

6

**STANDING COMMITTEE  
ON ENERGY  
(1998-99)**

**TWELFTH LOK SABHA**

**MINISTRY OF NON-CONVENTIONAL  
ENERGY SOURCES**

**DEMANDS FOR GRANTS (1997-98)**

*[Action Taken by the Government on the Recommendations  
contained in the Fifteenth Report of the Standing  
Committee on Energy (Eleventh Lok Sabha)]*

**SIXTH REPORT**



सत्यमेव जयते

**LOK SABHA SECRETARIAT  
NEW DELHI**

*July, 1998/Shravana, 1920 (Saka)*

C

B-3657R

B-6-2

SIXTH REPORT  
STANDING COMMITTEE ON ENERGY  
(1998-99)

(TWELFTH LOK SABHA)

MINISTRY OF NON-CONVENTIONAL  
ENERGY SOURCES

DEMANDS FOR GRANTS (1997-98)

*[Action Taken by the Government on the Recommendations  
contained in the Fifteenth Report of the Standing  
Committee on Energy (Eleventh Lok Sabha)]*

*Presented to Lok Sabha on 30.7.1998  
Laid in Rajya Sabha on 31.7.1998*



LOK SABHA SECRETARIAT  
NEW DELHI

*July, 1998/Shravana, 1920 (Saka)*

C.E. No. 083

Price : Rs. 12.00

PARLIAMENTARY LIBRARY  
Central Government  
Acc. No. FC 99421(3)  
Date.....

LC  
328.3657k  
N 8.6;2

© 1998 By LOK SABHA SECRETARIAT

Published under Rule 382 of the Rules of Procedure and Conduct of Business in Lok Sabha (Ninth Edition) and Printed by Jainco Art India, 13/10, W.E.A., Saraswati Marg, Karol Bagh, New Delhi-110005.

## CONTENTS

	PAGE
COMPOSITION OF THE COMMITTEE .....	(iii)
INTRODUCTION .....	(v)
CHAPTER I Report .....	1
CHAPTER II Recommendations/Observations which have been accepted by the Government .....	7
CHAPTER III Recommendations/Observations which the Committee do not desire to pursue in view of the Government's replies .....	17
CHAPTER IV Recommendations/Observations in respect of which replies of the Government have not been accepted by the Committee .....	18
CHAPTER V Recommendations/Observations in respect of which final replies of the Government are still awaited .....	20

### ANNEXURES

I. Extracts of Minutes of the Ninth sitting of the Standing Committee on Energy (1998-99) held on 23rd July, 1998 .....	22
II. Analysis of Action Taken by the Government on the recommendations contained in the Sixth Report of the Standing Committee on Energy (Twelfth Lok Sabha) .....	24

COMPOSITION OF THE STANDING COMMITTEE  
ON ENERGY (1998-99)

Shri K. Karunakaran — *Chairman*

MEMBERS

*Lok Sabha*

2. Shri Basudeb Acharia
3. Shri Tariq Anwar
4. Shri Parasram Bhardwaj
5. Smt. Rani Chitralekha Bhosle
6. Shri Bikash Chowdhury
7. Shri K.C. Kondaiah
8. Dr. H. Lallungmuana
9. Shri Rajbanshi Mahto
10. Shri Sanat Kumar Mandal
11. Shri Som Marandi
12. Smt. Sukhda Mishra
13. Shri Salkhan Murmu
14. Shri Vilas Muttemwar
15. Shri Ravindra Kumar Pandey
16. Shri Amar Roy Pradhan
17. Shri Naresh Kumar Chunnalal Puglia
18. Shri Kanumuru Bapi Raju
19. Shri Braj Mohan Ram
20. Shri Anantha Venkatrami Reddy
21. Shri Nuthana Kalva Ramakrishna Reddy
22. Dr. Jayanta Rangpi
23. Shri Larang Sai

24. Shri Francisco Sardinha
25. Shri Shailendra Kumar
26. Shri N.T. Shanmugam
27. Shri Th. Chaoba Singh
28. Shri Chandramani Tripathi
29. Prof. (Smt.) Rita Verma
30. Shri Sushil Chandra Verma

*Rajya Sabha*

31. Shri Lakkhiram Agarwal
32. Shri Jalaludin Ansari
33. Shri Gandhi Azad
34. Shri Ghulam Nabi Azad
35. Shri E. Balanandan
36. Shri Sushil Barongpa
37. Shri Brahmakumar Bhatt
38. Shri S.M. Krishna
39. Shri Bangaru Laxman
40. Shri Nabam Robia

