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STANDING COMMITTEE ON ENERGY (1999-2000) THIRTEENTH LOK SABHA

MINISTRY OF NON-CONVENTIONAL ENERGY SOURCES

DEMANDS FOR GRANTS (2000-2001)

SECOND REPORT

Presented to Lok Sabha on 18th April
Laid in Rajya Sabha on 18th April

LOK SABHA SECRETARIAT
NEW DELHI

April, 2000 / Chaitra, 1922 (Saka)

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4.	Shri R. S. Kambo	-	Under Secretary
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* Nominated to the Committee w.e.f. 6th April, 2000.

\# Ceased to be Member of the Committee w.e.f. 2nd April, 2000, consequent upon their retirement from Rajya Sabha.

INTRODUCTION

I, the Chairman Standing Committee on Energy, having been authorised by the Committee to present the Report on their behalf, present this Second Report (Thirteenth Lok Sabha) on Demands for Grants (2000-2001) relating to the Ministry of Non-Conventional Energy Sources.

2. The Committee took evidence of the representatives of the Ministry of Non-Conventional Energy Sources on 27th March, 2000.

3. The Committee wish to thank the representatives of the Ministry of Non-Conventional Energy Sources who appeared before the Committee and placed their considered views. They also wish to thank the Ministry for furnishing the replies on the points raised by the Committee.

4. The Report was considered and adopted by the Committee at their sitting held on 11th April, 2000.

NEW DELHI;
11 April, 2000
22 Chaitra, 1922 (Saka)

SONTOSH MOHAN DEV,
Chairman,
Standing Committee on Energy.

REPORT

PART – I

CHAPTER I

Introductory

Recognising the relevance of renewable energy sources, the Government of India set up in 1981 a Commission for Additional Sources of Energy (CASE), on the lines of the Space Commission and the Atomic Energy Commission m the Department of Science and Technology. A year later, a separate Department of Non-Conventional Energy Sources was created in the Ministry of Energy Ten years later, this was upgraded to the level of a Ministry. India has thus earned the distinction of being the only country in the world to have an exclusive Ministry for Non-Conventional Energy Sources (MNES) which has been implementing one of the world's largest programmes on renewable energy, like biogas, small hydro projects, wind, geothermal energy, solar photovoltaic etc. spanning the entire spectrum of technologies towards all sections of the society. The two-fold objectives of the Ministry are (i) to increase the role of renewables in the energy sector and (ii) to reduce and mitigate the pollution caused by conventional fossil fuels. To subserve these objectives the Ministry functions as a catalyst, bringing into fruition the project proposals in the renewable energy sector through a range of policies and programmes. In other words, the MNES serves as a link between project proposals and their implementation. To facilitate this, the Ministry has been assigned charge of the following under the Allocation of Business Rules:

* Commission for Additional Sources of Energy (CASE);

* Integrated Rural Energy Programme (IREP);

* Research and development of biogas and programmes relating to biogas units.

* Programme relating to improved chulhas and research and development thereof,

* Mini/micro-hydel projects of 3MW and lower capacity as well as small hydro projects upto 25MW and geothermal energy;

* Solar energy including solar photovoltaic devices, their development, production and applications

* Tidal energy

* Indian Renewable Energy Development Agency

* Research and Development of other non-conventional / renewable sources of energy and programmes relating thereto.

1.2 As part of special initiative to develop the North-Eastern Region, the Ministry has earmarked 10% of its domestic budgetary support for the North-East States including Sikkim in its major programmes. It has also approved a scheme for providing central financial assistance to set up and strengthen the State nodal agencies. A women's component plan has been included in the Ministry's renewable energy programmes such as the National Programme on Improved Chulhas, National Project on Biogas Development, Renewable Energy Parks, Wind Mills Programmes, Solar Photovoltaic Programme and Information & Public Awareness Programme.

1.3 The 9th Plan proposals of the Ministry lay emphasis on meeting minimum energy needs for cooking, lighting and other decentralized village energy requirements. It proposes to consolidate and further accelerate the development and commercialization of technologies for grid quality power generation. The plan focuses on capability and capacity building in technical institutions, industry, SEBS, State Nodal Agencies, NGOs and on encouraging the development of entrepreneurship. It provides for suitable policy and institutional framework alongwith adequate resources mobilisation for wider diffusion of non-conventional energy in the country's energy scenario.

1.4 The Demands for Grants of the Ministry of Non-Conventional Energy Sources were laid on the Table of Lok Sabha on 14th March 2000. Demands for Grants No. 64 of the Ministry under which provision has been made for Plan and Non-Plan expenditure, consists of two parts viz. Revenue Section and Capital Section for the year 2000-2001. It contains the following figures:-

(Rs. in crore)

	Plan	Non-Plan	Total
Revenue Section	327.61	5.30	332.91
Capital Section	113.55	-	113.55
Total	441.16	5.30	446.46

A detailed statement showing the actual Revenue and Capital expenditure for the year 1998-1999, Budget Estimates, Revised Estimates for 1999-2000 and Budget Estimates for 2000-2001 are given at Appendix 1.

1.5 Out of the total Demands for Rs. 446.46 crore the major Heads are: (i) M.H. 2810 relating to expenditure on non-conventional energy sources (Rs. 279.84 crore) (ii) M.H. 3601 and 3602 relating to grants for Centrally-Sponsored Plan Schemes to States/UTs (Rs. 37.21 crore and Rs. 4.60 crore respectively, (iii) M.H. 4810 relating to capital outlay on Non- conventional Energy Sources (Rs. 29.05 crore) and (iv) M.H. 6810 relating to loans and advances (Rs. 84.50 crore).

1.6 The observations of the Committee on the basis of the scrutiny of Demands for Grants of the Ministry for the year 2000-2001 are brought out in succeeding Chapter.

CHAPTER II

A. Budgetary Allocation

The Ministry of Non-Conventional Energy Sources have presented Demands for Grants of Rs. 446.46 crore for the year 2000-2001 as against Rs. 298.59 crore (Actual) in 1998-99 and Budget Estimates of Rs. 358.32 crore and Revised Estimate of Rs. 319.47 crore in 1999-2000.

The Plan, Non-Plan and Total expenditure during the years 1998-99 1999-2000 and 2000-2001 are given below:-

(Rs. in crore)

	1998-99			1999-2000		2000-2001
	B.E.	R.E.	Actual	B.E.	R.E.	B.E.
Non-Plan	4.60	4.62	4.54	4.82	4.97	5.30
Plan	403.02	299.80	294.05	353.50	314.50	441.46
Total	407.62	304.42	298.59	358.32	319.47	446.46

2.2 When asked the rationale of allocating Rs. 446.46 crore during 2000-2001 while the actual expenditure during the year 1998-99 was much less i.e. Rs. 298.59 crore only and R.E. for 1999-2000 was brought down to Rs. 319.47 crore, the Ministry in a note furnished to the Committee stated:-

> "A GBS of Rs.407.62 crore allocated during Annual Plan 1998-99 was reduced to Rs.304.42 crore at the RE stage by the Ministry of Finance. Further, during 1999-2000, a GBS of Rs.358.32 crore was allocated during Annual Plan 1999-2000, which was again reduced by the Ministry of Finance despite the improvement in progress of expenditure this year to Rs.319.47 crore at the RE stage. An amount of Rs.275.98 crore has already been booked by end of February 2000 and it is expected that the whole RE amount would be spent. As such, if we see the BE figures for 1999-2000 and 2000-2001, the increase is fully justified both in view of the increasing importance of the renewable energy sector as well as the track record of past expenditure.
>
> The higher outlays (GBS) for 2000-2001, as compared to 1999-2000, is largely on account of greater focus and consequently higher outlay for several priority programmes, viz.,
>
> * The Biogas and Improved Chulha Programmes are proposed to be strengthened to meet the cooking and lighting needs of the rural poor with regard to which the Prime Minister has observed that "it has a direct bearing on improving the quality of life of rural population, particularly women".
>
> * Solar Photovoltaic is another area which can improve the living standard of the rural population especially in remote and inaccessible areas.

* Towards the objective of giving a thrust to grid-quality power from renewables, a higher allocation has been given to Biomass Power, Wind Power and Small Hydro, Power from Urban and Industrial Wastes. All these areas have been strengthened for tapping the vast potential of energy available from these sources.

* IREDA equity has also been enhanced as financing of renewable energy sector is considered to be the key to commercialisation of these technologies".

2.3 When asked about the details of the programmes which suffered due to the cut imposed by the Ministry of Finance during the last two years, i.e. in 1998-99 and 1999-2000 alongwith the reasons for imposing such cuts corresponding to each of the programme separately, the Ministry in their reply stated as under:-

"The major reduction of budget provision was under IDA line of credit and SDC grant under Externally Aided Projects (EAP) being imple- mented by IPEDA during last two years. The main reason for non- utilisation of IDA line of credit is attributed to the delay in completion of post project sanction formalities, inadequate and delayed supplies from the equipment manufacturers, dropping of project in SPV sector by the borrowers and also general recession in the economy. The reduction in SDC grant was due to the reassessment of the external assistance which is depending upon the utilisation by IREDA / re- imbursement by the World Bank.

In the major programmes of the Ministry such as National Project op Biogas Development (NPBD), Solar Photovoltaic Programme, Biomass Programme / cogeneration etc. there was no major revision of either financial allocations or physical targets. There was also no adverse impact on the achievement of physical targets during last two years. However, minor revisions at RE stage were made under some programmes namely improved chulha, small hydro power, IREP, Energy from Urban and Industrial waste programmes.

Due to reduction of plan outlay, higher amount of committed financial liabilities are being carried over to next plan period. Therefore, the higher targets which could otherwise be planned during coming years would be affected. The reasons for imposing such cuts would ostensibly be lack of resources at the Finance Ministry level".

2.4 When asked what were the reasons for delay in completion of post project sanction formalities and corrective action has been taken in the matter, the Ministry in a note stated:

"The main reasons for delay in completion were delay in legal documentation, execution of agreements, creation of security and also completion of procurement procedure by the borrowers in line with the World Bank guidelines.

As a corrective measure IREDA has prepared a legal manual and a disbursement manual, strengthened its legal cell, started inspection/ monitoring through PMES cell. IREDA also organise awareness programmes and seminars to disseminate information on procurement procedures to potential clients."

2.5 Asked to explain the action taken against manufacturers for inadequate and delayed supplies, the Ministry stated:

"Supply by manufacturers is a commercial contract between the supplier and borrower. However, to avoid delays IREDA has been insisting on inclusion of a penalty clause for delays and on a Performance Bank guarantee. IREDA has set up special task force for the projects with time overruns and it also conducts meeting with developers/suppliers wherever delays are observed".

2.6 When the Committee enquired the reasons which led to dropping of projects in SPV Sector and remedial measures Government taken in the matter, the Ministry in a note stated:

"The main reasons for dropping projects in SPV Sector were inadequate cash flow of the companies who have taken PV projects and improper credit risk perception by the intermediaries who were given a line of credit from IREDA 'm order to on lend to consumers.

As a corrective measure IREDA has been undertaking detailed analysis on financial health of the promoters core business and its effect on SPV project, at the project sanctioning stage itself. In addition, to encourage the promoters, IREDA has relaxed procurement procedure in consultation with the World Bank and the servicing network has been strengthened by taking up training of technicians."

2.7 It may also be seen that Non-Plan expenditure at the R.Es is more than that of the B.Es during each of the year 1998-99 and 1999-2000.

2.8 When asked to mention the reasons for higher rate of increment of Non-Plan expenditure during the years 1998-99, 1999-2000 and 2000- 2001, and the steps taken/proposed to be taken to reduce the Non-Plan expenditure, the Ministry in their reply stated as under:-

"The increase in Non-Plan expenditure during 1998-99 and 1999-2000 is mainly on account of meeting expenditure in connection with increase in DA, more expenditure on LTC as 1998-99 was the last of 4 years block for LTC, increase in telephone tariff and increase in airfare during this year.

In order to curtail and contain the Non-Plan expenditure, domestic travel and foreign travel of officers have been reduced. Steps have also been taken to reduce expenditure on telephone".

2.9 When asked how the expenditure of Non-Plan activity like telephones is proposed to be reduced, the Secretary, MNES, replied:-

"These are all Non-Plan expenditure…….....We can reduce the categories. We can restrict the number of "pie who are entitled to residential telephone. We can also restrict the number of people who have a access to STD facility by cutting down, on the STD facility, we can cut down

expenditure ..... We would like to see that there is no misuse but if we find that out of four officers if two have it and they are able to manage it with two we need not have it for all the four. So that kind of adjustment is what we are thinking of In fact, according to the instructions issued by the Ministry of Finance 10 per cent cut has been imposed on all items like foreign travels, etc.".

2.10 Training is also included under Non-Plan expenditure. The Budget Estimates, Revised Estimates and Expenditure incurred during 1999-2000 and proposed allocation for 2000-2001 relating to the training is as under:-

(Rs.in crore)

	B.E. 1999-2000	R.E. 1999-2000	Actual Expenditure 1999-2000	Proposed B.E.
Training	1.50	1.0	0.59	1.70

2.11 From above it may be seen that a sum of Rs.1.50 crore was allocated at the B.E. for training. It was revised to Rs.1 crore and however only Rs.0.59 crore incurred during 1999-2000. When asked about the reasons for variations, the Secretary, MNES during the evidence replied:-

"Here, I would like to submit that this involves both sending our officers for training within the country to reputed institutions within and outside the country. So far as training within the country is concerned, this has been going on for sometime and we did not anticipate any problem. There was no particular difficulty as such. This year we have started sending people for training abroad also. We had to make the initial arrangement, tie up with the foreign institutions and since this take some amount of time, there was a little delay in establishing contacts and getting their clearance. This is the first year we have taken up this kind of a programme. This is why there has been a little delay and slight shortfall in the expenditure in so far as training is concerned. We are also sending officers from the State Nodal Agencies who are involved in this work. So, it is not as if it is confined only to officers of the Central Government. We are sending officers

from various State Governments who are dealing with the subject for training abroad".

