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STANDING COMMITTEE ON ENERGY (1996-97)

ELEVENTH LOK SABHA

RURAL ELECTRIFICATION—PROBLEMS, REALITIES AND ACHIEVEMENTS

MINISTRY OF POWER

EIGHTEENTH REPORT

LOK SABHA SECRETARIAT
NEW DELHI

May, 1997/Vaisakha, 1919 (Saka)

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MINISTRY OF POWER

Presented to Lok Sabha on 16 May, 1997
Laid in Rajya Sabha on 16 May, 1997

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10. Shri Ramji Lal
11. Shri Ved Prakash Goyal
12. Shri Gaya Singh
13. Shri Vizol
14. Shri Rajendra Prasad Mody

INTRODUCTION

I, the Chairman, Standing Committee on Energy having been authorised by the Committee (1996-97) to present on their behalf, present this Eighteenth Report on the subject "Rural Electrification-Problems, Realities and Achievements". The task of examining the subject "Rural Electrification Problems, Realities and Achievements" and preparation of this Report was entrusted to a Sub-Committee of Standing Committee on Energy (1996-97).

2. The Sub-Committee held 10 sittings in all out of which 6 sittings were devoted to recording of personal hearing of official witnesses and organisations and 4 sittings for in house deliberations.

3. The Sub-Committee undertook on the spot study visits to Bhubaneswar, Talcher and Calcutta from 30.12.1996 to 1.1.1997. During the study tour, the Sub-Committee held informal discussions with representatives of State Governments of Orissa, West Bengal, Grid Corporation of Orissa Ltd., West Bengal State Electricity Board and National Thermal Power Corporation Ltd. The Committee wish to express their thanks to the State Governments/State Electricity Boards and the other organisations for furnishing information desired by the Sub-Committee during the study visits.

4. The Committee wish to express their thanks to the following experts/organisations for placing before the Sub-Committee requisite Material/Memorandum in connection with examination of the subject:

(i) Rural Electrification Corporation;
(ii) Council of Power Utilities;
(iii) Tata Energy Research Institute;
(iv) Dr. N. Tata Rao;
(v) Shri K.R. Datye;
(vi) Planning Commission;
(vii) Ministry of Planning and Programme Implementation;
(viii) Ministry of Power;
(ix) Ministry of Non-Conventional Energy Sources;
(x) Department of Rural Development;
(xi) All India Electric Employees Union;
(xii) All State Governments/SEBs/E.Ds;

5. The Committee also wish to thank in particular the representatives of the Ministry of Power, Ministry of Non-Conventional Energy Sources, Planning Commission, Ministry of Planning and Programme Implementation, Rural Electrification Corporation and Council of Power utilities who appeared before the Sub-Committee for oral evidence/personal hearing and placed their considered views before it.

6. The report was considered and approved by the Sub-Committee at their sitting held on 12th May, 1997 and adopted by the full Committee on 14th May, 1997.

7. The Committee place on record their appreciation for the work done by the Sub-Commit' on Power (1996-97) of the Standing Committee on Energy.

NEW DELHI;
15 May, 1997
Vaisakha 25, 1919 (Saka)

JAGMOHAN,
Chairman,
Standing Committee on Energy.

PART I

PART A

CHAPTER I

INTRODUCTORY

A. Status of Rural Electrification Programme

1.1 Rural Electrification has long been regarded as a vital programme for socio-economic development of rural areas. The aim is to promote economic development by providing electricity as an input for productive uses in agriculture, small rural industries and also to improve the quality of life of the rural people by supplying electricity to rural homes and hearths, shops, community centres, public places etc. in villages. The Rural Electrification, as a planned programme, was initiated in the country in the 1950s. In the early stages the emphasis was on electricity as a social amenity rather than an input for agriculture or village industries. Severe strains on the Indian economy during 1965-67, brought about by two consecutive seasons of wide spread crop failure, which led to a steep decline in foodgrains production shifted the emphasis of the rural electrification on energisation of pumpsets to improve productivity of agriculture in the country. In the year 1969. Rural Electrification Corporation was established as an instrument for providing financial assistance for a larger programme of rural electrification, mainly with a view to utilising ground water resources by energisation of pumpsets for increasing agricultural production. In the Fifth Five Year Plan Minimum Needs Programme was introduced with the objective of providing the rural population, particularly rural poor, access to certain items of social consumption which form an integral part of the basic needs. Rural Electrification was one of the components of MNP and was treated as basic needs. In the year 1988-89, the programme of Kutir Jyoti was launched by Government of India for improving the quality of life for rural families below the poverty line including Harijans and Adivasi families by extending single point connections to the household of such poor families.

1.2 The Seven items covered under the Basic Minimum Services as per recommendations of Chief Ministers Conference in July, 1996 are drinking water supply both for rural and urban areas, health care, primary education, rural and urban housing, public distribution system, rural connectivity of roads and nutrition excluding Rural Electrification.

1.3 Ministry of Power in the Preliminary Material furnished to the Committee stated that having regard to the higher cost involved in extending the network to the left out villages which offer very low load potential, the programme of electrification of new villages cannot be financially sustained by the SEBs. This needs to be viewed as social programme and treated as basic amenity like drinking water, health care, education, housing in the Common Minimum Programme (CMP) of the Government.

1.4 Asked about the initiatives taken by Ministry of Power, the Secretary, Ministry of Power stated as under :

> "At the Ministry level, in fact, even in the initial stages itself, when the Government was thinking in terms of going in for the Common Minimum Programme, we have discussed it in the various fora saying electricity, especially rural electrification, should also be included. But frankly speaking, we have still not formally moved a proposal. We intend moving a formal proposal to the Government to include this also"

1.5 In this context, Planning Commission in their PER stated :

> "Planning Commission would continue to give priority to Rural Electrification Programme in the Ninth Plan as electricity is one of critical inputs for rural development."

1.6 State Electricity Boards/EDs of State/UT Administration of Assam, Andaman Nicobar Islands, Madhya Pradesh, Orissa, Punjab, Tamil Nadu, Tripura, Uttar Pradesh and West Bengal who furnished their views to the Committee have agreed that rural electrification should be considered as integral part of rural development and should have been included as a component of Common Minimum Programme of the Government.

1.7 Asked specifically whether rural electrification should be a part of rural development, Secretary, Department of Programme

Implementation stated as under :

"The present programme is not. It will have to redefined. Its scope has to be set afresh".

1.8 Asked to furnish their views of the subject, Department of Rural Development stated :

"Under the Government of India Allocation of Business Rules, the Department of Rural Development has been entrused with the subject of 'Nodal Responsibility for all matters relating to the Minimum Needs Programme in Rural Areas in the field of Elementary Education, Adult Education, Rural Health, Rural Electrification and Nutrition Programmes.' This Department neither implements any schemes of rural electrification nor is it monitoring the progress and achievements thereof".

1.9 A Common Minimum National Action Plan for Power has been finalised by the Ministry of Power after discussion of Chief Ministers Conference and have been circulated to all State Governments and SEBs recently.

1.10 Asked about the status of Rural Electrification programme in the Action Plan, Secretary, Ministry of Power during oral evidence informed as under :

"Insofar as the Common Minimum National Action Plan which we have prepared is concerned, we basically attempted how to really make the Electricity Boards financially and commercially viable. We certainly have not mentioned rural electrification as a specific programme".

1.11 In their post evidence reply the Ministry of Power stated :

"While there is no direct mention of rural electrification in Common Minimum Action Plan of Ministry of Power, it emphasises rationalisation of tariff to the agricultural sector. This is directly linked with the issue of remunerativeness of rural electrification. Moreover, the action plan also mentions privatisation of distribution of electricity covering both urban and rural areas. The idea is that gradually there would be financially viable networks that would bring electricity to the rural areas also. Compulsory metering of all new electricity connections, including agricultural sector over

10 HP has also been made a part of the Common Minimum Action Plan of the Ministry of Power."

B. Organisational Set up

1.12 Rural Electrification Programme was launched as a Plan Programme since the first Five Year Plan. Various Organisations at Central level and State level are involved in this programme.

1.13 Planning Commission allocates funds for the Rural Electrification Programme as a part of the total Power Sector Outlays provided for each State and also fixes the targets for electrification of villages and energisation of pumpsets.

1.14 There are three components of the Rural Electrification Programme *viz.* State Plan, RE (Normal) and MNP. RE (Normal) and MNP components are funded through Rural Electrification Corporation (REC) for which Planning Commission recommend the resources to be provided in the Union Budget of Ministry of Power and Ministry of Finance, respectively. The State Plan component is met out of the State's own resources.

1.15 The Rural Electrification programme is implemented in each State by their State Electricity Board (SEB) while REC provides necessary technical guidance and financial support. The total monitoring of the programme is done by the Central Electricity Authority (CEA) and Ministry of Power review the progress from time to time.

1.16 Rural Electrification Corporation was established in 1969 in pursuance of the recommendations of All India Rural Credit Review Committee. The Corporation was conceived as an instrument for providing financial assistance for a larger programme of rural electrification, mainly with a view to utilising ground water resources by energisation of pumpsets for increasing agricultural production. Subsequently, when the Minimum Needs Programme (MNP) was taken up in 1974, the role of the Corporation was enlarged to optimise the development potential of the areas covered and to extend the benefit of electricity to as large a rural population as possible.

1.17 Asked about the role of Department of Programme Implementation in regard to rural electrification, the Secretary, Department of Programme Implementation during oral evidence stated :

"Our Ministry's role in this whole exercise is a very limited one. We are basically a monitoring department. We monitor this as a part of the old 20-point programme. That is how we come into the picture. We get the reports from the State Governments directly. Each State Government has nodal officer for each one of these activities. We put them together in relation to what was the year's target, what they have done and to bring it to the notice of the concerned Ministry."

1.18 REC overseas the Programme of rural electrification through brief monitoring, detailed monitoring and final monitoring. The monitoring is done by them to the extent of ensuring that the money given to the State Electricity Boards has been spent for the purpose of for which it was given.

1.19 Asked about maintaining the list of villages which are de-electrified after electrification under REC scheme, the CMD, REC mentioned as under :

"We do not have any system for that except whatever information we get from the State Electricity Boards, because once the scheme is actually completed, we do not actually keep these things."

1.20 The CMD, REC also mentioned :

"We do go there and monitor the scheme and if we find that the work is not done, then we regulate the quantum of money that is being given to them on the basis of work done. Our role is of a financial institution giving finances through conditionalities and we are only controlling the finances. We have no physical or other administrative control over how it can be done. It is the function of the concerned State Government to ensure that the funds drawn by the Electricity Boards from the REC is properly utilised."

1.21 State Electricity Boards are the implementing agencies for rural electrification programme. The present position is that a number of SEBs are facing serious financial constraints due to lack of resources with their respective State Govts. to release huge RE subsidies due to them. As rural electrification is unremunerative. SEBs are not interested in expanding rural electrification scheme. In this context Ministry of Power in their preliminary material stated as under :

"About 84% of unelectrified villages are located in the four major States of Uttar Pradesh, Bihar, Orissa and West Bengal which are

facing serious financial problems and are not eager to enlarge their village electrification programmes. The electrification of the left out areas, therefore, poses a serious challenge especially when the financial return in majority of the cases may not be adequate even to cover regular Operation and Maintenance costs."

1.22 GRIDCO, Orissa Ltd. has stated as under :

"In Orissa, recently the Energy Sector has been reformed and SEB has been bifurcated into Orissa Hydro Power Corporation (OHPC) and Grid Corporation of Orissa Ltd. (GRIDCO). According to Electricity Reforms Act only such schemes which are commercially viable can be undertaken by GRIDCO. Because of the above stipulation GRIDCO is not able to take up any REC Scheme which are mostly non-remunerative. Under the above circumstances, it has been suggested that it will be better if the rural electrification works are executed through a separate organisation."

1.23 In this context, asked about the Ministry's view for setting up of a Rural Energy Development Corporation and separate rural/zonal electricity corporation which can look after the issue of rural energy in a broader prospective including implementation of Renewable Energy Technologies, the Ministry of Power in their Post evidence reply stated :

"GRIDCO initially had reservations for taking up rural electrification programme which is commercially un-viable. They have since reviewed the position and the State Govt. has requested REC to extend financial assistance to GRIDCO for this purpose.

National Development Council (NDC) has recommended the setting up of National Rural Energy Corporation at the Centre for which Rural Electrification Corporation is identified as the appropriate agency. At the state level, while the SEB/Power Deptt. may take the responsibility of rural energy including implementation of decentralised village level power systems, through renewable resources, the state level nodal energy agencies may continue to take up development of various energy sources. There is, as such, no need to set up yet another agency.

CHAPTER II

RURAL ELECTRIFICATION PROGRAMME—TARGETS

A. Electrification of Villages

2.1 Out of a total of 5.79 lakh villages (1981 Census) in the Country over 5.02 lakh villages (87%) have been declared electrified upto June, 1996. These villages have been declared electrified on the basis of present definition of village electrification which is as under :

> "A village is treated as electrified if electricity is being used within the revenue boundary of the village for any purpose whatsoever."

2.2 In this context, the Ministry of Power in their preliminary note have mentioned that the above definitional criteria of village electrification, on the basis of single connection within the revenue boundary, reveals its inadequacy as number of already electrified villages, not only have poor load development but in certain cases, the main localities in the electrified villages are without LT extensions. Further, many hamlets in these villages have not been covered. As a result, even though villages have been declared electrified, the inhabitants in many cases, do not have the facility to get connections on demand and that is why only 31% households have been electrified. This is one of the major reasons for the low level of household electrification in the rural areas. Mainly due to present definition of village electrification, most of the rural households are still without electricity. Wherever electricity is available, the rural consumers complain of low voltages, erratic and unreliable supply.

2.3 On the shortfall of existing definition of village electrification the CMD, Rural Electrification Corporation during oral evidence stated :

> "At one time the definition of village electrification, initially when it was given at that time, was that as long as any one single connection in the revenue boundary of the village is given, then it is treated as electrified irrespective of whether adequate power was available or not and whether power is available on demand

where all the inhabited paras, bastis *i.e.* each one of them had access to power or not. Without reference to that, it was only a question of somehow extending the line to a village to energise the pumpsets. That seems to have been the concept."

2.4 The revised definition has been suggested as under :—

"A village will be deemed to be electrified if electricity is used in inhabited locality within the revenue boundary of the village for any purpose whatsoever."

2.5 Commenting on the new definition the CMD, REC during oral evidence stated as under :

"Now what has happened is that after having taken the power to almost 87 per cent of India's villages one important question that comes is what is the purpose of taking it. It is not only to energise the pumpsets but also to see that all persons who apply should have access and secondly that all the inhabited localities, at least, should have the facilities closely so that they would be in a position to take it."