SECRETARIAT

- |                       |   |                             |
|-----------------------|---|-----------------------------|
| 1. Dr. A.K. Pandey    | — | <i>Additional Secretary</i> |
| 2. Shri John Joseph   | — | <i>Joint Secretary</i>      |
| 3. Shri P.K. Bhandari | — | <i>Deputy Secretary</i>     |
| 4. Shri R.K. Bajaj    | — | <i>Under Secretary</i>      |
| 5. Shri N.K. Jha      | — | <i>Reporting Officer</i>    |

## INTRODUCTION

I, the Chairman, Standing Committee on Energy having been authorised by the Committee to present the Report on their behalf, present this Sixth Report (Twelfth Lok Sabha) on the Action Taken by the Government on the recommendations contained in the Fifteenth Report of the Standing Committee on Energy (Eleventh Lok Sabha) on "Demands for Grants (1997-98) of the Ministry of Non-Conventional Energy Sources."

2. The Fifteenth Report (Eleventh Lok Sabha) of the Standing Committee on Energy was presented to Lok Sabha on 30th April, 1997. Replies of the Government to all the recommendations contained in the Report were received on 30th June, 1997. The Standing Committee on Energy considered and adopted this Report at their sitting held on 23rd July, 1998.

3. An analysis of the action taken by the Government on the recommendations contained in the Fifteenth Report (1997-98) of the Committee is given in Annexure-II.

NEW DELHI;  
July 28, 1998  
*Shravana 6, 1920 (Saka)*

K. KARUNAKARAN,  
*Chairman,*  
*Standing Committee on Energy.*

## CHAPTER I

### REPORT

The Report of the Committee deals with the Action Taken by the Government on the recommendations contained in the Fifteenth Report (Eleventh Lok Sabha) of the Standing Committee on Energy on "Ministry of Non-Conventional Energy Sources—Demands for Grants (1997-98)" which was presented to Lok Sabha on 30th April, 1997.

2. Action Taken Notes have been received from the Government in respect of all the nine recommendations contained in the Report. These have been categorised as follows:—

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

Sl. Nos. 1, 4, 5, 6, 7, 8 and 9

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

- (iii) Recommendations/Observations in respect of which replies of the Government have not been accepted by the Committee:

Sl. No. 2

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

Sl. No 3

3. The Committee desire that final reply in respect of the recommendation for which only interim reply has been given by the Government ought to be furnished to the Committee within three months.

4. The Committee will now deal with the Action Taken by the Government on some of their recommendations/observations.



## **A. Integrated Rural Energy Programme (IREP)**

### **Recommendation (Sl. No. 1, Para No. 1.9)**

5. The Committee could not reconcile with the view that the programme of extension of IREP to 100 more blocks during 1996-97 was not taken up on account of the non-submission of the evaluation report by the Operations Research Group (ORG), an independent agency and therefore strongly felt that in future no programmes should be delayed or discontinued temporarily merely on the above mentioned ground.

6. In their action taken reply, the MNES have stated that as per the directions of the Commission for Additional Sources of Energy (CASE) and the Committee of Secretaries regarding the extension of IREP in 100 more blocks during 1996-97, the National Council of Applied Economic Research (NCAER) and the Operations Research Group (ORG), were assigned evaluation studies in March 1995 and April 1996, respectively. Though the NCAER submitted its report in January 1996, the programme could not be extended to 100 additional new blocks during 1996-97 as the final evaluation Study Report was awaited from ORG which submitted the report in April, 1997. In order to ensure the percolation of benefits of IREP, especially to the weaker sections of the society, and keeping in view the recommendations of the NCAER as well as ORG to expand the programme, the CASE at their 51st meeting held on 20.5.97, accorded approval to the extensions of IREP in 100 new blocks and continuation of the programme in the existing 660 blocks.

7. The Committee hope that in future the Government would not discontinue/temporarily shelve such important schemes as IREP merely due to non-receipt of the evaluation report. Such studies should be taken up before including any scheme in the budget and making provision for it. Carrying out of mid-way appraisals should not come in the way of working of a scheme unless the Government decide to abandon the scheme in the light of the conclusions from such appraisals. Efforts may now be made to make up the deficiency in targets set in this regard. The Committee may also be apprised in this matter.

## **B. Allocations for Integrated Rural Energy Programme**

### **Recommendation (Sl. No. 2, Para No. 1.10)**

8. The Committee felt that in addition to increase the budgetary allocation to IREP, during the Ninth Plan period, an integrated approach to propagate IREP alongwith rural development programmes should be adopted. The Committee also stressed that there was a strong case for correcting the imbalance in budget allocation for IREP and accordingly recommended that a beginning in this direction should be made by allocating additional funds needed by the Ministry for implementing the IREP during the Ninth Plan period.