2.12 When asked about the average cost of training, the representatives of the Ministry replied during evidence:-

"This year we started two courses abroad. The average cost is about Rs. 25 lakh per course. Within the country it comes to about Rs. 5 lakh".

2.13 When enquired as to how the Government ensure that personnel who are / have been imparted training are assigned responsibilities in the field of their training the Secretary, MNES, quiped:

"That is a major problem and in fact one of the reasons why progress on the part of the State Government is very uneven. We find there is a very rapid turn over of administrative officers in the State Nodal Agencies".

2.14 Internal and Extra Budgetary Resources (IEBR)

SECTOR-WISE DETAIM OF IEBR FOR THE YEAR 1997-99, 1998-99 AND 1999-2000 AND PROPOSED FOR 2000-2001

(Rs.in crore)

Particulars	1997-98 BE	RE	Actual	1998-99 BE	RE	Actual	1999-2000 BE	RE	Actual anticipated	2000-2001 BE
External										
Received	50.00	33.90	80.17	39.50	0.00	3.22	72.70	131.33	117.12	157.53
(i) ADB loan	50.00	33.90	78.83	39.50	0.00	0.00	57.00	105.58	105.58	123.45
(ii) GEF Grant	00.00	0.00	1.34	0.00	0.00	3.22	15.70	25.75	11.54	0.00
(iii) KFW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	34.08
Other IEBR	243.54	239.98	282.18	287.66	294.12	264.57	338.41	369.09	318.25	347.71
(i) Internal Accruals	13.50	13.00	16.41	49.88	49.88	26.54	63.81	27.59	29.32	58.26
(ii) Tax Free Bonds	100.00	100.00	100.00	100.00	50.00	90.00	100.00	100.00	50.00	100.00
(iii) Carry forward Surplus	70.04	66.98	69.39	76.33	59.24	59.24	67.60	142.80	142.80	54.29
(iv) Repayment of Loan	60.00	60.00	96.39	76.33	59.24	59.24	67.60	142.80	142.80	54.29
(v) Banks / FIs Loans	0.00	0.00	0.00	0.00	75.00	0.00	25.00	0.00	0.00	25.00
(vi) Others	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total IEBR	293.54	273.88	362.35	327.16	294.12	267.79	411.11	500.42	435.37	505.24

* As on date.

It may be seen from above that during 1998-99 a budget provision of Rs. 39.50 crore was earmarked for the Asian Development Bank (ADB) loan but a 'Nil' statement was shown at RE stage.

2.15 When asked about the reasons, and the impact it had on the ongoing projects, the Ministry in their reply stated as under:-

> "Since funds drawn during the year 1997-98 were still available with IREDA unutilised, it was decided not to draw the funds estimated at BE stage in 1998-99. As requirements were met from the unutilised portion of previous year, the requirement of funds of IREDA for disbursement wore fully met".

2.16 Clarifying further, M.D., IREDA, during evidence stated as under:-

> "The ADB line of credit was sanctioned in June, 1997 as a commercial line of credit, first time in the world, to move from subsidised programme to a commercial programme. After signing that, the electricity came in July when we, estimated for the year 1997-98. As you are aware, the estimates are generally done during November- December of any calendar year. When we estimated before the line could become effective and then tried to market up this line with the private sector, we wanted to market it, the major point was the procurement point. There is international competitive bidding, local competitive bidding. This procurement procedure has to be educated to the customers, tried to acquaint with the procedure and then each one of it had to be pre-cleared by ADB. It involved a little time. In the World Bank procedure we had certain track record established. Therefore, it was moving fast. We had difficulty in the first two years to convince the private sector people to follow the procedure and to go through the pre-clearance requirement of ADB because it was a learning process for them, for us and for the private sector. It has now comes as a streamline. Tins year we are going to utilise more of funds. We expect to complete it as per the schedule. That is why variation was there. "

2.17 The Committee also took cognizance of the position of internal accurals. In the opinion of the Committee, its position is not so optimistic. For instance during 1998-99 as against BE/RE of Rs.49.88 crore, the actual realization was only 26.54 crore. Similarly, during 1999-2000 as against BE/RE are Rs. 63.81 crore and 27.59 crore respectively only Rs.29.32 crore could be mobilized. When asked about reasons for the dismal position of internal accruals during these years, the MNES in a note stated as under:-

> "The projection for internal accruals of Rs. 58.26 crore for 2000-2001 was based on IREDA's lending operations and anticipated refund on account of the revision of terms and conditions of Subsidiary Loan Agreement (SLA) sought by IREDA. However, the government did not find the revision of the terms and conditions of the loan feasible and, as such, the internal accruals in 2000-2001 would accordingly be reduced by the amount which was assumed by IREDA to be

refunded. However, since the BE for 2000-2001 had already been finalized the revised and corrected figure will be reflected at RE stage".

2.18 Clarifying further, the Ministry stated as under:

"The reasons for not achieving the Internal Accruals are mainly because the modified Subsidiary Loan Agreement (SLA) sought to be entered into by IREDA has not matured and also due to an anticipated IP increase in provision of NPAs."

2.19 Further, the position of the banks / FIs loan is also not so encouraging. For instance during 1998-99 at RE stage Rs. 75 crore have been shown, however, actual was zero. Similarly, during 1999-2000 Rs. 25 crore were shown at BE stage as against the actual of zero. Similarly, for the next financial year a provision of Rs. 25 crore has been kept. When asked what are the reasons for non-performance and steps Government proposed to ensure that only achievable targets for different components of IEBR are set, the Ministry stated as under:-

"During 1998-99 at RE stage a shortage of resources was anticipated due to reduction in allocation of tax-free bonds from Rs. 100 crore to Rs. 50 crore, therefore, bank loans provisions of Rs. 75 crore was made. However, since the Ministry of Finance increased the allocation of tax-free bonds to Rs. 90 crore at the end of the year, the bank's loan was not availed of.

In 1999-2000, at RE stage, the requirement of additional resources was not felt on account of increased repayments expected from borrowers.

For 2000-2001 a provision of bank loan of Rs. 25 crore has been made, keeping in view the possibility in reduction in allocation of tax- free bonds and also to keep provision of a standby reserve resource.

To ensure that only achievable targets for. Different components of IEBR are set, the Government would reiterate its advice realistic provisions and also intensify its monitoring of IEBR targets and achievements".

Mid-Term Appraisal of 9th Five Year Plan (1997-2002)

2.20 During the Mid-Term Appraisal of 9th Plan period, the Planning Commission has formulated a draft Approach Note in respect of New and Renewable Sources of Energy and mentioned total outlay for expenditure of Rs. 1611.48 crore comprising GBS of Rs.924.00 crore and IEBR of Rs. 687.48 crore would be made available for the remaining two years of 9th Plan in view of the overall resource availability position. Due to reduction of proposed 9th Plan outlay by the Planning Commission, the physical targets originally planned have been revised commensurate with the financial outlay approved. The reduction of outlay had major impacts

particularly on biogas, improved chulha, wind power, small hydro power, solar energy and energy from waste programmes.

The programme-wise 9th Plan physical targets revised for the 9th Plan period are given below:-

Sr. No.	Programmes/Sector	Units Targets	Original Physical Targets proposed during Ninth Plan	Revised Physical Targets approved
1.	2.	3.	4.	5.
1.	Biogas	No. in lakhs	14.5	10
2.	Improved chulha	No. in lakhs	250	150
3.	Biomass/Gasifier	MW	50	40
4.	Integrated Rural Energy Programme	Block Nos.	500	200
5.	SPV Demonstration			
	SPV Home Light	Nos. in lakhs	5	2
	SPV Lanterns	Nos. in lakhs	10	3
	SPV Power Plants	MW	5	1.6
6.	SPV Pumps	Nos.	10000	4000
7.	SPV Power	MW	10	1.5
8.	S.T. Energy Solar Water Heating Systems	M2 collector area	13,00,000	1,50,000
	Solar Cooker	Nos. in lakhs	5	1.5
9.	Wind Pumps & Hybrid Systems	Nos.	1,500	1,000
10.	Aerogenerator	KW	700	250
11.	Wind power	MW	2000	1000
12.	Small Hydro Power	MW	350	130
13.	Biomass Power	MW	400	314
14.	Energy from Waste	MW	90	42

(SPV = Solar Photovoltaic; MW = Megawatt; KW = Kilo Watt)

The revised Physical targets set up for 9th Plan period are likely to be fully achieved within the allocated funds during 9th Plan period.

2.21 In the major programmes of the Ministry such as NPIC, NPBD, SHP, Biomass Power/Cogeneration, Wind power etc. there are no major shortfalls in physical and financial achievements during the first three years of Ninth Plan period. However, some shortfalls in physical achievement have occurred in Solar Photovoltaic and Energy from Urban and Industrial Waste Programmes.

2.21A. Ministry of Non-Conventional Energy Sources has taken various initiatives/steps in promoting the non-conventional energy programmes throughout the country in close association with the State Government Departments/Agencies. It is necessary for the State Governments to have an increased role in implementation of various non-conventional energy programmes so as to have a visible impact of these programmes, especially in changing the life of rural people and meeting various energy needs in domestic and industrial sectors. However, it has been noticed that such efforts from State Governments are lagging and they are unable to implement such programmes timely and effectively. State Governments are facing various constraints in implementation of non-conventional energy programmes in a big way. The place of the implementation of the Renewable Energy Programmes is faced with various constraints, the major ones of which are:-

(a) **Financial** - Renewable energy to and require high start-up costs the Central Government do not have adequate financial resources. This poses limitations on quantum increase in activity as well as on the pace of activity.

(b) **Lack of favourable power purchase policy** - Private entrepreneurs are not able to establish commercially viable power projects because State Governments do not have sufficiently favourable policies providing for wheeling, banking, evacuation, land allotment, etc.

(c) **Technology** – The technologies for several renewable energy sources have not fully stabilized and more intensive R&D effort is needed with a special focus on R&D-Industry partnership.

(d) **Demand –** Since the price per unit of consumer renewable energy technologies such as solar cooker, biogas, solar geysers and solar lanterns are high, it has not been possible to generate sufficient demand for these items. This is compounded by the fact that the perceived reliability of these products in the eyes of the consumers is low.

(e) **Fiscal incentives** - Fiscal incentives such as 100% depreciation which were attracting a lot of attention in the private sector have to a

considerable extent been diluted by the imposition of Minimum Alternative Tax (MAT).

(f) **Professional human resource base** – for a new technology like renewable energy, professionally skilled human resource is one of the most critical inputs. Adequate numbers of professionally skilled manpower are not available in the renewable energy sector.

(g) **Inadequate budgetary support** -the Central, as well as State Governments are not providing adequate budgetary support for the renewable energy programmes.

(h) **Project Formulation** -State Governments are unable to formulate suitable proposals on non-conventional energy sources relevant to their States mainly due to lack of institutional set up capable of undertaking proper survey and assessment of demand of various energy needs and formulating suitable proposals especially for remote and far-flung areas.

(i) **Necessary Clearances** - Most of the renewal energy project by the States are delayed considerably (about 6 months to one year) due to long delay in land allotment, obtaining clearances from various Departments/Organizations such as Forest, Environment, Pollution Boards, etc. For close interaction and coordination with various Agencies / Departments A Single Window Clearance concept should be considered by State Government Department / Agencies involved in implementation of non-conventional energy projects.

(j) **Infrastructure Facilities** – lack of suitable infrastructure facilities like sub-stations, transformers, etc. to evacuate the power generated from the decentralized energy sources, approach roads, and other basic minimum facilities like water supply etc. are acting as major bottlenecks.

(k) **Monitoring** - due to lack of proper suitable monitoring mechanism at State level, various non-conventional energy projects are not implemented timely and not maintained properly which leads to non-functioning of various systems / devices.

2.22 The Ministry of Non-Conventional Energy Sources have presented Demands for Grants of Rs. 446.46 crore for the year 2000- 2001 as against an expenditure of Rs. 298.59 crore in 1998-99 and Revised Estimate of Rs. 319.47 crore in 1999-2000. The Committee note that Gross Budgetary Support (GBS) of Rs. 403.02 crore allocated during Annual Plan 1998-99 was reduced to Rs. 304.42 crore at RE stage by the Ministry of Finance. Against this, the actual expenditure was Rs. 298.59 crore. Further, during 1999-2000 GBS of Rs. 358.32 crore was allocated during Annual Plan 1999-2000 which was again reduced by the Ministry of Finance, despite improvement in Non-Plan expenditure in the current year. It has been

brought to the notice of the Committee that the major reduction in Budget provisions was under IDA line of credit and SDC grant under external aided projects being implemented by IREDA during last two years. The major reasons attributed for non-utilisation of IDA line of credit are delay in completion of post-project sanction formalities, inadequate and delayed supply from equipment manufacturers and dropping of project in Solar Photovoltaic (SPV) Sector by the borrowers. The reduction in SDC grant was due to reassessment of external assistance depending on utilisation by Indian Renewable Energy Development Agency/re-imbursement by the World Bank. The Committee are of the opinion that due to reduction in budgeted Plan outlay, considerable financial liabilities have been carried over to the next Plan period. As a result, the targets fixed for the Ninth Plan would he affected. The Committee feet that instead of Pruning down the targets, the Govt. should provide sufficient budgetary support to realise the original targets, set for the Ninth Plan. The Committee do not understand the justification for imposing a cut in spite of improvement in expenditure. Further, this Committee has over the years cautioned the Ministry of Finance not to impose any arbitrary financial cut. The Committee noticed that the Ministry of Finance are not taking the advice of the Committee with the seriousness it deserves. The Committee reiterate their earlier recommendation and desire that Ministry of Finance should not impose cut on the budgetary proposals of the Ministry of Non-Conventional Energy Sources once they have been approved by the Parliament. The Committee also desire that the reasons for delay in completion of post- sanction formalities, inadequate and delayed supply from equipment manufacturers and dropping of projects in SPV Sector by borrowers may he gone into and corrective steps taken.