2.6 On the advantage of new definition, the Ministry of power in their Post Evidence Reply stated that under the new definition a village can be declared electrified even with the release of single connection in the inhabited locality of village, it would have the added advantage of ensuring extension of electric infrastructure upto the inhabited locality (instead of anywhere in the revenue boundary of the village under the old definition). This would further facilitate new connection by the prospective consumers.

2.7 Asked how the proposed definition of village electrification can solve the problem of declaring a village electrified, the Ministry of Power in post evidence reply stated :

"Under the new definition, electrical network will be more proximate to the consumers for availing electricity on demand. The real boost to the household programme will, however, be provided with the decisive shift in the emphasis of rural electrification from pumpset energisation to household electrification programme. Providing specific plan allocation and fixing definite household electrification targets will help in achieving this objective.

2.8 This new definition of village electrification will be finalised after the view of State Governments/SEBs are received.

2.9 Asked about their views GRIDCO Ltd., of Govt. of Orissa has mentioned as under :

"There does not seem to be substantial difference between the definition of electrified village prevailing earlier and the proposed definition.....Certain villages were declared electrified earlier on energisation of L.I. Point within the revenue boundary of the village. As per the new definition, these villages will not qualify as electrified villages, even though power supply is used".

2.10 The Andhra Pradesh State Electricity Board do not agree with the proposed definition of electrified village and suggested that a village may be declared electrified if electricity is extended to 10% of households in inhabited locality within the revenue boundary of the village.

2.11 In this regard the WBSEB/WB State Government also mentioned as under :

"The new definition as proposed by REC will also lead to the same confusion because there might be the same tendency of declaring a village electrified even with a single connection in any inhabited locality of the village."

They suggested as under :

The definition should incorporate the following points :—

(i) A minimum numbers of connection, say, at least 50% of the intending consumer; and

(ii) A minimum number of inhabited localities, say, at least 50% of such localities need be specified while declaring a village electrified. The foregoing incorporation as suggested would enhance the viability and also the reasonableness of the concept of REC Scheme.

2.12 The Department of Power, Government of Tripura has mentioned that they do not find any fundamental difference between the existing definition and the proposed definition of Village

Electrification and they have suggested that a minimum of 33% of household coverage in the revenue village should be specified to declare a village to have been electrified. This would ensure that the benefit of electrification reaches the targeted rural population.

2.13 The Committee were informed by the Ministry of Power during oral evidence that one of the recommendations of the NDC is that all the households should be provided electricity by 2010.

2.14 On the definition of electrified village the Secretary, Ministry of Power stated as follows :

"We have been discussing with the State Governments. Everybody feels that one single connection is not the right type of definition because after all you are only giving a statistical information which is not really convincing."

2.15 The Secretary, Ministry of Power further added as under :—

"Basically what we are trying to explain is that once when electricity comes to a village where the people are living, automatically it is possible to extend it because we have to put a transformer, distribution box and from there, extension is very very easy. Whether it is 10 per cent or 20 per cent why should be have any restriction ? There may be even 50 per cent .....The extension work is easy whether it is five per cent or ten per cent or twenty per cent. There is no problem about that at all."

2.16 The Ministry of Power in their post Evidence Reply also stated as under :

"As the intention of the new definition is to ensure extension of network to the inhabited locality, the suggestion made by some of the State Government to fix some percentage limit of electrification of households as the criteria for declaring a village electrified will once again be reviewed. To start with perhaps 10% could be laid down."

2.17 Asked how the new definition can solve the problem of electrifying hamlets, Ministry of Power stated in their post evidence reply as under :

"Extension of network to hamlets besides the main inhabited areas is normally carried out by an SEB based on demand and financial

viability after initial infrastructure has been laid for the main inhabited area. The hamlets are not codified in census operations and the SEBs do not have the details. Whenever any demand comes up, they consider the extension of network as per their terms and conditions of viability. In such circumstances, awaiting demand to come up and taking up electrification of hamlet and its load development would invariably from continuous chain of operation extended over number of years and as such should not hold up the initial declaration of electrification of the village."

2.18 The Ministry of Power also mentioned as under :

"The inclusion of hamlets for electrification may not necessarily enhance the viability of the programme but would certainly improve the concept of Rural Electrification Programme. Once census of hamlets takes place, we could consider incorporating their electrification suitably in the definition."

2.19 The Ministry of Power stated that with the electrification of 87% of the villages, the first phase of laying of electric infrastructure across the length and breadth of the country has, by and large, been completed. The remaining 13% or about 80,000 villages, pose problems as many of them are located in remote, difficult and tribal areas.

2.20 The Tata Energy Research Institute in a Memorandum submitted to the Committee has stated that so far, rural electrification has meant extension of Conventional grid and nothing else. There has been no provision for decentralised power generation and distribution. Because of this, the remote and inaccessible villages in several parts of the country, where grid extension is viable neither logistically nor economically, have not been able to avail the benefit of rural electrification.

2.21 In this regard, Ministry of Non-Conventional Energy Source stated that Non-Conventional Energy Sources are available locally and can be harnessed on small scale in modular form. Therefore, they are ideally suited for providing electricity in the remote and rural areas wherever these sources are available.

2.22 The Ministry of Power in this context informed the Committee that as per 8th Plan document about 10,000 villages were proposed for electrification through Decentralised Rural Electrification (DRE). The

programme was to be coordinated for implementation by MNES. However, it appears that no village has been fully electrified so as to provide connections on demand.

2.23 Asked about the reason for this failure, the Secretary Ministry of Non-Conventional Energy Sources during oral evidence stated:

> "The 8th plan document on rural electrification envisaged the electrifications 10,000 villages, through non-conventional energy sources over the plan period. However, no such target was assigned to this Ministry nor were resources allocated for this purpose."

2.24 The Secretary, Ministry of Non-Conventional Energy Sources further stated:

> "All I can say is, the resources which were provided to us in the Eighth Plan, did not involve financing of non-conventional energy sources in these 10,000 villages."

2.25 In their post evidence reply the Ministry of Non-Conventional Energy Sources mentioned as under:

> "No financial allocation had been made to this Ministry for such a purpose during the Eighth Plan. Consequently, no targets for rural electrification through NCES were set by the Ministry on yearly basis in the Eighth Plan. The Planning Commission on its part also did not review any such targets and its implementation. It appears that as the subject of Rural Electrification fall under the purview of the Ministry of Power and not under the purview of MNES the monitoring was not done properly."

2.26 The Planning Commission, however, mentioned as under:

> "As far as remote villages are concerned although around 6000 villages were covered through solar Photovoltaics lighting systems, a certain number of them are getting connected to grid connection. This is mainly because of the maintenance difficulties of such system in the earlier plans. During Ninth Plan efforts would be made for greater spread of Non-Conventional forms of Energy.

2.27 So far as electrification of Dalit Bastis is concerned, Ministry of Power furnished following information:

"Exact number/census of Dalit Bastis in the country is note available. However, as per CEA, out of 25 States, 16 States have DBs attached to the main villages. Out of 5.2 lakh villages in these States, over 4.48 lakhs were electrified as on 31.03.1996 and street lights provided in DBs of 2.87 lakh villages were extended. REC pays special attention to weaker section's hamlets to be electrified."

2.28 Asked about the exact definition of Dalit Bastis, one witness from REC stated as under:

"Each State has its own definition of dalit basti. We have no central definition."

2.29 Elaborating further on the point the CMD, REC mentioned as under:

"Our problem is this. While we have the number of villages according to the census, we do not have the exact figure for the number of harijan bastis. Only such of those villages which have been reported to be harijan bastis and which have been electrified have only been projected here. Honestly, we, ourselves, do not know the number of harijan bastis because the census does not separately enumerate them. We have just now asked our people to work out how many harijan bastis are there."

2.30 REC in one of their notes informed as under:

"There is no uniform definition of Dalit Bastis. Normally a separate inhabitation of Scheduled Caste population living adjoining to the villages is called Datlit Bastis. Some States have given their own definition for declaring a locality as Dalit Bastis. Exact number of census Dalit Bastis in the country is not availalbe. However, some States have got these identified through their Social Welfare or other Department. The SEBs are guided by the local authorities for taking congnizance of a Dalit Basti and include it in their programme of electrification. At Central level, Central Electricity Authority which is the co-ordinating agency of REC does not have the state-wise number of Dalit Bastis identified by the States."

2.31 REC has also informed as under:

"REC sanctions special schemes for electrification of DBs in electrified villages oh preferential terms and conditions. In addition, REC has been persuading the SEBs/EDs to electrify all the DBs attached to main village covered for electrification scheme. It has also requested them to install first Distribution. Transformer in the DB of the villages taken up for electrification. For identification of DBs, SEBs/EDs are guided by local authorities/States authorities specially relating to social welfare department. REC has requested the various State Electricity Boards/EDs to indicate total number of identified Dalit Bastis.

2.32 So far as electrification of Tribal Villages are concerned, Ministry of Power have informed that out of 1.12 lakhs villages, 79.859 villages have been electrified by the end of March, 1996. This represents 71% electrification of tribal villages compared to overall village electrification of 87%.

2.33 On the problem of electrifying tribal villages, Ministry of Power have stated:

"The tribal villages are widely scattered and thinly populated. Their remote and difficult locations pose problems in extension of electricity. Low prospects of load development coupled with high cost of sub-transmission and distribution lines make electrification of tribal villages highly unremunerative. Further, a large number of such villages fall in the States having dense forest and consequent difficulty in electrification of such villages. Inadequacy of back-up trasmission is yet another factor for extension of elections in the interior areas.

It has been informed that in many cases, decentralised or non-conventional energy options for electrification of these villages may be a less costly and viable.

B. De-Electrified Villages

2.34 A number of electrified villages have become de-electrified due to natural calamities like flood, earthquake etc. and theft of line materials/equipment which is rampant especially in certain States like Bihar, Orissa, West Bengal and Uttar Pradesh. The REC in a written

reply mentioned as under:

"There is no prescribed definition of categorising a electrified village as a de-electrified village. However, such villages where electric lines/materials/equipment, erected earlier for their electrification have been damaged/stolen/ removed and have not been replaced/ rehabilitated for long are generally known as de-electrified villages."

2.35. The REC have mentioned following reasons for de-electrification of villages.

(i) Natural calamities like floods, earthquake etc.

(ii) Theft of line materials and equipment.

(iii) Non-replacement of burnt out distribution transformers etc.

(iv) Non-availing of connections for long even after electrification.

2.36 As per information received by REC from different SEB/EDs of States the de-electrification of village state-wise are as under:

S. No.	States	Estimates No. of de-electrified villages
1.	Assam	650
2.	Bihar	14402
3.	Jammu & Kashmir	105*
4.	Kerala	0
5.	Madhya Pradesh	186**
6.	Meghalaya	313
7.	Uttar Pradesh	0
8.	West Bengal	2708
		Total 18364

* Excluding those in Kashmir Region from where details are awaited.

** Information is in respect of 27 districts. The similar details from the remaining Districts are being worked out by MPEB. It has also been indicated that due to non-materialisation of service demand, transformers have been removed. These are provided, once demand is registered.

2.37 Asked about the status of de-electrified villages the Assam SEB in a written reply stated that in about 1176 Nos. of villages upto 31.3.95 have been damaged due to flood, storm, erosion, agitation, theft etc. Such damages occur every year. These villages are yet to be re-electrified. We can re-electrify the de-electrified villages depending on availability of funds.

2.38 In this regard Grid Corporation of Orissa Ltd. informed that no villages have been de-electrified in the State, However, about 1500 villages have no supply of electricity for more than 3 months due to various reasons like flood, theft of materials and cyclone. Steps are being taken to de-electrify these villages.

2.39 So far as West Bengal is concerned it has been informed by West Bengal State Electricity Board that 2708 nos.of mouzas have been de-electrified in the State so far. Main reasons for de-electrification are theft and damage of installations. However, 271 de-electrified mouzas have been re-electrified 171 nos. through Zila Parishad Power Development Programme 1995-96 and 100 nos. through Board's fund.

2.40 Enquired about maintaining a list of de-electrified villages the CMD REC stated:

> "We do not have any system for that except whatever information we get from the State Electricity Boards, because once the scheme is actually completed, we do not actually keep these things. We depend on State Electricity Boards for this information."

2.41 The Planning Commission informed that they keep the record of villages electrified, but not the record of villages de-electrified.

2.42 Asked whether there is any organisational set up to monitor the de-electrified villages Planning Commission in a written reply stated:

> "At the Central Government level at present there is no organisational set up to monitor the de-electrified villages."

2.43 Asked on the problems of de-electrified villages the CMD, REC during oral evidence mentioned:

> "We find that there is no provision for, such earlier electrified but now de-electrified village due to a variety of reasons. To set it

right some specific schemes are needed where rectification programmes could be taken up. While we have area-based programmes where a new programme or a new funding etc. is provided, we expect that re-electrification activities would have to be undertaken by the Electricity Board itself. But since the Electricity Board does not have that order to finances, it has problem of finance in respect of de-electrified villages. In fact, we have been getting requests that some special programmes may be mounted for such type of activities."

2.44 To a suggestion regarding creation of a special fund for re-electrifying the de-electrified villages Planning Commission in a written reply stated :—

"There is no proposal to create a special fund in this regard, as the Government is already assisting for rehabilitation work during natural calamities out of its relief funds kept for this purpose."

2.45 On the funding of de-electrified villages REC in a written note mentioned as under :—

"REC normally provides funds for capital RE works and the cost towards its subsequent operation, maintenance/re-placement etc. is met by SEBs/EDs out of their own resources or through the funds provided by the State Govts. No plan allocation, as such, is normally provided to REC for funding such rehabilitation works. However, Planning Commission allocated special funds to Bihar during 1988-91 for rehabilitation works mainly with a view to reactivate agricultural pumpsets and release new pumpset connections in the affected areas to support Special Foodgrains Production Programme. The assistance thus provided is reported to have enabled BSEB to reconnect 4841 de-electrified villages, reactivate 26657 pumpsets and energise 17059 new pumpsets during the period 1988-93. No specific allocation for the purpose has been provided thereafter."

2.46 One witness from REC also stated that the Bihar Assembly Committee had gone into this issue a couple of years ago and brought about 12,000 villages which were de-electrified. REC sanctioned about Rs. 65 crores for rehabilitation of the villages in Bihar, which was approved by the Planning Commission.

2.47 Asked about the funds for restoration of electricity in the de-electrified villages the Ministry of Power in their post evidence reply

stated :—

"REC does not have any specific allocation for this purpose. However, recently REC has been advised to examine this issue.....REC has been requested to examine the issue of extending funds for restoration of electrical network in de-electrified villages.....REC has recently sanctioned special loan for Andhra Pradesh for rehabilitation of electrical network in the cyclone affected areas."

2.48 Asked about the solution for de-electrification, the Secretary, Ministry of Power during oral evidence also stated :—

".....We will include the de-electrified villages also into the programme."

C. Household Electrification

2.49 While about 87% of the villages have been electrified, only about 31% of the rural households have so far been electrified.

