

**13**

**STANDING COMMITTEE  
ON ENERGY  
(2010-2011)**

**FIFTEENTH LOK SABHA**

**MINISTRY OF NEW AND RENEWABLE ENERGY**

*[Action Taken on the recommendations contained in the Sixth Report  
(Fifteenth Lok Sabha) on Demands for Grants of the Ministry of  
New and Renewable Energy for the year 2010-11]*

**THIRTEENTH REPORT**



सत्यमेव जयते

**LOK SABHA SECRETARIAT  
NEW DELHI**

*December, 2010/Agrahayana, 1932 (Saka)*

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*[Action Taken on the recommendations contained in the Sixth Report  
(Fifteenth Lok Sabha) on Demands for Grants of the Ministry of  
New and Renewable Energy for the year 2010-11]*

*Presented to Lok Sabha on 02.12.2010*

*Laid in Rajya Sabha on 02.12.2010*



LOK SABHA SECRETARIAT  
NEW DELHI

*December, 2010/Agrahayana, 1932 (Saka)*

**COE No. 201**

*Price : Rs. 43.00*

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Published under Rule 382 of the Rules of Procedure and Conduct of Business in Lok Sabha (Fourteenth Edition) and printed by National Printers, New Delhi-110 028.

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COMPOSITION OF THE STANDING COMMITTEE ON ENERGY  
(2010-2011)

Shri Mulayam Singh Yadav — *Chairman*

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17. Dr. K.S. Rao
18. Shri Ganesh Singh
19. Shri Radha Mohan Singh
20. Shri Vijay Inder Singla
21. Shri E.G. Sugavanam

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\*Nominated *w.e.f.* 27th September, 2010 *vice* Shri Subhash Bapurao Wankhede.

\*\*Nominated *w.e.f.* 18th October, 2010 *vice* Shri Arjun Munda.

*Rajya Sabha*

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25. Shri Shyamal Chakraborty
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2. Shri N.K. Pandey — *Additional Director*
3. Shri Rajesh Ranjan Kumar — *Deputy Secretary*
4. Smt. L. Nemjalhing Haokip — *Executive Officer*

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\*\*\*Nominated *w.e.f.* 21st September, 2010.

## INTRODUCTION

I, the Chairman, Standing Committee on Energy having been authorized by the Committee to present the Report on their behalf, present this 13th Report on the action taken by the Government on the recommendations contained in 6th Report of the Standing Committee on Energy (15th Lok Sabha) on Demands for Grants of the Ministry of New and Renewable Energy for the year 2010-11.

2. The 6th Report was presented to the Lok Sabha/laid in Rajya Sabha on 21st April, 2010/22nd April, 2010. Replies of the Government to all the recommendations contained in the Report were received on 5th July, 2010.

3. The Report was considered and adopted by the Committee at their sitting held on 25th November, 2010

4. An Analysis on the Action Taken by the Government on the recommendations contained in the 6th Report of the Committee is given at Appendix-II.

5. For facility of reference and convenience, the observations and recommendations of the Committee have been printed in bold letters in the body of the Report.

NEW DELHI;  
01 December, 2010  

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10 Agrahayan, 1932 (Saka)

MULAYAM SINGH YADAV,  
Chairman,  
Standing Committee on Energy.

## CHAPTER I

### REPORT

This Report of the Standing Committee on Energy deals with the action taken by the Government on the Observations/Recommendations contained in their Sixth Report (Fifteenth Lok Sabha) on the Demands for Grants of the Ministry of New and Renewable Energy for the year 2010-11.

2. The Sixth Report was presented to Lok Sabha on 21st April, 2010 and was laid on the Table of Rajya Sabha on 22nd April, 2010. The Report contained 10 Observations/Recommendations.

3. Action Taken Notes in respect of all the Observations/Recommendations contained in the Report have been received from the Government. These have been examined and categorized as follows:—

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

Serial Nos. 2, 3, 5 and 7

Total - 04  
Chapter - II

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

Serial No. 10

Total - 01  
Chapter - III

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

Serial Nos. 1, 4, 6, 8 and 9

Total - 05  
Chapter - IV



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

Nil

Total - 00  
Chapter - V

**4. The Committee desire that Action Taken Notes on the Observations/Recommendations contained in Chapter-I of the Report may be furnished to the Committee within three months of the presentation of this Report.**

5. The Committee will now deal with action taken by the Government on some of their Observations/Recommendations that require reiteration or merit comments.

**A. 11th Five Year Plan Programmes**

**Recommendation (Serial No. 1, Para No. 2.1)**

6. The Committee had noted that against the total outlay (GBS) of Rs. 4,000 crore for 11th Five year Plan period, the actual allocations during the first three years of the plan was Rs. 1868 crore (BE) and Rs. 1542.40 crore (RE), out of which an amount of only Rs. 1391.68 was spent by the end of February, 2010. As the first three years of the plan period is over, the Ministry were expected to utilize major part of the total budget allocation of the 11th Plan. The Committee had recommended the Ministry to identify and focus on specific areas which have been affecting the implementation of various schemes/programmes.

7. In their Action Taken Reply regarding utilization of funds, the Ministry of New and Renewable Energy have stated:

“Against the total outlay of Rs. 1868 crore for the first three years of the 11th Plan period, the actual expenditure by the end of March, 2010 was Rs. 1468.94 crore. While the expenditure was somewhat less during the first two years of the plan period (Rs. 478.72 crore during 2007-08 and Rs. 441.79 crore during 2008-09), there has been considerable improvement in the fund utilization in the third/ last year (2009-10) as an expenditure of Rs. 548.43 crore was achieved against RE of Rs. 560 crore and BE provision of Rs. 620 crore. We have created a momentum which will be carried forward. An increased level of expenditure is envisaged during the remaining two years of the plan period (2010-11 and 2011-12) due mainly to the newly initiated Solar Mission, and partly because of the new

scheme for generation based incentives for wind power, the recently sanctioned Ladakh project and the increased subsidy provision under biogas programme. In fact an expenditure of about Rs. 500 crore is likely to be incurred by the end of the 2nd quarter *i.e.* by 30th September 2010 [against BE provision of Rs. 1,000 crore]. Therefore, not much difficulty is presently visualized in utilizing the entire plan allocation. As suggested by the Committee, the Ministry will be putting increased emphasis on identification and addressing of bottlenecks for speedier implementation of various schemes/programmes for higher achievements of physical targets with associated higher budget utilization. The Ministry is continuously reviewing the progress of different programmes with the States.”

8. The Ministry’s reply has revealed that as against budget outlay of Rs. 4,000 crore for the 11th Five Year Plan, the actual expenditure (upto March, 2010) has been Rs. 1468.94 crore only. The Ministry are envisaging an increased level of expenditure during the remaining two years of the plan period mainly due to the newly initiated Solar Mission and partly because of the new scheme for generation based incentives for wind power, the recently sanctioned Ladakh Project and the increased subsidy provision under biogas programme and the Ministry do not visualize much difficulty in utilizing the entire plan allocation. The Committee had desired the Ministry to identify and focus on specific areas which had affected the implementation of various schemes/programmes resulting in the low utilization of budget and low achievement of physical targets. While the Ministry have listed few priority areas, no specific physical and financial targets have been provided to show the likely utilization of funds fully. The Committee reiterate that it would be more appropriate if financial/physical targets are also decided under each of the schemes *i.e.* Solar Mission, Generation Based Incentive for wind power, Ladakh project etc. and a time bound strategy is chalked out to realize these targets. The Committee would like the Ministry to furnish details of the status of implementation of the new scheme in a structured manner encompassing targets and efforts to achieve them and how it help in generating power from all these initiatives.