9. In its reply, the Ministry have informed that it protected the provision for IREP, despite heavy cuts of Rs. 75 crores and Rs. 10 crores in October 1996 and January 1997, respectively in the budgetary support by the Ministry of Finance, as a result of which the actual amount utilised increased from Rs. 4 crores (at the R.E.) under IREP to Rs. 6.11 crores during 1996-97.

10. The Committee are not satisfied with the reply of the MNES. Considering that the outlay for an important rural programme like IREP has been drastically cut down during the last three years, the Committee had, *inter-alia*, stressed that there was a strong case for correcting the imbalance in the budget allocation for IREP and accordingly recommended that a beginning in this direction should be made by allocating additional funds needed by the Ministry for implementing the IREP in the Ninth Plan period. The Committee regret to observe that the Ministry have not reacted to this specific recommendation of the Committee. The Ministry is also silent on the actions initiated to propagate IREP with rural development programme. The Committee, reiterate their view (as stated in 3rd Report of 12th Lok Sabha) that the Ministry of Finance should not impose any cut in the budget approved by the Parliament for achieving specific targets. The Committee await further information on steps initiated and the progress made in this direction within three months.

## **C. Renewable Energy Parks (REPs)**

### **Recommendation (Sl. No. 3, Para No. 1.16)**

11. The Committee observed that a beginning has been made for setting up Renewable Energy Parks during 1995-96, launched under

the special Area Demonstration Programme, which would go a long way in creating awareness among the general public as well as students and teachers about the benefits of Renewable Energy Systems and devices. The Committee also observed that release of funds for the programme had been slowed down pending a review of the programme by an Expert Group. The Committee trusted that the review work would be completed expeditiously and necessary measures be taken for making the programme more effective. The Committee also stressed that appropriate measures should be taken for after installation management of the Renewable Energy Parks.

12. The Ministry informed that an Expert Group to review and strengthen Renewable Energy Park Scheme has been constituted. A meeting of the Expert Group was convened on 17.4.97 to review the status of the Renewable Energy Park projects and to discuss further strategy for strengthening the Energy Park Scheme. The Chairman of the Expert Group has divided the work among members of the Expert Group for visiting regions to assess the technical, financial and managerial aspects of the Parks so as to make recommendations for making the Parks more effective. Some of the members of the Expert Group have already visited Renewable Energy Parks. Based on the Report of the Expert Group, expected to be received by the end of August 1997, necessary action will be taken expeditiously.

**13. The Committee hope that the Government must have received the report of the Expert Group to review and strengthen Renewable Energy Park Scheme by now. The Committee await further information on the necessary action initiated on the recommendations made by the Expert Group and the progress made in this direction within three months.**

#### **D. Wind Pumps & Aerogenerators/Hybrid System**

##### **Recommendation (Sl. No. 5, Para No. 1.30)**

14. The Committee strongly felt the need for strengthening R&D efforts to improve the design & performance of water pumping windmills, aerogenerators and hybrid systems to make the systems cost-effective and also emphasised that MNES should come forward with appropriate guidelines on site selection, installation, commissioning and after sales service.

15. The Government in their reply have stated that the programme concerning water pumping windmills was restructured during the Eighth Plan and will also be strengthened during the Ninth Plan. In addition to adequate R & D efforts and performance evaluation, it was decided to evolve suitable guidelines on site selection, installation, servicing and for organising publicity through brochures supplied by manufactures containing information on techniques, operation and maintenance.

16. The Committee are glad to note the various steps initiated/ to be initiated by the Government to strengthen the water pumping windmills, aerogenerators and hybrid systems. The Committee would like to be apprised of the progress made in this regard from time to time. Performance evaluation, based as the experience of users, may also be undertaken. R&D efforts should be strengthened.

#### **E. Alternate Fuels for Surface Transport**

##### **Recommendation (Sl. No. 9, Para No. 1.49)**

17. The Committee had expressed the need for an added emphasis on development of renewable energy sources which were not only viable, cost effective and eco-friendly but also available in abundance. Development of renewables would not only reduce our dependence on finite fossil fuels but also expend the life span of such fossile fuels on which we have become excessively dependent for meeting our energy requirements. The Committee felt that sincere efforts need to be made to be tap the immense potential of hydel, solar and wind energy so as to ensure a significant contribution from these sources for meeting our energy needs.