2.50 Asked about the low level of household electrification REC in their PER stated :—

"Non-extension of distribution network in the inhabited localities of the electrified villages non-electrification of adjoining hamlets/ Dalit Bastis, delay in rehabilitation of damage network poor economic condition of the inhabitants and their inability to bear the initial and recurring cost of availing connection, non-availability of power during evening hours in many electrified areas and emphasis of rural electrification on pumpsets energisation have been the major reasons contributing to low level of household electrification in the rural areas."

2.51 REC mentioned that above mentioned deficiencies have to be rectified so that connections could be released on demand to the prospective consumers. For this purpose, availability of adequate power, infrastructures, tariff and funds have been the major constraints so far.

2.52 As per the information furnished by REC the rural electrification of households in the States like Assam, Bihar, Meghalaya, Orissa, Rajasthan, Tripura, Uttar Pradesh and West Bengal are far below the national average.

2.53 Asked about the reasons for such low level of household electrification in these States, REC in their post evidence reply stated :—

"Barring Assam and Rajasthan, the level of village electrification in other five States is below the national average which is one of the reasons for low level of household electrification in these States. Low level of socio-economic development is yet another reason for the poor household electrification in these States."

2.54 Planning Commission in this regard mentioned :—

"The main reason for this is that the rural people can not afford the cost of internal wiring of their houses. The second reason is, when a village is declared as electrified as per the existing definition, the electricity has not always reached the inhabited localities in many villages.....The low level of household electrification is also caused by the relatively low coverage of villages in these States because of their inability to take up expeditiously all un-electrified villages."

2.55 To improve the quality of life of rural families below poverty line including Dalit and Adivasi families, the Government of India in 1988-89 launched a programme called Kutir Jyoti for extending single point light connections to the households of such poor families free of cost. About 21.2 lakh connections have already been released since inception of the programme. Over 5 lakh connections were released in the previous year alone.

2.56 REC in a note submitted to the Committee has mentioned that some SEBs/State Governments are reluctant to give such connections fearing large scale theft etc. through misuse of connections for other purposes and lack of adequate power distribution infrastructure inside the village.

2.57 Under this programme long time cost of internal wiring and service connection charges (presently upto a maximum limit of Rs. 400 per connection) is provided by way of grant to the State Govt./SEB through REC. The balance portion of cost if any, is met by the SEB/ED.

2.58 On the cost for a connection under Kutir Jyoti Programme GRIDCO and Government of Orissa has mentioned as under :—

"The estimated cost for providing a Kutir Jyoti connection during 1996-97 comes to Rs. 890/-while REC provided Rs. 400/- as grant thereby causing a clear loss of Rs. 490/- per connection to the GRIDCO. GRIDCO has suggested that as it is a national programme, REC may consider to raise the grant to Rs. 890/- in place of Rs. 400/- for implementation of the programme. This will go a long way in stepping up achievement of the target fixed for the State."

2.59 The Ministry of Power informed the Committee that the average cost per Kutir Jyoti connection as reported by certain States ranges between Rs. 800 and Rs. 1400 per connection.

260. Asked about the reasons for not giving grant to the States straightway and providing it through REC the CMD, REC during oral evidence stated:—

"It could have been given straightway but the Government of India routed it through us for the simple reason that probably they wanted to know which are the villages, which are lists of benficiaries. The Government of India asked us to disburse the grant and we did it."

2.61 While the practice is to provide meter, this has not been done due cost which is stated to be in between Rs. 800 and Rs. 1200. In this context CMD, REC during oral evidence stated :—

"We have recommended to the Power Ministry that we would recommend that Rs. 400 is too small and we would also recommend that whenever a connection is made there should be metering, there should be some measurement of what power is being consumed and that the charges must be based on the measurement of the power that has been consumed."

2.62 Asked whether Ministry of Power taking any measure to increase the grant amount for Kutir Jyoti Programme the Ministry of Power in their post evidence reply stated :

"Ministry of Power have since received the approval of the Ministry of Finance and Planning Commission for increase in per unit cost

under Kutir Jyoti Programme for Rs. 400/- to Rs. 800/- (without Meter)/Rs. 1000/- (with Meter). The revised targets under Kutir Jyoti Programme are being communicated to the State Electricity Boards by Rural Electrification Corporation".

2.63 Kurit Jyoti Programme is basically meant for population in the rural areas below the poverty line who can hardly afford to meet the initial cost towards internal wiring and recurring cost thereafter. To a suggestion for appropriation of funds from Rural Development/ Welfare Department be made so that the programme can be expanded, the Ministry of Power in their PER stated as under :

"Ministry of Power is aware of the suggestion. A meeting was held in Ministry of Power with the officers of Planning Commission, Department of Rural Area and Employment for linking Kutir Jyoti Programme with Indira Awas Yojana. Reaction of the Ministry of Rural Areas and Emplyment is still awaited. This Ministry is, however, pursuing the matter."

D. Pumpsets Energisation

2.64 The main thrust of rural elctrification programme has been on energisation of agricultural pumpsets to support the foodgrain production programme of the country. Against the total estimated potential of 145 lakh electric irrigation pumpsets (now revised to 195.94 lakh) in the country, over 111 lakh pumpsets. 77% against the pre-revised estimate have been energised upto June, 1996. The States of Andhra Pradesh, Karnataka, Kerala, Maharashtra, Punjab and Tamil Nadu have exploited substantial portion of even their revised estimated underground water potential. The level of exploitation of ground water potential in the States of Haryana, Gujarat, Madhya Pradesh and Rajasthan is above the national average of 77% whereas States like Uttar Pradesh, Bihar, Assam, West Bengal and Orissa have yet to utilise major portion of their available potential.

2.65 During oral evidence, the Secretary, Ministry of Power stated as under :

"Taking into consideration the ground water level that means roughly two crore today we have already done 1.11 crore pumps.

There is still potential for exploitation in terms of the agricultural pumps."

2.66 On the low level pumpset energisation in the States of Uttar Pradesh, Bihar, Assam, West Bengal and Orissa which is about 19% of the present potential as a whole. The Ministry of Power attributed this to good rainfall, relatively easy access to water, inadequate transmission system, poor access to rural areas general disinclination of SEBs and lack of adequate credit to farmers.

2.67 In this context, Planning Commission has pointed that these States have a major part of the unelectrified villages and also large outstanding dues to REC. Thus, the cash flow for these States after adjusting against the old outstanding dues is hardly sufficient to take up large scale pumpset energisation.

2.68 Highlighting the problems of pumpset energisation programme, the Ministry of Programme Implementation in a note furnished to the Committee mentioned as under :

"The pumpset energisation programme has helped the country to augment food production and also conserve foreign exchange by minimising the consumption of diesel. However, indiscriminate energisation of pumpsets has led to lowering of the water table without adequate attention being paid to replenishing it. Farmers do not necessarily buy pumpsets which are energy efficient. Moreover, they often use pumpsets with a higher horse power as compared to the official rating on it. This results in wastage of electric power and excessive drawal of water from ground. This excessive drawal of water from the ground has led to the water table sinking below acceptable norms specially in the 'dark' areas. There are about 11.5 million energy inefficient pumpsets already in use throughout the country."

2.69 The CMD, RC, stated during oral evidence as under :

"We are are expecting trouble not immediately but in the near future is that the water table in most of these water pumpset areas is falling very steeply. Actually, farmers are going in for much larger pumpsets and motors than would been warranted normally because they want to ensure that even if the water table falls, they do not have to go for replacement of their motors.

There is horse power based tariff but not universal metering and the water table is also falling."

2.70 On the problems of inefficient pumpsets GRID CORPORATION OF ORISSA LTD. stated :

"SEB/GRIDCO are aware that there are many inefficient pumpsets all over the State. From time to time, instruction/advise are being given to the pumpset-users in this matter. However, there is no machinery to check the efficiency of the pumpsets-installed in the State."

2.71 In this context, Uttar Pradesh State Electricity Board has stated :

"We are aware of the use of inefficient pumpset. In order to get rid of such pumps, Government may give subsidy to farmers adopting to the modification repaired to make their pumpsets more energy efficient. For future, only such energy efficient pumps may be allowed to be installed through a Government Notification."

2.72 The Tamil Nadu Electricity Board in this context mentioned :

"TNEB is aware of the use of inefficient pumpset in Tamil Nadu. In this regard, it is suggested that all SEBs should be instructed to go in for ISI marked pumpsets. Such pumpsets alone should be given connections for new agricultural services. Even the existing pumpsets should be changed to ISI marked pumpsets in a phased manner. The differential cost for changing the existing pumpsets to ISI pumpsets may have to be borne by Government by giving suitable grant/loan assistance to agriculturists so as to induce the agriculturists to come forward to change their existing non-ISI marked pumpsets to ISI marked pumpsets. By this, TNSEB will also be benefited by way of reduction in consumption as well as line losses. For the agriculturists, the failure of pumpsets often due to poor quality, will be completely eliminated, thus saving them a lot, thus both supplier and consumer get benefited."

2.73 The Andhra Pradesh State Electricity Board stated :

"APSEB is aware of the use of sub-Standard Motors, piping and foot valves by the farmers. The farmers are advised to go in only for BSI certified motors and use PVC piping and efficient foot valves.....Use of BIS Certified energy efficent motors for

agricultural pumpsets which offer substantial energy savings should be promoted vigorously and made compulsory."

2.74 The West Bengal State Electricity Board has stated as under :

"WBSEB is very much aware of energy inefficient pumpsets in use. The inductive low P.F. pumpsets are primarily responsible for higher T&D loss, Capacitors both fixed and switched are being used. In addition, it is felt necessary to encourage the pump manufacturers to adopt modern technology so as to make energy efficient pumpsets."

2.75 The Ministry of Programme Implementation in a note stated as under :

"These pumps need to be rectified on a priority basis. It is generally agreed that pumpsets with BIS specification should be popularised. Pilot schemes may be taken up in some districts with a bench mark survey so that the experience gained could be utilised at a later stage while extending the scheme's coverage."

2.76 The CMD, REC in this regard during evidence stated as under :

"We feel that some coordinated water shed management alongwith rural electrification will have to be brought up. Unless this water shed management is done, the water table may fall very precipitously which we think is likely to be a cause of concern."

2.77 The CMD, REC also suggested as under :

"In some other countries, there is a combined charge. If an acre of land requires certain water and certain power to draw that water, on the basis of what is the efficient use of power, a water-cum-electricity charge is put so that they are able to ensure conservation of both water and energy."

2.78 Asked about the need for an agency to check the efficiency of the pumpsets, the Ministry of Power in their Post Evidence Reply stated as under :

"The efficiency of electric irrigation pumpsets need improvement. This can be ensured by taking up rectification of the existing

pumpsets on a large scale and by simultaneously ensuring that energy efficiency pumpsets are produced for new connections. Though pilot demonstration projects, Ministry of Power had entrusted REC to take up rectification of 75,000 pumpsets which has successfully, been completed. The state level nodal agencies have subsequently been involved as this is a continuous process."

2.79 The Ministry of Power also stated :

"Ministry of Power has already advised the States/SEBs on the similar lines. NABARD has also issued instructions to the Commercial Banks to extend financial assistance only for procurement of Bureau of Indian Standards pumpsets. The proposal is being mooted to ban the production of all electric equipments including pumpsets not conforming to relevant specified standards."

2.80 Asked whether use of capacitors (booth fixed and switched) can be used to minimise the T&D loss in the case of pumpsets the Ministry of Power in their post evidence reply mentioned as under :

"The installation of the fixed capacitor on individual pumpset will provide ideal compensation. However, the field experience has not been encouraging in this regard. Since capacitors do not play any active role in running of the motors, these were found disconnected in most cases. The next best location for installation of capacitors to achieve optimal results is on the low tension side of the distribution transformers. In view of the seasonal and fluctuating nature of rural loads which are predominantly agriculture, the switched capacitor are best suited for such location. The MoP has sanctioned pilot projects for Andhra Pradesh, Haryana, Punjab and Tamil Nadu for installation of such switch capacitor banks. Maharashtra SEB is taking up this programme on its own."

2.81 The Special Project Agriculture (SPA) programme, the major programme of energisation of electrical pumpsets in the country was implemented through joint participation of REC, Commercial Banks and NABARD who has been refinancing the Commercial Banks upto 1994-95 and withdraw re-financing of the banks in 1995-96. Since then REC in direct participation with the Commercial banks has been financing SPA-BP schemes in the ratio of 1 : 2.

2.82 REC in a note mentioned that the present arrangement of jointly funding the pumpsets programme under Special Programme

Agriculture (SPA) by REC and Commercial banks received a set back with withdrawal of NABARD refinance facility in 1995-96. REC has also informed that in 1993-94, the SPA programme was brought under Indirect Priority Lending with application of uniform interest of rate for REC and Banks (on an average 2% below the market borrowing rate).

2.83 Asked about the resorting to re-financing of NABARD for SPA programme and treating the programme under priority sector lending. Ministry of Power in Post Evidence Reply stated :

> "Ministry has taken up the matter with NABARD and RBI to provide soft loans for SPA programme by treating pumpset energisation under priority sector lending."

CHAPTER III

RURAL ELECTRIFICATION SCHEMES

A. System Improvement

3.1 Mainly due to paucity of funds. Under-investment in T&D sector and socio-economic compulsion to cover more and more areas within limited resources availability, the rural distribution network is over-stretched and over-loaded resulting in high energy losses, frequent breakdown, low voltages and burn out of motors. Further, most of the State are experiencing power shortage and the rural areas are the most affected on this account.

3.2 The Ministry of Power in a note have stated that further expansion of System without suitably strenghthening the system and augmenting of power supply through capacity addition and energy conservation measures, will aggravate the situation and lead to serious system problems.

3.3 The CMD, REC stated during oral evidence as under :

"The Rural Electrification Corporation assists the State schemes. Normally, REC take the area/block and in that block area, looking at how many villages are there and what is the existing demand for electricity in the area, what are the new type of industries or any other plans and programmes, and particularly the number of wells that are there, the number of tubewells that are likely to come up and the programmes of various banks or helping in agricultural development. We look at those particular factors and in consultation with the State Electricity Boards, an area scheme is drawn up for each area. REC also look at it from technical angle, whether the main lines drawn are drawn in economical manner and whether they reach to various points and what is the requirement of transformers, poles and other technical things".

3.4 Asked about the priority being given for intensification alongwith electrification of new villages, the Secretary, Ministry of

Power during oral evidence stated as under :

"Out of Rs. 12,000 crores, the amount that has been sanctioned for the system improvements which you are talking about—laying more connections, giving more extension—is about Rs. 1,400 crores. So, proportionately, it is less. But as we have already taken the electricity to farthest corners—now, about 85 to 86 per cent of the area is covered—more and more work will now be coming only for the system improvement. I think that is the phase which we are going through now. This really comes up when you take system improvement programmes by way of having more sub-stations, more transformers, more lines and reduce the area of operation and things like that. By undertaking more and more system improvements, we can really assure the right voltages. It goes on simultaneously".