2.23 The Committee feel that the Ministry should make all out efforts to cheek the non-Plan expenditure and at the same time make a realistic assessment of their requirement of non-Plan funds. Though the administrative expenditure of the Ministry has increased over the years, an important component of non-Plan expenditure viz. training has not been given its due importance and the amount allocated for the purpose has remained unutilised. The Committee feel that the staff engaged in the field of non-conventional energy sources should be given proper training to keep them abreast with the latest technologies in the field. It should also. be ensured that the persons given training are assigned duties in the field of their training.

2.24 The Committee have observed that over-optimistic targets, which are seldom achieved, have been proposed for mobilisation of Internal and Extra Budgetary Resources (IEBR). For instance during 1998-99, as against target of Rs. 327.16 crore, only Rs. 267.79 crore could he realised through IEBR. The reasons adduced for such mis-match were non-utilisation of ADB loan to the tune of Rs. 39.50 crore, non-availing of Bank loan of the order Rs. 75 crore and inability to raise projected finances under tax free bonds. The Committee are constrained to note the wide variations between budgeted amount and actual expenditure with reference to external aid received through ADB. The Committee are of the opinion that such casual and poor budgeting leads to distortions in the planning process. It has been brought to the notice of the Committee that during

1999-2000, Bank loan amounting to Rs. 25 crore may not he availed by IREDA. Similarly, due to anticipated increase in the provision of NPA and subsidiary loan agreement sought to be entered into by IREDA, not being matured, the internal accruals may fall short by another Rs. 47 crore. The Committee, therefore, recommend that only realistic and achievable IEBR targets should be fixed. The Committee also desire that reasons for under-utilisation of ADB loan be gone into and corrective steps taken. The anticipated increase in Non-Performing Assets of IREDA, does not augur well for the organisation. The Committee desire that result-oriented steps should be taken not only to contain NPAs in IREDA but also to improve the rate of recovery.

2.25 The Committee have observed that State Governments are unable to formulate suitable proposals on Non-Conventional; Energy Sources, relevant to their States, mainly on account of absence of institutional set up capable of undertaking proper survey and assessment of demands of various energy needs. They are also not equipped to formulate suitable proposals specially for remote and far-flung areas. In the opinion of the Committee, if States take suitable steps by involving public and private sectors, in preparing such proposals, these can help in promoting renewable energy programmes more effectively. Therefore, the Committee desire that Ministry of Non-Conventional Energy Sources should take up the matter with the State Governments and impress on them the imperative need for developing an effective mechanism for formulation of appropriate proposals on Non-Conventional Energy Sources in their States, This will not only meet lighting, beating, cooking, drinking water, irrigation and other basic energy requirements in domestic sector but also in industrial applications in their States. The Committee desire that they may be apprised of the follow-up action taken by State Governments in this regard.

2.26 It has been brought to the notice of the Committee that the implementation Of most of renewable energy projects by the States gets delayed considerably on account of cumbersome procedures involved in land allotment and obtaining clearance form various Departments/Organisations such as Forest, Environment, Pollution Board, etc. This leads to cost and time overruns of renewable energy projects. The Committee desire that the Union Government should urge upon the State Governments for creation of Single Window Clearance Concept which will not only minimise delay but will also expedite the projects under execution.

2.27 At present, Ministry of Non-conventional Energy Sources are providing Central subsidy/financial assistance under various programmes and the remaining cost is to be borne by the State Governments / users. For instance, in the easier schemes, the cost is shared on 50:50 basis. But for the costlier schemes like small hydro projects, 75% of the cost is borne by Central Government and 25% by State Government. For the difficult schemes the ratio is 90:10. The allocation provided to the States for Non-conventional Energy Projects by the Planning Commission is totally inadequate to meet the matching funds

requirements. It has also been observed that allocations made for Non-Conventional Energy Sector to States are sometimes diverted for some other purposes. As a result, funds are not made available for implementation of various renewable energy programmes. The Committee, therefore, recommend that the Union Government should take up the matter with the State Governments and advise them to make adequate financial allocation while formulating their Annual Plan and also ensure that funds are not diverted to other Sectors and are utilised only for Non-Conventional Energy Projects. The Committee have also been informed that construction of Common Gobar-gas Plants, Non-Conventional Energy System/Devices for community use and related activity can be funded through the MPLAD Scheme. The Committee desire that the Ministry should tap funds under these schemes to meet the resources gap so that the Non-Conventional Energy Projects are not starved of funds.

2.28 The Committee have observed that execution of Non- Conventional Energy Projects are delayed considerably due to lack of trained personnel and man-power required for execution of such projects by the States. Further, most of the State Governments are not having specialised institutions, associations, leading NGOs, grass-root entrepreneurs, etc. capable of implementing these projects efficiently resulting in cost/time overruns. Also some of the State Governments/ Agencies do not have District Cells/Organisations, responsible for implementation of New and Renewable Sources of Energy (NRSE) projects. In the opinion of the Committee, State Governments should associate public sector undertaking---Navratnas & Mini Navratnas in the implementation of such projects.

2.29 It has been observed that lack of suitable infrastructure facilities such as sub-station, transformers, etc., to evacuate power generated from decentralized energy sources, approach road and other basic minimum facilities like water supply, etc., are acting as major impediments in the execution of New and Renewable Sources of Energy (NRSE) Projects. The Committee desire that the Union Government should take up the matter with the State Governments for creating suitable infrastructure facilities required for implementation of such projects. The follow-up action taken by the State Governments in this regard may be intimated to the Committee within 6 months after the presentation of the Report.

2.30 Due to lack of proper and suitable monitoring at State level NRSE projects are not implemented on time nor are they implemented properly. This leads to non-functioning of various systems/devices. The Committee desire that the imperative need for proper monitoring of various projects should he impressed upon the State Govts. more effectively. Such monitoring efforts should he supplemented by active involvement of user/local Self-Government bodies such as Panchayats, NGOs in order to ensure an effective monitoring and regular feed-back.

2.31 Besides monitoring, it is also necessary to build up a strong after sales service mechanism, so as to ensure that such systems/devices function to the satisfaction of the users. In the opinion of the Committee, maintenance will not he easy and

breakdowns cannot he attended quickly until and unless trained and skilled man-power is available at district/State level. The Committee, therefore, desire that the Union Government should urge upon the State Governments for actively involving turnkey workers/energy entrepreneurs for service, repair and maintenance of such systems/devices. It should also he ensured that two to three years warranty clause is invariably incorporated in the terms and conditions while procuring such systems/devices. Training programmes for entrepreneurs and local youth for proper maintenance, servicing and repairing in association with the Panchayats/local bodies/ NGOs should also he arranged.

B. New and Renewable Sources of Energy for North-Eastern Region and Sikkim

A total provision of Rs. 44 crore has been made in the Ministry's budget as a lumpsum provision for projects/schemes for North-Eastern Region and Sikkim. In response to the question what has been the achievements of North- Eastern Region relating to the NCES, the Ministry in a note stated as under:

> "The Ministry has allocated 10% of the plan budget for development of North Eastern region including Sikkim during 9th Five Year Plan to take up major non-conventional energy programmes such as: biogas, improved chulha, small hydro power (upto 3 MW capacity) and solar photovoltaic programme. During the first two years of the 9th Plan an amount of Rs. 38.69 crores has been spent. During 1999-2000 entire allocation of Rs. 25.50 crores are expected to be fully spent. The cumulative physical achievements for the North Eastern region & Sikkim in respect of various programmes are 50,500 biogas plants, 9.76 lakh improved chulhas, 20,104 solar lanterns, 5,927 home lighting systems, 2,843 street light systems, 84 kWp SPV power plants, 3,520 sq. m. collector area of solar water heating systems and 2,326 solar cookers. In addition, 68 Nos. of small hydro power projects with a total capacity of 54.05 MW have been installed and 34 Nos. with a total capacity of 35.10 MW are under installation in North East Region and Sikkim. In addition, 112 blocks have been taken up under Integrated Rural Energy Programme. The Ministry also provided support for information and publicity of various renewable energy systems/devices and set up one Aditya Solar Shop each in the State of Assam and Tripura and Solar Aditya Shops have been sanctioned recently for the State of Manipur and Mizoram. An important scheme for providing Central Financial Assistance for setting up and / or strengthening of State Nodal Agencies in each of the, North East States including Sikkim has been undertaken. In addition IREDA has also sanctioned various projects such as SPV water pumping systems, portable micro-hydel sets, solar lanterns etc. and organized various promotional programmes in North East Region including Sikkim".

2.33 Further, the details of proposed 10% allocation of GBS i.e. Rs. 44.00 crores made for North-Eastern Region States and Sikkim under major programmes- are- given below:-

Sl. No.	Programme	Proposed 10% allocation for NERS (Rs. in crores)
1.	Biogas	7.00
2.	Improved Chulhas	2.00
3.	Biomass Gasifier	2.00
4.	Integrated Rural Energy Programme	1.00
5.	Solar Photovoltaic Programme	5.00
6.	Small Hydro Power	11.00
7.	State Nodal Agencies – NE	1.00
8.	IREDA	15.00
	Total	**44.00**

IREDA, being a financial institution, provides loan assistance for Projects relating to Non-conventional Energy Sources. Based on allocation of Rs. 15 crores for the year 2000-01 for the first time, IREDA has initiated action for preparation of Strategy and Action Plan".

2.34 When asked if the budgeted amount for Small Hydro Power having huge potential in the North-Eastern Region and Sikkim (NERS), is sufficient the Ministry in their reply stated:-

"The North-Eastern Region has very good potential of small hydro power development. The Ministry of Non-conventional Energy Sources is giving special incentives to the North-Eastern States for development of such projects. The budget provision for the year 2000-2001 has been kept keeping in view the proposals received from the North- Eastern States for taking up SHP projects during the next year. As the commitment of the Ministry for such projects is spread over a period of 3-4 years, the provisions are considered adequate to meet the requirements. A special thrust is given to the North-East under the SHP sector. During 1997-98 and 1998-99, a sum of Rs. 15.65 crore and Rs. 7.76 crore respectively were released for SHP projects in North-East States".

2.35 The Committee observe that the Ministry has allocated 10% of the Plan budget for development of North-Eastern Region including Sikkim during 9th Five Year Plan, to take up major Non-conventional Energy programmes like biogas, improved chulhas and solar photo- voltaic programmes. An amount of Rs. 38.69 crore has been spent during the first two years of the 9th Plan. For the ensuing financial year i.e., in 2000-2001, a lumpsum provision of Rs. 44.00 crore has been made in the Ministry's budget. The Committee feel that most of the Non-Renewable Energy programmes in the North-Eastern Region including Sikkim suffered due to either under or non-utilisation of allocated funds and absence of State Nodal Agencies. The Committee, therefore, recommend that the Government should initiate steps for setting up and/or strengthening of State Nodal Agencies and also encourage the States to accord top priority to the Non-Renewable Energy schemes

with their respective matching funds. IREDA, the funding agency for Non-Conventional Energy Sources programmes, should also initiate an Action Plan for the North-Eastern Region States and Sikkim to utilise the allocated fund of Rs. 15.00 crore out of the proposed 10% allocation for New and Renewable sources of Energy.

C. National Project on Biogas Development (NPBD)

The National Project on Biogas Development (NPBD), catering to setting up of family type biogas plants, commenced in 1981-82 and is continuing during the 9th Plan period. 'Re objectives of the programme are to provide clean and convenient fuel for cooking and lighting in rural areas, enrich organic manure for use in conjunction with the chemical fertilizer in agricultural fields, improve sanitation and hygiene by linking toilets with biogas plants and reduce the drudgery of women. A potential of setting up of 120 lakh biogas plants has been estimated up to March 21, 1999 out of which 28.63 lakh biogas plants have been set up in the country under this programme, thereby harnessing less than 25 percent of the estimated potential. Thus, it would take many decades more to harness the full potential at the existing rate of achievement.

2.37 When asked the rationale of arriving at the potential of 120 lakh biogas plants in the country, the representatives of the Ministry replied:-

> "Based on the 1972 live-stock census and also based on the Sample Survey conducted by the National Dairy Research Institute, Karnal about the live-stock and the fodder available at that time, it was estimated that around 900 million tonnes of fresh cattle dung is produced in the country. Based on the 232 million cattle head as per the 1970 live-stock census, even if one-third of the dung-that was the quantity of dung used in kitchen-was converted for biogas, then the potential works out to 12 million biogas plants of family type. Since then we have been using this figure as the theoretical potential. This was worked out in 1982 and it has been there since then".

2.38 The Budget provisions for the scheme years 1998-99, 1999-2000 and 2000-2001 are (NPBD) in respect of 11 as under:-

(Rs. in crore)

Years	1998-99	1999-2000		2000-2001
	Actuals	B.E.	R.E.	B.E.
Plan	54.97	60.00	60.00	55.00

2.39 When asked why the Budget Estimates for the National Project on Biogas Development (NPBD) has been reduced in the year 2000-2001, the representatives of the Ministry replied during evidence as under:-

> "The reason is that we are going in for smaller size plants. And also the subsidy is now become size neutral. Earlier, we were giving more for bigger plants and less

for small plants as a result what was happening was everybody was trying to show bigger size plant so as to claim bigger subsidy. Now, what has happened is we have made it neutral. That means irrespective of the size, we are giving flat rate of subsidy as a result the total requirement of fund has come down, not that we are giving less importance to this".

