of low voltage and erratic power supply. Admittedly, neither the quantity of power is adequate nor the quality is efficient. The Committee need hardly emphasise that in order that the purpose of pumps@ energisation is achieved, adequacy of power in the rural sector has to be ensured. They would, therefore, recommend that all out efforts in this regard including setting up of small generation projects should be made to ensure the minimum availability of power for the pumpsets. They also suggest that the pumpsets, drawing power from a particular source should be rostered for optimum utilisation.

9. Out of 29412 REC schemes of various categories sanctioned since 1969, 19423 schemes are stated to have been accepted for closure upto 31.3.1995. The Committee are surprised to learn that a scheme is treated as closed even if the targets prescribed thereunder have not been achieved. Although a replacement scheme is submitted by the SEB to REC to complete the unfinished targets of closed scheme, it is strange that such scheme is considered to be a new scheme. In the opinion of the Committee this is misleading inasmuch as this would result in artificial inflation in the number of REC schemes. They also regret to note that the data relating to schemes which have been completed upto 31.3.1995 as originally envisaged was not available with REC. The Committee desire that such analysis should be completed expeditiously and the Committee informed of the results within three months. From the analysis of schemes closed upto 31.3.1991, it is seen that only 49 per cent of the closed schemes had achieved their targets fully. The Committee, therefore, recommend that in order to depict a true picture of the progress of REC schemes without merely increasing their number, the general practice of extending the time schedule and seeking more funds for an unfinished scheme should be resorted to by REC also.

10. In view of the importance of carrying electricity to the remaining villages in the remote areas at the earliest and to sustain the other schemes related therewith, it is obvious that sufficient funds will have to be provided. However, the Committee are unhappy to observe that against an outlay of Rs. 11,979 crore recommended by the Working Group appointed by Planning Commission on REC for the Eighth Five Year Plan, an outlay of only 4000 crores (both under REC and State Plans) was approved. This is reportedly not commensurate with the task since the requirement of funds merely for electrification of remaining villages would be Rs. 16,000 to Rs. 18,000 crores. The Committee, therefore, recommend that the Government should find ways and means to step up substantially the availability of funds for REC programmes.

11. The objective of Minimum Needs Programme was to extend essential benefits to the rural poor including electricity. Under the MNP, a part of the

funds are provided as grant and the other part as loans to the States. In view of the fact that most of the identified backward areas including tribal areas are covered under MNP, there is certainly a case for providing MNP funds to REC on grant-cum-loan basis in the ratio of atleast 50:50. The Committee desire that a decision in this regard should be taken urgently under intimation to them.

12. It is also a matter of concern to note that the rate of interest on MNP funds which was eight percent earlier has gone up to 12 percent which is equal to the rate under normal budgetary support. The Committee recommend that the interest on loan component of funds provided under MNP should be appreciably lower than the interest under normal budgetary support.

13. For implementation of power system improvement and small hydro electric projects for which REC is one of the executing agencies, the Government of India received loan from Overseas Economic Cooperation Fund (OECF) at the rate of 2.5% p.a. with a 10 year moratorium period and this loan is to be repaid in 30 years. The Committee are concerned to learn that REC in turn is provided loan at the rate of 12% p.a. with a moratorium period of 5 years and with a repayment period of 15 years. The SEBs receive loan from REC at the rate of 14 to 16% p.a. with a moratorium period of 2 years and a repayment period of 7 to 8 years. The reasons for charging high rate of interest from REC compare to the one at which Government of India gets the loan was stated to be that Government of India absorbs all the foreign exchange risks on this loan. In view of the fact that this loan is meant for implementation of power system improvement schemes in rural areas, the Committee recommend that the rate of interest charged from REC by Government of India should be substantially reduced and the moratorium period also increased so that the REC can in turn provide the loans to SEBs at a lower rate of interest and for a longer moratorium period.

14. The Committee have been informed that in order to augment its resources, REC through the Ministry of Power, approached the Ministry of Finance for increasing the allocation of SLR Government guaranteed bonds approved by RBI from Rs. 54 crore to Rs. 100 crore. A final decision in the matter has still not been taken. The Committee desire that in view of the need for augmenting the funds position of REC, a decision in the matter should be taken within three months of presentation of this Report and they be apprised of the same.