3.5 Asked what steps are being taken by the Ministry for system improvement programme. Ministry of Power in their post evidence reply stated :

"System Improvement measures being taken by the Ministry to improve quality of supply in rural areas and reduce losses, *inter alia*, include:

(a) The programme of System Improvement has been launched on systematic lines since 1987 and the outlay for the programme has been gradually stepped up.

(b) Considering the huge requirement of funds, external aid amounting to nearly Rs. 850 crores has been obtained from OECF, Japan.

(c) REC has adopted integrated System improvement approach on district basis to get the optimum results from the investments.

(d) Efforts are being made to introduce energy efficient equipment/technologies besides application of load management techniques and installation of capacitors for reactive compensasion.

(e) To promote the concept of energy conservation, Ministry is providing grant for the pilot projects for trying new technologies/energy efficient equipment."

3.6 As per the recommendations of the Rajyadhyaksha Committee on Power, national level annual budget for the core programme for rural electrification should be kept in the ratio of 4 : 2 : 1 : 1 (Generation, Transmission, Sub-Transmission & Distribution and rural electrification).

3.7 Asked about the details of present ratio for generation, transmission, sub-transmission, rural electrification at present, the Ministry of Power in their post evidence reply stated as under :

"The funds allocation on Power generation, transmission and rural electrification as envisaged in the 8th Plan document have been Rs. 49424 crores, Rs. 22280 crores, Rs. 4000 crores respectively which gives a ratio of 12.35 : 5.5 : 1 against recommended ratio of 4:3:1."

3.8 The Ministry of Programme Implementation in a Memorandum have stated that rural electrification has had virtually no impact on rural industry.

3.9 The Ministry of Power in their Memorandum have also submitted as under :

"Irregular power supply is perhaps the single major factor inhibiting the growth of rural industries."

3.10 Terms of loan for System Improvement (SI) from Govt. of India to REC and REC to SEB is as under :

Terms of loan from (i) GOI to REC's (ii) REC to SEB

Name of the Scheme	Period of payment	Mora-torium	Rate of interest	Mode of repayment	Penal interest
SI Programme	(i) 15 yrs.	5 yrs.	12%	Qly.	Addl. 2.75%
	(ii) 7 yrs.	2 yrs.	16%	Qly.	Addl. 2.05% upto 3 months & beyond 3 months 5% above RBI rate.

3.11 Commenting on the Terms of Loan for S.I. Programme, GRID Corporation of Orissa Ltd. stated as under :

> "Since System improvement Schemes are part of Rural Electrification programme, the REC should consider to give loan at a relatively lower rate of interest *i.e.* the rate of interest payable by them to their lending authority. Besides on such type of loan, no penal interest should be charged".

In this regard WBSEB stated :

> "Because of such restrictive and unfavorable conditionalities WBSEB was forced to forgo a loan of Rs. 260 crores sanctioned by REC out of OECF assistance for strengthening the distribution system improvement".

3.12 Dr. N. Tata Rao in a memorandum submitted to the Committee mentioned as under :

> "By adopting a system of electricity distribution prevailing in small countries like the U.K. and those in Europe we have increased our distribution losses tremendously and gave scope for large scale theft of energy by direct tapping of the very long low Tension distribution lines in the rural areas in particular and even in urban areas to some extent".

3.13 Asked about the feasibility of the H.T. network, Ministry of Power in their post evidence reply stated as below :

> "Energy losses for transmitting same amount of power in HT network is far less than those in the LT network. The adoption of HT distribution network would considerably reduce the energy losses besides resulting in other benefits like reducing incidence of theft of energy, better security of the equipment etc. However, this would require installation of large number of small capacity transformers which could result in substantial increase in the no load/ideal losses. This can be tackled with the use of energy efficient transformers like Amorphous Metal Distribution Transformers (AMDTs) which are being manufactured in India now. Andhra Pradesh State Electricity Board is reported to have initiated action in this regard in the selected districts. The Ministry of Power have also sanctioned a few pilot projects for conversion of Low Voltage network to High Voltage distribution network."

3.14 Asked about the desirability and feasibility of shifting to H.T. distribution, the Planning Commission in their PER stated :

"In rural elctricity distribution network, the long LT lines can be replaced by H.T. lines in order to reduce the technical losses and well as theft".

3.15 On the system improvement the Ministry of Power has suggested as under :

"Suitable load management techniques are required to be developed for selective load shedding of agricultural consumers without interrupting power supply to the main inhabited parts of the villages for meeting the needs of industrial and commercial consumers including households. It would also be useful to create interruption-free zones in selected areas to attract industries. REC has already initiated action in this regard with help of remote controlled load managemnet techniques"

3.16 Asked whether creation of interruption-free zones in selected area can attract industries and how the same can be achieved the Ministry of Power stated as under :

"Interruption-free zone in the selected rural areas will help to promote rural industries. However, laying of express feeder for this purpose is a costly proposition. RC is endeavouring to introduce a new technology of remote controlled selectively switching ON/OFF distribution transformer so that uninterrupted supply could be ensured to rural industrial units and other important loads even at the time to power cuts. Ministry of Power has already sanctioned 2 pilot projects for introducing this concept and few others are under consideration. This technique is also likely to help in controlling peak load containing and reducing energy losses".

B. Minimum Needs Programme

3.17 Most of the identified backward areas including tribal areas are covered under Minimum Needs Programme. The present criteria for selecting MNP areas include the States where the village electrification level is below 65% and the districts in the States having electrification level below 65% and all North-Eastern States and the areas covered under Tribal Sub-Plan".

Terms of loan from (i) GOI to REC & (ii) REC to SEB

Name of the Scheme	period of loan repayment	Morato-rium	Rato of interest	Mode of repay-ment	Penal interest
MNP	(i) 30 yrs.	5 yrs.	12%	Annual	Addl. 2.5%
	(ii) 30 yrs.	5 yrs.	12.5%	Qly.	2.5% upto 3 months & beyond3 months5% above RBI rate.

3.18 Considering low financial return from MNP areas it has been suggested by REC & Ministry of Power that MNP funds may be provided by Government preferably through grant or by way of grant-cum-softer-terms of loan in the ratio of 50 : 50. The loan interest rate on the loan component should be cosiderably lower than the funds by the Government under normal programme.

3.19 Reacting to this suggestion, Planning Commission in their post evidence reply stated as under :

"Due to rise in the cost of government borrowing in the wake of financial sector reforms involving payment of market related interest, change in the existing grant-loan ratio (30 : 70 for non-special category States and 90 : 10 for special category States) would adversely affect the debt servicing capacity of the Central Government because the non-special category States, which account for a much larger share of MNP funds than the special category States, would be called upon the pay back much less after introduction of more favourable grant-loan ratio for them."

3.20 Keeping in view the facts cited above, Planning Commission stated their inability to favour the proposal to lend plan funds for MNP either as grant or in the grant-loan ratio 50 : 50.

3.21 Asked about lowering the rate of interest on the loan components of funds under MNP. Planning Commission in their Post Evidence Reply stated :

"The fixation of interest rate for the funds provided under normal budgetary support and MNP loans is done by the Ministry of

Finance effecting necessary changes from time to time. The Ministry of Finance takes into account the cost of borrowing by them and also the possible interest revenue from the loans advanced to the States, while deciding the interest rate on loans to the States".

3.22 Asked about the steps taken by Ministry of Power it was mentioned in the Post Evidence Reply as follows:

"The repayment period of MNP loans is 30 year with moratorium of 5 years. This is considered reasonable. As regards lowering of interest rate, the Ministry of Power has already taken up the issue with the Ministry of Finance and Planning Commission".

3.23 The Government of West Bengal has stated that MNP schemes are not viable. It has also been mentioned that had the MNP funds been, channelled through State Governments, this would have composed of both loans and grants. As it is being channelled through REC, it is composed of 100% loan. Besides, had it been chanelled through State Government, like other sector, State Governments would have taken care of loan repayment as in the case of other sectors.

3.24 Asked about their views on the composition of MNP funds as loan and grant and channeling the fund through REC some State Electricity Boards have put their views which are mentioned in following paragraphs.

3.25 Andhra Pradesh State Electricity Board mentioned as under:

"Funds for MNP areas should preferably be provided on grant or grant cum loan basis on merits and such assistance could be routed through REC to hasten electrification of villages".

3.26 Uttar Pradesh State Electricity Board stated:

"The cash funds under MNP should be made available to UPSEB directly from Central Government as a grant".

3.27 State Govt. of Orissa and GRIDCO, Orissa in this regard stated as under:

"GRIDCO/State Government have no difficulty if the MNP funds are channelled through REC as is being done now. However, it should either be in form of grant or loan with low rate of interest".

3.28 Madhya Pradesh Electricity Board has mentioned as under :

"There is no objection in case these funds are channelled through REC Limited. However, it should be grant-in-aid without any service charge".

3.29 Asked whether money can be given directly to States as loans and grants as in other cases of MNP, the Secretary, Ministry of Power during oral evidence stated :

"In so far as the Minimum Needs Programme is concerned, we do have some funds allocated in the Planning Commission. But frankly speaking, the funds which are made available are totally inadequate. We have to pay interest of about 12 per cent even on those funds. That itself is very high. In fact, we have made the proposal to the Government of India saying that whatever funds you make available for this programme, should be given totally as grant, instead of the loan and the grant. We have been pleading with the Planning Commission, but unfortunately it has not been so far accepted that the Minimum Needs Programme should be completely a grant programme to be given to the Electricity Boards or to the State Government".

3.30. Asked further about the necessity of these funds channelled through REC and feasibility of providing funds directly to the States, the Secretary, Ministry of Power stated :

"When you are giving funds to few organisations, there should be a centralised agency basically to monitor. In so far as REC charging a heavy rate of interest is concerned, they just charge not even one per cent."

3.31 Commenting further on the desirability of providing fund through REC unlike other component Secretary, Ministry of Power stated :

"We have no problem. In fact, in so far as this money is concerned, if it goes to the Electricity Boards direct, as far as REC is concerned, we have no difficulty. The funds can be given direct".

3.32 Asked whether the role of REC as a costly intermediary can be withdrawn and MNP funds can be channelled through State Governments, the Ministry of Power in their, post evidence reply

mentioned as follows :

"Government of India provide funds to REC for the MNP programme at 12% p.a. rate of interest. The Corporation in turn lends to SEBs at 12.5% by keeping a permitted margin of 0.5% which is very meagre compared to the services being provided by REC which, *inter-alia*, include appraisal and monitoring of schemes, release of funds as per progress under projects from time to time, recovery of loans etc. REC, therefore, is not a costly intermediary for this programme. One the other hand, it is costly for REC, especially when most of the States implementing this programme have been heavily defaulting in the payment of dues. As such while this Ministry has no objection to the MNP funds being passed on directly to the States, in case, the funds are given directly to the State Governments., there is every likelihood of funds being diverted by them for other pressing needs".

C. Rural Electric Co-operatives

3.33 One of the element of 8th Five Year Plan was development of Co-operatives, preferably operated by the Panchayats and other local bodies for distribution of electricity in the rural areas so that there is an improvement in collection of dues, reduction in thefts of electricity and T&D loses.

3.34 So far only 41 Rural Electric Co-operative Societies have been promoted by REC, out of which 34 are presently operational. REC in their written reply has also informed that one more society is likely to come into operation shortly. Six Societies have been taken over by the State Electricity Boards as per the decision by the State Government.

3.35 Asked why there are only 41 R.E. Co-operatives promoted so far the Ministry of Power stated REC been the central agency is only a promotional and financing body for RE Co-operatives. Onus of setting up RE Cooperative lies with State Govt. as Cooperation is a State subject. Project of RE Cooperative Societies are formulated by SEBs in the State and registered under the Cooperative Act of the State. Despite concessional finance & terms the response has not been encouraging.

3.36 Asked about the functioning of RE Cooperatives REC has mentioned as under :

"The experience of operation of RE programme by RE Cooperative Societies *vis-a-vis* SEBs reveals that development of load, quality of works and services, collection of dues, consumers satisfaction levels etc. in Society areas are far better than in the adjoining SEBs area. Besides the above, release of service connections, restoration of power supply, services relating to fault repairs are much faster and quicker in Societies areas. RE Cooperative Societies being the consumers organisations at the decentralised level serve the consumer members better in view of easy accessibility and quicker decision making process".

3.37 So far as their performance is concerned the Andhra Pradesh Electricity Board has mentioned as under :

"Since the RE Co-operatives function in a compact area their performance in terms of giving service connections, attending to the complaints, repairs and maintenance is better than the SEB areas, they may evolve their own tariff structure."

3.38 Asked about the programmes in promoting R.E. Co-operatives REC in their PER stated as below :

"Firstly, the area of operation of RE Cooperative Societies is limited and predominantly include agricultural loads which are highly unremunerative. The remunerative loads like HT industries, commercial services etc. form a negligible proportion and some cases HT loads are excluded from the purview of operation of the Societies areas. Secondly, RE Cooperative Societies are solely dependent on SEBs for the supply of power in their areas. RE Cooperative Societies areas get low priority and suffer on this account. Similarly for augmenting system improvement works in their areas, hardly any support becomes available to them from SEBs and resultantly they suffer on this account. Lastly, RE Cooperative Societies have no freedom to fix their own tariff for supply to consumers in their areas and have to charge the same tariff as prevalent in SEBs areas as per Govt. orders. While the SEBs have scope for cross subsidisation and are also able to get subsidy from the State Government for supply of power to agriculture, RE Cooperative Societies have hardly any scope for

cross subsidisation and do not also receive subsidy from the State Government. On account of these factors, RE Cooperative Societies inspite of their better operation in load development and quality of services, suffer financially".

3.39 Asked to share their experience on the functioning of Rural Electric Co-operative GRIDCO, Orissa which had only one Cooperative Stated that experience of RE Co-operative is not encouraging. The Society was subjected to lot of local political pressures due to which there has been over staffing. The staff being mostly local persons were not doing the revenue collection properly. They did not have any fear of transfer.

3.40 The Uttar Pradesh State Electricity Board has stated in this connection that they have also one RE Cooperative (Lucknow) which has not paid dues to SEB to the tune of Rs. 69.03 crore due to it's bad financial health.

3.41 REC has informd that six societies have been taken over by the State Electricity Board as per the decision by the State Government. In this regard, Tamil Nadu Electricity Board also stated that they are taking over some RE Co-operatives because of their poor maintenance. Asked about the reasons for State Govts. taking over RE Cooperatives, the Ministry of Power in their PER stated as under:

"SEB supplies Power to RE Cooperative at 11 KV Bus Bar. The power supplied by SEB is at highly subsidised rate because of very low agricultural tariff. SEBs are not being compensated by the State Govt. for these losses. State Cooperative Acts do not have any provision of promotion & distribution of energy and therefore it is not able to provide protection to RE Cooperatives.