2.40 When asked whether Government propose to include it under M.P. Local Area Development Scheme, so as to meet the resources gap, the Secretary, MNES replied:-

"Sir, we have taken note of it".

2.41 It has been stated that higher outlay (GBS) for 2000-2001 is largely on account of greater focus on an important project like biogas. A glance over-targets and achievements under National Project on Biogas Development Programme reveals that physical targets were not met during the years 1997-98, 1998-99 and also 1999-2000. For instance in the State of Assam as against target of 1500, the actual achievement was only 275. Similarly, only 50% targets were met in the year 1998-99. The position in the year 1999-2000 is dismal since out of 500 plants only 58 have been set up by the end of February, 2000. The position in other States of North- Eastern Region areas is also not so better. When asked how the Government is optimistic to meet the physical and financial targets with the enhanced outlays, the Ministry in their evidence reply stated as under:-

"National Project on Biogas Development (NPBD), which caters to family size biogas plants is implemented in all States/UTs, including North-Eastern Region States. Since 1992-93, every year the national targets fixed for NPBD have been achieved in full rather exceeded to.

The shortfalls in achieving the targets in case of Assam and some other States, varying from year to year were bridged by over-achievements made by other States, such as Andhra Pradesh, Maharashtra and Orissa and also by Khadi and Village Industries Commission. Therefore, the overall annual targets were achieved every year.

For 1999-2000, the latest progress reports received, which mostly relates up to the month of January, 2000, indicate that 1. 13 lakh biogas plants have been completed and work was in progress to achieve the annual target.

The outlay (GBS) for 2000-2001 for NPBD is Rs. 54.70 crore for all States and UTs, other than the North-Eastern Region States and Sikkim and Rs. 7.00 crore for North-Eastern Region States and Sikkim, thereby totalling to Rs. 61.00 crore. The provision is adequate for planning higher target of Rs. 1.80 lakh plants, for all States/UTs as compared to the target of 1.68 lakh plants, for 1999-2000. The Demands for targets for 2000-2001 already received from some States are encouraging to plan the proposed higher target".

2.42 The physical targets set and corresponding achievements made during the last three years for each of the North-Eastern States including Sikkim are given below:-

Physical Target and Achievement

State / Agency	1997-98		1998-99		1999-2000	
	T	A	T	A	T	A (April 1999-Feb. 2000)
Arunachal Pradesh	100	105	102	30	250	50
Assam	1500	275	500	223	5000	58
Manipur	300	271	200	190	600	75
Meghalaya	100	Nil	100	75	300	265
Mizoram	200	147	200	200	400	75
Nagaland	300	121	200	104	800	73
Sikkim	250	174	200	200	600	173
Tripura	101	72	100	92	180	101
KVIC for N.E. States	-	5405	-	6617	550	4086

T - Target A - Achievement

Explaining the reason, the Ministry in their note stated:

"During 1998-99, the States of Manipur, Meghalaya, Mizoram, Sikkim and Tripura almost achieved their respective targets, whereas the States of Arunachal Pradesh and Nagaland were not able to achieve the target even to that extent of 100 to 200 plants due to inadequate budget session towards State subsidy m their respective State Plans. The State of Assam was not able to achieve the target of 500 plants again due to inadequate provision m the State Plan. For 1999-2000, an attempt has been made to allocate higher targets to almost all North Eastern Region States mainly to aim at utilising 10 per cent of the plan budget exclusively for these States. However, except Meghalaya and Tripura, other States have not accepted higher targets with the reason that the States were not able to provide requisite State Plan budget for meeting State subsidy on allocated higher targets".

2.43 On the reasons for slow rate of achievement in harnessing the potential, the Ministry in a written reply stated as under:-

"The reasons for the slow rate of coverage of the estimated potential are: (i) limited Central budgetary support; (ii) low priority given by some State Governments' (iii) high cost of installation of biogas plants; and (iv) inadequate maintenance servicing at the local level. Some States like Goa, Gujarat, Himachal Pradesh, Karnataka, Kerala, Maharashtra, and Mizoram, which have harnessed 35

to 65 per cent of the estimated potential, are finding it difficult to plan higher targets".

2.44 The steps taken / to be taken by the Ministry in removing the bottlenecks that arise in the course of implementing the projects are mentioned by the Ministry in their written reply as under:-

"(i) A budget provision of Rs.61.70 crore has been proposed for NPBD for 2000-2001 which is 4 per cent higher than the BE for 1999-2000 (ii) The State Government of A.P. has linked the biogas programme with its People's Programme, namely, Janmabhoomi. Similarly, the State of Karnataka has included the biogas programme under its "Anila Yojana". Some State Governments, such as, Andhra Pradesh, Gujarat, Karnataka, Kerala, Orissa and Rajasthan are providing additional State subsidy for biogas plants. Other States have been requested to emulate these examples. (iii) As a result of the R&D efforts made in the past, the cost of construction of the conventional steel gas holder plant type (KVIC model) was brought down by about 30 per cent and a fixed dome model, called Deenabandhu, which was 50 per cent cheaper, was developed. However, the cost of a common size plant (i.e. 2 cubic metres) is still about Rs. 8,5001- to Rs. 10,0001- which is high for a majority of rural families. Recently, a new fixed dome model of ferro cement, which costs about 15 per cent less, has been developed and approved for promotion. (iv) Refresher training courses on repair and maintenance of biogas plants are being organised for masons and technicians at Biogas Development and Training Centres in different States. A scheme of repairing non-functional old plants is proposed to be developed and implemented during 2000-2001. The States have already been requested to identify Blocks/districts which have non-functional plants; to assess the extent of repair needed, the cost involved and to determine the likely contribution to be made by the beneficiaries concerned".

2.45 When asked the number of Biogas Plants not in working condition and action taken to re-start these plants, the Ministry in a note state:-

"The second round of evaluation survey study conducted in 1992 indicated that at the national level on an average 77 per cent plants were functional. The functionality of plants was found to have improved in the third round of survey study conducted in 1995-96, where it was reported that the functionality has reached 87.5 per cent. Out of the balance 12.5 per cent non-functional plants, only 5 per cent plants had structural defects; 6 per cent plants were non-operational due to simple problems like choking of the inlet and outlet, shortage of dung, scum formation, etc., and 1.5 per cent plants had social problem such as litigation, division in the family, selling of property, shifting of residence and availability of better cooking devices. To take care of the structural problems, NABARD has issued guidelines to banks for providing additional loan of Rs.1,000/- per plant for repair works. To take care of the operational problems, users' course has been developed specifically on operation and maintenance of plants and are being

organised in the areas having non-operational problems. During 2000-2001, as recommended in the Mid-Term Review, a scheme on repair of non-functional biogas plants is proposed to be developed in consultation with the State Governments".

2.46 The representatives of the Ministry during evidence, further added:-

" Of course, it varies from State to State. In Andhra Pradesh, it was more than 90 per cent but in a State like Uttar Pradesh, it was 89 percent, in Rajasthan it was only 52 per cent. So, the overall functionally of biogas plants worked out in 1995-96 is 87.5 per cent".

2.47 When the Committee enquired the reasons for non-functioning of units in the Rajasthan and some other States he replied:-

"Because the turnkey operator scheme was not practically adopted by the State Government. They were constructing the biogas plants through BDOs. Similarly, in Andhra Pradesh, Gujarat, Karnataka, Himachal Pradesh and West Bengal, we have used more of entrepreneurs and NGOs, and wherever NGOs and entrepreneurs were used three years maintenance guarantee, the functionality improved a lot. This year the evaluation has been assigned to the Programme Evaluation Organisation of the Planning Commission, and in 2000- 2001, we are hopeful that they will come out with the report and we will know the functionality based on the independent evaluation".

2.48 When asked by the Committee about the steps taken by the Government to improve the functionality of the plants, the Secretary, MNES, replied:-

"What happened was that when we took up the scheme for reviving the non-functional plans, we wrote to the State Governments to conduct the district-wise survey and then inform us later as to what is the number of such plants which are there. Unfortunately, excepting in one or two cases, the State Governments did not respond and ultimately we had to drop the scheme. We now have a scheme for warranty, three year's service. We have now these young people who have been trained. They are turn key workers and others. They are being given some financial assistance also. They are supposed to do the maintenance. This is a new scheme".

2.49 Greater involvement of Panchayats and Grass root level NGOS is prerequisite for the promotion of NPBD. Similarly, emphasis is required on training, publicity and awareness raising. When asked what efforts

had been made in this direction and with what results, the Ministry in their reply stated:-

> "Almost all States are involving Panchayats and grass root level NGOs in identifying beneficiaries, arranging trained masons for construction of plants, organising users' training and generating awareness. The, syllabus for users' courses was improved in 1998-99 and is being followed since then. Large numbers of users' training courses have been organised during 1999-2000. Several States have been developing and distributing publicity materials in regional languages to generate awareness. As a result, the demand for biogas plants has increased in many States / areas".

2.50 The National Project on Biogas Development (NPBD) is an important project for improving the quality of life of the rural population, particularly women. It has been observed that only 25% of the estimated potential of 120 lakh biogas plants could he harnessed by March, 1999. At this pace of progress, it will take many decades to harness the assessed potential. The Committee during the course of their discussion recognised the inability on the part of State Governments in providing matching contributions, due to their precarious financial health. The Committee note that resource gap, to a large extent, can he met through MPLAD scheme, as construction of common gobar gas plants, non-conventional energy systems/devices for community use and related activities, are permissible under this scheme. The Committee desire that MNES should tap such resources. The Committee also recommend that an agency should be identified through which such funds can be channelised. Such an agency should also be entrusted with the responsibilities of operation and maintenance work, on the expiry of the warranty period.

2.51 The Committee noted that NPBD programme failed miserably in North-Eastern States. The laudable achievements made in the States of Andhra Pradesh, Maharashtra and Orissa and also by Khadi and Village Industries Commission, have been somewhat nullified by the low achievements in the North-Eastern Region and Sikkim (NERS). No other States except Meghalaya and Tripura had been able to achieve targets due to their inability to provide requisite budget towards State subsidy in their respective State Plans. The Committee, therefore, recommended that higher targets, with corresponding financial allocations may he agreed to for those States who have achieved or exceeded their targets, while the targets for the remaining States, particularly for the NERS, may he increased in a phased manner whereby the States can he encouraged to make matching provision in their budgets. The Committee also feel that there is a need to re-assess the potential of biogas plants in the country as the present estimate of 120 lakh biogas plants is based on the year 1972, cattle population sample survey conducted by National Dairy Research Institute, Karnal. This would enable to make the planning more realistic.

2.52 The Committee are not in agreement with the views of MNES that on an average 87.5% of biogas plants are functional. in the opinion of the Committee only a very small member of family size plants functions, whereas the percentage is slightly higher for community/ institutional based biogas plants. The Committee feel

that there is a need to develop sufficient talent in the States which can take care of operation & maintenance of the biogas plants. For this, the Ministry should explore the possibility of introducing such courses in the Polytechnics, ITIs etc. and if possible also encourage them to take over the operation & maintenance of such plants.

D. Community, Institutional & Night-Soil based Biogas Plants (CBP IBP/NBP) Programme

2.53 Community, Institutional and Night-soil based Biogas Plants Programme was initiated in the year 1982-83 and later in 1993-94, a component on linking biogas plants with community toilet complex was added with the main objective. of providing fuel for cooking purpose and organic manure to rural households, mitigating pressure on forests and improving sanitation in villages / slum and by linking community toilet complex with biogas plants.

2.54 B.Es, R.Es and Actuals for the years 1998-99, 1999-2000 and B.E. for 2000-2001 are given below:-

(Rs.in crore)

1998-99			1999-2000			2000-2001
B.E.	R.E.	Actual	B.E.	R.E.	Actual*	B.E.
7.80	7.68	7.68	7.50	7.50	4.24	7.00

* Provisional Upto December, 1999.

Targets and Achievements corresponding to the years 1998-99, 1999-2000 and 2000-2001 respectively are:

1998-99		1999-2000		2000-2001
Target	Achievements	Target	Achievements	Target
350	314	400	60*	400

* 60 installed and 50 in progress upto December, 1999.

2.55 A total of about 60 biogas plants have been set up during the period April to December, 1999 against the, annual target of 400 plants. An expenditure of Rs. 4.24 crore out of budget estimate of Rs. 7.50 crore, has incurred during said period. When asked whether the Ministry are confident to achieve the remaining target of 340 plants by the close of the year 1999-2000, the Ministry in their reply stated as under:-

> "The progress reports received so far from the State nodal departments and programme implementing agencies indicate that a total of 160 plants have been achieved and work is in progress for achieving the remaining target of 240 plants during 1999-2000. Thus, the annual target of 400 plants is expected to he achieved".

2.56 Asked to state the rationale for decreasing trend in B.Es from Rs. 7.80 crore to Rs. 7.00 crore especially when targets have been raised from 350 to 400 during the period 1998-99 to 2000-2001, the MNES stated:-

> "The rationale for decreasing trend in B.E. is that an analysis of the sizes of plants set up during last three years indicated increased coverage of smaller institutions having cattle heads in the range of 35-70 necessitating smaller capacity plants of 15 to 35 cubic metres capacity. Consequently the average central financial assistance per plant is estimated to have come down to Rs.1.75 lakh per plant in the year 2000-2001, compared to Rs.2.20 lakh per plant in 1998-99".