#### **B. Grid-Interactive and Off-Grid Distributed renewable Power**

##### **Recommendation (Serial No. 4, Para No. 2.4)**

9. The Committee expressed their concern to find that the overall achievements under Grid-interactive and Off-Grid/DRP during 2009-10 was very discouraging *i.e.*, against the target of 3226 MW Grid power,

only 1424 MW was achieved till 28th February 2010 which was about 44 per cent of the target. The achievement in Off-Grid power was 63 MWeq against the target of 95.80 MWeq *i.e.*, 65 per cent of the target. Grid and off-grid programmes being the most important of all renewable programmes for power generation, the Committee had desired the Ministry to focus not only on the implementation of various projects/schemes under this programme but also on their proper monitoring with a view to ensure that implementation of these projects are time-bound and target oriented besides various initiatives for encouraging this form of energy.

10. Regarding the achievement under Grid-interactive and off-grid/DRP during 2009-10, the Ministry in their Action Taken Reply have *inter-alia* informed:—

“The actual achievements under Grid-interactive and off-Grid/DRP during 2009-10 were 2330.42 MW and 83.56 MWeq against targets of 3226 MW and 95.80 MWeq respectively. These correspond to over 72% for Grid-interactive and over 83% for off-Grid/DRP systems. The shortfall is mainly in Wind power to the tune of 1000 MW (1565 MW achieved against target of 2500 MW) and Waste to Energy (4.72 MW achieved against target of 24 MW).”

11. The Ministry have shown the actual achievement under Grid-interactive as 2330.42 MW against the target of 3226 MW. Similarly, under off-Grid/DRP systems, against the target of 95.80 MWeq the achievement was 83.56 MWeq. The Ministry appear to be quite satisfied with their achievement under Grid-interactive and off-Grid/DRP during 2009-10 which were 72% and 83% of the set targets respectively. Admittedly, there is a major shortfall in wind power where achievement has been 62.6 per cent and in Waste to Energy where achievement is mere 19.6 per cent of the annual target during 2009-10. While analyzing the reasons advanced by the Ministry in connection with shortfall in Wind Power Programme, the Committee feel that the Ministry have tried to shift the responsibility by pointing out regulatory and local issues as well as the global economic recession. With regard to Waste to Power, shortfall in achievement of the target has been attributed to poor quality of waste and non-implementation of MSW handling and Management Rules 2000. It has also been stated that the project developers are taking a long time in commencing the execution of projects even after award of projects by the Municipal Corporations. The Committee feel that the reasons advanced by the Ministry are administrative and routine in nature. The Committee would like to reiterate their recommendation that the Ministry should not only to focus on the implementation of the projects/schemes but also on their

**proper monitoring with all the involved agencies to ensure achievement of targets. The local agencies should also be sensitized to expedite the execution process. If necessary, penal provisions for those project Developers who fail to adhere to time schedule of the project, be incorporated.**

### **C. Solar Mission**

#### **Recommendation (Serial No. 6, Para No. 2.6)**

12. The Committee had noted that the aims of the Mission is to set up 20,000 MW grid solar power, 2,000 MW off-grid solar power including 20 million solar lights and 20 million square metre solar thermal collector area by 2022 and that the target for the first phase (upto March, 2013) is to set up 1000 MW grid connected (33KV and above) solar power plants, 100 MW of roof top and small solar plants connected to LT/11/KV grid and 200 MW capacity equivalent off-grid solar applications. The Committee had also taken note of the fact that the proposed target of 1100 MW grid solar power generation with an estimated expenditure of Rs. 77 crore for the year 2010-11 has been reduced to the target of 200 MW with an allocation of Rs. 30 crore. Similarly, under off-grid/ Distributed Solar Power Programme, the proposed target to achieve 50 MWeq at an estimated investment of Rs. 1000 crore has been scaled down to 32 MWeq with Rs. 250 crore. The Committee had expressed concern about the achievement of set target by 2013 in the light of the reduced target for the year 2010-11. In view of the importance given to the Solar Mission, which is one of the most ambitious programmes of the Renewable Energy Sector and also in view of the past performance of the Government in Solar grid sector where a meager 8.21 MW of grid power generation capacity could be achieved during the 11th Plan so far, the Committee had recommended that the Government should come out with a vision document with meticulous planning, implementation and monitoring of the programme, phase-wise.

13. Regarding the target and fund allocation under Solar Mission, the Ministry in their Action Taken Reply have stated:—

“The targets for the three years of the first phase are 1,100 MW for grid connected solar power projects and another 200 MW for the off-grid solar power projects. These projects are to be completed by March, 2013 and are spread over a period of three years.

Grid connected solar power generation is a new application in the country and so far a limited capacity has been set up. Therefore, the annual targets and the requirement of funds have been set to

gradually achieve 1,100 MW capacity by March, 2013. The first batch of grid solar power projects of about 200 MW capacity is to be allocated during 2010-11. The guidelines for the selection of projects have been announced during June/July, 2010. The photovoltaic grid power projects take about 12 months time for completion and the solar thermal projects are allowed time up to 28 months. Therefore, the requirement of funds has also been reviewed and accordingly kept as Rs. 30 crore for 2010-11.

A total of 220 MW capacity grid connected solar power projects are allocated so far...

An amount of Rs. 6.5 crore has been spent by August, 2010 and the balance is expected to be released in coming months. Seven projects of about 14 MW capacity have been installed during the last one year, which is a satisfactory beginning, considering that small capacity projects of about 2.1 MW were installed in the country before that...

Similarly the target approved for the first phase of the Mission for the off-grid solar applications is approved as a total capacity of 200 MW. This target is to be spread over the entire duration of three years. For the current financial year the target is accordingly set as 32 MW.

The guidelines for supporting off-grid projects were released on 16th June, 2010. The guidelines provide for 30% capital subsidy and/or loan at 5% annual interest rate. In addition to the Government agencies, Banks, system integrators and renewable energy companies have also been allowed to implement the projects. Regional Rural Banks will be supported through refinancing. The private sector projects will be funded on reimbursement basis. Consequent to approval of the Mission, the requirement of funds for the off-grid solar projects was also reviewed, based on the likely releases to the implementing agencies and the requirement of funds was estimated as Rs. 250 crore. However, this requirement is likely to increase in 2011-12. Projects of about 23 MW have already been sanctioned till 17.9.2010. An amount of Rs. 120 crore has been spent so far. Ministry is regularly organizing meetings with the State agencies, banks and the manufacturers to ensure timely completion of the projects...

The Government has already released the vision document of the Mission giving the road map for capacity addition. The guidelines for the second phase of the Mission, funding pattern and

requirement of funds will be announced, only after the allocation of grid solar power projects for the first phase is completed. This exercise will be initiated in 2011-12.”

14. The Committee note from the Action Taken Replies of the Ministry that the target for the first phase (upto March, 2013) is 1100 MW for grid connected solar power projects and 200 MW for off-grid solar power projects out of which about 200 MW capacity of grid solar power projects are to be allocated during 2010-11 with financial allocation of Rs. 30 crore and the target under off-grid solar applications has been set as 32 MW with fund requirement estimated as Rs. 250 crore. It has been informed by the Ministry that the capacity so far allocated under grid connected solar power projects is 220 MW and an amount of Rs. 6.5 crore has been spent till August, 2010 and under off-grid solar power projects, about 23 MW have been sanctioned till 17th September, 2010 and an amount of Rs. 120 crore has been spent so far. The Committee appreciate that the Government have already released vision document of the Mission giving the roadmap for capacity addition, as desired by the Committee. However, while analyzing the efforts made by the Ministry so far, the Committee find that allocating only 220 MW of grid power capacity addition for the first year against the target of 1100 MW for the first phase (which ends in March, 2013) and similarly allocating only 32 MW capacity under off-grid for the first year against the target of 200 MW is quite insufficient and rather discouraging to give a thumping start to the ambitious solar Mission of the Government. Against this backdrop, the Committee place their apprehension about the achievement of first phase targets in both grid and off-grid solar power and recommend that the Ministry should endeavour to achieve full capacity as targeted for the current year and should plan in advance for successful implementation and monitoring of the programme so that they may not be behind the first phase target at least.