3.42 APSEB which has 9 R.E. Co-operatives stated that guidelines laid down by REC regarding rural Co-operatives do not help in promoting R.E. Co-operatives. As per the study of Administrative staff college of India five societies have performed with various degree of effciency while four of them deserve winding up.

3.43 In regard to promotion of RE Co-operatives West Bengal State Electricity Board has mentioned that guidelines laid down by REC regarding rural electric co-operatives do not help promoting RE Co-operatives.

3.44 West Bengal State Electricity Board, informing about the term and conditions of financing RE Co-operatives stated:

"The original envisaged terms of financial assistance from REC to these cooperatives were @ 5% interest with a moratorium of 5 years. The rate has now been increased to 12.5% with a decreased moratorium of 3 years and Guidelines laid down by REC regarding rural cooperative do not help promoting R.E. Co-operatives.

3.45 Asked about the reasons for revising the terms and conditions of loan for R.E. Co-operatives Ministry of Power in their post evidence reply mentioned as under:

"Due to non-payment of dues by SEBs and RE Co-operatives, large amount of funds have been locked up with them which are on soft terms. To carry on its operations, REC has to borrow from the market which has pushed up the cost of funding the REC. The existing rate of interest is still much lower than the actual borrowing rate of REC."

3.46 Asked to suggest remedies REC stated :

"It is felt that if the area of operation of RE Cooperative Society is expanded to include urban and industrial loads as well and they are given freedom to fix their own tariff, and strengthened managerially and properly restructured they would be able to operate better and show improvement in their performance and would become financially viable decentralised units."

3.47 On the steps for promoting RE Co-operative Andhra Pradesh SEB has stated as under :

"The flat rate currently prevailing for agricultural sector should be done away with, and affordable tariff could be fixed at 80% of the loads in the RESCOs are agricultural loads and there is no possibility of any cross subsidy. RE Co-operatives should function as commercial enterprises. The RESCOs should mobilize the required resources from their Members by way of greater Member Contributions and Consumer Contributions, reducing the O&M charges to the minimum and better revenue collections are the other areas to be addressed."

3.48 To encourage Co-operatives the Ministry of Power in their Post Evidence Reply mentioned as under :

"REC, which is the implemention agency of the Programme, has been organising Conferences and Seminars with the help of Ministry of Power for promoting the concept of RE Cooperatives in various States. Efforts have been made to convince the SEBs about the benefits of having RE Cooperatives through these seminars and Conferences. REC is exploring ways and means to make RE Cooperative as a more acceptable organisation for taking up distribution of power. However, for this concerned SEBs and State Govt. will have to come forward to provide a congenial atmosphere and develop a favourable attitude towards RE Cooperatives.

A study has been entrusted to the Administratives Staff College of India for examining the working of existing RE Cooperatives and recommend suitable remedial measures."

3.49 Asked whether State Electricity Boards favour distribution of electricity through Rural Electric Co-operatives, Ministry of Power in their Post Evidence Reply stated :

"Although some of the State Govts. have shown some inclination to set up RE Co-operatives in the States considering the soft terms of loan available, there however, not been any enthusistic response in the matter."

CHAPTER IV

FINANCING R.E. PROGRAMMES

A. Financial Problems of SEBs.

4.1 Rural Electrification Programme is financially highly unremunerative from the point of view of State Electricity Boards mainly due to (i) low agriculture tariff especially for agricultural loads (ii) high cost of infrastructure (iii) low load intensity and (iv) poor utilisation factors.

4.2 Rural Electrification schemes sponsored by State Electricity Boards are formulated on the basis of economic viability rather than financial viability. The economic viability takes into account the benefits which would accrue to the nation in terms of savings by obviating the more expensive alternative like use of diesel and kerosene. Rural Electrification programme does not by itself generate substantial revenue due to low tariffs and poor collection. Hence SEBs find it difficult to pay back the loan without support of the State Government subvention...Considering the socio economic benefits of the programme and the need for boosting foodgrain production and other agricultural products, State Governments have been traditionally providing subsidy to cover RE losses but of late, this burden has been increasingly shifted to the SEBs. The amount of RE subsidy which in the initial stages of the programme, was not substantial increased many-fold due to massive addition to the pumping loads during the last two decades. Average tariff for agricultural load at national lvel during 1995-96 was about 24.5 Paise compared to an average cost of supply of power at 170.5 Paise (Provisional) today. SEBs, on an average, thus lose about 146 Paise on each unit of power sold to agricultural consumers. The financial losses to the SEBs on account of supply of power to agriculture are estimated to be around Rs. 10,000/- crores per annum. The State Governments are finding it increasingly difficult to locate resources for subsidising the losses to the State Electricity Boards. SEBs in turn, are not able to discharge their debt liabilities and take further loans for the rural electrification programme as non-payment of dues by SEBs adversely affect the capabilities of the lending agency like REC to redeploy the funds for the programme.

4.3 It has been informed by the Ministry of Power that the SEBs of the States like Uttar Pradesh, Bihar, Orissa, West Bengal, Madhya Pradeh, Assam, Meghalaya etc. are financially weak and are heavily defaulting in the payment of REC dues. The SEBs owe much more to REC than they are expected to receive as per the plan allocation and are, therefore, finding it increasingly difficult to expand the rural electrification programme in absence of any net cash flow to them. Incidentally, these are also the States where the major portion of the backlog of the R.E. Programme exists and is yet to be completed.

4.4 The Committee have been informed that the REC has stopped advancing any loan to the defaulting States. The CMD, REC during oral evidence stated as under :

> "What we are doing is, all those States which have never defaulted at all, we are continuing our lending operation with those States. In fact, where the States have totally defaulted and are not even coming forward with repayment, in that case, we have stopped giving any further loans to them. Instead whatever money was added, that has been given to the better States so that their targets are met so that the overall target of the Planning Commission is achieved. Then we have taken up with the State Governments who are guaranteeing the loans given to the Electricity Board and coming to the rescue of the Electricity Boards. Some of the Electricity Boards have represented that they were told that some subsidy would be given from the State Governments to the Electricity Board and that subsidy has not been given to them.
>
> If that subsidy is given to them, they would be in a better position to repay to the REC. In such a case, we have taken up with the State Governments to kindly release the funds so that they are able to write to the REC about that".

4.5 Asked in this regard Ministry of Power in their Post Evidence Reply Stated that all these States are heavily defaulting in payment of REC dues which tends to limit the capabilities of the Corporation to extend further loans to them. Uttar Pradesh, Bihar, Assam, West Bengal and Orissa owe REC Rs. 465 crores, Rs. 264 crores, Rs. 65 crores, Rs. 230 crores and Rs. 87 crores respectively (as on 31.12.1996).

4.6 Some states have yet to adopt the minimum rate of 50 Paise per unit which was agreed to for adoption in the Power Minister's

Conference a few years ago. The Ministry of Power have informed that in fact this (50 Paise per unit) is not enough now and the states would have to increase their agricultural tariff to at least 50% of the cost of supply if the SEBs are to be financially strengthened.

4.7 The Ministry of power in their "Common Minimum National Action Plan for Power" have mentioned that no sector shall, however, pay less than 50% of their average cost of supply (Cost of generation plus transmission and distribution). Tariffs for agricultural sector will not be less than fifty paise per KWH, to be brought to 50% of the average cost of supply in not more than three years.

4.8 In this context, Madhya Pradesh State Electricity Board mentioned as under :

> "Electrification of a village costs Rs. 4 to 6 lakhs on which the interest liability works out to Rs. 65,000 to Rs 1 lakh per year per village. Most of the connections which come up in rural areas are of single light point connections nature i.e. free electricity supply or even if billed the revenue collection will be very small and will not cover even the interest payable by the Board. It is estimated that revenue from rural area is 27 paise per unit. Thus, every unit consumed in rural area is a loss to SEB at the rate of Rs. 1.78 paise per unit".

4.9 Uttar Pradesh State Electricity Board in this regard mentioned :

> "In case of UPSEB, not a single Penny (in cash) from Government of Uttar Pradesh has been received in the form of subsidy. Whatever subsidy claim of UPSEB were liquidated by Government of Uttar Pradesh were by way of adjustment against interest on Govt. loans which is against the provision of Electricity (Supply) Act, 1948....."

4.10 Andhra Pradesh State Electricity Board mentioned :

> "Giving supply to Agricultural consumers is costing APSE Board at the LT terminals about Rs. 2.0/unit in 96-97. Where as the revenue realisation as per revised tariff of 8/96 is 17 paise per unit against the recommended national minimum tariff of 50 paise per unit for all Electricity Boards in the Country.....The agricultural

consumption in the state has been increasing from year to year due to low rates for agricultural supply, availability of adequate ground water and multiple cropping pattern adopted by the farmers of the state. This has resulted in erosion of revenues of the Board while causing additional burden of intrest and loan repayment to REC and Banks".

4.11. Assam State Electricity Board in this connection stated :

"ASEB has been managing its operation by procastinating liabilities on various A/Cs because its revenue from sale of power is not adequate to fully meet the current dues on fuel, power purchase, O&M etc. after payment of staff salaries. It is, therefore, unable to service the loans taken from various agencies including the REC."

4.12 Dr. N. Tata Rao in a memorandum furnished to the Sub-Committee stated :

"If the SEBs could recover atleast the cost of supply to the agriculture sector either directly from the consumers or get reimbursed for the difference between the cost of supply and the tariff at which the SEBs are forced to supply by the State Govts. the SEBs would be in a better position to create additional generating capacity and the associated transmission and distribution system to meet the growing demand from all sectors and not subject them to the inexcusable power cuts which are doing immense harm to the industrial, domestic and agricultural sector and consequently to the economy of the Country. Had the financial position of the SEBs been improved through justifiable tariffs, the internal resources they could have generated would have helped them to borrow funds from the World Bank, ADB and other FIs, for this capital intensive sector".

B. Inadequate Allocation and Cross Subsidy

4.13 Planning Commission approved an outlay of Rs. 4,000 crores for electrification of 50,000 villages and energisation of 25 lakh pumpsets during the Eighth Plan. During the first 4 years of the plan, Planning Commission has allocated about Rs. 3741 crores for electrification of 14672 villages and 11.5 lakh pumpsets. The entire financial outlay approved for the 8th Plan have been more or less already allocated and utilised in the first 4 years. However, only about

30% of village electrification targets and 68% of 8th Plan pumpsets targets have been completed.

4.14 On the 8th Plan allocation, Planning Commission in their Post Evidence Reply stated :

"Against the approved outlay of Rs. 4000 crores for Eighth Plan the likely expenditure will be of the order of Rs. 3800 crore at current prices and around Rs. 2300 crore at the constant prices. There is thus shortfall in the expenditure because State Govts. could not mobilise resources. Even REC could not provide loans at desired level because of default or repayments by some SEBs".

4.15 The CMD, REC during oral evidence stated as under :

"The allocation was limited at best to what may be the cost for around 18,000 or 19,000 villages".

4.16 On the high target and less fund during 8th Plan, Planning Commission in their Post Evidence Reply stated :

"The targets fixed at the time of finalisation of 8th Five year plan were on the basis of the prevailing average unit cost for village electrification. However, due to cost escalation during Eighth Plan the funds provided were inadequate to match the targets. During Annual Plans, in view of the above reasons, the targets were decided to match with the availability of financial resources".

4.17 On the question of lack of cross subsidy the CMO, REC during oral evidence stated as under :

"In the initial stages, almost 60-70 per cent of the power consumption was for industry or in urban areas. Now, gradually power consumption at the national level (for agriculture sector) has gone up to 30 per cent. In some States, it has gone up to 50 per cent. The possibility of cross subsidisation is also not there and with the extensively carrying over of power to all the villages, it is becoming increasingly difficult".

4.18 When it was pointed that when the domestic load percentage is increasing as compared to the industrial load, cross subsidy formula may not work and ultimately the burden of loan repayment would

fall upon the States CMD, REC during oral evidence stated :

"I think, this is actually a major policy issue which has to be settled at the political level, as to whether this burden has to be borne by the State Governments or the Central Government or who is to bear it and in what proportion it has to be borne."

4.19 On the lack of cross subsidization the less industrialised States will suffer more as CMD, REC during oral evidence stated as follows :

"The States which are not strong enough financially, where the cross subsidization principle is not there and where they are not able to generate power at reasonable low rates where they are also required to purchase power increasingly from outside, those States will definitely have this problem."

4.20 Planning Commission in this context mentioned in their post evidence reply as under :

"The cross subsidization is possible only to a certain extent.....Unless and until the SEBs try to improve their financial working by rationalising tariff structure etc. the state Govts. would continue with the present problems."

4.21 State Electricity Boards also mentioned that industry in the State can no more be overburdend.

4.22 The Madhya Pradesh Electricity Board in this connection stated :

"The increased revenue realised from the industrial and Commercial Sector is not sufficient to fully compensate the losses made in supply to agricultural and domestic sectors".

4.23 The West Bengal State Electricity Board in this regard stated :

"The scope of increasing industrial tariff has become greatly limited in the perspective of sustained industrial growth and the economic compatibility with cost of generation by Diesel Sets."

4.24. The Andhra Pradesh State Electricity Board stated as under :

"The tariff for industrial services which was revised *w.e.f.* 1-8-96 are high and cannot be further increased. Any further increase will drift the industries from the State and also encourage captive generation which cuts into revenues of the Board."

C. High Rate of Interest

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

Interest Rate and Terms & Conditions
of loan and viability criteria
applicable to Rural Electrification
Projects under various categories

(As on 1.4.96)

Sl. No.	Category	Normal loan (Rs lacs)	Period of loan (Years)	Period of Moratorium (Years)	Rate of interest (%age) (p.a.)	Viability criteria Per annum
1	2	3	4	5	6	7
1.	Ordinary Cooperatives (OC)					As stipulated in the projects
a.	Project Loan	500	12	3	12.50	—
b.	Pre-construction loan (PCL)	5	*	—	12.50	
c.	Special Development Reserve (SDR)	45	10	—	12.50	—
2.	Harijan Bastis (HB)	15	15	—	7.00	—
3.	Schemes for unelectrified under developed Areas (OB)	250	20	5	12.50	ERR 15%
4.	Minimum Needs Programme (MNP)	250	30	5	12.50	ERR 10%

* Recoverable over 2 years or in one lump sum from 1st instalment of project loan whichever is earlier.