18. The Ministry in their reply have stated that in addition to continuation and consolidation of the efforts made in the field of wind power with 860 MW, solar photovoltaics with 25 MW installation achievements and small hydro power with 253 MW against the target of 100 MW, 3 MW and 200 MW respectively during the Eighth Five Year Plan, it has been proposed to create additional capacity of 2000 MW, 250 MW and 350 MW from wind power, solar energy and small hydro power respectively during the Ninth Five Year Plan. In the area of small hydro power, special emphasis will be given to harness the immense potentialities present in different Himalayan and Sub-Himalayan Regions and in the field of solar power 140 MW, and

Integrated Solar Combined Cycle (ISCC) power plants to be set up near jodhpur in Rajasthan. Other initiatives to be included in the Ninth Plan are to encourage private investments, new forceful forethought policy initiatives, to strengthen R&D and resource assessments efforts in all the areas and technology upgradation through the establishment of specialised centres.

19. The Committee noted the efforts made by the Ministry in the Eighth Five Year Plan and to be made in the Ninth Five Year Plan including resource assessment, technology upgradation and new policy initiatives to encourage the participation of the private entrepreneurs. The Committee desire that along with the efforts mentioned above, the Government should also evolve a strong and well thought policy for after-installation management services, in the absence of which acceptability, diffusion and credibility of the technology will suffer, nullifying all the efforts made in this regard.

## CHAPTER II

### RECOMMENDATIONS/OBSERVATIONS WHICH HAVE BEEN ACCEPTED BY THE GOVERNMENT

#### Recommendation (Sl. No. 1)

The Committee are surprised to note that the programme to extend IREP to 100 more blocks during 1996-97 could not be taken up pending an evaluation of the programme by National Council of Applied Economic & Research (NCAER) and Operations Research Group, (ORG). Though the NCAER Report appears to have been submitted, the ORG report on the programme is reportedly awaited. The Committee fail to understand as to why the programme had to be stopped and the funds curtailed merely on the ground that a particular evaluation report by ORG has not been received especially as the programme is continuing as a plan scheme. Moreover, NCAER evaluation report has reportedly given a strong recommendation for strengthening and continuing the programme. The Committee strongly feel that the programme should not have been discontinued/temporarily shelved merely due to non-receipt of the evaluation report by an independent agency.

#### Reply of the Government

The Commission for Additional Sources of Energy (CASE), at their 41st meeting held on 23.6.1994, while approving the proposal for the continuation of IREP in the existing 452 Blocks, and taking up 100 new Blocks under IREP during the year 1994-95, directed that the evaluation of IREP by independent agency(s) may be got conducted. The evaluation was to include selected IREP Blocks and neighbouring non-IREP Blocks for a comparative study.

The Committee of Secretaries while considering the note from MNES on the operating mechanism for regular co-ordination on the subject of Integrated Rural Energy Programme in its meeting held on 30.1.1995, stated that "IREP will not be extended to new Blocks till the conclusions of the evaluation of the programme now

underway; are available and a view on the programme, in the light of these conclusions, has been taken by the Ministry of NES after necessary consultations”.

As per the directions of CASE and the Committee of Secretaries, the National Council of Applied Economic Research (NCAER), New Delhi, and Operations Research Group (ORG) were assigned evaluation studies in March, 1995 and April, 1996 respectively. The final evaluation report was submitted by NCAER in January, 1996.

The Evaluation Study subsequently assigned to Operations Research Group (ORG), Baroda in 1996 covered 6 States, namely, Andhra Pradesh, Karnataka, Madhya Pradesh, Maharashtra, Orissa and Tamil Nadu. ORG have submitted the final draft Evaluation Study Report in April, 1997. The programme could not be extended to 100 additional new Blocks during 1996-97 as the final Evaluation Study Report was awaited from ORG. ORG study has also recommended extension of IREP in 2-3 Blocks per year per State. In order to ensure the percolation of the benefits of IREP, especially to the weaker sections of the society, and keeping in view the recommendations of the NCAER as well as ORG to expand the programme, the Commission for Additional Sources of Energy (CASE) at their 51st meeting held on 20.5.1997, accorded approval to the Extension of IREP in 100 new Blocks and continuation of the programme in the existing 660 Blocks.

[Ministry of Non-Conventional Energy Sources O.M. No. 5/10/97-P&C, Dated the 5th August 1997]

### **Comments of the Committee**

(Please see paragraph 7 of Chapter I of the Report)

### **Recommendation (Sl. No. 4)**

The high initial cost is the main reason for slow performance of SPV Water Pump Programme. The Production Cost of Solar modules/cells is essentially dominated by silicon wafer which is a major and expensive input material. The Committee have been informed that efforts are on to improve the overall performance of solar cells/modules. With improvements in the efficiency of solar modules/cells and increase in production volumes, costs are expected to come down to Rs. 110 per watt in the Ninth Plan period from Rs. 165 per watt in

1995-96. The Committee recommend that efforts should be made to expand the use of solar modules/cells to spurt the demand which would break the low production-high cost-cycle and bring about cost reduction. The Committee stress that it is better to involve voluntary organisations in identification of beneficiaries, their training for operation and maintenance and also after sales service for successful utilisation of the systems. The Committee desire that awareness programmes through electronic media, highlighting the advantages of using solar PV pumping systems are necessary.

