

**39**

**STANDING COMMITTEE ON ENERGY**

**(2013-14)**

**FIFTEENTH LOK SABHA**

**MINISTRY OF NEW AND RENEWABLE ENERGY**

**[Action Taken on the recommendations contained in the  
Thirty-Fourth Report (15<sup>th</sup> Lok Sabha) on Demands for  
Grants of the Ministry of New and Renewable Energy for  
the year 2013-14]**

**THIRTY NINTH REPORT**



**LOK SABHA SECRETARIAT  
NEW DELHI**

***December, 2013/Agrahayana, 1935 (Saka)***

**THIRTY NINTH REPORT  
STANDING COMMITTEE ON ENERGY  
(2013-14)**

**(FIFTEENTH LOK SABHA)**

**MINISTRY OF NEW AND RENEWABLE ENERGY**

**[Action Taken on the recommendations contained in the Thirty-Fourth Report (15<sup>th</sup> Lok Sabha) on Demands for Grants of the Ministry of New and Renewable Energy for the year 2013-14]**

*Presented to Lok Sabha on 13.12.2013*

*Laid in Rajya Sabha on 13.12.2013*



**LOK SABHA SECRETARIAT  
NEW DELHI**

*December, 2013/Agrahayana, 1935 (Saka)*

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Energy.

COMPOSITION OF THE STANDING COMMITTEE ON ENERGY  
(2013-14)

**Shri Mulayam Singh Yadav** - **Chairman**

LOK SABHA

2. Shri P.C. Chacko
3. Shri Syed Shahnawaz Hussain
4. Shri Gurudas Kamat
5. Shri Shripad Yesso Naik
6. Shri Jagdambika Pal
7. Shri Ravindra Kumar Pandey
8. Dr. Padamsinha Bajirao Patil
9. Shri Nityananda Pradhan
10. Shri A.Raja
11. Shri Gutha Sukhender Reddy
12. Shri Bajju Ban Riyan
13. Shri Nripendra Nath Roy
14. Shri C.L. Ruala
15. Shri Sushil Kumar Singh
16. Shri Radha Mohan Singh
17. Shri Jagadanand Singh
18. Smt. Pratibha Singh
19. Shri Vijay Inder Singla
20. Shri Bhisma Shankar *alias* Kushal Tiwari

(ii)

## **RAJYA SABHA**

21. Shri V.P. Singh Badnore
22. Shri Shyamal Chakraborty
23. Shri Y.S.Chowdary
24. Shri Bhubaneswar Kalita
25. Shri Bhagat Singh Koshyari
26. Shri Kiranmay Nanda
27. Dr. Anil Kumar Sahani
28. Shri Birender Singh
29. Shri Motilal Vora

## **SECRETARIAT**

- |    |                          |                 |
|----|--------------------------|-----------------|
| 1  | Shri Brahm Dutt          | Joint Secretary |
| 2. | Shri N.K.Pandey          | Director        |
| 3. | Smt. L.Nemjalhing Haokip | Under Secretary |

## INTRODUCTION

I, the Chairman, Standing Committee on Energy having been authorized by the Committee to present the Report on their behalf, present this 39th Report on the action taken by the Government on the recommendations contained in 34<sup>th</sup> Report of the Standing Committee on Energy on Demands for Grant (2013-14) of the Ministry of New and Renewable Energy.

2. The 34<sup>th</sup> Report was presented to the Lok Sabha on 23rd April, 2013 and was laid in Rajya Sabha on 25th April, 2013. Replies of the Government to all the recommendations contained in the Report were received on 7th August, 2013.

3. The Report was considered and adopted by the Committee at their sitting held on 28th October, 2013.

4. An Analysis on the Action Taken by the Government on the recommendations contained in the 34th 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**  
**12 December, 2013**  
**Agrahayana 21, 1935 (Saka)**

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

## CHAPTER – I

This Report of the Standing Committee on Energy deals with the action taken by the Government on the Recommendations/Observations contained in their Thirty-Fourth Report (Fifteenth Lok Sabha) on the Demands for Grants of the Ministry of New and Renewable Energy for the year 2013-2014

2. The Thirty-Fourth Report was presented to Lok Sabha on 23rd April, 2013 and was laid on the Table of Rajya Sabha on 25th April, 2013. The Report contained 16 Recommendations/Observations.