2.57 Further elaborating it the Secretary, MNES during evidence stated:-

> "We have both community and institutional schemes. What we find is that the institutional biogas plants are doing better than even the community plants. What we find is that in an institutional plant, there is a centralised authority which is responsible for maintenance and upkeep of the plant, whereas in the case of community plant, what happens is that if there is a change at the level of the panchayat, sometimes the interest which was taken earlier by the functionaries is no longer available in many cases. We have found that the community plants are not being taken care of to the extent of the institutional plants. Our submission would be that the institutional plants are doing much better like in dairies and so on. They are doing better than the community plants".

2.58 Fiscal and other incentives provided to entrepreneurs under the programme are:-

> "For project contingencies @ 10% to 20% of the central subsidy, depending upon the capacity of plants. The State nodal department and implementing agencies give up to 75 per cent of the project contingency to the entrepreneurs for taking up construction of the plants as per approved designs and providing free maintenance services in the initial years".

2.59 The Ministry started a scheme for revival of non-functional biogas plants during 1992-93. In this context, the Ministry furnished their details as under:-

> "The scheme for revival of non-functional old community and institutional biogas plants was reviewed in the year 1998-99. As no more proposals were forthcoming with the undertaking that the repaired plants would be maintained by entrepreneurs or NGOs on a sustainable basis, the scheme was discontinued in the year 1998-99".

2.60 When asked to state how many plants have been established since the initiation of the programme i.e. 1982-83 and how many are still in operation; the Ministry in their reply stated as under:-

"As total of 2674 plants have been installed during the period 1982-83 to 1998-99. It included a total of 430 community plants, out of which about 185 plants became dysfunctional after remaining in use for more than five years. For the remaining 2244 plants, estimates indicate that more than 78 per cent of these plants are functional".

2.61 Asked to state the reasons for non-functioning and the steps taken for reviving such plants in near future, the Ministry in a note furnished to the Committee stated:-

(i) Lack of co-operation from the beneficiaries in contributing the requisite quantity of cattle dung for feeding the plants and timely payment of the gas charges.

(ii) State Governments were unable to maintain the activity after operating the plants for more than five years, when the monthly income generated from the plants by way of sale of gas manure continued to be less than the cost of operation and maintenance.

(iii) Refusal of the beneficiary community to meet atleast 50% of the cost of repair.

(iv) State Governments were not able to identify non-governmental organisations or entrepreneurs for taking over the responsibility of operation and maintenance of the plants after repairs.

Since 1998-99, the community biogas plants have been taken up in the villages only when a gram panchayat or entrepreneur or non-governmental organisation has agreed to operate and maintain the plant at their own.

In case of community toilet linked biogas complexed, a provision exists for involving NGOs or entrepreneurs to operate and maintain the complex for a minimum of 20 years for which they are given
Higher rates of project contingencies. Since 1998-99, the feasibility of the proposals prepared by the State nodal departments and programme implementing agencies are verified by then Regional Offices of MNES to ensure adequate and regular availability of cattle dung for the proposed size of plants. Provision has also been made to train operators".

2.62 As regards to the revival of non-functional units since 1992-93, the Ministry in their reply stated as under:-

"About 185 community biogas plants set up prior to 1993-94 are reported to be non-functional. As many of them could not be made serviceable due to various reasons, the States are getting them dismantled. The Ministry has not received proposals from any State and agency for setting up of new plants in place of the old non-functional plants".

Research and Development on Biogas

2.63 The Actuals (1998-99), BE/RE (1999-2000) and BE (2000-2001) for R&D on Biogas is given below:-

(Rs. in crore)

1998-999	1999-2000		2000-2001
Actual	B.E.	R.E.	B.E.
0.34	0.50	0.50	0.30

2.64 When asked upto which extent the fruits of R&D efforts on Biogas have been made use of at grass-root level, the Ministry highlighted the achievement made during the first three years of the Ninth Plan as given below:-

(i) A new design of Deenbandhu model, amenable to fabrication in ferro-cement in a workshop has been developed and is already promoted in Tamil Nadu and Pondicherry.

(ii) A technique for on-site construction of Deenbandhu biogas plant with ferro-cement has been developed. The cost of the plant is reported to be less by about 15 per cent. It is already being promoted in Kerala and other States.

(iii) A design of biogas plant for processing of leafy biomass without cattle dung has been developed and is under field trial at ten locations near Bangalore.

(iv) Microbial cultures and heating systems are being developed for improving gas production at low temperatures for field applications.

2.65 The Committee note with concern the failing Budget Estimates for biogas plants over the years. It is likely to adversely affect not only the setting up of new plants but also the efforts of the Government to re-start and maintain the old plants. The Committee feel that sufficient allocations should he made for the scheme to enable the Government to meet the targets of setting up new plants as well as to re-start all the non-functional plants. The Committee observe that most of the plants suffered/failed due to lack of monitoring and maintenance and the availability of requisite quantity of cattle dung for feeding the plants. The Committee, therefore, recommend that the Government should evolve an effective operating and monitoring agency to oversee such functions. The Committee feel that there is a need for R&D to develop a cost effective small capacity plant keeping in view the assured availability of raw materials to he used in the plants so that the monthly income generated from the plants by way of sale of manure, gases, etc. may cover the cost of operating and maintaining the plants and also is able to provide some incentive to the entrepreneurs to undertake setting up of such plants.

E. Small Hydro Power (SHP)

SHP potential in the country is estimated to be about 10,000 MW. The steps taken to promote Small Hydro projects include financial assistance for Survey & Investigation and DPR, capital subsidy for demonstration projects, interest subsidy for commercial projects, support for R&M and upgradation of water mills. MNES provide financial support (for SHP upto 3 MW) upto Rs.1.5 lakh for Survey & Investigation and upto Rs.1 lakh for DPR preparation. So far 222 sites have been supported by the Ministry. Under the capital scheme, 50% of project cost is supported by the Government, subject to 2.5 crore/MW. So for, 33 projects with a total capacity of 24.85 MW have been commissioned. For the development of commercial projects, capitalised interest-subsidy of Rs. 1.12 crore / MW is provided to SHP projects in hilly areas, North-Eastern Region and Andaman and Nicobar Island and upto Rs. 38.3 lakh/MU for projects in other region. So for 6 projects have been supported. In view of the overall objectives and activities programmes during the 9th Plan period, the Ministry has announced new schemes for the North Eastern Region for Renovation and Modernisation (R&M) of old SHP projects and development and upgradation of water mills. Steps were also taken for greater commercialization in the sector through private sector participation. MNES was taking up projects upto 3 MW capacity. The subject of Small Hydro between 3-25 MW has been assigned to MNES w.e.f. 29.11.99.

2.67 Considering that MNES has now been entrusted with the development of small hydel projects upto 25 MW, when asked whether the allocation of Rs.33.79 crores for year 2000-2001 is sufficient for meeting the targets, the Ministry in their reply stated:-

> "The financial requirement of Rs.33.79 crores for the year 2000-2001 has been projected keeping in view the targets fixed for the year 2000- 2001 and taking into consideration the fact that the development of SHP up to 25 MW gas been entrusted to MNES. The development of small hydro projects is mainly envisaged through setting up of commercial projects with private sector participation. However, the Ministry proposes to continue it support for setting up of SHP projects in selected areas and village level micro hydel projects including water mills. The Ministry proposes to provide capital subsidy, in a limited manner, to SHP projects executed by State Governments and interest subsidy for commercial projects.
>
> By their very nature projects up to 25 MWs are comparatively longer gestation projects. The first 2-3 years would be utilised to conduct detailed surveys, prepare DPRs and undertake preliminary works. As such the requirement of funds in the initial years would not he much higher. Later on when the projects take shape the requirements of funds would increase substantially. The budget provision of Rs. 33.79 crores for the year 2000-2001 is considered sufficient, at this stage, for the programme".

2.68 The data base identified by CEA includes 3349 potential site with an aggregate capacity of 2852 MW for the projects upto 3 MW capacity and 662 identified site with an aggregate capacity of 5519 MW for the projects in the range of 3-15 MW capacity. Hence as many as 4011 projects site with aggregate capacity of 8371 MW exists. At the commencement of 9th Plan, only 144 MW capacity realised and another 350 MW is in the pipeline. With the inclusion of small hydro project upto capacity of 25 MW under Ministry of Non-Conventional Energy Sources the ambit of SHP programme has increased manifold. When asked what plan of action Ministry of Non-Conventional Energy Sources drawn to tap the enhanced potential, the Ministry in their post evidence reply stated:-

> "The Ministry of Non-Conventional Energy Sources proposes to give thrust for the development of small hydro power projects upto 25 MW mainly through setting up of commercial projects with private sector participation. For the purpose, the Ministry has requested all the State Governments to announce suitable policies for inviting private sector to set up such projects. The States where policies have been announced already for projects up to 3 MW, have been requested to extend these policies to cover projects up to 25 MW The immediate focus would be on implementation of the projects, which have been offered by the State Governments to private sector. Concurrently, efforts would made to identify potential sites, conduct their detailed surveys and prepare Detailed Project Reports to generate a shelf of projects for implemen- tation. For the areas where commercial projects are unlikely to come up, the Ministry proposes to provide its support to the State Governments to set up small hydro power projects.
>
> The Ministry proposes to give financial support for conducting detailed survey and investigation and preparation of DPRs to cover projects up to 25 MW. For commercial projects, the Ministry proposes to provide interest subsidy through financial institutions to bring down the interest rates. The Ministry also proposes to provide capital subsidy for SUP projects specifically in the North-Eastern States, Sikkim, Middle Himalayas, Ladakh, Andaman & Nicobar Islands and also to other notified hilly areas of the States. It is also proposed to provide capital grants for renovation and modernisation of old small hydro power projects".

2.69 The promotional schemes for development of small hydro projects both composite and demonstrations were for projects up to 3 MW When asked whether the same benefits for schemes up to 25 MW will be extended, the Ministry in their post evidence reply stated:-

> ”The Ministry proposes to provide various incentives for the develop- ment of small hydro power projects up to 25 MW on the similar lines as was done for projects up to 3 MW capacity. However, the level of incentives is proposes to he less for bigger projects. The economics of small hydro power projects improves as the size of the project increases. The projects above 15 MW are expected to be

economically viable on their own. Keeping this in view, tapered levels of financial support/subsidies are being planned for higher sized projects".

2.70 The subsidy element for SHP- Promotion Programme, is on the rise. For instance it was Rs. 7.98 crore in 1998-99. The BE/RE for 1999-2000 is Rs. 12.5 and 7.40 crore. An allocation of Rs. 14.85 crore has been earmarked for the year 2000-2001. When asked about the reasons for hike in subsidy element and to what extent, the subsidy element will help in the promotion of SHPs, the Ministry in their reply stated as under:-

"The increased budget estimates for the subsidies during the year 2000-2001 is mainly on account of the fact that SHP projects up to 25 MW have been transferred to MNES. The Ministry proposes to announce new incentive package for SHP projects up to 25 MW in the next financial year. The activities covered under this budget head include capital subsidy for projects undertaken in the State sector and interest subsidy for commercial projects. The budget provision would also be utilised for meeting the ongoing commitments for SHP demonstration projects sanctioned earlier as progressive releases are made based on quantum of work completed.

The subsidy provided by the Ministry has helped in setting up of SHP demonstration projects in the States and also attracting private sector to set up commercial projects. When SHP subject up to 3 MW was transferred to MNES in 1989, the total installed capacity of such projects was about 63 MW The total installed capacity of SHP projects up to 3 MW is now about 217 MW and projects aggregating to about 113 MW are under construction. There was a capacity addition of 28 MW during 1998-99 and 33 MW during 1999-2000".

2.71 In response to the question what percentage of small hydro potential has been tapped in North-Eastern Region and what further steps are being taken to exploit potential, the Ministry in their post evidence reply stated as under:-

"About 8% of identified potential for small hydro power projects up to 3 MW have been tapped in the North-Eastern States and Sikkim. Ministry of Non-Conventional Energy Sources is giving special incentives for the development of small hydro power projects in the North-Eastern States and Sikkim. So far, 23 projects aggregating to about 39.60 MW have been supported by the Ministry in the region. In addition, the Ministry has also supported feasibility studies for 59 new sites. It is also now proposed to extend capital subsidy schemes for projects up to 15 MW capacity and interest subsidy for projects up to 25 MW The Ministry is having detailed discussions with the North-Eastern States to convince them for exploiting the small hydro power potential at a faster pace. The Ministry has also earmarked 10% of its budget for the development of Non-conventional Energy Sources including small hydro power projects in the North-Eastern States".

2.72 Asked about schemes initiated for the development of SHP in North-Eastern States, the Ministry in a note stated:-

> "Ministry had announced special incentive package on 15th April, 1997 for the promotion of SHP programme in the North-Eastern States. The scheme provides capital subsidy of Rs.3 crore per MW or 50% cost of the project cost, for Small Hydro Power projects up to 3 MW station capacity executed by State Agencies/Power Departments/SEBs in the North-Eastern States. 'Re on-going projects covered under the erstwhile capital subsidy scheme are also eligible for revision of subsidy upto Rs. 3 crore per MW. The capital of up to Rs. 15,000 per KW is available for decentralized projects up to 100 KW capacity executed by NGOs/local bodies/local communities in the North-Eastern States. For the commercial projects in the North-Eastern States, capitalised interest subsidy amount of up to Rs. 1.12 crore/MW is available through financial institutions to bring down the interest rate".