15. The Committee are concerned to note that the profitability of the corporation has been showing a declining trend after 1991-92. During 1991-92, it earned a profit of Rs. 86.41 crores which has gradually come down to Rs. 19.27 crore during 1994-95. The main reason for the decline in performance has been stated to be the non-recovery of the corporations dues from some of the SEBs in the last few years. The outstandings including interest which were at the level of Rs. 130 crore at the end of March, 1990 shot upto Rs. 852 crore at the end of March, 1995 and are expected to go upto Rs. 1200 crores by the end of 1995-96. Electricity Boards of seven States viz. Assam, Bihar, M.P., Meghalaya, Orissa, U.P. and West Bengal account for as much as about Rs. 844 crore of the



outstandings at the end of March, 1995. The mounting increase in overdues has not only affected the profitability of REC, but has also put constraints on its debt servicing commitments to Government.

16. The Committee are informed that the failure of State Governments to release the subsidy amount due to the SEBs has resulted in the rise of outstandings due to REC. It has also been stated that insistence on any conditionality for recovering the dues might prove counterproductive in regard to achievement of its objectives since the major part of village electrification and pumpset energisation relates to the States which are lagging behind in rural electrification and have been defaulting in payments. The Committee desire that the Ministry of Power should persuade the State Governments to release the necessary funds to the SEBs for clearing their dues to REC, since in the ultimate analysis the States themselves are going to benefit from the financially sound REC. The mechanism of "sale and lease back" of assets of defaulting SEBs and compulsory adjustment of 80% of leased assets/sale towards REC's outstanding dues is also a step in the right direction. However, the Committee recommend that the Central Appropriation from funds due to the States might also be resorted to as was done in 1992 in order to prevent the financial position of REC going from bad to worse.

17. The Committee have been given to understand that there is no proper tariff structure in agricultural sector. The matter has been discussed in the Power Ministers' Conference from time to time and in April, 1992, the minimum tariff of 50 paise per unit was recommended. But as on 1.3.1995, out of 26 States only in 13 States the agricultural tariff was 50 paise or more. In three States it was completely free. In 1993-94, the gap between average cost of power supply and the average realisation from agriculturists was as much as Rs. 1.35 per unit. The Committee would suggest that an independent tariff regulatory Commission should be set up which should fix reasonable tariff in terms of efficiency. In case any State wishes to fix lower tariff, it should subsidise the SEB to that extent.

18. One of the main objectives of REC is to promote and finance Rural Electric cooperatives in the country. However, only 38 Rural Electric Cooperatives in 11 States have so far been promoted by the corporation. Thus a majority of States do not have even a single cooperative. The Committee are unable to understand the tardy progress in regard to setting up of cooperatives when their performance is stated to be quite favourable vis-a-vis the REC schemes operating in the district in which the respective cooperative societies are located both in regard to pumpset energisation and other services. Thus out of the 38 Cooperatives, 34 have since completed cent-percent electrification in their villages. The Committee are of the opinion that for the effective implementation of the programme of decentralised distribution of electricity, the cooperatives are ideally suited. REC/Ministry of Power should therefore, persuade the State Governments to set up more and more such cooperatives. In order to give a boost in this direction, REC should work out a model scheme for rural cooperatives and try to solve the various bottlenecks in their operation.

19. The Committee are informed that exploitation of local generation sources and supplying power to the nearby loads is more economical and effective than the transmission of power over longer distances to the load centres or to isolated pockets of meagre loads. But such sources were not being exploited for want of appropriate lending window. Now that the Government have permitted the REC to take up funding of upto 15 MW mini/micro hydel and gas based power projects and non conventional energy projects on regular basis, the Committee expect the corporation to come forward in a big way in financing such small generation projects. They also desire that the total potential for small generation available in various States and the sites where it can be exploited should be identified expeditiously. There should also be greater coordination among the Ministry of Non-Conventional Energy Sources (MNES) which is the nodal agency for such schemes, Indian Renewable Energy Development Agency (IREDA) and REC for harnessing such potential. The feasibility of earmarking certain funds for REC out of the grants being given by MNES should also be examined. The Committee also desire that the leasing of equipment to cooperatives in sugar sector should also be examined and they be apprised of the results thereof.

20. Due to the weak distribution system, the transmission and distribution (T&D) losses are stated to be high. Against a national average of T&D losses of around 23%, such losses in rural areas were estimated to be around 30% to 35%. The Committee need hardly emphasise that efforts for minimising the T&D losses need to be intensified. In their view increasing the outlay on system improvement schemes further would be a worthwhile proposition in view of the anticipated long term gains.

NEW DELHI;  
March 11, 1996  
 Phalgun 21, 1917 (S)

KAMAL CHAUDHRY,  
*Chairman,*  
*Committee on Public Undertakings.*