#### **D. Renewable Energy in North Eastern Region and Sikkim**

##### **Recommendation (Serial No. 8, Para No. 2.8)**

15. The Committee had observed that the bio-gas plants installed during 2009-10 was very less *i.e.* only 3,658 plants till January, 2010 against the target of 11,400 plant in North Eastern Region including Sikkim. Again, the number of villages and hamlets electrified through Remote Village Electrification Programme was found to be very low, especially in the States of Nagaland and Sikkim were only 3 and 13 villages/hamlets respectively had been covered. The Committee had also observed that in spite of the region having vast potential to develop small hydro power

projects, the number of projects set up was very discouraging. The Committee were unhappy that no separate targets were assigned in advance for the region under various programmes except under bio-gas programme. The Committee had recommended the Ministry to identify the potential availability of the various renewable energy systems of the regions and set targets accordingly. Considering the potentiality in the field of bio-gas and small hydro power, the Committee had also recommended that necessary steps should be taken to exploit the potential by effectively implementing the action plan for optimum utilization of capacities in bio-gas and small hydro areas and also to expedite the action under RVE to cover the remaining remote villages of the region.

16. The Ministry in their Action Taken Reply have *inter-alia* stated:—

“Bio-gas: State-wise physical targets for installation of family type bio-gas plants for the States of North-Eastern Region and Sikkim are allocated every year. The achievements are in accordance with the needs and efforts made by the State Nodal Departments/Implementing Agencies, the Ministry also provides higher Central Financial Assistance for installation of family type bio-gas plants as compared to other parts of the country. The Ministry has increased the Central Financial Assistance for family type bio-gas plants *w.e.f.* November 2009 in view of the increase in the cost of installation of such bio-gas plants. It is expected that during the coming years installation of plants in these States would improve.

Small Hydro: The projects in the region are being set up directly by the State Power Departments/Renewable Energy agencies. It is difficult to fix annual targets in view of long gestation period for their implementation and requirement of counterpart funds from State Governments. However, all technically sound projects are financially supported under the Ministry's promotional scheme.

A workshop of all NE region States has been organized by the Ministry on 26 June 2010 to deliberate on speedy exploitation of the potential. Discussion in this regard has also been held by Secretary, MNRE with DoNER and Planning Commission in a meeting on 5 Feb. 2010.

RVE : The Committee has observed that number of villages and hamlets covered under Remote Village Electrification Programme is very low in North Eastern States, particularly in Nagaland and Sikkim. The achievement in Nagaland and Sikkim is low as no other projects have been submitted by the State Governments.”

17. The Committee note that the Ministry provide higher Central Financial Assistance (CFA) for installation of family type bio-gas plants for North-Eastern Region as compared to other parts of the country. However, the Ministry have not specified details of the CFA provided to the North-Eastern Region and Sikkim *vis-à-vis* other parts of the country. Also the Committee have not been informed how far this provision of CFA would help in promoting installation of bio-gas plants in the NER. The statement with regard to achievement under bio-gas that it is in accordance with the needs and efforts made by the State Nodal Departments/implementing Agencies is not in tune with the spirit of the scheme and is an attempt to shift the responsibility. However, the Committee trust that the Ministry take all efforts to achieve set targets under bio-gas programme. Further scrutiny of the reply reveals a trivial improvement under small hydro projects and remote village electrification programme. The Committee are also not satisfied with the reasons tendered by the Ministry regarding fixing of annual targets, which according to them is not possible due to long gestation period for their implementation and requirement of counterpart funds from State Governments. The Committee feel that if setting up annual targets are not feasible in physical terms, targets can be set for longer periods in both physical and financial terms taking all the difficulties in consideration. This will not only help in accelerating the efforts of the Ministry but also give impetus to their coordinated and joint working with the State Governments. The Committee, therefore, reiterate their earlier recommendation to identify the potential availability of the various renewable energy systems of the regions and set targets accordingly and also to expedite the action under Remote Village Electrification to cover all the remote villages of the region.

**E. Research, Design and Development in New and Renewable Energy**

**Recommendation (Serial No. 9, Para No. 2.9)**

18. The Committee had noted that at the beginning of 11th Plan, the budgetary outlay of Rs. 1, 462 crore was projected to support RD&D on different aspects of new and renewable Energy technologies: support of MNRE Centres/Institutions like Solar energy Center (SEC), Center for Wind Energy Technology (C-WET), National Institute of Renewable Energy (NIRE) Standard and Testing Renewable Energy Resources Assessment and other Programmes. However, only Rs. 600 crore was approved under this head, out of which only around Rs. 65 crore were spent till 31st July, 2009. Subsequently at the time of Mid-Term Appraisal, the budgetary outlay was downsized to Rs. 500 crore for 11th Plan which



included about Rs. 140 crore for setting up of the National Hydrogen Energy and Fuel Cell Center and implementation of the Durgaduani tidal power project. Further, in 2009-10, though the Ministry had stated that 28 new projects were sanctioned in various R&D areas amounting to about Rs. 100 crore, the Committee had noted that only Rs. 43.85 crore could be actually utilized upto 28th February, 2010 against the outlay of Rs. 78 crore. The Committee had, therefore, observed that RD&D in New and Renewable Energy has not drawn attention of the Government it deserves. The Committee were of the view that Research and Development is the hallmark of any scheme for its success as continued research exercises not only updates the technologies, but make them more economic and people friendly. The Committee had, therefore, suggested the Ministry to accord due priority to RD&D and had also expressed their hope that the increased allocation for 2010-11 of Rs. 150 crore will be fully utilized by accelerating the result oriented expenditures in key areas.

19. The Ministry in their Action Taken Reply have stated:—

“The expenditure in 2009-2010 on R&D was Rs. 58.92 crore. The Ministry has been continuously working for generation of more and more R&D projects in various areas of renewable energy. This has resulted in increase in expenditure on R&D projects. However, it may be mentioned that the research, design, development and demonstration activities are taken up in association with other institutions and organizations of the country which are not under the direct administrative control of the Ministry. In addition, the generation of expertise in carrying out research and development takes years at different institutions. The Solar Mission would also generate a number of research, design, development and technology demonstration projects.”

**20. The Ministry's reply shows the 2009-10 expenditure as Rs. 58.92 crore which is about 75% of the outlay budget *i.e.* Rs. 78 crore. The Ministry have also stated that they have been continuously working for generation of more and more R&D projects in various areas of renewable energy which has resulted in increase in expenditure on R&D projects. The Ministry, however, try to side away their responsibility from R&D activities which is evident from their reply that the research, design, development and demonstration activities are taken up in association with other institutions and organizations of the country which are not under the direct administrative control of the Ministry. The Ministry have to take a lead role in Research and pioneer all efforts with every direct and indirect participants of the sector rather than depending on other Departments/Institutions for contributing in R&D activities in New and Renewable Energy Sector.**

The Committee, however, believe that consistent efforts for coordination and proper monitoring by the Ministry towards R&D support will boost overall development and progress of various renewable energy sources. The Committee, therefore, reemphasize their view that Research and Development being the hallmark of any scheme for its success and reiterate that due priority should be given on its continuous research not only to update the technologies, but also make them more economic and people friendly.