1	2	3	4	5	6	7
5.	Schemes for Intensive Electrification (OA)	250	10	4	13.00	ERR 20%
6.	Special Loan (Training, Technology etc.)	25	5	—	12.20	—
7.	Special Loan (Short term)	250	5	—	16.00	—
8.	Special Project Agriculture (SPA)	150	7	2	14.00	ERR 25%
9.	Ordinary Pumpset (OP)	250	7	2	14.00	ERR 20%
10.	Special Project Agriculture Bank Participation (SPA-BP)	100	7	2	14.00	ERR 20%
11.	Special Projects Industries (SPI)	40	7	2	14.00	Gross return of 15% investment/ capital base
12.	Conservation of Energy in Network (CEN/SI)	500	7	2	16.00	Gross return of 12% investment/ capital base
13.	Special Project for Decentralised Generation & Supply (Sp : DGS)	250	8	2	14.00	—
14.	Inventory Loan					
i	North-Eastern States and Jammu & Kashmir	—			13.50	—
ii	Others	—			16.00	—

Notes :—

1 3% Tax on gross earnings of the Corporation levied *w.e.f.* 1.10.1991 as stipulated in the Finance Bill 1991-92 on all categories fo loans.

4.26 Asked whether the financing of Rural Electrification Schemes by the REC are cleared keeping in view the profitability or social obligation, REC in their Post Evidence Reply stated :

"For financing rural electrification programme, Rural Electrification Corporation has evolved differential interest rate structure which takes into account both the social obligation as well as overall profitability of the Corporation. Based on the average borrowing rate, the Interest rates for various categories are structured so as to yield reasonable operating margin. Softer terms and conditions of loans are prescribed in respect of schemes meant for the electrification of the areas inhabited by weaker sections of the society like Adivasis and Dalits. While for a certain category of projects having short gestation, good pay-back period, the rate of interest can be 16% (SI schemes), and it is as low as 7% for certain other categories (Dalit Bastis)."

4.27 Asked about the interest rate charged by REC, most of the State Electricity Boards replied to the Committee that the interest rates are on higher side.

4.28 TNEB stated that whatever REC lends to TNEB, the same is repaid to them approximately in the following order : 54% as interest for the loan previously obtained and 26% for principal. Only the balance 20% amount is utilised for developmental REC works. Due to the above scenario, TNEB is facing financial difficulties in the expansion of the RE Programmes.

4.29 On the rate of interest, West Bengal State Electricity Board Stated :

"Given the nature of schemes and subsidised tariff applicable in rual areas, REC interest is very high. Further the penal rate of interest charged and the term of interest payment is highly unfavourable."

4.30 TNEB suggested that the lending rates for the loans from REC, are to be very much attractive to the SEBs, in order to achieve sizeable expansion of RE Programme.

4.31 On the interest rate WBSEB Stated :

"Given the nature of schemes and subsidised tariff applicable in rural areas REC interest is very high. Further the penal rate of

interest charged and the term of interest payment is highly unfavourable."

4.32 The Committee have been informed that while analysing the reasons for such financial bankruptcy it has been found that RE Programme executed by the SEB with the help of REC funds is one of the good reasons for its impoverishment. As rural electrification schemes were not viable and their viability was based on the social benefit expected out of the electrification of villages. The State Government has naturally extended financial help to the Board by way of RE subsidy to the extent possible. It has, however, been observed that the nature of the schemes were such that the SEB could not get much revenue. In fact the policy guidelines enunciated by the Government of India and followed by the Boards appear to be responsible to a considerable extent in this regard. Under the policy, Board declared a particular village electrified as soon as an electric pole could be erected in that village. In some of the villages the poles were erected but there was no electric connection though the village was declared electrified. The villagers, who mostly belong to the economically weaker section of the community, did not get electricity and naturally the Board also did not get any revenue. Under such circumstances the Board could not make regular repayment of REC loans."

4.33 State Government of West Bengal has stated as under :

"It is expected that the Government of India as also REC will follow a policy of subsidy and soft loan so that the SEBs can perform their Social obligations of rural electrification."

4.34 The Andhra Pradesh State Electricity Board in this context stated :

"REC should prescribe strict financial viability norms and the quantum of subsidy to be given by the State Govt. to the SEB instead of insisting for Government gurantees for non-viable schemes which are only a loosing proposition to the SEBs."

4.35 On the interest rate, Uttar Pradesh State Electricity Board stated :

"Interest rate being charged by REC are certainly higher if the RE projects are analysed for their Return on Cash Earning (ROCE).

No scheme under RE programme is capable of any yield in the present scenario. Hence interest rate of 12 to 16% is significantly higher. Due to these reasons the Board has not been able to repay-back the dues. For last 4 financial years UPSEB is repaying the dues through adjustment against release of new loans resulting in conversion of dues in fresh loans."

4.36 In this context Grid Corporation of Orissa Ltd. stated as under :

"The interest payable to REC by the SEB is definitely on the higher side. The average rate of interest on different loans including REC, MNP, Harijan Bastis and Kutir Jyoti schemes works out to more than 12%. The REC charges 16% interest on inventory loan to facilitate the SEB to meet the working capital requirement for execution of RE Programme. While the commercial banks charge 17 to 18% on working capital loans, charging 16% interest by the REC on inventory loans is definitely on the higher side which affects the financial viability of the SEB and also the RE Programme. Further, the REC charges 5% penal interest on over dues amount payable to REC by the SEB while the normal penal interest charged by the financial institutions is of the order of 1 to 1.5%. The high rate of penal interest of 5% also further affects the financial position of SEB and also the RE Programme. The interest to the SEB at commercial rate with higher margin of penal interest affects the financial position of the SEB resulting in poor performance in rural electrification in the State."

4.37 The Punjab State Electricity Board Stated as under :

"Interest paid to REC by SEBs is on highr side. As Power system is basic infrastructure for development of a Country and REC contributes towards improvement of power system, reduction in losses and better service to rural consumers, it is essential that for such works, the loans are made available at subsidised interest rate on liberal terms and conditions."

4.38 Asked about restructuring the terms/conditions of loans and grants, Ministry of Power in their Post Evidence Reply stated :

"REC is facing financial constraints on account of the fact that the SEBs have heavily defaulted in their repayments to REC, which

has now reached an alarming figure of over Rs. 1600 crores. It is operating on a very thin margin of hardly 0.6%. Its average borrowing rate in 1995-96 working out to 13.1% as against the lending rate of 13.7%. The meagre margin coupled with non-payment of dues by the major States has resulted in financial problems for the Corporation. Restructuring of terms and conditions of loans extended by REC to SEBs does not as such appear very feasible presently."

PART—B

RECOMMENDATIONS/CONCLUSIONS OF THE COMMITTEE

1. The Committeee acknowledged the process of development of Rural electrification Programme. Rural Electrification programme was originally designed to provide electricity as a social amenity to rural areas. The main components of the programmes are village electrification and pumpset energisation. Following the three successive droughts, during 1966-69, which severely affected the agricultural production, the REC was incorporated in 1969 (July) to promote and finance a comprehensive rural electrification programme with primary emphasis on energisation of pumpsets to use the available ground water. It was further expanded under the Minimum Needs Programme (MNP) in the year 1974 with the objective of extending electricity to a large population to the extent possible. This has helped in increasing the lift irrigation system in agriculture and has led to the success of the "Green Revolution". As a consequence, the share of electricity consumption in the agriculture sector has increased from 3.9% in 1950 to over 29% in 1993-94. Operationally, the entire programme was executed through State Electricity Boards. Since last four and a half decades SEBs acted as the State instrument for implementing Rural Electrification programme.

2. Despite these achievements, the Committee are concerned to find that Rural Electrification was viewed in isolation from overall planning of electrification *vis-a-vis* rural development of the nation. It has neither been included in the Government's Basic Minimum Service Programme, nor has the Ministry of Power mentioned Rural Electrification in their "Common Minimum National Action Plan for Power". The Committee are surprised to note that Department of Rural Development under Government of India being entrusted with Nodal Responsibility for all matters relating to Minimum Needs Programme in rural areas (which includes rural electrification as a component) are not monitoring the progress and achievements of rural electrification. It appears that rural electricity, which is a critical input in the rural area for expanding employment opportunity, rural industries and increasing agriculture output, is not treated as a component of rural development.

3. The Committee feel that the growth of the rural electrification system, particularly during the last two decades, has not been accompanied by a commensurate strengthening of distribution and sub-transmission network. The resource crunch at State level has led to under investment in the transmission capacity addition and non-augmentation of network, and has resulted in increased system losses and damage to the consumer equipments. It reveals that the average T&D losses in the country is around 23% of which nearly 15-18% is estimated to be due to losses incurred in distribution network in rural areas.

4. The Committe note that the existing pattern of rural electrification is so unremunerative in nature that operation and maintenance are neglected causing uncertainty to the consumers. Therefore, the rural beneficiaries in many cases, are depending on diesel pumpsets for irrigation. The installation of diesel pumpsets has continued to proliferate despite large scale investment being channelised for the Rural Electrification Programme. Besides, kerosene oil is used in households as a major fuel for lighting inspite of the claim that India has achieved 85% village electrification.

5. The Committee are of the opinion that, in principle, rural electrification programme is an integral part of rural development programme similar to the components included in Basic Minimum Services for rural areas. The programme was linked up with SEBs for operational convenience and technical support. Gradual process of de-linking from SEBs and involvemnt of Zilla Parishad/Panchayat in execution process should be initiated. SEB's support and infrastructural facilities may be utilized as external assistance on cost basis.

6. The Committee observe that there is a multiplicity in the monitoring of the Rural Electrification Programme. The target monitoring alongwith cost effectiveness is being steered by CEA but Rural Energy Divison of Planning Commission is looking after the Annual and five year plans of the State and also the programme financing and implementation through Rural Electric Co-operatives and the State Plan. The same is also being monitored under the Twenty Point programme by the Department of Programme Implementation. Instead of so many agencies performing the same task, the Committee would like the Ministry of Power to pursue the

concerned authorities so that the Rural Electrification Programme can suitably be dovetailed to achieve better result.

7. The REC, at present, only provide finances to the SEBs for Rural Electrification Programme, which includes village electrification, pumpsets energisation and system improvement schemes. It does not usually get involved in generation projects except in a limited way. The Committee desire that Rural Electrification Corporation should be redefined, strengthened and upgraded as a National Rural Energy Corporation. States should, in the same manner constitute a State Rural Energy Corporation, to provide technical and financial support for decentralised power generation, distribution through Panchayats and Rural Co-operatives and also through their own agencies or subsidiaries if so required. This new corporation should also support schemes on energy conservation and integration with MNES programmes.

8. 87% of the villages have been declared electrified on the basis of existing definition which requires at least one service connection within the revenue boundary of a village. The Committee understand that it has been proposed to re-define the village electrification scheme. Under the new definition it has been proposed that a village will be deemed to be electrified if electricity is used for any purpose in an inhabited locality within the revenue boundary of the village. The Committee have been given to understand by some SEBs and State Governments, that this proposed definition may also lead to same confusion viz., declaring an entire village to be electrified whereas only one pole has been erected in an inhabited locality. The Committee, therefore recommend that a village or a hamlet should be declared electrified only when at least 10% of the households in that village or hamlet are electrified as agreed to by the Ministry of Power.

9. About 80,000 villages are still not electrified. These are posing problems as many of them are located in remote/difficult and tribal areas and are not likely to have grid electricity ever as this is neither logistically nor economically viable. The energy sources which are locally available are ideally suited for these remote and inaccessible areas. The Committee recommend that these areas, which can be brought under different NCES schemes be identified and a time bound implementation programme be submitted to this Committee. All the installations of Non-Conventional Energy Sources must be supported by long-term maintenance contracts.

10. The Committee note that as per the Eighth Plan document, 10,000 villages were to be electrified through the Ministry of Non-Conventional Energy Sources as informed by Ministry of Power. The Committee are unhappy to note that Ministry of Non-Conventional Energy Sources are unaware of such a target fixed for the 8th Plan period and further note that the Ministry has failed to justify how this target of 10,000 villages is going to be achieved. Planning Commission, after setting this target of electrification of 10,000 villages during the 8th Plan period, have never reviewed the scheme at all. The Committee stress the need for better co-ordination between Ministry of Power, Rural Electrification Corporation, Ministry of Non-Conventional Energy Sources and Planning Commission to avoid such lapses. The Committee would, therefore, like to be apprised about the implementing agencies of this scheme of electrification of 10,000 villages. The Committee desire that there should be continuous co-ordination among the Ministry of Non-Conventional Energy Sources, REC and SEBs for electrification of these villages.

11. The exact number of Dalit Bastis in the country is not available. The Committee have been informed that there is no uniform definition for Dalit Bastis. The Committee also note that some States have given their own definition for declaring a locality as a Dalit Basti. At Central level neither CEA nor REC have any prescribed definition and REC is guided solely by local authorities/ State authorities especially by the Social Welfare Department of the State Government. The Committee are of the view that lack of proper definition of Dalit Bastis leads to misguiding figures and creates impediments in extending benefits to the actual Dalit Bastis. The Committee desire that definition of Dalit Bastis should be framed immediately and all the Dalit Bastis should be identified in consultation with the State Government and other agencies at the State level.

12. The Committee are concerned to note that a number of villages have become de-electrified due to natural calamities like flood, earthquake and theft of line materials and equipments. This problem of de-electrification of villages is rampant in some States. The Committee note that no agency is keeping the record of de-electrified villages and re-electrification of these villages is dependent totally on the availability of funds with the concerned State Electricity Boards. As most of the State Electricity Boards have a shortage of funds they are unable to take up re-electrification work in time

thereby making further extension work impossible. The Committee find that REC and Planning Commission are extending support in cases of emergency only. The Committee emphasise that a proper record of these de-electrified villages should be maintained so that a specific fund can be arranged for re-electrification of these villages. The Committee desire the Ministry of Power to include electrification of de-electrified villages in the Rural Electrification Programme as assured by them.

13. The Committee note that while nearly 87% of the villages have been claimed as "electrified", only 31% rural households have access to electricity. This has resulted in a poor load growth and low utilisation. 100% achievement in village electrification, as declared by a few States, do not give the correct picture. The Committee desire that a re-definition of village electrification scheme should be formulated alongwith stress on re-electrification of de-electrified villages. At the same time, an overall stock of the entire programme should be taken through physical verification, so as to assess the ground realities and to initiate a second phase of intensive rural electrification programme all over the country.

14. The Committee note that it is difficult to attain viability and sustainability of the Rural Electrification Programme in its present form. Unless it is linked to productive use, it will not ensure value addition in the rural economy. The Rural Electrification programme is presently being carried out as a separate agenda by SEBs without having any direct link with the existing programmes under Rural Development and promotion of village level and small scale-based industries. This is surely not a priority agenda before the State Electricity Boards. The present institutional set-up of SEBs is not geared to take up this massive task of electricity load development in the rural areas, which requires co-ordinated and integrated effort among various development agencies, augmentation of generation capacity with a judicious mix of conventional and non-conventional sources of energy, scientific management of the distribution network, financial management, billing and recovery of revenue and capacity utilisation for improving the system reliability and the quality of supply.