### **Reply of the Government**

The Ministry agrees with this recommendation. An effort to break the low production high cost-cycle has already been made in the proposals developed for the Ninth Five Year Plan. It has been proposed that 100 MW of PV modules should be manufactured and deployed during the next five years compared to about 30 MW deployed during the past decade. This kind of expansion covering both rural and industrial/commercial applications of photovoltaics has the potential to attract new investments, induct improved technology and reduce costs. A significant intensification of R&D efforts is also planned to improve the present technology and develop newer materials. The Ministry is working with other Ministries to identify newer applications, develop products and expand the photovoltaic market. Joint working groups are being formulated with such user agencies. With regard to Solar Photovoltaics water pumping systems, the Ministry is working with National Bank for Agriculture & Rural Development for evolving suitable working arrangements for deployment of SPV pumping systems through NABARD in addition to IREDA. The programme for 1997-98 will also provide for the involvement of voluntary agencies and for enhanced publicity concerning solar PV systems. Awareness programme through electronic media highlighting the advantages of use of solar pumps has been initiated.

[Ministry of Non-Conventional Energy Sources O.M. No. 5/10/97-P&C, Dated the 5th August 1997]

### **Recommendation (Sl. No. 5)**

The Committee are not happy with the performance of Water Pumping Windmills and Small Aerogenerator Systems which suffered a severe set back in terms of achieving targets. The



Committee suggest that guidelines should be evolved by the MNE for site selection, suitable arrangements for installation, commissioning and after sales service. The Committee stress that information brochures provided by the manufacturers should be standardised to include all relevant information. Publicity material on windmills should be developed to create awareness amongst the people. The Committee strongly feel the need for strengthening and intensification of R&D efforts to improve the design and efficiency of water pumping windmills, aerogenerators and hybrid systems and also to make them cost effective. Further, it is essential to undertake measures for developments of performance standards and establishment of independent test facilities for water pumping windmills, aerogenerators and hybrid systems.

#### **Reply of the Government**

The programme concerning water pumping windmills was re-structured during the Eighth Plan period, taking into account the field experience in the previous years. During the Ninth Plan, efforts will be made to develop suitable guidelines concerning site selection, installation and servicing and also for organising publicity. During 1997-98 publicity material on water pumping windmills will be prepared and distributed. Manufacturers will be advised to bring out brochures containing information on technical features as well as on operation, maintenance and general care of their wind pumps. R&D effort will also be strengthened during the 9th Plan. Performance evaluation of windmills, aerogenerators and hybrid systems will be taken up.

[Ministry of Non-Conventional Energy Sources O.M. No. 5/10/97-P&C, Dated the 5th August 1997]

#### **Comments of the Committee**

(Please see paragraph 16 of Chapter I of the Report)

#### **Recommendation (Sl. No. 6)**

The Committee are of the view that the potential of small Hydro Power is immense in the country. Though, the projects to an extent of 253 MW capacity has been sanctioned during the Eighth Plan period, the projects actually commissioned during the plan amount

to only 63 MW. The Committee are of the view that targets for small Hydro Power Projects should not merely pertain to the capacity to be sanctioned but also include targets for commissioning. Considering the slow progress of the projects, the Committee urge that steps should be taken to ensure the timely implementation of the projects. The Government should take the initiative in ensuring the progress of the projects in consultation with the States. Efforts should be made to overcome the bottlenecks in the implementation of the projects in consultation with the State Governments on the issues involved.

### Reply of the Government

In view of relatively long gestation periods for Small Hydro Power Projects, the Ministry, in its 9th Plan proposals, has indicated separate targets for sanctioning and commissioning SHP projects.

To expedite implementation of projects sanctioned during the 8th Plan period, project-wise reviews including site inspections are being carried out. State-wise Review Meetings are also held at senior level to identify problem areas and suggest measures for removing bottlenecks. Most of the projects are being delayed on account of sub-optimal Plan allocations in the State budgets. States have been requested to ensure adequate funds in their State plans for completion of these projects. The States could also take loans from financial institutions to mobilise financial resources for these projects.

As substantial number of SHP projects sanctioned during the 8th Plan are in the North-Eastern Region, and are being delayed due to shortage of fund, the Ministry has reviewed its capital subsidy scheme for the North-Eastern States and announced special incentives for SHP projects in the region. The already sanctioned SHP projects in the North-Eastern States will also now be provided with enhanced subsidy. A high level meeting was also held in Shillong with NEC and senior representatives of the North-Eastern States to review progress of these projects.