## CHAPTER II

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

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

The Committee note that during the Mid-Term Appraisal of the 11th Five Year Plan, physical targets under different schemes/programmes have been revised with the existing plan allocation (GBS) of Rs. 4000 crore. The Committee find that the physical target for Wind Power has been reduced from 10,500 MW to 9,000 MW. In small Hydro too the target has been curtailed from 1400 MW to 1000 MW. Similarly, in Urban waste-to-energy and Industrial waste-to-energy the physical targets have been downsized resulting in overall reduction of target for grid-interactive renewable power from 14,000 MW to around 12,000 MW and that for off-grid/distributed renewable power from 1000 MWeq. to 500 MWeq. The Committee feel that with the overall budgetary allocation of Rs. 4000 crore, the Ministry should not find it difficult to achieve the downsized targets. At the same time, the Committee take note of the fact that out of the total amount of Rs. 4000 crore, allocation of only Rs. 1542.40 crore has been made during the first three years at RE stage and utilization of merely Rs. 1391.68 crore has been made till 28th February 2010 leaving a balance of Rs. 2608.32 crore to be utilized during the next two years. The Committee are unhappy with the expenditure pattern so far wherein only around one-third of the expenditure has been made during the first three years of the Plan leaving two-third for the remaining two years. Given the allocation of Rs. 1000 crore for the year 2010-11, the Committee hope that the Ministry will be able to utilize the amount in total realization of the target during the current financial year.

The Committee are dismayed to note that the achievement made so far under Grid head with regard to the target as the target has been substantially decreased although the allocation has been increased from Rs. 720 crore to Rs. 1165 crore, though no reason has been given for depleted target with enhanced allocation. In this connection, the Committee appreciate that the Ministry have proposed detailed action plan to achieve both physical and financial targets during the remaining plan period including those under Solar Mission, finalization of lists of villages under Remote Village Electrification Programme, enhancing

Central Financial Assistance in Bio-gas Programme, support for bio-mass and cogeneration projects in cooperative sector sugar mills and bringing out generation based incentives schemes in Wind Energy Sector. Though the past performance of the Ministry has not been encouraging, the Committee still trust that the Ministry will be able to overcome the past difficulties and perform to the best of the available resources to convert the action plan into success.

### **Reply of the Government**

The position regarding decrease in physical targets and apparent increase in financial allocation is given below:—

- The initial outlay for grid power suggested by the Ministry before the Plan was higher (Rs. 1800 crore), but the Planning Commission recommended overall outlay of 40% of the proposed outlay with the advice that allocations would be revisited/adjusted between different components at the time of mid-term appraisal. Accordingly the outlay for grid power was reduced to Rs. 720 crore. Initially Rs. 700 crore was kept for Small Hydro. After MTA the grid allocation has gone up to Rs. 1165 crore of which Rs. 700 crore remains for small hydro and other allocations are for grid power from other sources like solar, wind, bio-mass and co-generation etc. Wind power allocation has been increased because of the new scheme of Generation Based Incentives. The allocation for waste to energy have been reduced from what was proposed earlier.
- The physical target for grid power has been reduced from 14000 MW to 12229 MW. The only reductions have been in wind power by 1500 MW and Waste to energy from 400 MW to 95 MW. In case of Small Hydro Power, while the Ministry had proposed an interim reduced target of 1000 MW in light of the reduced overall allocation, it has subsequently retained it at 1400 MW. The target for Grid Solar power also now stands enhanced as per the new initiated Solar Mission.
- The target for wind power was reduced (from initially proposed 10,500 MW to 9,000 MW) in light of the shortfall in achievement upto 2009-10 which was due to several factors which included regulatory and local issues in a few States preventing the wind power development in potential areas and non-conducive investment environment due to global economic recession. It would be noticed that wind power achievement in the States of Maharashtra, Karnataka and

Andhra Pradesh has been 183MW, 316MW, 0 MW and 138.9MW, 145.4MW and 13.6MW in 2008-09 and 2009-10 respectively. Increase in allocation is mainly due to introduction of new scheme of GBI for wind power *in lieu* of Accelerated Depreciation benefit.

- The target in case of waste to power was reduced (from 400 MW to 79 MW) in view of slow pace development of projects on energy from Municipal Solid Waste (MSW) by civic authorities. This is largely due to poor quality of waste and non-implementation of MSW Handling and Management Rules 2000. Even after award of projects by the Municipal Corporations, the project developers are taking a long time for commencing the execution of projects due to delays in signing of various agreements for technology and equipment, Power Purchase, financial closures, etc. The development of projects based on other wastes from urban, industrial and agricultural sectors is also taking a long time due to similar reasons along with time taken in development of supply chains for raw materials.

In this context, it may be noted that the Ministry is likely to incur an expenditure of about Rs. 500 crore in the first two quarters of the current financial year and it will be able to utilize the amount allocated for the year as well as the targets.

As the Committee has appreciated the Ministry has proposed detailed action plan to achieve both physical and financial targets during the remaining plan period including those under Solar Mission, finalization of lists of villages under Remote Village Electrification Programme, enhancing Central Financial Assistance in Biogas Programme, support for bio-mass and co-generation projects in cooperative sector sugar mills and bringing out generation based incentive schemes in Wind Energy Sector. The Ministry would like to assure that it will be able to overcome the past difficulties and perform to the best of the available resources to convert the action plan into success.

[Ministry of New and Renewable Energy, File No. 8/2/2010-P&C  
Dated 20.09.2010]

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

The Committee observe that the Budget Estimates (BE) for the year 2009-10 was Rs. 620 crore, which were subsequently reduced to Rs. 560 crore at Revised Estimates (RE) Stage *i.e.*, a net reduction of Rs. 60 crore. As against the RE of Rs. 560 crore, the actual expenditure

during 2009-10 as on 28th February 2010 was Rs. 472 crore, yet the proposed allocation of Rs. 1000 crore for the year 2010-11 does not have any correlation with the actual expenditure for the year 2009-10. While the Committee acknowledge the efforts of the Ministry for coming close to full utilization of the given amount at RE stage during the preceding financial year, still the Committee express concern on the downward revision of BE which according to the Ministry was a general cut imposed by the Ministry of Finance. There is no justification for reduced RE more so when the Ministry meet the norm of the Ministry of Finance regarding utilization of funds during first half of the year. Keeping in view the past experience regarding reduced RE despite appropriate performance, the Committee expect the Ministry to take an impressive start with exemplary performance from the very first quarter of the year 2010-11 and closely monitor the pace of quarter-wise expenditure commensurating with the target achievement to avoid a sizeable cut in the allocation at RE stage.

### **Reply of the Government**

As expected by the Committee, the Ministry has made an exemplary performance not only in the first quarter but also the second quarter of this year. An expenditure of about Rs. 500 crore will be incurred during this period , which is about 50% of BE 2010-11. As per the Finance Ministry norms, expenditure up to second quarter should be 40%.

[Ministry of New and Renewable Energy, File No. 8/2/2010-P&C  
Dated 20.09.2010]

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

The Committee also note that the physical targets under Grid-interactive power programme have been reduced to 2972 MW for the year 2010-11 as compared to that of 3226 MW for 2009-10 though the financial allocation has been increased from Rs. 160 crore in 2009-10 to Rs. 247 crore in 2010-11 which include the ambitious target of 200 MW with an allocation of Rs. 30 crore under Solar Mission Projects. The programme which has suffered from substantial cut in physical target is Wind Energy where the target has been reduced from 2500 MW in 2009-10 to 2000 MW in 2010-11 while the BE has been increased to Rs. 40 crore in 2010-11. Notwithstanding the increased allocation for the current financial year, the Committee are not satisfied with the achievement of merely 757 MW of wind energy by the end of February, 2010 during 2009-10 against the target of 2500 MW and are unable to understand the rationale behind increased allocation of Rs. 40 crore for a reduced target of 2000 MW for the year 2010-11. The low achievement

has been attributed to regulatory issues in a few States, local problems in the State of Maharashtra and non-conducive investment environment due to global economic recession. The Committee feel that the reasons advanced by the Ministry are not convincing enough and hope that the Ministry will take advantage of their generation based scheme and the recently issued Renewable Energy Policy of Karnataka, which is the highest potential State, and will be able to utilize full allocation this time with correspondingly encouraging results. The Committee observe that there is huge untapped potential in Wind Energy Sector as only about 11000 MW capacity is achieved as against the identified potential of more than 48500 MW in different States of the country. The Committee, therefore, strongly recommend that to achieve the target, the Ministry should identify the States/areas with huge potential under-exploited or unexploited and accelerate resource assessment for tapping the wind energy capacity at optimum level by establishing suitable wind power projects.