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

- (i) Recommendations/Observations which have been accepted by the Government:  
Serial Nos. 1,2,3,4,5,6,8,9,10,11,12,14,15 and 16                      Total - 14  
Chapter-II
- (ii) Recommendation/Observation which the Committee do not desire to pursue in view of the Government's replies:  
Nil    Total - 00  
Chapter-III
- (iii) Recommendations/Observations in respect of which the replies of the Government have not been accepted by the Committee and which require reiteration:  
Serial Nos. 7 and 13    Total- 02  
Chapter-IV
- (iv) Recommendation/Observation 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 Recommendations/Observations 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 Recommendations that require reiteration or merit comments.

**A. 12th Five Year Plan**

**(Recommendation Serial No. 2, Paragraph No.2.3 )**

6. The Committee had noted that the Ministry of New and Renewable Energy had proposed a target of capacity addition to the tune of 30,000 MW during the 12<sup>th</sup> Five Year Plan period for which a financial requirement of Rs. 40,000 crore was projected in the 12<sup>th</sup> Plan proposal of the Ministry. Against this, the Planning Commission had indicated an allocation of Rs. 19,113 crore only, which is less than half of what the Ministry had proposed. Keeping in view the importance of renewable energy sector in fulfilling the energy need of the Country and the quantum of investment that would be required for mainstreaming the renewable energy, the Committee had found the budget outlay for the 12<sup>th</sup> Plan grossly inadequate. The Committee, had therefore, recommended that required funds should be made available for this important sector so that the ambitious targets set for 12<sup>th</sup> Plan should not be curtailed due to paucity of the funds.

7. The Ministry of New and Renewable Energy in their Action Taken Reply has stated as under:

" The Ministry is thankful to the Committee for its concerns and will try to get additional Funds during the remaining years of the 12<sup>th</sup> plan. The Ministry is also trying to mobilize additional resources from other Sources such as National Clean Energy fund, bilateral fund to meet its targets. As mentioned, the Ministry will try to achieve the targets by encouraging and involving other Ministries like Railways, Home, Defence etc. and Public Sector Undertakings to take up renewable energy development projects through their budgets. In this direction the Ministry has already had a meeting with Railways and major public sectors in the field of oil and gas during April 2013.

Regarding Development of Green Energy Corridors the Ministry of New and Renewable Energy in coordination with the Ministry of Power is exploring possibilities of securing funding from bilateral and multilateral sources and also grant from in-country resources. In this process an Indo-German Joint Declaration of Intent for establishment of Green Energy Corridors has been signed in April 2013. The declaration stipulates concessional loans from Germany up to one billion Euro over the next six years. On 26 June, 2013 a consolidated proposal for KfW loan assistance for Intra-state and Inter-state Transmission infrastructure and for technical assistance for setting up Renewable Energy management center has been submitted to the department of Economic Affairs for posing it to the German counterpart organization under Indo-German Bilateral Development Corporation.

The Cabinet note on Generation Based Incentives in the Wind Sector including reintroduction of Accelerated Deprecation has been submitted for approval of Cabinet Committee of Economic Affairs (CCEA)".

**8. The Committee had expressed its concern about the inadequate budget allocation for 12th Plan as it will adversely affect the targets set for the plan period. In reply the Ministry of New and Renewable Energy has stated that they are trying to mobilize additional resources from other sources such as National Clean Energy fund, bilateral fund to meet its targets and are trying to achieve the targets by encouraging and involving other Ministries like Railways, Home, Defence etc. and Public Sector Undertakings to take up renewable energy development projects through their budgets. The Ministry has also stated that for Development of Green Energy Corridors, an Indo-German Joint Declaration of Intent has been signed. The Committee are also informed that a consolidated proposal for KfW loan assistance for Intra-state and Inter-state Transmission infrastructure and for technical assistance**

for setting up Renewable Energy Management Center has been submitted to the department of Economic Affairs for posing it to the German counterpart organization under Indo-German Bilateral Development Corporation. They are also informed that the Ministry has submitted the Cabinet note on Generation Based Incentives in the Wind Sector including reintroduction of Accelerated Deprecation for approval of Cabinet Committee of Economic Affairs (CCEA). The Committee acknowledge the initiatives taken by the Ministry in mobilizing the funds and trust that the Ministry with all its efforts would mobilize the required funds for the 12th Plan so as to ensure that paucity of funds do not come on the way of development plans in the renewable energy sector. They also desire to be apprised about the generation based incentives for wind sector.