2.73 The criteria for selection of SHP projects for R&M, as mentioned by the Ministry are:

> "As per the scheme for renovation and modernisation of old small hydro power stations, the projects commissioned up to the beginning of the 8th Five Year Plan i.e. 1st April, 1992 are eligible for the support of the Ministry. The criteria for taking up project for R&M works include the past performance of the station, factors which have led to the sub-optimal generation/non-functioning of the plant and the institutional arrangement to ensure non-recurrence of these factors. The State Government/SEB is to meet at least 25% of the total cost of the R&M works".

2.74 When asked how many SHP projects have been renovated, the Ministry replied:-

"The Ministry of Non-conventional Energy Sources has so far supported following small hydro power projects for their renovation/modernisation/ capacity uprading.

Name of the project	State	Capacity (KW)	Total estimated cost of R&M	MNES support
Jali	Sikkim	6x350 KW	Rs.692.00 lakh	Rs.420.00 lakh
Rongnichu-II	Sikkim	5x500 KW	Rs.510.18 lakh	Rs.382.00 lakh
Rinchington	West Bengal	2x1000 KW	Rs.270.76 lakh	Rs.203.07 lakh
Little Rangit	West Bengal	2x100 KW	Rs.405.14 lakh	Rs.303.85 lakh
Nogli	Himachal Pradesh	2x250 KW + 4x500 KW	Rs.691.60 lakh	Rs.500.00 lakh

2.75 PSUs like NHPC, NTPC and REC have forayed with development of small hydro projects. However, State Governments/private developers are reluctant to invest in small hydro projects; the Ministry instead replied as under:-

> "Subject of small hydro projects up to 3 MW capacity was transferred to MNES In February, 1989. At that time, total installed capacity of SHP projects was about 63 MW. With the systematic approach adopted by the Ministry, there has been a threefold increase in the installed capacity of SHP projects taking it to 217 MW. There is a renewed interest in the States to set up SHP projects. Since 1993-94, the focus of small hydro power programme has been shifted to commercialisation through private sector participation. Based on the guidelines issued by MNES, 13 States with good potential of small hydro have announced their policies and offered SHP sites of about. 1900 MW to private sector. The response of private sector has been quite encouraging and many projects have started coming up specifically in the States of Andhra Pradesh and Karnataka. The Ministry also had discussions with NHPC, NTPC and NEEPCO asking them to take up small hydro power projects in various States. These organisations are also now interested in taking up SUP projects. REC is already providing loans for SHP projects of up to 25 MW. With the extension of interest subsidy for projects up to 25 MW, it is expected that the private developers would find these projects economically more attractive and their interest would further improve".

2.76 When asked, is there any need to set up an apex institution/ corporation/company on the lines of NHPC, for promoting SHP; the Ministry in their post evidence reply mentioned:-

> "The Ministry feels that setting up of separate corporation / company on the lines of NHPC, would certainly help in the promotion and development of small hydro power projects. A separate corporation to deal with implementation of projects in various fields of Renewable Energy was also being contemplated at one stage. For the present the Ministry has already requested NHPC/CEA to create a separate cell for the development of small hydro power projects".

2.77 On interest shown by IREDA, REC & PFC for the development of SHP, the Ministry in their post evidence reply mentioned:-

> "IREDA is active in providing loans for SHPs upto 25 MW. IREDA has so far sanctioned loans for 81 small hydro power projects aggregating about 261 MW. As per the orders of Ministry of Power, the responsibility of providing loan for small hydro power projects upto 25 MW in the State sector has been given to REC. PFC only support projects upto 25 MW? However, both the organisations can provide loans for projects in the private sector".

2.78 The Ministry identified the following bottlenecks in implementation of the scheme:-

1. Inadequate State Plan allocations for the projects in the State sector

2. Remoteness of sites

3. Limited working season

4. Inadequate infrastructure and facilities at site

5. Lack of approach roads and inadequate power evacuation facilities

6. Delays in allotment of sites in certain States

7. Delays in statutory clearances and allotment of land

8. Delays in signing of PPAs, etc

2.79 Asked what steps have been taken to overcome problems, the Ministry stated:-

"The commercialisation of small hydro sector is relatively new and it take some time to stream line procedures in the State Governments. The Ministry is continuously interacting with the State Governments to impress upon expediting development of this sector. While some natural problems associated with this sector such as remoteness of sites, limited working seasons, lack of approach facilities to the sites are unavoidable and form part of difficulties associated with this sector, the problems such as providing adequate power evacuation facilities, adopting stream lined procedures for clearances etc. can be solved by the State Governments if concerted effort is made.

Ministry of Non-Conventional Energy Sources has been continuously interacting with all concerned States and respective agencies in order to address various bottlenecks being encountered in the implementation of small hydro power programme. State Governments have been requested to ensure adequate project wise allocations in order to avoid time and cost over runs. The officers of the Minis" also participate in the State Plan allocation meetings held in Planning Commission and recommend project-wise plan allocations. The States have also been requested to approach financial institutions such as PFC, REC and IREDA to seek loans for the small hydro power projects. This has created a good impact and many private sector projects are coming up especially in the canal' areas with Institutional financing.

The small hydro projects are normally located in remote and isolated locations, which are difficult to access. Due to climatic conditions in most of the hilly regions the sites are accessible only for limited period during the year. In order to avail maximum working period, the implementing agencies are advised to prepare their work schedule during these natural limitations and plan their activities accordingly.

The States have also been requested to create necessary infrastructure of approach and power evacuation. The States have also been advised to prioritise small hydro project development in the locations where such facilities have already been created.

In order to over come the difficulties encountered due to involvement of multiple agencies for providing clearances, the States have been advised to create a single window facility and streamline procedures for speedy clearances. The States hare also been requested to ensure timely allotment of land and signing of PPAs with the private developers so that execution of the projects can start timely".

2.80 The Committee have observed that as against a potential of 10,000 MW from small bolder projects, only 210 MW, has been realised. A number of steps such as financial assistance for Survey & Investigation, preparation of DPR, capital subsidy scheme and private sector participation, in developing SHP have been taken in this regard. No fruitful results bare been forthcoming, inspite of an impressive data base of 3349 potential sites (with a total of 28852 MW capacity) for projects upto 3 MW and 662 sites (with t total of 5519 MW capacity) for projects in the range of 3-15 MW capacity. In the opinion of the Committee, in the absence of an apex institution for the development and promotion of SHPs, it is difficult to achieve the full potential and the separate cell in NHPC/CEA, may not he able to do much. The Committee, therefore, recommend that a central organisation/PSU on the lines of NHPC, he set up, for promoting SHPs. The North-Eastern Region has the highest potential of developing small hydro power projects. The Government had announced a special incentive for development of these projects in 1997. But it appears that it has not been able to get the desired response. The Committee recommend that the Ministry should take up the matter with the State Governments of the region and encourage them to take up new projects, especially where feasibility studies have been completed.

2.81 The Committee note that Renovation and Modernisation (R&M) is the most cost effective mechanism, to realise capacity addition. The history of hydro-development in the country begins with the setting up of a small hydel project in Darjeeling, over one hundred years ago. Since then as many as 267 SHPs have been commissioned. The Committee desire that a comprehensive survey he undertaken to assess the units which require R&M. The Committee note that so far only 34 R&M proposals have been received and only 5 projects have been sanctioned and in other 5 cases approval has been given 'in principle' only. The Committee recommend that rest of the projects may he examined and clearances given expeditiously.

2.82 The Committee have also noted that Ministry of Environment and Forests take a long time in granting clearance to the hydel projects. They also treat small hydro power projects at par with the major hydel projects. The Committee recommend that Ministry of Environment and Forests should delegate powers to State Governments for issuing clearance for small hydro power projects upto 25

MW capacity so that the time and cost overruns of SHPs can he checked. The Committee feel that there is a need to give a thrust to SHP projects by providing better infrastructural facilities for the working of such projects. The various incentives offered by the Government are also needed to be advertised properly to attract private investment in this area.

F. Integrated Rural Energy Programme (IREP)

2.83 The Centrally Sponsored Scheme of Integrated Rural Energy Programme (IREP) is under implementation in all the States & UTs. The programme is implemented at the Block level. 860 Blocks have been sanctioned till the end of 1997-98 for implementation of IREP

2.84 The year-wise physical and financial targets and achievement: Five Year Plan are given below:-

	Physical (No. of Blocks covered)		Financial (Rs. in crore)		
Year	Target	Achievement	B.E.	R.E.	Expenditure
1992-93	252 (old) & 100 (new)	252 (old) & 100 (new)	7.0	7.0	6.70
1993-94	352 (old) & 100 (new)	352 (old) & 100 (new)	15.0	15.0	7.29
1994-95	452 (old) & 100 (new)	452 (old) & 100 (new)	17.0	5.0	5.53
1995-96	552 (old) & 100 (new)	552 (old) & 100 (new)	10.0	10.0	11.76
1996-97	660 (old) & 100 (new)	660 (old)	16.0	4.0	6.11

2.85 The overall physical and financial targets of 9th Plan areas under

Physical: 660 old blocks and 200 new Blocks
Financial: Rs. 53.00 crore

2.86 The year-wise physical and financial achievements and actual expenditure incurred during the first three years of the 9th Plan are as under:-

	Physical (No. of Blocks)		Financial (Rs. in crore)		
Year	Target	Achievement	B.E.	R.E.	Expenditure
1997-98	660 (old) & 100 (new)	660 (old) & 200 (new)	11.80	5.00	5.62
1998-99	860 (old) & 100 (new)	860 (old)	11.80	7.80	7.80
1999-2000	860 (old)	860 (old)	12.00	8.00	6.29

2.87 During l998-99, IREP was extended to additional new Blocks at the expenditure of Rs.7.80 crore out of the programme outlay of Rs.11.80 crore. On the other hand it is proposed to extend the programme in 550 districts out of the programme outlay of Rs.9.00 crore during 2000-01. When asked what are the reasons for drastically reducing the allocation since 1997-98, the Ministry in their post evidence reply stated:-

"As almost all State Governments were not providing the stipulated contribution of a minimum of Rs. 5.00 lakh per IREP Block per year, it was not prudent to sanction new Blocks during 1998-99 and 1999-2000. In fact, the 200 new Blocks sanctioned to 1 5 States in the months of August, 1997 and February, 1998 did not become effective for want of recruitment and positioning of sanctioned staff by the State Governments concerned and making requisite provisions for implementation of IREP Block Plans and Projects in the State Plan. Therefore, IREP has been continued as per the terms and conditions approved in 1997-98 and followed till 1999-2000, and accordingly the expenditure was regulated".

2.88 While mentioning the reasons for shortfall in the target during 1998-99, the Ministry in their post-evidence reply stated:-

"The physical target set for the year 1998-99 was to continue IREP in 860 Blocks sanctioned earlier and to sanction 100 new Blocks. However, IREP was continued in 860 Blocks and no new Block was sanctioned as the States failed to confirm availability of a minimum provision of Rs.5.00 lakh in their State Plans for the new Blocks.

The physical target set for 1999-2000 was to continue IREP in 860 Blocks. The B.E. of Rs. 12.00 crore included Rs. 2.00 crore for IREP Training Centres and remaining Rs.10.00 crore for meeting the cost on salary of staff of IREP Blocks. As audited statements of expenditure for the IREP Training Centres were not received from the States concerned, no expenditure could be incurred. Further most of the States had utilised amounts less than the sanctioned provision in the previous year. Thus, the expenditure was regulated after taking into account the unspent balances with State Governments".

2.89 The programme was analysed recently under UNDP project entitled 11 ‘analysis of IREP and development of capacity building strategy’. It was pointed out that the impact of the programme has been marginal due to inadequate funding by the State Governments for implementation of the energy projects at the block level. The main findings and recommendation of the project:-

(i) Coordination and mutual support are needed between the on-going programmes of the MNES and those of the Ministry of Rural Development in the IREP Blocks.

(ii) The IREP should he consolidated rather than expanded. The extension agencies should adopt a participatory approach for implementing IREP projects. Focus should be laid on training while implementing rural energy programmes. As far as possible, the cash subsidy on improved chulhas and other renewable energy devices should be discontinued.

(iii) Adequate funds should be sanctioned for the State and Block IREP Cells and the cost could be shared between the Centre and the State Governments in the ratio of 75:25.

(iv) The Technical Back-up Units should be strengthened.

(v) The State Governments should provide adequate budget support for promotion of energy systems and devices in IREP Blocks. The IREP projects could even be taken up in a compact area within the Block depending upon the resources available.

(vi) The methodology for preparing Block-level energy plans should be improved and circulated to all States for adoption and compliance and the monitoring of IREP should be strengthened.

2.90 Asked about the steps that have been taken in the light of the findings and recommendations and their impact on the on-going programme, the Ministry in their post evidence reply stated as under:-

"The IREP is being redesigned in the light of the findings and recommendations of the UNDP study and suggestions received from the Central Departments and Ministries concerned and the State Governments in the meetings held in MNES on 22nd October, 1999 and 24th January, 2600 respectively. The IREP is needed to be consolidated and States have to be persuaded to provide adequate funds for implementation of IREP Block Plans and Projects".

2.91 When asked the steps taken to improve the funding status of the States and their effectiveness in this regard, the Ministry stated as under:-

"The IREP would be consolidated @ one Block per district to enable the States to provide a minimum of Rs. 5.00 lakh per IREP Block per year to avail the Central grant for sanctioned staff IREP. The matter will be taken up at the highest level in the States".

2.92 The Committee was informed during evidence that Urjagram scheme. It has been incorporated as a pan of the IREP When asked by the Committee, whether the Ministry had been successful on those 860 Block identified in 1997- 98, the Secretary, MNES during the evidence replied:-

"In fact, this is one project which is not really been given due attention by the State Governments".