### **Reply of the Government**

As noted in the above para, there is reduction in target of 500 MW from 2009-2010 in relation to wind power. Taking this in to account the targets of grid interactive power for other sources have all increased. Because of perceived problems the 11th Plan target for wind energy was reduced at MTA from 10,500 to 9000 MW. During the first 3 years, wind power capacity addition of 4,714 MW has been achieved. Incidentally, the achievement in 2009-2010 was 1,565 MW. It is hoped that the balance of about 2300MW will be achieved in the next two years. A target of 2000 MW in wind power is also quite high as the maximum achieved in a year so far has been 1742 MW in 2006-07.

The target for Wind Power in XIth Plan should be seen in the context. The target for Xth Plan was 2200 MW but achievement was 5426 MW. Therefore, a very ambitious target of 10500 MW was kept for XIth Plan which meant over 2000 MW annually. This has been difficult to achieve because of some problems in a few States as stated earlier and because of recessionary conditions. The new policy of Karnataka actually created many problems and some changes were subsequently made. Karnataka only had 145.4 MW wind power during 2009-10.

The budgetary allocation has been increased to Rs. 40.00 crore for 2010-11 on account of introduction of the new scheme of GBI With introduction of GBI and also improved conditions in few States, the target of 2,000 MW set for 2010-11 is expected to be achieved for which full effort will be made.

Regarding Committee's recommendation *w.r.t.* wind resource assessment, the Ministry is implementing the Wind Resource Assessment Programme through its Centre for Wind Energy Technology (C-WET) at Chennai. So far 28 States and 3 Union Territories have been covered involving establishment of over 700 wind monitoring stations. Out of these, 233 stations in 14 States/UTs have recorded Wind power density in excess of 200 W/m<sup>2</sup> at 50 m height and considered suitable for commercial wind power installations. Seven volumes of 'Wind Energy Resource Survey in India' have so far been published covering wind data for 234 sites in 17 States/UTs. Recently, a Wind Atlas for India has been launched which will further help the stakeholders to identify more potential sites for commercial projects. More studies will be taken up in unexplored/unexploited areas for development of wind power projects.

[Ministry of New and Renewable Energy, File No. 8/2/2010-P&C  
Dated 20.09.2010]

### **Recommendation (Serial No. 7)**

The Remote Village Electrification Programme aims at providing basic lighting/electricity facilities through renewable energy systems like small hydro plants, biomass gasification systems, biogas engines, solar photovoltaic (SPV) power plants and SPV home lighting systems in those unelectrified remote census villages and hamlets where grid connectivity are not being provided under Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY). The Committee note that this programme was loaded with a physical target to cover 9,000 villages in 11th Plan period. Though the programme could not show the desired result during Mid-Term Appraisal and only 2,628 villages (1,605 completed) could be covered at an expenditure of Rs. 235.60 crore as on 31st July 2009. During the Mid-Term Appraisal, the Planning Commission has fixed the target for 11th Plan to cover 10,000 villages at a budgetary outlay of Rs. 600 crore. The Committee feel that the expectations from the Ministry towards illumination of the villages in far-flung and inaccessible areas are much higher but the performance in this area has been far from satisfactory. The scrutiny of the data reveals that during 2009-10, against the target of 1500 villages and hamlets, 754 were sanctioned and 773 villages/hamlets could be electrified as on 28th February, 2010. The Committee appreciates the optimism shown by the Ministry to complete 1100 nos., of village/hamlets by March, 2010. However, according to the Ministry, one of the factors for low achievement and slow progress of the projects has been the preference of villages for grid electrification under RGGVY and the delays in States' identifying villages and submitting progress. The Committee have been given to understand that many States have now



finalized the list of villages and that substantial numbers are being dropped from RGGVY which will be included in the list of villages to be covered under RVE Programme. With the completion of the process of identification of villages in many States, the Committee expect the Ministry to speed up their action plan to achieve 10,000 villages and hamlets targeted for 11th Plan. The Committee, therefore, strongly recommend that owing to importance of the scheme and the benefit accruing to end-user, it will be extremely encouraging if all the stages involved in the process of RVE are completed in a time-bound and co-ordinated manner with all the agencies involved so as to not only provide electricity to the natives of remote villages but also to improve their living conditions as a result thereof.

### **Reply of the Government**

The progress in implementation of the Remote Village Electrification Programme during 2009-10 is given below:—

Target 2009-10	Sanctioned	Completed
1500	1431	1013

At the beginning of the 11th plan work in 2,812 villages taken up during 10th plan was ongoing and another 5,117 new villages/hamlets have been taken up/sanctioned in first 3 years of the 11th plan, making the total number of ongoing villages in 11th plan to 7,929. So far work in 3,228 villages/hamlets have been completed and is in progress in the remaining 4,701 villages.

As has been pointed out earlier, the concerned State Governments have a major role to play in progress in implementation of the Remote Village Electrification programme. The States have to identify the villages to be taken up under the programme instead of providing electrification through grid, they have to prepare the proposals for financial support from the Ministry after survey of the villages, they have to provide the matching share and arrange for balance of the funds, they have to undertake to ensure long term sustainability of the systems, they have to get the project implemented through their notified implementing agencies and subsequently ensure periodic monitoring, etc. The Ministry on its part endeavors to remove technical and administrative bottlenecks, wherever these fall within its purview and also continue its efforts to persuade the State Governments through continuous dialogue at various levels for ensuring timely completion.

The observations of the Parliamentary Standing Committee have been noted and apart from conveying these to the respective State Governments, the Ministry will also strengthen its coordination. Repeated meetings and reviews with States are being held.

[Ministry of New and Renewable Energy, File No. 8/2/2010-P&C  
Dated 20.09.2010]

### CHAPTER III

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

##### **Recommendation (Serial No. 10)**

The Committee find from the Annual Report of the Ministry of New and Renewable Energy for the year 2009-10 that as pointed out in C&AG's Report, the Solar Energy Centre (SEC ) surrendered 44 to 76 per cent of the funds allocated during 2002-2007, indicating poor financial management as it had very little works of project implementation. Testing facilities established at SEC were underutilized. SEC did not take up any in-house, joint collaborative research, consultancy, bilateral and multilateral projects with other research institutions/industry. Moreover, it did not develop any technology or have any research paper published in reputed Indian and foreign journals. Also three grants-in-aid projects were not completed successfully, resulting in unfruitful expenditure. Besides, the scientific manpower responsible for implementation of various projects was frequently transferred from SEC to Ministry which seriously jeopardized the activities of SEC. The Committee are also aware of the fact that the Solar Energy Centre is the technical focal point of the Ministry for development of solar energy technologies and related matters. The Committee feel that SEC has a vital role to play in the accomplishment of the targets under Solar Mission and take a serious view of the issues raised in the Audit Report. The Committee, therefore, recommend that the issues raised in the Audit Report merit serious attention of the Government with a view to take urgent remedial measure so that not only the unfruitful expenditure and surrender of funds are avoided but also research oriented initiatives are taken in a time bound manner to give a new thrust to the new and renewable energy to meet the growing needs of energy in the country. The Committee would like to be informed of the conclusive/specific action taken by the Ministry in this regards.