**B. Budget Outlay for the year 2013-14**

**(Recommendation Serial No. 5, Paragraph No.2.6 )**

9. The Committee had noted that the Ministry of New and Renewable Energy had sought an allocation of Rs. 6236 crore for the year 2013-14. However, the Planning Commission and Ministry of Finance had subsequently reduced the amount and allocated a meager amount of Rs.1521 crore as Budgetary Support. The Committee were concerned that the drastic reduction in financial allocation vis-à-vis proposed budget would adversely affect the Ministry's projects under various programmes. Keeping in view the importance and significance of renewable energy in the country energy scenario and the requirement of funds for achieving the set targets, the Committee had recommended the Ministry to take up the issue of insufficient allocation with the Planning Commission and Ministry of Finance for additional allocation of funds at RE stage and also to make all out efforts to mobilize additional funds from internal and external budgetary resources

and other renewable energy development agencies so as to achieve the targets set for the year 2013-14.

10. In their Action Taken Reply, the Ministry has stated as under:

"The expenditure of MNRE during 2012-13 was Rs. 1106.79 which was 96.24% of the funds available at RE stage (Rs. 1150 crore). As soon as the budget allocations for 2013-14 were known to the Ministry, the matter was taken up by Secretary, MNRE with the Planning Commission with a request to enhance the allocation of renewable energy. Similar efforts were also made with the Ministry of Finance through Hon'ble Minister of New and Renewable Energy. The Ministry is continuously making efforts to mobilize additional resources for renewable energy programmes and posing projects to the National Clean Energy Fund and to bilateral agencies. Due to consistent efforts of the Ministry, Inter Ministerial Group Constituted to Approve/Appraise the projects under the National Clean Energy Fund in its 8<sup>th</sup> meeting have approved 5 projects worth Rs.275.99 crore out of 6 projects posed by the Ministry worth 1882.92 crore. However, Funds from these projects will only be received at the second supplementary stage. The Ministry would also try to get some additional fund at RE stage for the year 2013-14".

**11. In reply to the Committee's recommendation to take up the issue of insufficient budgetary allocation for the year 2013-14 with the Planning Commission and Ministry of Finance for additional allocation of funds at RE stage and also to make all out efforts to mobilize additional funds from internal and external budgetary resources and other renewable energy development agencies, the Committee are informed that the matter has been taken up by Secretary, MNRE with the Planning Commission and that efforts are being made with the Ministry of Finance through Hon'ble Minister of New and Renewable Energy. They also note that the Ministry is making efforts to mobilize additional resources for renewable energy programmes and posing projects to the National Clean Energy Fund and to bilateral agencies**

and the Inter Ministerial Group constituted for the purpose have approved 5 projects worth Rs.275.99 crore out of 6 projects proposed by the Ministry worth Rs.1882.92 crore. The Committee appreciate the prompt action taken by the Ministry in mobilizing additional resources and believe that with their persistent efforts, the Ministry would manage to mobilize the additional funds required to achieve the targets set for the year 2013-14. The Committee would, however, like to re-emphasize their recommendation to make all out efforts to mobilize additional funds from all possible resources so that the target set under various renewable programmes for the year 2013-14 are not affected.

### **C. Wind Energy**

#### **(Recommendation Serial No. 7, Paragraph No.2.8 )**

12. The Committee were not happy with the poor achievements in the years 2009-10 and 2012-13 which were stated due to withdrawal of Accelerated Depreciation Benefits and Generation Based Incentive scheme. They were, however, informed that an additional amount of Rs. 800 crore had been earmarked for GBI purposes for wind sector which the Committee expect it to accelerate the performance of the wind energy sector during 2013-14 as well as coming years. In view of this, the Committee, had strongly recommended to make every effort to outreach the target for the current year without any excuses and the planning of providing declared financial incentives. They had also asked the Ministry to initiate publicity for the incentives available to the industry so that wind energy continue to dominate its share in renewable energy and become an instrument for achieving 30,000 MW target set for the 12th Five Year Plan.