[Ministry of Non-Conventional Energy Sources O.M. No. 5/10/97-P&C, Dated the 5th August 1997]

**Recommendation (Sl. No. 7)**

The Committee note that the total Eighth Plan expenditure on programmes relating to energy recovery from urban and municipal waste was short of the budgeted plan outlay by about Rs. 2.10 crores. Though, the Ministry has informed that significant progress in tapping of energy from waste is now expected, considering the experience of some "energy recovery Plants" commissioned in the past, the Committee feel that the need for proper and timely appraisal of the technological aspects of the plants to ensure their successful operation. The Committee also like to be informed of the progress in this field.

**Reply of the Government**

After getting the feed back during the implementation of National Programme on Energy Recovery from Urban, Municipal & Industrial Waste during the last 2 years, necessity has been felt to attract private sector participation and to support R&D and Demonstration projects in this field. Accordingly, some additional features have been included in this programme to make it more attractive and conducive. Under the modified scheme, some demonstration projects are to be installed with 50% cost-sharing by the Ministry, in order to generate confidence among the State Governments, State Nodal Agencies, Urban Local Bodies, State Electricity Boards, Project Developers and Investors. The Ministry is also implementing a UNDP/GEF assisted project on "Development of High Rate Biomethanation Processes as means of reducing Green House Gases Emission" for installing 16 Nos. of demonstration sub-projects utilising various substrates (Sewage-3 Nos, Puls & Paper-2 Nos, Vegetable market yard waste-3 Nos, Leather industry/abattoir waste-5 Nos and Biogas utilisation for power generation-3 Nos). The experience gained during the implementation of these sub-projects will be utilised for the installation of other similar projects in the country. The various study tours and fellowship training programmes being organised under UNDP assisted project will also help in creating a pool of trained manpower in the country which will help in the implementation of National Programme on Energy Recovery from Urban, Municipal and Industrial Wastes. Some States

like Uttar Pradesh, Andhra Pradesh, Madhya Pradesh, Tamil Nadu and Maharashtra have issued policy guidelines in line with Ministry's guidelines in respect of land allotment, supply of garbage and power purchase and evacuation facilities by the State Electricity Boards, for encouraging the setting up of "Waste to Energy Projects" by the private entrepreneurs. The Ministry is trying to persuade other States also to issue similar policy guidelines for facilitating and promoting "Waste to Energy Projects". Interaction/Business meets at State/regional level, are being organised for creating awareness, development of entrepreneurship and for evolving solutions to the problems faced by project developers, investors, industries and urban local bodies.

So far, under the "National Programme on Energy Recovery from Urban, Municipal and Industrial Waste", 2 projects with a total capacity of 3.75 MW have been completed. 25 Nos. of preliminary project proposals with an aggregate capacity of about 90 MW on waste to energy, are under formulation by different investors/project developers. The Ministry is assisting them in finalisation of various tie-ups (for land, waste and power purchase agreement, etc.) with State Govt. Agencies and concerned Urban Local Bodies. The investors/project developers are also negotiating with financial institutions for financing tie-ups. As soon as these tie-ups are finalised, the proposals will be considered in the Ministry for grant of eligible incentives under "waste to energy" programme. It is expected that projects aggregating about 10 MW would be taken up by the end of current financial year.

Under the UNDP/GEF assisted project, 5 out of 16 sub-projects have been completed. MOUs in respect of 6 other projects have been finalised. These projects will be initiated during 1997-98 and completed during 1998-99. The remaining 5 sub-projects will be taken up during the IInd phase of the project commencing 1998-99, for completion by the end of approved project duration *i.e.* September, 1999.

Appraisal of the project proposals, as also of the technologies involved, is carried out by the concerned financial institutions. The project proposals, after finalising the choice on technology and financial tie-ups, alongwith other necessary tie-ups, such as land, garbage and

power purchase agreement, are received and further considered in MNES for incentives under Ministry's Programme. The Ministry also appraises the technologies involved in such proposals.

Under the UNDP/GEF assisted project on "Development of High Rate Biomethanation Processes as means of reducing Green House Gases Emission", Detailed Project Reports (DPRs) are prepared for the sub-projects. These DPRs are appraised, taking into consideration relevance and appropriateness of technologies involved for Indian conditions. Technology Institutions within the country have been identified for this purpose. These institutions alongwith national and international consultants are being associated in the appraisal and evaluation of technologies.

[Ministry of Non-Conventional Energy Sources O.M. No. 5/10/97-P&C, Dated the 5th August 1997]

#### **Recommendation (Sl. No. 8)**

The Committee are of the view that Battery Operated Vehicles as well as vehicles run on other alternate fuels, such as alcohol, are environmentally benign, and have been fairly successful in certain areas. The Committee, therefore, emphasises the need for strengthening the R&D efforts in this area. The Government should consider introduction of vehicles run on alternate fuels in small towns on a limited scale for the purposes of local transport.