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

CAG Chapter VIII of its Report No. CA 3 of 2008 (Scientific Departments) pertaining to Ministry of New and Renewable Energy has pointed out several issues relating to Solar Energy Centre of MNRE.

These have been noted. While there have been admittedly some problems, actions have already been initiated to take remedial measures and make SEC a vibrant organization. The actions taken in this regard include:—

- The manpower position of the Centre has improved. Currently 9 scientists have been posted including two newly recruited scientists and two scientists with concurrent charge in the Ministry. A few more scientists are proposed to be posted in near future. Existing manpower recruited earlier for workshop has also been redeployed to laboratories and other works.
- The technical facilities of the Centre have been upgraded. These include the solar thermal and photovoltaic test, battery test and evaluation facility.
- A scheme has been initiated to recruit young Researchers (Research Associates and Project Fellows) for specific duration to undertake various scientific activities at the centre. Currently 12 researchers are in position. The facility has also been opened to students and researchers through a Visitors' Programme. Undergraduate/graduate students from various institutions are encouraged to take up their project work in SEC.
- Interactive research and partnership projects have been initiated. These include a MW-scale Solar Thermal Power Plant with IIT Bombay, a pilot steam generation plant with Megawatt Solutions and a 100 kW Solar Air conditioning system with M/s Thermax.
- SEC has entered into MoUs with National Renewable Energy Laboratory, USA for collaborative work on solar resource assessment and photovoltaic testing and evaluation and National Institute of Technology Hamirpur for academic collaboration. Work on Stirling engine technology evaluation has been taken up under a collaborative project with ONGC Research Centre.
- The recent achievements/work completed include:—
  - Solar resource maps for north western India have been formulated under the SEC-NREL project and have been posted on Ministry's website.
  - A handbook on Solar Radiant Energy over India (SEC-IMD project) has been finalized and posted on Ministry's website.

- A handbook on Energy Conscious Building design (SEC-IIT Bombay project) has been published and posted on Ministry's website.
- A meteorological station for precise measurement of ambient conditions and a PV module technology evaluation facility have been established under a collaborative project with AIST Japan.
- A 20 kW Photovoltaic power plant has been set up at SEC for powering critical loads in laboratories of the Centre.
- SEC has been accredited by Ministry of External Affairs for conducting training programme under ITEC scheme.
- A study has been commissioned for preparation of a road map for upgrading SEC as a Centre of Excellence.

[Ministry of New and Renewable Energy File No. 8/2/2010-P&C  
Dated 20.09.2010]

## CHAPTER IV

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

#### **Recommendation (Serial No. 1)**

The Committee note that against the total outlay (GBS) of Rs. 4,000 crore for 11th Five year Plan period, the actual allocations during the first three years of the plan is Rs. 1868 crore and Rs. 1542.40 crore at BE and RE levels respectively and the expenditure incurred by the end of February, 2010 is Rs. 1391.68 crore. The Committee also find that the Ministry had earlier represented to the Planning Commission to enhance the GBS component over and above Rs. 4,000 crore, as the amount approved would be inadequate for achieving the 11th Plan goals/targets. It was then advised by the Planning Commission that the issue could be revisited at the time of Annual Plan discussions. However, from the actual year-wise allocations and expenditure thereagainst during the last three years reflect an adverse image of the performance shown on both physical and financial fronts. The Committee's examination has revealed that against the total outlay of Rs. 1868 crore for the first three years of the 11th Plan period, an amount of only Rs. 1391.68 crore could be spent by the end of February, 2010 *i.e.*, close to the completion of three years of the Plan which account to about one third of the GBS allocation for the 11th Plan. Taking stock of; the pattern of expenditure and progress made so far under various schemes/programmes, the targets in the main schemes/programmes were scaled down during Mid-Term Appraisal through the total budgetary outlay has been kept at Rs. 4000 crore for the whole Plan. As the first three years of the plan period is over, the Ministry were expected to utilize major part of the total budget allocation of the 11th Plan. Since utilization of funds and achievements of physical targets are correlated, low utilization of budget has resulted in low achievement of physical targets. The Committee would like the Ministry to identify and focus on specific areas which have been affecting the implementation of various schemes/programmes.

## **Reply of the Government**

Against the total outlay of Rs. 1868 crore for the first three years of the 11th Plan period, the actual expenditure by the end of March, 2010 was Rs. 1468.94 crore. While the expenditure was somewhat less during the first two years of the plan period (Rs. 478.72 crore during 2007-08 and Rs. 441.79 crore during 2008-09), there has been considerable improvement in the fund utilization in the third/last year (2009-10) as an expenditure of Rs. 548.43 crore was achieved against RE of Rs. 560 crore and BE provision of Rs. 620 crore. We have created a momentum which will be carried forward. An increased level of expenditure is envisaged during the remaining two years of the plan period (2010-11 and 2011-12) due mainly to the newly initiated Solar Mission, and partly because of the new scheme for generation based incentives for wind power, the recently sanctioned Ladakh project and the increased subsidy provision under biogas programme. In fact an expenditure of about Rs. 500 crore is likely to be incurred by the end of the 2nd quarter *i.e.* by 30th September 2010 [against BE provision of Rs. 1,000 crore]. Therefore, not much difficulty is presently visualized in utilizing the entire plan allocation. As suggested by the Committee, the Ministry will be putting increased emphasis on identification and addressing of bottlenecks for speedier implementation of various schemes/programmes for higher achievements of physical targets with associated higher budget utilization. The Ministry is continuously reviewing the progress of different programmes with the States.

[Ministry of New and Renewable Energy, File No. 8/2/2010-P&C  
Dated 20.09.2010]

## **Comments of the Committee**

(Please *see* Para No. 8 of Chapter-I of the Report)

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

The Committee are concerned to find that the overall achievements under Grid-interactive and Off-Grid/DRP during 2009-10 is very discouraging *i.e.*, against the target of 3226 MW Grid power, only 1424 MW has been achieved till 28th February 2010 which is 44 per cent of the target. The achievement in Off-Grid power is 63 MWeq. against the target of 95.80 MWeq *i.e.*, 65 per cent of the target. The Committee feel that the Grid and Off-Grid programmes are the most important of all renewable programmes for power generation and emphasize on the need to focus not only on the implementation of various projects/schemes under this programme but also on their proper monitoring with a view

to ensure that implementation of these projects are time-bound and target oriented besides various initiatives for encouraging this form of energy.

### **Reply of the Government**

The actual achievements under Grid-interactive and off-Grid/DRP during 2009-10 were 2330.42 MW and 83.56 MWeq against targets of 3226 MW and 95.80 MWeq respectively. These correspond to over 72% for Grid-interactive and over 83% for off-grid/DRP systems. The shortfall in Grid power is mainly in Wind power to the tune of 935 MW (1565 MW achieved against target of 2500 MW) and Waste to Energy (4.72 MW achieved against target of 24 MW) in both of which problems have been explained separately in reply to Recommendation 2.2. The achievements in Small Hydro power, Biomass power/Bagasse cogeneration and solar power have actually exceeded the targets. In off-grid component, the actual achievement up to 31st March 2010 has been 83.56 MW closer to the overall target.

As suggested by the Committee, the Ministry shall also focus more on proper monitoring of the systems deployed. Stress will be laid on quarterly performance reports from State Implementing Agencies as also on third party performance monitoring and evaluation. Ministry is having frequent review meetings with States.