13. In their reply, the Ministry of New and Renewable Energy has stated as under :

" Targets of wind power for a prospective financial year are kept in view of the progress in present year and changes/likely changes in the policies. It is true that targets and achievements during 2009-10,

2010-11, 2011-12 & 2012-13 have not progressively increased. The achievement during 2009-10 and 2012-13 were particularly low. The progress during 2009-10 was adversely affected because of general global financial recession which dropped the investment in wind sector. As the wind power projects are established with private sector investment, the targets in 2009-10 could not be achieved. So far as 2012-13 is concerned, the progress/achievement is exceptionally low because of absence of Accelerated Depreciation (AD) benefit and Generation Based Incentive (GBI). The Ministry is in process of reinstating AD and GBI benefit in wind sector. The proposal has been considered by Expenditure Finance Committee (EFC). The Ministry of Finance has supported the GBI but they have reservations about AD. The final Cabinet Note has been sent for consideration of CCEA. The Ministry has kept a target of 15000 MW from wind power (out of total 30000 MW from all renewables). During 2012-13, only 1700 MW was achieved. Therefore, another 13300 MW is to be done in remaining 4 years of 12<sup>th</sup> Plan. The success will depend upon reinstatement of AD and GBI.

Regarding financial outlay, it is to be mentioned that until 2009-10, the Ministry was spending money for wind resource assessment, support to C-WET and other developmental work. No commercial projects were taken up with Ministry's financial support. After introduction of GBI since 2010-11, budget is also required to provide GBI for the projects commissioned during 11<sup>th</sup> Plan through GBI. Therefore, progressively, the overall budget requirement for wind power programme is increasing to give GBI".

**14. Regarding Accelerated Depreciation and Generation Based Incentives, the Ministry in their reply has stated that they are in the process of reinstating the benefit and that the proposal has been considered by Expenditure Finance Committee (EFC). It has also informed that the Ministry of Finance has supported the GBI but they have reservations about AD. From their reply, it appears that the Rs.800 crore which was earlier STATED to have been earmarked for GBI purpose has not so far been approved. The Committee are apprehensive about the approach of the Government and urge that the**

**reservations about the Accelerated Depreciation and Generation Based Incentives should be conclusively dispelled. It should be impressed upon that the target for the remaining years would depend upon the early and favourable decision on Accelerated Depreciation and Generation Based Incentives. Any delay would only affect the implementation of wind energy projects which would subsequently impact the target achievement. The Committee therefore, would like to reiterate their recommendation and emphasize that every effort should be made to expedite early decision on the issue of Accelerated Depreciation so that the target for the current year and remaining years of the 12th plan are achieved fully.**

**D. Remote Village Electrification Programme (RVEP)**

**(Recommendation Serial 13 Paragraph No.2.14)**

15. The Committee had noted that modifying the existing RVE programme, the Ministry was in the process of formulating a new scheme called "Rural Area Energy Access Programme" for providing basic lighting facility to un-electrified villages / hamlets. They were also informed that if approval of Rural Area Energy Access Programme takes time, RVE programme will continue in 2013-14. The Committee had expressed their concern about the delay in approval of the proposed new scheme and were desirous to know the reasons which necessitated the formulation of new scheme and in what manner it would be better than the existing one. While the Committee endorsed introduction of new scheme of Rural Area Energy Access Programme (by modifying the RVE Programme) as they believe that the new scheme is being introduced after thorough examination and review of their performance under RVE Programme for larger benefit of the rural population, the Committee had recommended the Ministry to expedite the approval of the new scheme of Rural Area Energy Access Programme and had also recommended that the objective of the programme should not only be the energy accessibility but also to ensure its availability and affordability to the rural population.

16. The Ministry of New and Renewable Energy in their reply has stated as under:

"The Rural Area Energy Access Programme is continuation of the earlier RVE scheme with some modifications based on the past experiences of RVE programme and feedbacks from different stakeholders. The Ministry is in the process of formulating the scheme "Rural Area Energy Access Programme" modifying and renaming (conforming to the global nomenclature) the earlier RVE scheme for wider coverage. Through the modified RVE programme i.e. Rural Area Energy Access Programme, the Ministry's focus is to cover more villages / hamlets removing the bottlenecks faced during the implementation of the RVE programme like population criterion, scattered approach to cluster approach etc.