2.93 The Committee observe that the Centrally Sponsored Scheme of Integrated Rural Energy Programme (IREP) is under implementation at the Block level in all the States and UTs. 860 Blocks have been sanctioned till the end of 1997-98 for the implementation of IREP. During 1998-99, IREP was extended to 100 additional new Blocks at an expenditure of Rs.7.80 crore out of the programme outlay of Rs.11.80

crore. It is proposed to extend the programme in 550 more districts @ one Block per district out of the programme outlay of Rs. 9.00 crore during the financial year 2000-2001 indicating drastic reduction in allocation of fund since 1998-99. The Committee feel that until and unless adequate funds are sanctioned for the State and Block IREP cell, the programme will remain where it is. The Committee desire that IREP should he consolidated and States he persuaded to make a matching contribution of Rs.5.00 lakh per Block. The programme should he remodelled/redesigned on the basis of the recommendations made by UNDP and sufficient budget provision should he made to implement the programme. The Committee are of the view that due importance should be given to the Urjagram scheme which is now part of the Rural Energy Programme. Details of the redesigned scheme should he made available to the Committee.

NEW DELHI;
11 April, 2000
22 Chaitra, 1922 (Saka)

SONTOSH MOHAN DEV,
Chairman,
Standing Committee on Energy

STATEMENT OF CONCLUSIONS/RECOMMENDATIONS OF THE STANDING COMMITTEE ON ENERGY CONTAINED IN THE REPORT

SI.No.	Reference Para No. of the Report	Conclusions/Recommendations
1.	2.	3.
1.	2 .22	The Ministry of Non-Conventional Energy

	Sources have presented Demands for Grants of Rs.446.46 crore for the year 2000-2001 as against an expenditure of Rs.298.59 crore in 1998-99 and Revised Estimate of Rs. 319.47 crore in 1999-2000. The Committee note that Gross Budgetary Support (GBS) of Rs. 403.02 crore allocated during Annual Plan 1998-99 was reduced to Rs.304.42 crore at RE stage by the Ministry of Finance. Against this, the actual expenditure was Rs. 298.59 crore. Further, during 1999-2000 GBS of Rs. 358.32 crore was allocated during Annual Plan 1999-2000 which was again reduced by the Ministry of Finance, despite improvement in Non-Plan expenditure in the current year. it has been brought to the notice of the Committee that the major reduction in Budget provisions was under IDA line of credit and SDC grant under external aided Projects being implemented by IREDA during last two years. The major reasons attributed for non-utilisation of IDA line of credit are delay in completion of post-project sanction formalities, inadequate and delayed supply from equipment manufacturers and drop- ping of project in Solar Photovoltaic (SPY) Sector by the borrowers. The reduction in SDC grant was due to reassessment of external assistance depending on utilisation by Indian Renewable Energy Development Agency/reimbursement by the World Bank. The Committee are of the opinion that due to reduction in budgeted Plan outlay, considerable financial liabilities have been carried over to the next Plan period. As a result, the targets fixed for the Ninth Plan would be affected. The Committee tee feel that instead of pruning down the targets, the Govt. should provide sufficient budgetary support to realise the original targets set for the Ninth Plan. The Committee do not understand the justification for imposing a cut in spite of improvement in expenditure. Further, this Committee has over the years cautioned the Ministry of Finance motto impose any arbitrary financial cut. The Committee noticed that the Ministry of Finance are not taking the advice of the Committee with the seriousness it deserves.

		The Committee reiterate their earlier recommendation and desire that Ministry of Finance should not impose cut on the budgetary proposals of the Ministry of Non-Conventional Energy Sources once they have been approved by the Parliament. The Committee also desire that the reasons for delay in completion of post-sanction formalities, in- adequate and delayed supply from equipment manufacturers and drop-ping of projects in SPV Sector by borrowers may he gone into and corrective steps taken.
2.	2.23	The Committee feel that the Ministry should make all out efforts to cheek the non-Plan expenditure and at the same time make a realistic assessment of their requirement of non- Plan funds. Though the administrative expenditure of the Ministry has increased over the years, an important component of non-Plan expenditure viz. training has not been given its due importance and the amount allocated for the purpose has remained unutilised. The Committee feel that the staff engaged in the field of non-conventional energy sources should be given proper training to keep them abreast with the latest technologies in the field. It should also be ensured that the persons given training are assigned duties in the field of their training.
3.	2.24	The Committee have observed that over-

		optimistic targets, which are seldom achieved, have been proposed for mobilisation of Internal and Extra Budgetary Resources (IEBR). For instance during 1998-99, as against target of Rs.327.16 crore, only Rs.267.79 crore could be realised through IEBR. The reasons adduced for such mis-match were non-utilisation of ADB loan to the tune of Rs.39.50 crore, non-availing of Bank loan of the order Rs.75 crore and inability to raise projected finances under tax free bonds. The Committee are constrained to note the wide variations between budgeted amount and actual expenditure with reference to external aid received through ADB. The Committee are of the opinion that such casual and poor budgeting leads to distortions in the planning process. It has been brought to the notice of the Committee that during 1999-2000, Bank loan amounting to Rs. 25 crore may not be availed by IREDA. Similarly, due to anticipated increase in the provision of NPA and subsidiary loan agreement sought to be entered into by IREDA, not being matured, the internal accruals may fall short by another Rs. 47 crore. The Committee, therefore, recommend mend that only realistic and achievable IEBR targets should he fixed. The Committee also desire that reasons for under-utilisation of ADB loan be gone into and corrective steps taken. The anticipated increase in Non-Performing Assets of IREDA, does not augur well for the organi-sation. The Committee desire that result-oriented steps should be taken not only to contain NPAs in IREDA but also to improve the rate of recovery.
4.	2.25	The Committee have observed that State

		Governments are unable to formulate suitable proposals on Non- Conventional Energy Sources, relevant to their States, mainly on account of absence of institutional set up capable of undertaking proper survey and assessment of demands of various energy needs. They are also not equipped to formulate suitable proposals specially for remote and far-flung areas. In the opinion of the Committee, if States take suitable steps by involving public and private sectors, in preparing such proposals, these can help in promoting renewable energy programmes more effectively. Therefore, the Committee desire that Ministry of Non-Conventional Energy Sources should take up the matter with the State Governments and impress on them the imperative need for developing an effective mechanism for formulation of appropriate proposals on Non-Conventional Energy Sources in their States. This will not only meet lighting, heating, cooking, drinking water, irrigation and other basic energy requirements in domestic sector but also in industrial applications in their States. The Committee desire that they may be apprised of the follow-up action taken by the State Governments in this regard.
5.	2.26	It has been brought to the notice of the Committee that the implementation of most of renewable energy projects by the States gets delayed considerably on account of cumbersome procedures involved in land allotment and obtaining clearance form various Departments/Organisations such as Forest, Environment, Pollution Board, etc. This leads to cost and time overruns of renewable energy projects. The Committee desire that the Union Government should urge upon the State Governments for creation of Single Window Clearance Concept which will not only minimise delay but will also expedite the projects under execution.
6.	2.27	At present, Ministry of Non-conventional Energy Sources are providing Central

		Energy Sources are providing Central subsidy/financial assistance under various programmes and the remaining cost is to be borne by the State Governments/users. For instance, in the easier schemes, the cost is shared on 50:50 basis. But for the costlier schemes like small hydro projects, 75% of the cost is borne by Central Government and 25% by State Government. For the difficult schemes the ratio is 90:10. The allocation provided to the States for Non-conventional Energy Projects by the Planning Commission is totally inadequate to meet the matching funds requirements. It has also been observed that allocations made for Non-Conventional Energy Sector to States are sometimes diverted for some other purposes. As a result, funds are not made available for implementation of various renewable energy programmes. The Committee, therefore, recommend that the Union Government should take up the matter with the State Governments and advise them to make adequate financial allocation while formulating their Annual Plan and also ensure that funds are not diverted to other Sectors and are utilised only for Non-Conventional Energy Projects. The Committee have also been informed that construction of Common Gobar-gas Plants, Non-Conventional Energy System/Devices for community use and related activity can be funded through the MPLAD Scheme. The Committee desire that the Ministry should tap funds under these schemes to meet the resources gap so that the Non-Conventional Energy Projects are not starved of funds.
7.	2.28	The Committee have observed that execution of Non- Conventional Energy Projects are delayed considerably due to lack of trained personnel and man-power required for execution of such projects by the States. Further, most of the State Governments are not having specialised institutions, associations, leading NGOs, grass-root entrepreneurs, etc. capable of implementing these projects efficiently resulting in cost/time overruns. Also some of the State Governments/

		Agencies do not have District Cells/Organisations, responsible for implementation of New and Renewable Sources of Energy (NRSE) projects. In the opinion of the Committee, State Governments should associate public sector undertaking---Navratnas & Mini Navratnas in the implementation of such projects.
8.	2.29	It has been observed that lack of suitable infrastructure facilities such as sub-station, transformers, etc., to evacuate power generated from decentralized energy sources, approach road and other basic minimum facilities like water supply, etc., are acting as major impediments in the execution of New and Renewable Sources of Energy (NRSE) Projects. The Committee desire that the Union Government should take up the matter with the State Governments for creating suitable infrastructure facilities required for implementation of such projects. The follow-up action taken by the State Governments in this regard may be intimated to the Committee within 6 months after the presentation of the Report.
9.	2.30	Due to lack of proper and suitable monitoring at State level NRSE projects are not implemented on time nor are they implemented properly. This leads to non-functioning of various systems/devices. The Committee desire that the imperative need for proper monitoring of various projects should he impressed upon the State Govts. more effectively. Such monitoring efforts should he supplemented by active involvement of user/local Self-Government bodies such as Panchayats, NGOs in order to ensure an effective monitoring and regular feed-back.
10.	2.31	Besides monitoring, it is also necessary to build

		up a strong after sales service mechanism, so as to ensure that such systems/devices function to the satisfaction of the users. In the opinion of the Committee, maintenance will not he easy and breakdowns cannot he attended quickly until and unless trained and skilled man-power is available at district/State level. The Committee, therefore, desire that the Union Government should urge upon the State Governments for actively involving turnkey workers/energy entrepreneurs for service, repair and maintenance of such systems/devices. It should also he ensured that two to three years warranty clause is invariably incorporated in the terms and conditions while procuring such systems/devices. Training programmes for entrepreneurs and local youth for proper maintenance, servicing and repairing in association with the Panchayats/local bodies/ NGOs should also he arranged.
11.	2.35	The Committee observe that the Ministry has

		allocated 10% of the Plan budget for development of North-Eastern Region including Sikkim during 9th Five Year Plan, to take up major Non-conventional Energy programmes like biogas, improved chulhas and solar photo- voltaic programmes. An amount of Rs. 38.69 crore has been spent during the first two years of the 9th Plan. For the ensuing financial year i.e., in 2000-2001, a lumpsum provision of Rs. 44.00 crore has been made in the Ministry's budget. The Committee feel that most of the Non-Renewable Energy programmes in the North-Eastern Region including Sikkim suffered due to either under or non-utilisation of allocated funds and absence of State Nodal Agencies. The Committee, therefore, recommend that the Government should initiate steps for setting up and/or strengthening of State Nodal Agencies and also encourage the States to accord top priority to the Non-Renewable Energy schemes with their respective matching funds. IREDA, the funding agency for Non-Conventional Energy Sources programmes, should also initiate an Action Plan for the North-Eastern Region States and Sikkim to utilise the allocated fund of Rs. 15.00 crore out of the proposed 10% allocation for New and Renewable sources of Energy.
12.	2.50	The National Project on Biogas Development

		(NPBD) is an important project for improving the quality of life of the rural population, particularly women. It has been observed that only 25% of the estimated potential of 120 lakh biogas plants could he harnessed by March, 1999. At this pace of progress, it will take many decades to harness the assessed potential. The Committee during the course of their discussion recognised the inability on the part of State Governments in providing matching contributions, due to their precarious financial health. The Committee note that resource gap, to a large extent, can he met through MPLAD scheme, as construction of common gobar gas plants, non-conventional energy systems/devices for community use and related activities, are permissible under this scheme. The Committee desire that MNES should tap such resources. The Committee also recommend that an agency should be identified through which such funds can be channelised. Such an agency should also be entrusted with the responsibilities of operation and maintenance work, on the expiry of the warranty period.
13.	2.51	The Committee noted that NPBD programme failed miserably in North-Eastern States. The laudable achievements made in the States of Andhra Pradesh, Maharashtra and Orissa and also by Khadi and Village Industries Commission, have been somewhat nullified by the low achievements in the North-Eastern

		Region and Sikkim (NERS). No other States except Meghalaya and Tripura had been able to achieve targets due to their inability to provide requisite budget towards State subsidy in their respective State Plans. The Committee, therefore, recommended that higher targets, with corresponding financial allocations may he agreed to for those States who have achieved or exceeded their targets, while the targets for the remaining States, particularly for the NERS, may he increased in a phased manner whereby the States can he encouraged to make matching provision in their budgets. The Committee also feel that there is a need to re-assess the potential of biogas plants in the country as the present estimate of 120 lakh biogas plants is based on the year 1972, cattle population sample survey conducted by National Dairy Research Institute, Karnal. This would enable to make the planning more realistic.
14.	2.52	The Committee are not in agreement with the views of MNES that on an average 87.5% of biogas plants are functional. in the opinion of the Committee only a very small member of family size plants functions, whereas the percentage is slightly higher for community/ institutional based biogas plants. The Committee feel that there is a need to develop sufficient talent in the States which can take care of operation & maintenance of the biogas plants. For this, the Ministry should explore the possibility of introducing such courses in the Polytechnics, ITIs etc. and if possible also encourage them to take over the operation & maintenance of such plants.
15.	2.65	The Committee note with concern the failing