[Ministry of New and Renewable Energy, File No. 8/2/2010-P&C  
Dated 20.09.2010]

### **Comments of the Committee**

(Please see Para No. 11 of Chapter-I of the Report)

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

The Committee note that the aims of the Mission is to set up 20,000 MW grid solar power, 2,000 MW off-grid solar power including 20 million solar lights and 20 million square metre solar thermal collector area by 2022. The target for the first phase (upto March, 2013), according to the Ministry, is to set up 1000 MW grid connected (33KV and above) solar power plants, 100 MW of roof top and small solar plants connected to LT/11/KV grid and 200 MW capacity equivalent off-grid solar applications. The Committee also take note of the fact that the proposed target of 1100 MW grid solar power generation with an estimated expenditure of Rs. 77 crore for the year 2010-11 has been reduced to the target of 200 MW with an allocation of Rs. 30 crore. Similarly, under off-grid/Distributed Solar Power Programme, the proposed target to



achieve 50 MWeq at an estimated investment of Rs. 1000 crore has been scaled down to 32 MWeq with Rs. 250 crore. The Committee do not find any proportional co-relation between targets and allocation at proposal and actual stage under grid and off-grid category. The Committee also express their concern about the achievement of set target by 2013 in the light of the reduced target for the year 2010-11. The Committee feel that the reduction in both the targets and allocations in the initial stage of the Mission has raised serious doubts about the sincerity of the Government to achieve the financial and physical targets during the current year also. In view of the importance given to the Solar Mission, which is one of the most ambitious programmes of the Renewable Energy Sector and also in view of the past performance of the Government in Solar grid sector where a meagre 8.21 MW of grid power generation capacity could be achieved during the 11th Plan so far, the Committee recommend that the Government should come out with a vision document with meticulous planning, implementation and monitoring of the programme, phase-wise.

### **Reply of the Government**

Government has approved the framework of the National Solar Mission in November, 2009, including the targets of the first phase of the Mission till 31st March, 2013. The targets for the three years of the first phase are 1,100 MW for grid connected solar power projects and another 200 MW for the off-grid solar power projects. These projects are to be completed by March, 2013 and are spread over a period of three years.

Grid connected solar power generation is a new application in the country and so far a limited capacity has been set up. Therefore, the annual targets and the requirement of funds have been set to gradually achieve 1,100 MW capacity by March, 2013. The first batch of grid solar power projects of about 200 MW capacity is to be allocated during 2010-11. The guidelines for the selection of projects have been announced during June/July, 2010. The photovoltaic grid power projects take about 12 months time for completion and the solar thermal projects are allowed time up to 28 months. Therefore, the requirement of funds has also been reviewed and accordingly kept as Rs. 30 crores for 2010-11.

The following is the status of allocation of the grid connected projects :

- (i) 84 MW capacity (connected to 33 KV and above grid) grid connected solar power projects have been allocated by the NTPC Vidyut Vyapar Nigam (NVVN).

- (ii) Projects to set up another 100 MW capacity (connected to grid below 33 KV and of 100 KW to 2 MW size) have been short listed by IREDA.
- (iii) Projects to set up another 36 MW capacity are also under implementation.

Therefore, a total of 220 MW capacity grid connected solar power projects are allocated so far. In addition, the NVVN has issued request for selection of projects of another 620 MW capacity in August, 2010. The last date to receive applications is till 24th September, 2010.

An amount of Rs. 6.5 crores has been spent by August, 2010 and the balance is expected to be released in coming months. Seven projects of about 14 MW capacity have been installed during the last one year, which is a satisfactory beginning, considering that small capacity projects of about 2.1 MW were installed in the country before that.

There will not be any difficulty in meeting the targets for the first phase of the Mission.

Similarly the target approved for the first phase of the Mission for the off-grid solar applications is approved as a total capacity of 200 MW. This target is to be spread over the entire duration of three years. For the current financial year the target is accordingly set as 32 MW.

The guidelines for supporting off-grid projects were released on 16th June, 2010. The guidelines provide for 30% capital subsidy and/or loan at 5% annual interest rate. In addition to the Government agencies, Banks, system integrators and renewable energy companies have also been allowed to implement the projects. Regional Rural Banks will be supported through refinancing. The private sector projects will be funded on reimbursement basis. Consequent to approval of the Mission, the requirement of funds for the off-grid solar projects was also reviewed, based on the likely releases to the implementing agencies and the requirement of funds was estimated as Rs. 250 crores. However, this requirement is likely to increase in 2011-12. Projects of about 23 MW have already been sanctioned till 17-9-2010. An amount of Rs. 120 crores has been spent so far. Ministry is regularly organizing meetings with the State agencies, banks and the manufacturers to ensure timely completion of the projects.

Therefore, the Ministry is fully committed to and will be in a position to fully achieve the targets for grid power projects as well as the off-grid solar projects not only for this year but also for the first phase of the Mission.

The Government has already released the vision document of the Mission giving the road map for capacity addition. The guidelines for the second phase of the Mission, funding pattern and requirement of funds will be announced, only after the allocation of grid solar power projects for the first phase is completed. This exercise will be initiated in 2011-12.

[Ministry of New and Renewable Energy, File No. 8/2/2010-P&C  
Dated 20.09.2010]

### **Comments of the Committee**

(Please *see* Para No. 14 of Chapter-I of the Report)

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

The Committee note that 10 per cent of the budgetary support of the Ministry is earmarked for North Eastern Region (NER) for implementing various renewable energy programmes to accelerate the economic development of the region. Accordingly, a lump-sum provision of Rs. 100 crore has been made for NER for 2010-11 under various renewable energy programmes. The Committee find that some of the most suitable and viable programmes/systems for the region are Biogas Programme, Small Hydro Power, and Remote Village Electrification. The Committee observe that the biogas plants installed during 2009-10 are very less *i.e.* only 3,658 plants till January, 2010 against the target of 11,400 plant in North Eastern Region including Sikkim. Again, the number of villages and hamlets electrified through Remote Village Electrification Programme is found to be very low, especially in the States of Nagaland and Sikkim were only 3 and 13 villages/hamlets respectively have been covered. The Committee further observe that in spite of the region having vast potential to develop small hydro power projects, the number of projects so far set up is very discouraging. Further disquieting for the Committee is the fact that no separate targets are assigned in advance for the region under various programmes except under biogas programme. The Committee are of the opinion that in the absence of targets it would be difficult to set the parameter of achievements. Against this backdrop, the Committee recommend the Ministry to identify the potential availability of the various renewable energy systems of the regions and set targets accordingly. The Committee further recommend that since the potentiality in the field of biogas and small hydro power has been identified, necessary steps should be taken to exploit the potential by effectively implementing the action plan for optimum utilization of capacities in biogas and small hydro areas and also the action under RVE be expedited to cover the remaining remote villages of the region.

## Reply of the Government

**Biogas:** State-wise physical targets for installation of family type biogas plants for the States of North-Eastern Region and Sikkim are allocated every year. The achievements are in accordance with the needs and efforts made by the State Nodal Departments/Implementing Agencies. The Ministry also provides higher Central Financial Assistance for installation of family type biogas plants as compared to other parts of the country. The Ministry has increased the Central Financial Assistance for family type biogas plants *w.e.f.* November, 2009 in view of the increase in the cost of installation of such biogas plants. It is expected that during the coming years installation of plants in these States would improve.

**Small Hydro:** The potential and present installed capacity of small hydro projects in NE region States is given below:—

State	Potential (in MW)	Installed capacity	
		Nos.	MW
Arunachal Pradesh	1,328	88	73
Assam	238	4	27
Manipur	109	8	5
Meghalaya	229	4	31
Mizoram	166	18	36
Nagaland	188	10	29
Sikkim	265	16	47
Tripura	46	3	16

In addition, 148 small/micro hydel projects are being set up in Arunachal Pradesh to electrify 535 villages under PM package project.

The projects in the region are being set up directly by the State Power Departments/Renewable Energy agencies. It is difficult to fix annual targets in view of long gestation period for their implementation and requirement of counterpart funds from State Governments. However, all technically sound projects are financially supported under the Ministry's promotional scheme.