#### **Reply of the Government**

The Government is taking necessary steps for strengthening R&D efforts in the area of Alternate Fuels for Surface Transportation. R&D projects have already been sanctioned on the development of (i) Chopper controllers, and (ii) High Energy Density Batteries for Battery Operated Vehicles (BOVs). R&D projects for the development of hybrid vehicles are also being considered.

A Government-sponsored R&D project has demonstrated that blends of petrol and anhydrous ethanol (90% petrol & 10% anhydrous ethanol) can be successfully used to operate petrol vehicles without modifying the existing engines.

The Government has noted the Committee's recommendation to consider introduction of alternate-fueled vehicles in small towns on a limited scale for the purpose of local transport. The Government may consider this idea with a view to evolve a suitable proposal for meeting this objective.

[Ministry of Non-Conventional Energy Sources O.M. No. 5/10/97-P&C, Dated the 5th August 1997]

### **Recommendation (Sl. No. 9)**

The Committee express the need for an added emphasis on development of renewable energy sources which are not only viable, cost effective and eco-friendly but also available in abundance. Development of renewables would not only reduce our dependence on finite fossil fuels but also extend the life span of such fossile fuels on which we have become excessively dependent for meeting our energy requirements. The Committee feel that sincere efforts need to be made to tap the immense potential of hydel, solar and wind energy so as to ensure a significant contribution from these sources for meeting our energy needs.

### **Reply of the Government**

Considerable progress was made during the 8th Plan to tap the potential of wind power, small hydro power and solar energy. Against a target of 100 MW, a wind power capacity of over 860 MW was installed. In solar photovoltaics, against a target of 3 MW, a capacity of over 25 MW was installed during the Plan period, mainly for stand-alone decentralised applications. In the area of small hydro power, against a target of 200 MW, projects aggregating 253 MW, were taken up. The 8th Plan has seen significant private sector interest for commercial projects in these areas.

During the 9th Plan, while the efforts of the 8th Plan will be continued and consolidated, the programmes are planned to be significantly expanded. Additional capacity of 2000 MW from wind power, 350 MW from small hydro power and 250 MW from solar energy has been proposed. The additional solar capacity includes a

140 MW Integrated Solar Combined Cycle (ISCC) Power Plant to be set up near Jodhpur in Rajasthan, which will be the first project of its kind in the world. In the area of Small Hydro Power, special emphasis will be given to tapping the large potential available in the Himalayan and Sub-Himalayan region for decentralised projects to meet the energy requirements of the local communities.

Other initiatives in the 9th Plan will include strengthening of resource assessment efforts in all the areas; intensification of R&D and technology upgradation through the establishment of specialised centres; new policy initiatives to accelerate commercial projects and private investments in these areas.

[Ministry of Non-Conventional Energy Sources O.M. No. 5/10/97-P&C, Dated the 5th August, 1997]

#### **Comments of the Committee**

(Please see paragraph 19 of Chapter I of the Report)

**CHAPTER III**

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

- NIL -



## CHAPTER IV

### RECOMMENDATIONS/OBSERVATIONS IN RESPECT OF WHICH REPLIES OF THE GOVERNMENT HAVE NOT BEEN ACCEPTED BY THE COMMITTEE.

#### **Recommendation (Sl. No. 2)**

The Committee note with serious concern that the outlay for an important rural programme like IREP during the last three years of the plan has been drastically cut down. The trend in allocation of funds to IREP has been hopelessly poor, which obviously constrains the implementation of the programme. The fund allocation for IREP over the Eighth Plan period has been too small. Less than 50% of the funds earmarked for IREP during the Eighth Plan period were actually made available to the Ministry. The Committee are of the firm view that so long as allocation remains at present level, IREP will be viewed in terms of playing a marginal role. The Committee feel that there is a need for adoption of an integrated approach to propagate IREP with rural development programme. The Committee stress that there is a strong case for correcting the imbalance in budget allocation for IREP and accordingly recommend that a beginning in this direction should be made by allocating additional funds needed by the Ministry for implementing the IREP in the Ninth Plan period.

#### **Reply of the Government**

A gross budgetary support of Rs. 334 crores was available to the Ministry at the BE stage. Out of this, a sum of Rs. 16 crores was provided for IREP during 1996-97. Ministry of Finance imposed a cut of Rs. 75 crores at the R.E. stage in October, 1996, as a result of which cuts had to be imposed on all the programmes including IREP and the budget provision for IREP had to be reduced to Rs. 4 crores. Subsequently, in the month of January, 1997, another cut of Rs. 10 crores was imposed by the Ministry of Finance. But the Ministry

protected the provision for IREP and even provided more funds for IREP than available in the R.E., as a result of which the actual amount utilised under IREP was Rs. 6.11 crores.