15. While reiterating the stand on upgradation of REC to form a National Rural Energy Corporation (NREC) and on creation of separate State Rural Energy Corporation (SREC) to provide financial

and technical support, the Committee also recognise that this task would be accomplished more affectively through a decentralised institutional mechanism involving Panchayat and co-operative intiatives. SREC, after successful erection and commission of a scheme, will hand over the system to these local institutions, which will buy power from State Electricity Boards. However, the local institutions will have the flexibility to generate power from non-conventional sources and to expand the system network within its jurisdiction. The Committee desire that in line with the 73rd Amendment of the Constitution the Panchayats should be entrusted with the responsibility for rural programme including Rural Electrification and NCES programmes. This would definitely improve the electricity dues recovery mechanism.

However, introduction of this decentralised system would require availability of technical manpower at the panchayat level to carry out operation and maintenance activities. This would necessitate organizational restructuring of the State Electricity Boards and the excess and unutilised manpower of SEBs can be gainfully utilized by the SRECs and such decentralised panchayat level institutions. Each State, should prepare a time bound plan for such restructuring and till that time, SEB will render technical support as an intermediatory measure.

16. The Committee express their dis-satisfaction on the performance of the Rural Electric Co-operatives. Though promotion of Rural Electric Co-operatives was one of the components of Eighth Five Year Plan, and R.E.C. was entrusted to promote the Co-operatives, only 41 Rural Electric Co-operatives have come into existence. Thirty Four out of these, are operational and 6 have been taken over by State Governments. Majority of States do not have any Rural Electric Co-operatives, so far. The Committee have been informed by REC and some State Electricity Boards, that quality of work and services, collection of dues, consumer satisfaction levels etc. are better in the area of Societies in comparison to other areas. However, the problems faced by Rural Electric Co-operatives are stated to be, confined operation to predominently agricultural load, dependence on SEBs for supply of electricity, lack of freedom to decide on tariff, unfavourable financial assistance and associated guidelines from REC. Moreover, no provision for promotion and distribution of energy has been made in the State Cooperative Acts. The Committee in line with earlier recommendation are of the

opinion that, Rural Electric Co-operaives are ideally suited for decentralised distribution of electricity. The Committee are of the view that in order to popularise the advantage of Rural Electric Co-operative scheme, REC should take up some model co-operative scheme by properly mixing agricultural and industrial load in consultation with State Governments. The Committee desire the Ministry of Power to take up the matter in the proper forum to bring energy into Co-operative Acts. These co-operatives should be given the required technical and financial support and training on a systematic basis through the proposed NREC and SREC/SEBs.

17. A few States like Karnataka, Tamil Nadu, West Bengal among others however have taken up programmes for providing single point connections to the rural poor. The Government of India also launched Kutir Jyoti Programme in 1988-89 for extending single point connection to households of rural poor (below poverty line and including Harijan and Adivasi families). The Committee are concerned to note that only 21.2 lakh connections have been released which is really a small percentage of the total number of 716 lakh households which are still deprived of electricity.

Generally popular Kutir Jyoti Programme has been constrained with several impediments, e.g. misuse of electricity for purposes other than lighting, absence of LT distribution network in most villages and difficulties in collecting revenue.

The Committee feel that the scheme itself should be made more attractive. In this connection, the Committee recommend that the Ministry of Power should convince the Ministry of Welfare, Department of Rural Areas and Employment and Planning Commission for linking various rural development programmes and welfare schemes with the Kutir Jyoti Programme so that the scheme can get additional attention and funds as a social development scheme and SEBs are encouraged to take up and expand the Kutir Jyoti Programme.

18. The main thrust of rural electrification programme so far has been on energisation of pumpsets. The Committee, however, note that so far about 111 lakh pumpsets have been energised which is about 56.6% of 195.94 lakh potential pumpsets. The Committee recommend that Ministry of Power in consultation with the State Governments, SEBs and other concerned agencies should prepare a

time-bound programme for energisation of all the potential pumpsets in the country.

The Committee find that a number of inefficient pumpsets have been energised throughout the country resulting in consumption of more power than required. The Committee suggest that the Government should take steps to encourage the farmers with suitable incentives to opt for efficient pumpsets. The Committee desire that steps must be taken in the direction of co-ordinated water-shed management alongwith electrification of pumpsets for efficient use of both water and power. The Ministry of Power in consultation with all concerned agencies should also explore the possibility of charging a common water-cum-electricity tariff wherever this can be implemented. Panel of experts in different States from industry should be formed for testing the efficiency of pumps and to give their recommendations.

19. It has generally been understood that, Rural Electrification Programme requires a lot of technical input in regard to system improvement to minimise loss, breakdown etc., REC is gradually shifting its role and is being projected as a financial institution neglecting the necessity of technical support at National/State level.

The Committee note that funds for system improvement schemes are not commensurate with other sections like generation and transmission, etc. Out of Rs. 12,000 crore, only Rs. 14,00 crore has been alloted for system improvement, which is quite inadequate as stated by the Secretary, Ministry of Power. The Committee stress the need to bring in matching finance for System Improvement Programme to strengthen the system.

For System Improvement Programme Government of India charge 12% interest with repayment period of 15 years with 5 years moratorium whereas REC's terms of loan to SEBs are 16% interest with a repayment period of 7 years with 2 years moratorium and penal interest of 5% above RBI rate. As system improvement scheme is a part of rural electrification, the Committee recommend that interest charged from REC by Government of India should be reduced considerably and moratorium period increased so that REC in turn can pass on the benefit to SEBs in the form of lower rate of interest and longer moratorium period.

20. Most of the identified backward areas including tribal areas are covered under Minimum Needs Programme. Rural Electrification is one component for which funds are channelled through REC. The Committee are surprised to note that even for these funds which are meant for backward and tribal areas the interest rate is as high as funds provided under normal budgetary support. The Committee find that Ministry of Power and REC are pursuing the Planning Commission and Ministry of Finance to provide the fund as grants or as grant-cum-soft terms loan in the ratio of 50 : 50 to boost electrification programme in backward and tribal regions of the country. The interest rate on the loan component should also be considerably lower than that of funds provided under the normal programme. The Committee desire the Ministry of Power to continue to pursue and convince Planning Commission and Ministry of Finance to see reason in revising the terms of allocation of funds. The matter should also be taken up at the National Development Council level.

21. Thus, Rural Electrification Programme was formulated on the basis of economic viability (not financial viability), taking into account the benefits which would accure to the Nation in terms of food production and in minimising the use of costlier fuels like diesel and kerosene. The four major provisions are fuel for cooking, domestic illumination, drinking water and electricity for agriculture. Whereas the weightage of agriculture in GDP is around 35% which includes crop production and value addition in allied agricultural products relating to forestry and fishery, it has been observed that during the last four years, the growth in agriculture sector has led to marginally lower growth in GDP. Hence, major emphasis is still required for further intensive use of electricity in agriculture and also for providing safe drinking water.

22. Rural Electrification programme executed by the State Electricity Boards with the help of REC funds is one of the major reasons for the impoverishment of SEBs. REC obtains loans from the Government of India on comparatively easy terms, but the terms on which the loans are advanced to the SEBs have been made very restrictive. This tendency has been much more pronounced during the last few years. At present even the loans for Minimum Needs Programme (MNP) which is non-remunerative from the numenclature itself have been made very costly by way of making the interest payment on quarterly basis and introducing very high penal interest

in case of default beyond three months. A few examples of how the Rural Electrification Corporation have made the terms of loans very restrictive are appended below :

Terms of loan from (i) GOI to REC and (ii) REC to SEB

Name of the Scheme	Period of loan repayment	Moratorium	Rate of Interest	Mode of repayment	Penal Interest
MNP	(i) 30 yrs.	5 yrs.	12%	Annual	Addl. 2.5%
	(ii) 30 yrs.	5 yrs.	12.5%	Qly.	2.5% upto 3 months and beyond 3 months 5% above RBI rate.

It will thus appear that the Govt. of India loan for rural electrification has mainly helped the REC as an intermediary at the cost of the State electricity Boards who have been impoverished because of the policies followed.

23. The Committee also note that SEBs are finding it difficult to pay back loans without State Government subvention. In this regard the Committee find that some States are yet to implement the 50 paise tariff for agriculture and now Government of India have decided to increase agricultural tariff to at least 50% of the cost of supply in not more than 3 years. The Committee also feel that Central Government should share the burden of social obligation which is extended in the form of rural electricity so as to lighten the burden on State Governments/SEBs. The Committee desire Ministry of Power to reimburse a certain percentage of cost of supply of electricity to agriculture along with State Govts. who are unable to bear the entire cost of rural electricity.

Further to this, four additional steps are suggested :

(a) Freezing of the REC loan and writing-off penal interest;

(b) Conversion of State Government loan into equity and writing off of the interest component;

(c) **REC loan be converted into equity and writing-off of interest component in the same proportion as proposed for State Government.**

(d) **Power Finance Corporation should also be advised to relax the conditionalities for at least the initial 3/4 years.**

24. The Planning Commission has approved an outlay of Rs. 4,000 crore for electrification of 50,000 villages and energisation of 25 lakh pumpsets. However, the Committee find that only about 30% of village electrification target and 68% of 8th Plan targets have been achieved. The shortfall in achievement has been attributed to inadequate allocation by Planning Commission. The Committee deprecate the policy of fixing high targets and allocating inadequate funds for the Rural Electrification Programme. The Committee recommend that realistic target and appropriate allocation should be made for Rural Electrification Programmes taking into account cost escalation.

NEW DELHI;
May 15, 1997
Vaisakha 25, 1919 (Saka)

JAGMOHAN,
Chairman,
Standing Committee on Energy.

PART II

MINUTES OF THE FIRST TO TENTH SITTING OF SUB-COMMITTEE ON POWER AND 16TH SITTING OF STANDING COMMITTEE ON ENERGY HELD ON 30.9.1996, 15.10.96, 24.10.96, 6.11.96, 5.12.96, 30.1.97, 31.1.97, 8.2.97, 12.5.97, AND 14.5.97 RESPECTIVELY.

MINUTES OF THE FIRST SITTING OF SUB-COMMITTEE RELATING TO POWER OF STANDING COMMITTEE ON ENERGY (1996-97) HELD ON MONDAY, THE 30TH SEPTEMBER, 1996

The Sub-Committee sat from 1500 to 1530 hours.

PRESENT

Shri Dipankar Mukherjee — *Convenor*

MEMBERS

2. Shri Ramji Lal
3. Shri Ved Prakash Goyal
4. Shri Gaya Singh

SECRETARIAT

1. Shri G.R. Juneja — *Deputy Secretary*
2. Shri A.S. Chera — *Under Secretary*

2. At the outset, the Convenor welcomed the members to the first sitting of the Sub-Committee. He informed the members that four subjects had been assigned to the Sub-Committee. It was decided that the examination of the subject "Rural Electrification—Problems, Realities and Achievements" would be taken up first. The Sub-Committee decided to collect basic information and relevant materials on the subject "Rural Electrification—Problems, Realities and Achievements" from the Ministry of Power, Ministry of Planning and Programme Implementation, Ministry of Rural Areas and Employment, Planning Commission, Rural Electrification Corporation, Power Finance Corporation, Council of Power Utilities and State Governments. The Sub-Committee also decided to have discussion with some experts in the field for which members may suggest names.

3. The Sub-Committee decided to take oral evidence of the representatives of Rural Electrification Corporation on 15th October, 1996 at 11.00 hours.

4. The Sub-Committee also decided to undertake on-the-spot-Study tour during the first week of November, 1996 to study the rural electrification in some States. It was decided to finalise the tour programme in the next sitting of the Sub-Committee.

The Sub-Committee then adjourned.

MINUTES OF THE SECOND SITTING OF SUB-COMMITTEE RELATING TO POWER OF STANDING COMMITTEE ON ENERGY HELD ON 15TH OCTOBER, 1996

The Sub-Committee sat from 11.00 to 13.00 hours.

PRESENT

Shri Dipankar Mukherjee — *Convenor*

MEMBERS

2. Shri Iswar Parasanna Hazarika— *Alternate Convenor*
3. Shri Tariq Anwar
4. Shri Ramendra Kumar
5. Shri Ved Prakash Goyal
6. Shri Gaya Singh
7. Shri Vizol
8. Shri Manoj Kumar Sinha

SECRETARIAT

1. Shri G.R. Juneja — *Deputy Secretary*
2. Shri A.S. Chera — *Under Secretary*

WITNESSES

1. Shri M. Gpalakrishna — Chairman and Managing Director
2. Shri M.A. Azeez — Director (Technical)
3. Shri V.K. Khanna — General Manager
4. Shri I.S. Anand — General Manager

2. At the outset, Convenor, Sub-Committee on Power welcomed the representatives of Rural Electrification Corporation to the sitting of the Committee. CMD, REC gave a brief resume of the working of the Corporation.

3. The Committee then discussed the following points with the representatives of R.E.C :—

(i) Definition of Rural Electrification.

(ii) De-electrified Villages.

(iii) Monitoring of Rural Electrification Programmes.

(iv) Financing of Rural Electrification Programmes.

4. A copy of the verbatim proceedings of the Sub-Committee has been kept on record.

The Sub-Committee then adjourned

MINUTES OF THE THIRD SITTING OF SUB-COMMITTEE RELATING TO POWER OF STANDING COMMITTEE ON ENERGY HELD ON 24TH OCTOBER, 1996.

The Sub-Committee sat from 11.00 to 13.00 hours.

PRESENT

Shri Dipankar Mukherjee — *Convenor*

MEMBERS

2. Shri Iswar Prasanna Hazarika — *Alternate-Convenor*
3. Shri Tariq Anwar
4. Shri Ved Prakash Goyal
5. Shri Gaya Singh
6. Shri Rajendra Prasad Mody
7. Shri Sriballav Panigrahi

SECRETARIAT

1. Shri G.R. Juneja — *Deputy Secretary*
2. Shri A.S. Chera — *Under Secretary*

WITNESSES

1. Shri C.V.J. Verma — *Secretary-General*
2. Shri N.D. Gupta — *Counsultant*

2. At the outset, Convenor, Sub-Committee on Power welcomed the representatives of Council of Power Utilities to the sitting of the Sub-Committee. Secretary-General, Council of Power Utilities gave a brief resume of the working of the Council.

3. The Sub-Committee expressed their dissatisfaction over the poor quality of the Memorandum submitted by Council of Power Utilities. The Sub-Committee also expressed their concern regarding the non-appearance of the President, Council of Power Utilities before the Sub-Committee.

4. The Secretary-General, Council of Power Utilities informed that they have made suggestions to rectify the LT distribution system where the losses are very high. In response to questions on the Rural Co-operatives, the Secretary-General stated that as per their information, there are problems in revenue collection from the Co-operatives.

5. The Sub-Committee directed the Council of Power Utilities to furnish a detailed Memorandum on the subject including all the points raised by the Members during the sitting for the consideration of the Committee.

The Sub-Committee then adjourned.

MINUTES OF THE FOURTH SITTING OF SUB-COMMITTEE RELATING TO POWER OF STANDING COMMITTEE ON ENERGY HELD ON 6TH NOVEMBER, 1996.