A workshop of all NE region States has been organized by the Ministry on 26 June, 2010 to deliberate on speedy exploitation of the potential. Discussion in this regard has also been held by Secretary, MNRE with DoNER and Planning Commission in a meeting on 5 Feb., 2010.

**RVE**—The Committee has observed that number of villages and hamlets covered under Remote Village Electrification Programme is very low in North Eastern States, particularly in Nagaland and Sikkim. In this connection, the coverage of villages in various North Eastern States is given below:—

Sl. No.	State	Remote Villages/Hamlets Completed	Under implementation Villages and Hamlets
1.	Arunachal Pradesh	246+610 (under PM package)	52+ 448 (under PM package)
2.	Assam	866	1291
3.	Manipur	191	46
4.	Meghalaya	97	66
5.	Mizoram	20	0
6.	Nagaland	3	0
7.	Sikkim	13	0
8.	Tripura	401	458

The achievement in Nagaland and Sikkim is low as no other projects have been submitted by the State Governments.

[Ministry of New and Renewable Energy, File No. 8/2/2010-P&C,  
Dated 20.09.2010]

### **Comments of the Committee**

(Please see Para No. 17 of Chapter-I of the Report)

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

The Research and Development is the most crucial and prime factor for development and progress for all the renewable energy sources, more so as the country is shifting its focus from fossil fuels (coal/gas/oil) to the natural sources of energy like wind, solar, hydro, bio-gas, etc. However, the Committee have been consistently expressing their concern in the Reports on Demands for Grants of the Ministry presented in

previous years over moderate allocation of funds and poor utilization thereof towards Research and Development in Renewable Energy Sector. The apprehension of the Committee are supported by the fact that at the beginning of 11th Plan, the budgetary outlay of Rs. 1462 crore was projected to support RD&D on different aspects of new and renewable energy technologies: support of MNRE Centres/Institutions like Solar Energy Centre (SEC), Centre for Wind Energy Technology (C-WET) and National Institute of Renewable Energy (NIRE) Standard and Testing Renewable Energy Resources Assessment and other Programmes. However, only Rs. 600 crore was approved under this head, out of which only around Rs. 65 crore could be spent till 31st July, 2009. Subsequently at the time of Mid-Term Appraisal, the budgetary outlay was downsized to Rs. 500 crore for 11th Plan which included about Rs. 140 crore for setting up of the National Hydrogen Energy and Fuel Cell Centre and implementation of the Durgaduani tidal power project. The Committee observe that RD&D in New and Renewable Energy has not drawn attention of the Government it deserves. Research and Development is the hallmark of any scheme for its success as continues research exercises not only updates the technologies, but make them more economic and people friendly. Hence, due priority to RD&D is need of the hour.

Even in 2009-10, though the Ministry have stated that 28 new projects have been sanctioned in various R&D areas amounting to about Rs. 100 crore, the Committee find that only Rs. 43.85 crore could be actually utilized upto 28th February, 2010 against the outlay of Rs. 78 crore. For low expenditure the Ministry have taken pleas that funds are released according to progress and requirement of funds on projects to project basis. The Committee feel that the justification, though prudently put forward, does not stand the test of scrutiny as the utilization of funds have been continuously poor over the years leading to no new researches and less utilization of available capacities. However, the Committee uphold the Ministry's aspirations of fruitful results in future by virtue of the sanction to the tune of Rs. 100 crore accorded to 28 new projects during 2009-10. At the same time, the Committee hope that the increased allocation for 2010-11 of Rs. 150 crore will be fully utilized by accelerating the result oriented expenditures in key areas. The Ministry should also come out with a vision plan in this regard.

### **Reply of the Government**

The expenditure in 2009-2010 on R&D was Rs. 58.92 crore. The Ministry has been continuously working for generation of more and more R&D projects in various areas of renewable energy. This has resulted in increase in expenditure on R&D projects. However, it may be mentioned that the research, design, development and demonstration activities are

taken up in association with other institutions and organizations of the country which are not under the direct administrative control of the Ministry. In addition, the generation of expertise in carrying out research and development takes years at different institutions. The Solar Mission would also generate a number of research, design, development and technology demonstration projects.

[Ministry of New and Renewable Energy, File No. 8/2/2010-P&C,  
Dated 20.09.2010]

### **Comments of the Committee**

(Please *see* Para No. 20 of Chapter–I of the Report)

**CHAPTER V**

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

- NIL -

NEW DELHI;  
01 December, 2010  
10 Agrahayana, 1932 (Saka)

MULAYAM SINGH YADAV,  
*Chairman,*  
*Standing Committee on Energy.*



## APPENDIX I

MINUTES OF THE FOURTH SITTING OF THE STANDING  
COMMITTEE ON ENERGY (2010-11) HELD ON  
25TH NOVEMBER, 2010 IN COMMITTEE  
ROOM 'A' PARLIAMENT HOUSE  
ANNEXE, NEW DELHI

The Committee sat from 1500 hrs. to 1620 hrs.

### PRESENT

Shri Mulayam Singh Yadav — *Chairman*

### MEMBERS

#### *Lok Sabha*

2. Shri P.C. Chacko
3. Shri Shripad Yesso Naik
4. Shri Jagdambika Pal
5. Shri Ravindra Kumar Pandey
6. Shri M.B. Rajesh
7. Dr. Kavuru Sambasiva Rao
8. Shri Ganesh Singh
9. Shri Vijay Inder Singla

#### *Rajya Sabha*

10. Shri Govindrao Adik
11. Shri Rama Chandra Khuntia
12. Shri Bhagat Singh Koshyari
13. Shri Motilal Vora
14. Shri Veer Pal Singh Yadav

SECRETARIAT

1. Shri Brahm Dutt — *Joint Secretary*
2. Shri N.K. Pandey — *Additional Director*
3. Shri Rajesh Ranjan Kumar — *Deputy Secretary*

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\*\*\*                      \*\*\*                      \*\*\*                      \*\*\*                      \*\*\*

2. \*\*\*                      \*\*\*                      \*\*\*                      \*\*\*                      \*\*\*
3. \*\*\*                      \*\*\*                      \*\*\*                      \*\*\*                      \*\*\*
4. \*\*\*                      \*\*\*                      \*\*\*                      \*\*\*                      \*\*\*

5. The Committee then took up for consideration the draft 12th and 13th Reports on the Action Taken by the Government on the recommendations contained in the 5th and 6th Reports on the Demands for Grants of the Ministry of Power and Ministry of New and Renewable Energy respectively for the year 2010-11. The Committee adopted the same and authorized the Chairman to present the report to both the Houses of Parliament.

*The Committee then adjourned.*

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\*\*\* Matter not related to this Report.

## APPENDIX II

(Vide Introduction of Report)

### ANALYSIS OF ACTION TAKEN BY THE GOVERNMENT ON THE OBSERVATIONS/RECOMMENDATIONS CONTAINED IN THE SIXTH REPORT (15TH LOK SABHA) OF THE STANDING COMMITTEE ON ENERGY

- |       |                                                                                                                                                                                     |                                 |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| (i)   | Total number of Recommendations:—                                                                                                                                                   | 10                              |
| (ii)  | Observations/Recommendations which have been accepted by the Government:—<br>Sl. Nos. 2, 3, 5 and 7                                                                                 | Total : 04<br>Percentage : 40%  |
| (iii) | Observations/Recommendations which the Committee do not desire to pursue in view of the Government's replies:—<br>Sl. Nos. 10                                                       | Total : 01<br>Percentage : 10%  |
| (iv)  | Observations/Recommendations in respect of which the replies of the Government have not been accepted by the Committee and which require reiteration:—<br>Sl. Nos. 1, 4, 6, 8 and 9 | Total : 05<br>Percentage : 50%  |
| (v)   | Observations/Recommendations in respect of which final replies of the Government are still awaited:—                                                                                | Total : Nil<br>Percentage : 00% |