During the current year 1997-98, an outlay of Rs. 11.80 crores, has been provided for IREP as against the R.E. of Rs. 4 crores and actual expenditure of Rs. 6.11 crores during 1996-97.

[Ministry of Non-Conventional Energy Sources O.M. No. 5/10/97-  
P&C, Dated the 5th August 1997]

#### **Comments of the Committee**

(Please see paragraph 10 of Chapter I of the Report)

## **CHAPTER V**

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

#### **Recommendation (Sl. No. 3)**

The Committee observe that the scheme of Renewable Energy Parks launched under the Special Area Demonstration Programme would go a long way in creating awareness among the general public as well as students and teachers about the benefits of Renewable Energy Systems and devices. Though, a beginning has been made for setting up of Renewable Energy Parks during 1995-96, release of funds for the programme has been slowed down for a review of the programme by an Expert Group. The Committee trust that the review work would be completed expeditiously and necessary measures be taken for making the programme more effective. The Committee also hope that appropriate measures would be taken to ensure that the Renewable Energy Parks once set up would be maintained properly in the long run.

#### **Reply of the Government**

As stated, an Expert Group to review and strengthen Renewable Energy Park Scheme has been constituted by the Ministry. A meeting of the Expert Group was convened on 17.4.97 to review the status of the Renewable Energy Park projects and to discuss further strategy for strengthening the Energy Park Scheme. The Chairman of the Expert Group has divided the work among members of the Expert Group for visiting Renewable Energy Park projects in various regions to assess the technical, financial & managerial aspects of the Parks so as to make recommendation for making the Park more effective. Some of

the members of the Expert Group have already visited Renewable Energy Parks. Based on the Report of the Expert Group, expected to be received by end of August 1997, necessary action will be taken expeditiously.

[Ministry of Non-Conventional Energy Sources O.M. No. 5/10/97-  
P&C, Dated the 5th August 1997]

### **Comments of the Committee**

(Please see paragraph 13 of Chapter I of the Report)

NEW DELHI;  
*July 28, 1998*  

---

*Shravana 6, 1920 (Saka)*

K. KARUNAKARAN,  
*Chairman,*  
*Standing Committee on Energy.*

EXTRACTS OF MINUTES OF THE NINTH SITTING OF THE STANDING  
COMMITTEE ON ENERGY HELD ON 23RD JULY, 1998 IN COMMITTEE  
ROOM 'C', PARLIAMENT HOUSE ANNEXE, NEW DELHI

The Committee sat from 15.30 hrs. to 16.15 hrs.

PRESENT

Shri K. Karunakaran — *Chairman*

2. Shri Basudeb Acharia
3. Smt. Rani Chitralekha Bhosle
4. Shri Bikash Chowdhury
5. Shri K.C. Kondaiah
6. Shri Rajbanshi Mahto
7. Shri Sanat Kumar Mandal
8. Shri Som Marandi
9. Smt. Sukhda Mishra
10. Shri Vilas Muttemwar
11. Shri Ravindra Kumar Pandey
12. Shri Amar Roy Pradhan
13. Shri Kanumuru Bapi Raju
14. Shri Anantha Venkatrami Reddy
15. Shri Shailendra Kumar
16. Shri N.T. Shanmugam
17. Shri Th. Chaoba Singh
18. Shri Chandramani Tripathi
19. Shri Sushil Chandra **Verma**
20. Shri Lakkhiram Agarwal
21. Shri Gandhi Azad
22. Shri Bangaru Laxman



(Vide Para 3 of Introduction)

**ANALYSIS OF ACTION TAKEN BY THE GOVERNMENT ON THE  
RECOMMENDATIONS CONTAINED IN THE FIFTEENTH  
REPORT (1997-98) OF THE STANDING COMMITTEE  
ON ENERGY (ELEVENTH LOK SABHA)**

I.	Total No. of Recommendations made	9
II.	Recommendations that have been accepted by the Government (Vide recommendations at Sl. Nos. 1, 4, 5, 6, 7, 8 and 9)	7
	Percentage to total	78
III.	Recommendations which the Committee do not desire to pursue in view of the Government's replies	Nil
IV.	Recommendations in respect of which replies of the Government have not been accepted by the Committee (Vide recommendations at Sl. No. 2)	1
	Percentage to total	11
V.	Recommendations in respect of which final replies of the Government are still awaited (Vide recommendations at Sl. No. 3)	1
	Percentage to total	11