		Budget Estimates for biogas plants over the years. It is likely to adversely affect not only the setting up of new plants but also the efforts of the Government to re-start and maintain the old plants. The Committee feel that sufficient allocations should he made for the scheme to enable the Government to meet the targets of setting up new plants as well as to re-start all the non-functional plants. The Committee observe that most of the plants suffered/failed due to lack of monitoring and maintenance and the availability of requisite quantity of cattle dung for feeding the plants. The Committee, therefore, recommend that the Government should evolve an effective operating and monitoring agency to oversee such functions. The Committee feel that there is a need for R&D to develop a cost effective small capacity plant keeping in view the assured availability of raw materials to he used in the plants so that the monthly income generated from the plants by way of sale of manure, gases, etc. may cover the cost of operating and maintaining the plants and also is able to provide some incentive to the entrepreneurs to undertake setting up of such plants.
16.	2.80	The Committee have observed that as against a

		potential of 10,000 MW from small hydel projects, only 210 MW, has been realised. A number of steps such as financial assistance for Survey & Investigation, preparation of DPR, capital subsidy scheme and private sector participation, in developing SHP have been taken in this regard. No fruitful results bare been forthcoming, inspite of an impressive data base of 3349 potential sites (with a total of 28852 MW capacity) for projects upto 3 MW and 662 sites (with t total of 5519 MW capacity) for projects in the range of 3-15 MW capacity. In the opinion of the Committee, in the absence of an apex institution for the development and promotion of SHPs, it is difficult to achieve the full potential and the separate cell in NHPC/CEA, may not he able to do much. The Committee, therefore, recommend that a central organisation/PSU on the lines of NHPC, he set up, for promoting SHPs. The North-Eastern Region has the highest potential of developing small hydro power projects. The Government had announced a special incentive for development of these projects in 1997. But it appears that it has not been able to get the desired response. The Committee recommend that the Ministry should take up the matter with the State Governments of the region and encourage them to take up new projects, especially where feasibility studies have been completed.
17.	2.81	The Committee note that Renovation and

		Modernisation (R&M) is the most cost effective mechanism, to realise capacity addition. The history of hydro-development in the country begins with the setting up of a small hydel project in Darjeeling, over one hundred years ago. Since then as many as 267 SHPs have been commissioned. The Committee desire that a comprehensive survey he undertaken to assess the units which require R&M. The Committee note that so far only 34 R&M proposals have been received and only 5 projects have been sanctioned and in other 5 cases approval has been given 'in principle' only. The Committee recommend that rest of the projects may he examined and clearances given expeditiously.
18.	2.82	The Committee have also noted that Ministry of Environment and Forests take a long time in granting clearance to the hydel projects. They also treat small hydro power projects at par with the major hydel projects. The Committee recommend that Ministry of Environment and Forests should delegate powers to State Governments for issuing clearance for small hydro power projects upto 25 MW capacity so that the time and cost overruns of SHPs can he checked. The Committee feel that there is a need to give a thrust to SHP projects by providing better infrastructural facilities for the working of such projects. The various incentives offered by the Government are also needed to be advertised properly to attract private investment in this area.
19.	2.93	The Committee observe that the Centrally

	Sponsored Scheme of Integrated Rural Energy Programme (IREP) is under implementation at the Block level in all the States and UTs. 860 Blocks have been sanctioned till the end of 1997-98 for the implementation of IREP. During additional new Blocks at an expenditure of Rs.7.80 crore out of the programme outlay of Rs.11.80 crore. It is proposed to extend the programme outlay of Rs.9.00 crore during the financial year 2000-2001 indicating drastic reduction in allocation of fund since 1998-99. The Committee feel that until and unless adequate funds are sanctioned for the State and Block IREP cell, the programme will remain where it is. The Committee desire that IREP should he consolidated and States he persuaded to make a matching contribution of Rs.5.00 lakh per Block. The programme should he remodelled/redesigned on the basis of the recommendations made by UNDP and sufficient budget provision should he made to implement the programme. The Committee are of the view that due importance should be given to the Urjagram scheme which is now part of the Rural Energy Programme. Details of the redesigned scheme should he made available to the Committee.

PART II

APPENDIX I

STATEMENT SHOWING THE DEMANDS FOR GRANTS OF THE MINISTRY OF NON-CONVENTIONAL ENERGY SOURCES (DEMAND NO.64)

(Vide PARA 1.4 OF THE REPORT)

Sl.No.	Major Heads	Programme/ scheme	Revenue								Remarks
			1998-99			1999-2000			2000-01		
			Actual			B.E.		R.E.	B.E.		
			Plan	Non-Plan		Plan		Non-Plan	Plan	Non-Plan	
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1.	3451	Secretariat Economic Services	325	4.53	4.40	4.82	4.40	4.97	4.96	5.30	This Head comprises wages, O.T.A., Domestic & Foreign Travel Expenses, Office Expenses, Rent, Rates & Taxes, Publications, other Administrative Expenses, Advertising & Publicity, Professional Services, Commission for Additional Sources of Energy, Regional Offices.
2.	2501	Special Programmes for Rural Development	0.10	-	2.25	-	0.70	-	1.00	-	This Programme includes IREP Programme, Grants-in-aids for National & Regional Training Centre
3.	2810	Non-Conventional Sources of Energy	147.50	-	218.93	-	187.49	-	279.84	-	This Head comprises R&D in Non-Conventional Energy Sources, Bio-Energy, Assistance to Biomass Programme, National Programme for Biogas Development, Advertising & Publicity Community and Institutional Biogas Development.

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
											Combustion, Grid Connection Gasifier, Animal Energy Programme, Solar Passive Architecture, Regional Technical Back-up Units & Training Programme. Solar Energy Centre, Inter-active Research with other Institution / Organisations, Professional Service, Photovolatic Amorphous Silicon Programme, SPV Pump Programme, Solar Thermal Power Generation, Grid connected SPV Power Project, Assistance to Wind Power Generation Programme, Assistance to Wind Pump Programme Wind Pump Programme Wind Energy Centre, Wind Resource Assessment, National Programme on Improved Choolah, Energy from Urban and Agricultural Waste, Energy from Industrial Waste, Energy from Industrial Waste, Small Hydro, Power Development SHP Promotion Programme UNDP / GEF Hilly Hydro Projects, Chemical Sources of Energy, Alternative Fuel for Surface Transportation, Hydrogen Energy, Ocean Energy, National Institute of Renewable Energy, Special Area Demonstration Project, Energy Conservation, TIFAC / Date Management System Information and Publicity Programme, International Cooperation.
4.	3601	Grants-in-aid to State Government	31.71	-	3534	-	31.50	-	37.21	-	This Head includes Grants-in-aids to State Governments for Small Hydro Power Programme Wind Energy, Grants for Centrally Sponsored Plan Schemes for Bio-Energy. National Programme for Biogas Development, Community and Institutional Biogas Development, Community and Institutional Biogas Development, Solar Thermal Energy Programme, National Programme on Improved Chulhas, Energy from Urban & Agriculture Wastes, Integrated Rural Energy Planning Programme Monitoring. Lumpsum provision for North-Eastern States includes Sikkim.

1	2	3	4	5	6	7	8	9	10	11	12
5.	3602	Grants-in-aids to Union Territory Govt.	0.77	-	2.29	-	1.67	-	4.60	-	This Head includes Grants for Central Plan Schemes for Wind Demonstrations Grants for Centrally Sponsored Plan Scheme for NPBD, Community and Institutional Biogas Development, Solar Thermal Energy Programme, National Programme on Improved Chulhas, Integrated Rural Energy Planning Programme-Monitoring.
6.		Total Revenue	183.36	4.53	263.21	4.82	225.77	4.97	327.61	5.30	
7.	4810	Section Capital Outlay on Non-Conventional Sources of Energy	40.00	-	44.10		-	42.54	-	29.05	This Head includes capital investment for minor works in Solar Energy Centre and investment in the Equity of Indian Renewable Energy Agencies Ltd. (IREDA)
8.	6810	Loans for Non-Conventional Sources of Energy	70.70	-	46.19	-	46.19	-	84.50	-	This Head includes counter-part loan to IREDA for the International Development Association (IDA) and Danish Export Finance Corporation (DEFC) components of credit under the Indian Renewable Resources Development Project of the Ministry implemented through IREDA
9.		Total capital section	110.70	-	90.29	-	88.73	-	113.55	-	
10.		Total	294.07	4.53	353.50	4.82	314.50	4.97	441.16	5.30	

ANNEXURE-I

MINUTES OF THE FOURTH SITTING OF THE STANDING COMMITTEE ON ENERGY (1999-2000) HELD ON 27TH MARCH, 2000 IN COMMITTEE ROOM 'C', PARLIAMENT HOUSE ANNEXE, NEW DELHI

The Committee from 11.00 hours to 13.00 hours

PRESENT

Shri Sontosh Mohan Dev – Chairman

MEMBERS

2. Shri Basudeb Acharia
3. Shri Lal Muni Chaubey
4. Shri Ravindra Kumar Pandey
5. Shri Dalpat Singh Parste
6. Shri Harpal Singh Sathi
7. Shri Chandra Pratap Singh
8. Shri Tilakdhari Prasad Singh
9. Shri Manoj Sinha
10. Prof. Ummareddy Venkateshwarlu
11. Shri P.R.Khunte
12. Shri Aimaduddin Ahmad Khan (Durru)
13. Shri Manohar Kant Dhyani
14. Shri E.Balanandan
15. Shri Jalaludin Ansari
16. Shri Rama Shanker Kaushik
17. Shri Gandhi Azad
18. Shri Santosh Bagrodia

SECRETARIAT

1. Dr. A.K.Pandey - Additional Secretary

2.	Shri John Joseph	-	Joint Secretary
3.	Shri P.K.Bhandari	-	Deputy Secretary
4.	Shri R.S.Kambo	-	Under Secretary

WITNESSES

1.	Shri N.N.Mookerjee	-	Secretary, MNES
2.	Shri A.K.Mangotra	-	Joint Secretary
3.	Shri C.S.Rao	-	Additional Secretary & F.A.
4.	Dr. E.V.R.Shastry	-	Adviser
5.	Dr. K.C.Khandelwal	-	Adviser
6.	Shri N.P.Singh	-	Adviser
7.	Dr. Ved Mitra	-	Adviser
8.	Dr. T.C.Tripathi	-	Adviser
9.	Dr. A.K.Gupta	-	Adviser
10.	Dr. V.Bakthavatsalam	-	M.D., IREDA

At the outset, the Chairman, Standing Committee on Energy welcomed the representatives of the Ministry of Non-Conventional Energy Sources to the sitting of the Committee and apprised them of the provision of Direction 58 of the Directions by the Speaker.

2. The Committee then took oral evidence of the representatives of the Ministry in connection with the examination of the Demands for Grants (2000-2001) relating to the Ministry of Non-Conventional Energy Sources.

3. The following important points were discussed by the Committee:-

(i) Budgetary allocation to the Ministry

(ii) Non-Plan expenditure

(iii) Internal and Extra Budgetary Resources

(iv) Lumpsum provision for North-Eastern Region and Sikkim

(v) National Project on Biogas Development (NPBD)

(vi) Community, Institutional and Night soil based Biogas Plants

(vii) Small Hydro Power programme

(viii) Integrated Rural Energy Programme (IREP) including Urjagram scheme

4. A Copy of the verbatim proceedings of the sitting of the Committee has been kept on record.

The Committee then adjourned.

ANNEXURE II

MINUTES OF THE SEVENTH OF THE STANDING
COMMITTEE ON ENERGY (1999-2000)
HELD ON 11TH APRIL, 2000
IN COMMITTEE ROOM 'C',
PARLIAMENT HOUSE ANNEXE, NEW DELHI

The Committee met from 11.30 hours to 13.00 hours

PRESENT

Shri Sontosh Mohan Dev - Chairman

2. Shri Prakash Yashwant Ambedkar
3. Shri Rajbhar Babban
4. Shri Vijayendra Pal Singh Badnore
5. Shri M. Durai
6. Shri Sanat Kumar Mandal
7. Shri Amar Roy Pradhan
8. Shri Ravindra Kumar Pandey
9. Shri Dalpat Singh Parste
10. Shri Chada Suresh Reddy
11. Shri Harpal Singh Sathi
12. Shri Chandra Pratap Singh
13. Shri Tilakdhari Prasad Singh
14. Shri Ramji Lal Suman
15. Shri Gandhi Azad
16. Shri E. Balanandan
17. Shri Brahamakumar Bhatt
18. Shri Manohar Kant Dhyani
19. Shri Aimaduddin Ahmad Khan (Durru)
20. Shri Ananta Sethi
21. Shri Vedprakash P. Goyal

22. Shri Rama Shanker Kaushik

23. Shri Santosh Bagrodia

SECRETARIAT 1.

	Shri John Joseph	-	Joint Secretary
2.	Shri P.K. Bhandari	-	Deputy Secretary
3.	Shri R.S. Kambo	-	Under Secretary

2. At the unset, the Chairman welcomed the Members to the sitting of the Committee.

3. The Committee considered and adopted the following Draft Reports with some modifications:

(i) Draft Report on Demands for Grants (2000-01) of the Ministry of Power.
(ii) Draft Report on Demands for Grants (2000-01) of the Ministry of Non-Conventional Energy Sources.
(iii) Draft Report on Demands for Grants (2000-01) of the Department of Atomic Energy

4. The Committee authorised the Chairman to finalise the Reports after making consequential charges arising out of factual verification by the concerned Ministries/Department and to present these Reports to both the Houses of Parliament during the current Session.

5. The Committee decided to meet again on 28th April, 2000.

The Committee then adjourned