The Sub-Committee sat from 11.00 to 13.00 hours.

PRESENT

Shri Dipankar Mukherjee — *Convenor*

MEMBERS

2. Shri Iswar Prasanna Hazarika — *Alternate-Convenor*
3. Shri Manoj Kumar Sinha
4. Shri Sriballav Panigrahi
5. Shri Ramendra Kumar
6. Shri Ramji Lal
7. Shri Ved Prakash Goyal
8. Shri Gaya Singh
9. Shri Vizol

SECRETARIAT

1. Smt. Roli Srivastava — *Joint Secretary*
2. Shri A.S. Chera — *Under Secretary*

WITNESSES

1. Shri M.P. Modi — *Secretary, Department of Programme Implementation, Ministry of Planning and Programme implementation.*
2. Shri A.S. Bhal — *Deputy Adviser*

2. At the outset, Convenor, Sub-Committee on Power welcomed the representatives of Department of Programme Implementation, Ministry of Planning and Programme Implementation to the sitting of the Sub-Committee. Secretary, Department of Programme Implementation, gave a brief resume of the role of the Department in connection with the subject "Rural Electrification—Problems, Realities and Achievements".

3. The Sub-Committee then discussed the following points with the representatives of Department of Programme Implementation :—

(i) Role of Ministry of Planning and Programme Implementation in connection with the subject under examination of the Sub-Committee, "Rural Electrification—Problems, Realities and Achievements".

(ii) Monitoring of village electrification and pumpsets energisation programme.

(iii) Rural Electrification as a component of rural development.

The Sub-Committee then adjourned.

MINUTES OF THE FIFTH SITTING OF SUB-COMMITTEE RELATING TO POWER OF STANDING COMMITTEE ON ENERGY HELD ON 6TH NOVEMBER, 1996.

The Sub-Committee sat from 15.00 to 16.30 hours.

PRESENT

Shri Dipankar Mukherjee — *Convenor*

MEMBERS

2. Shri Iswar Prasanna Hazarika — *Alternate-Convenor*
3. Shri Srivallav Panigrahi
4. Shri Ramendra Kumar
5. Shri Ramji Lal
6. Shri Ved Prakash Goyal
7. Shri Vizol

SECRETARIAT

1. Smt. Roli Srivastava — *Joint Secretary*
2. Shri A.S. Chera — *Under Secretary*

WITNESSES

1. Shri V.K. pandit, — Special, Secretary
2. Shri Prabir Sengupta, — Adviser
3. Shri L.P. Sonkar, — Adviser (Energy)
4. Shri B.N. Navalawala, — Adviser (I&CAD)
5. Shri Brij Bhushan, — Joint, Adviser (Agriculture)
6. Shri B. Srinivasan, — Deputy, Director (P&E)

2. The Convenor, Sub-Committee on Power, welcomed the representatives of Planning Commission to the sitting of the Sub-Committee and asked them to give a briefing on the subject Rural Electrification-Problems, Realities and Achievements."

3. The Sub-Committee then discussed mainly the following points with the representatives of Planning Commission :—

(i) Criteria for selection of MNP Block.

(ii) Financing of Rural Electrification Programme.

(iii) Shortfall in the village electrification targeted during Eighth Five Year Plan.

(iv) Economic viability as a criteria for village electrification.

(v) Village electrification through non-conventional energy sources.

The Sub-Committee then adjourned.

MINUTES OF THE SIXTH SITTING OF SUB-COMMITTEE ON POWER OF STANDING COMMITTEE ON ENERGY HELD ON 5TH DECEMBER, 1996

The Committee sat from 15.00 to 16.30 hours.

PRESENT

Shri Dipankar Mukherjee — *Convenor*

MEMBERS

2. Shri Ishwar Prasanna Hazarika
3. Shri Sriballav Panigrahi
4. Shri Gaya Singh
5. Shri Vizol

SECRETARIAT

1. Shri G.R. Juneja — *Deputy Secretary*
2. Shri A.S. Chera — *Under Secretary*

2. The Sub-Committee first considered and adopted the Draft Report on Action Taken by the Government on the recommendations contained in the 35th Rport of the Committee (1995-96) (Tenth Lok Sabha) on "Rehabilitation Policy of Tehri Hydro Electric Project—A Case Study"

3. The Sub-Committee then took up for consideration the Draft Report on Action Taken by the Government on the recommendations contained in the 36th Report of the Committee (1995-96) (Tenth Lok Sabha) on "Fast Track Power Projection—An Evaluation" and adopted the Draft Report by incorporating the following as the last sentence in para 10 of the Report.

"The Committee expect the Ministry to furnish the required information within a period of three months"

4. The Sub-Committee, thereafter, considered on-the-spot study tour programme of the Sub-Committee. The Sub-Committee had earlier decided to undertake on-the-spot study tour to some selected States in order to enable the Committee to have a comprehensive and in-depth understanding of the issues relating to the subject under examination *viz.* Rural Electrification-Problems, Realities and Achievements. Accordingly, the Sub-Committee proposed to undertake on-the-spot study tour to Bhubaneshwar, Talcher, Culcutta and Guwahati from 30.12.1996 to 3.1.1997 to hold discussions with officials of Rural Electrification Corporation, State Electricity Boards and other Co-operatives engaged in the rural electrification programme. As the Sub-Committee has also been assigned with the work of examining the subject "Renovation and Modernisation of Power Plants", it was felt that it would be beneficial to include in the tour programme, a visit to Talcher STPP of NTPC and hold discussions with officials of North-Eastern Electric Power Corporation (NEEPCO) at Guwahati. The Sub-Committee decided to solicit the Speaker's approval for the study tour.

5. The Convenor, Sub-Committee on Power, thereafter, brought to the notice of the members of the Sub-Committee a News Item in which is has been reported that clearances had been accorded by the Ministry of Power to two Power Projects in Karnataka which were formulated through the Memorandum of Undertaking (MOU) route much after the competitive bidding route for award of projects was made mandatory. As the Ministry had earlier informed the Committee that Competitive bidding for award of projects was made mandatory since early 1995, the Sub-Committee decided to ascertain from the Ministry of Power, the reasons for making an exception in case of the two Projects as reported in the News Item.

The Sub-Committee then Adjourned

MINUTES OF THE SEVENTH SITTING OF SUB-COMMITTEE RELATING TO POWER OF STANDING COMMITTEE ON ENERGY HELD ON 30TH JANUARY, 1997.

The Sub-Committee sat from 15.00 to 17.50 hours.

PRESENT

	Shri Dipankar Mukherjee	— *Convenor*
2.	Shri Ishwar Prasanna Hazarika	— *Alternate Convenor*
3.	Shri Ravindra Kumar Pandey	
4.	Shri Manoj Kumar Sinha	
5.	Shri Ramji Lal	
6.	Shri Gaya Singh	
7.	Shri Vizol	

SECRETARIAT

1.	Shri G.R. Juneja	— *Deputy Secretary*
2.	Shri A.S. Chera	— *Under Secretary*

WITNESSES

1.	Shri A Parthasarathi	— Secretary
2.	Dr. S.K. Chopra	— Sr. Adviser
3.	Dr. G.D. Sootha	— Adviser
4.	Dr. E.V.R. Sastry	— Adviser
5.	Dr. K.C. Khandelwal	— Adviser
6.	Shri Ajit Kumar Gupta	— Adviser
7.	Shri U.N. Panjiar	— Jt. Secretary
8.	Dr. N.P. Singh	— Director

2. At the outset, the Convenor, welcomed the representatives of Ministry of Non-Conventional Energy Sources. The Secretary, Ministry of Non-Conventional Energy Sources with permission of the Convenor

read out a statement on the subject. Thereafter, discussion was held on the following points :

(i) Electrification of 10,000 villages through Non-Conventional Energy Sources as earmarked in the 8th Plan Document.

(ii) Non-grid Power supply through Non-Conventional Energy Sources.

(iii) Role of energy Development Agency at the state level.

(iv) A UNDP/GEF Technical Assistance Project on Optimising Development of Small Hydro Resources in Hilly regions of India.

(v) Use of Bio-mass gasifiers in tribal villages.

(vi) Integrated Rural Energy Programme.

(vii) Programme for Ninth Five Year Plan

The Sub-Committee then adjourned

MINUTES OF THE EIGHTH SITTING OF SUB-COMMITTEE RELATING TO POWER OF STANDING COMMITTEE ON ENERGY HELD ON 31ST JANUARY, 1997.

The Sub-Committee sat from 11.00 to 12.00 hours.

PRESENT

Shri Dipankar Mukherjee — *Convenor*

MEMBERS

2. Shri Iswar Prasanna Hazarika — *Alternate Convenor*
3. Shri Ravindra Kumar Pandey
4. Shri Manoj Kumar Sinha
5. Shri Gaya Singh
6. Shri Vizol

SECRETARIAT

1. Shri G.R. Juneja — *Deputy Secretary*
2. Shri A.S. Chera — *Under Secretary*

2. At the outset, the Sub-Committee considered the draft List of Points for the evidence of representatives of Ministry of Power. It was decided that information collected from various State Govts/SEBs should be incorporated appropriately in the List of Points. The Convenor, Sub-Committee on Power directed to prepare some questions on System Improvement Programme and collect information on Minimum Action Programme in Power Sector. It was decided to forward draft List of Points to Ministry of Power for written replies.

3. The Sub-Committee decided to take oral evidence of the representatives of Ministry of Power on Saturday, the 8th February, 1997.

4. The Sub-Committee on Power also decided to take up the subject "Renovation and Modernisation of Power plants" for detailed

examination after submitting report on "Rural Electrification—Problems, Realities and Achievements."

5. The Convenor, Sub-Committee on Power directed to put up the comments of the Ministry of Power in regard to examination of the subject "Study of Delhi Electric Supply Undertaking—Modernisation of Electricity Boards" to Chairman, Standing Committee on Energy for consideration.

The Sub-Committee then adjourned.

MINUTES OF THE NINTH SITTING OF SUB-COMMITTEE RELATING TO POWER OF STANDING COMMITTEE ON ENERGY HELD ON 8TH FEBRUARY, 1997

The Sub-Committee sat from 12.00 to 13.30 hours.

PRESENT

Shri Dipankar Mukherjee — *Convenor*

MEMBERS

2. Shri Iswar Prasanna Hazarika — *Alternate Convenor*
3. Shri Ravindra Kumar Pandey
4. Shri Manoj Kumar Sinha
5. Shri Tariq Anwar
6. Shri Ved Prakash Goyal
7. Shri Gaya Singh
8. Shri Vizol

SECRETARIAT

1. Shri G.R. Juneja — *Deputy Secretary*
2. Shri A.S. Chera — *Under Secretary*

WITNESSES

Ministry of Power

1. Shri P. Abraham — Secretary
2. Ms. C.R. Gayathri — Joint Secretary
3. Mrs. Dipali Khanna — Director

Central Electricity Authority

4. Shri M.I. Baig — Chairman

2. At the outset, the Convenor, Sub-Committee on Power welcomed the officials of Ministry of Power to the sitting of the Sub-Committee.

The Secretary, Ministry of Power gave a brief statement on the subject at the beginning. The Sub-Committee then discussed the following points with the representatives of Ministry of Power:

(i) Inclusion of Rural Electrification in the Common Minimum Programme of the Government.

(ii) Status of Rural Electricity in the Common Minimum National Action Plan in Power Sector.

(iii) Role of Private Sector in Rural Electrification Programme.

(iv) Altering terms of finance for Minimum Needs Programme.

(v) Definition of village electrification.

(vi) Problems in electrifying remaining unelectrified villages.

(vii) Tapping of Non-Conventional Energy Sources for electricity.

(viii) Intense electrification of electrified villages and re-electrification of de-electrified villages.

3. A verbatim record of the proceedings has been kept.

The Sub-Committee then adjourned.

MINUTES OF THE TENTH SITTING OF SUB-COMMITTEE ON POWER OF STANDING COMMITTEE ON ENERGY HELD ON 12TH MAY, 1997

The Sub-Committee sat from 15.00 to 15.40 hours.

PRESENT

Shri Dipankar Mukherjee — *Convenor*

MEMBERS

2. Shri Ishwar Prasanna Hazarika — *Alternate Convenor*
3. Shri Sandipan Thorat
4. Shri Ramendra Kumar
5. Shri Ved Prakash Goyal
6. Shri Gaya Singh

SECRETARIAT

1. Shri G.R. Juneja — *Deputy Secretary*
2. Shri A.S. Chera — *Under Secretary*

The Sub-Committee on Power considered the draft report on the subject "Rural Electrification—Problems, Realities and Achievements" and approved the same after addition of the following line at the end of para No. 20 (PART-B) "The matter should also be taken up at the National Development Council level".

2. The Sub-Committee also decided to collect the list of Power plants undergoing Renovation & Modernisation from Ministry of Power and collect Memoranda on the subject "Renovation and Modernisation of Power Plants" from the following experts/organisations :—

(i) Confederation of Indian Industries.
(ii) Tata Energy Research Institute.
(iii) Neyveli Lignite Corporation (NLC).
(iv) Damodar Valley Corporation.
(v) Council of Power Utilities.
(vi) Dr. Homi N. Sethna.

The Sub-Committee then adjourned.

MINUTES OF THE SIXTEENTH SITTING OF COMMITTEE ON ENERGY HELD ON MAY 14, 1997

The Committee sat from 16.00 to 16.45 hours.

PRESENT

Chairman

Shri Jagmohan

MEMBERS

2. Shri Lalit Oraon
3. Prof. (Smt.) Rita Verma
4. Prof. Om Pal Singh Nidar
5. Shri Muni Lall
6. Shri Sriram Chauhan
7. Shri Sriballav Panigrahi
8. Shri Prithviraj D. Chavan
9. Shri P. Kodanda Ramaih
10. Shri Haradhan Roy
11. Shri V. Ganesan
12. Shri Anand Mohan
13. Shri Ramjilal
14. Shri Vedprakash Goyal
15. Shri Dipankar Mukherjee
16. Shri V.P. Duraisamy

SECRETARIAT

1. Shri G.R. Juneja — *Deputy Secretary*
2. Shri A.S. Chera — *Under Secretary*

The Committee on Energy considered the draft report on the subject "Rural Electrification—Problems, Realities and Achievements" and adopted the same with the following additions :

To add' as the last sentence of Para 9 of Part-B "All the installations of Non-Conventional Energy Sources must be supported by long-term maintenance contracts"

To 'add' the words "with suitable incentives" after the words "encourage the farmers" in line 12 of Para 18 (Part-B).

To add' as the last sentence of Para 18 of Part 'B' "Panel of experts in different States from industry should be formed for testing the efficiency of pumps and to give their recommendations".

2. The Committee also authorised the Chairman to finalise the Report and to present the same to both the Houses of Parliament.

The Committee then adjourned.