However, the difference between the proposed Rural Area Energy Access Programme (REAP) and the RVE programme (RVEP) is given below:

Sl. No.	Items	REAP	RVEP
1.	Objectives	To provide access to electricity to un-electrified census villages, un-electrified hamlets of electrified remote census villages not covered under RGGVY and <b>electrified villages / hamlets where power availability is less than 6 hours per day averaged over the year.</b>	To provide access to electricity to un-electrified remote census villages and remote un-electrified hamlets of electrified census villages where grid connectivity is either not feasible or not cost effective & not covered under RGGVY.
2.	Project Design	Two to five light points and one to three sockets for operating electronic gadgets for each of the willing households in the village / hamlet may be provided through mini / micro grid mode. Every household will be eligible for a maximum of 100 Watt. In scattered population areas, if this is also not possible, then as a last resort, standalone solar lighting systems for each of the willing households in the village may be provided.	Creation of capability for availability of electricity as laid down in the National Electricity Policy, 2005, i.e. a minimum of 1 kWh/household/day. However, if the State Governments concluded after due consideration that the norm of 1 kWh / household / day was not achievable in a cost effective manner then as a last resort they might decide to provide at least the basic lighting facilities through solar photovoltaic home lighting systems for each of the willing households in the village.



3.	Eligibility of Villages / Hamlets	<p>All census un-electrified villages and their hamlets not covered under RGGVY, as confirmed by REC.  Un-electrified hamlets of electrified census villages not covered under RGGVY, as confirmed by REC.  <b>Electrified villages and hamlets where power availability is less than 6 hours per day averaged over the year.</b>  Left out households in any of the above villages/hamlets which have already been supported under the Remote Village Electrification programme during the last two plan period.</p>	<p>All census un-electrified remote census villages and their hamlets not covered under RGGVY, as confirmed by REC.  <b>Un-electrified hamlets of electrified census villages having population of more than 300 and which are situated at least 3 kms from the nearest distribution transformer of the Grid.</b>  Hamlets below population of 100, subject to all the remote census villages and remote hamlets as above have been covered under the RVE Programme.  Uncovered households which existed as on 31.12.2008 of eligible villages and hamlets which have been earlier taken up under Remote Village Electrification Programme.</p>
4.	Activities Eligible for Support	<p>Installation of MINI GRID (10 kW to 500 kW per site) / MICRO GRID (up to 10 kW) through various renewable energy sources.  If MINI / MICRO GRID is not feasible or cost effective only then the villages / hamlets may be covered through standalone lighting systems</p>	<p>Installation of power plants based on small hydro power, solar, biomass, wind, biofuels, biogas, etc for electrification of remote villages/hamlets.  Solar home lighting systems for domestic and community lighting were supported where no other renewable energy technology is found to be feasible / cost effective.</p>
5.	Implementation Mechanism	<p>For MINI / MICRO GRID, the Project Developer(s) shall implement the project on Build, Operate, Maintain and Transfer (<b>BOMT</b>) basis for a period of 5 years.  After 5 years, SNAs / State Governments will have the option to take over the project or handover the project to the same agency or any other agency as approved by the State Government for running the project.</p>	<p>The State Government was responsible for long term sustainability of the systems, including replacement of batteries as and when required.  However, the State notified implementing agency was responsible at the field level for repair and maintenance, upkeep, etc. of the systems installed under the project.</p>
6.	Pattern of Release of Funds	<p><b>Initial release</b> along with the sanction order: 60% of the CFA &amp; 100% of service charge of the implementing agency.  <b>Second installment</b> after commissioning including submission</p>	<p><b>Initial release</b> along with the sanction order: 70% of the CFA  <b>Final installment</b> after commissioning and submission of requisite certification: 30% of the CFA</p>

		of requisite certificates: 40% of the CFA	
7.	Service Charges to the Implementing Agencies	The Ministry will provide the implementing Agencies onetime service charge of 2% of total CFA approved under the project. A provision of 3% of the total outlay under the programme will be kept for monitoring & evaluation of projects, case study, technology development, capacity building, training, survey, publicity, publication and demonstration	The Ministry provided to the implementing agencies a one time service charge of Rs.50,000/- per village taken up for coverage through renewable energy devices. In the case of hamlets, service charges was limited to 10% of the approved CFA for each hamlet subject to a maximum of Rs.50,000/- per census village.

**17. The Committee had expressed their endorsement regarding introduction of the new scheme of Rural Area Energy Access Programme (by modifying the RVE Programme) as they believed that the new scheme is being introduced for larger benefits of the rural population. However, at the same time they were apprehensive that switching over to the new scheme would delay implementation of the programme which would consequently affect electrification of rural areas. To avoid such eventuality, the Committee had recommended approval of the new scheme expeditiously and without any delay. Furthering the Committee's apprehension, the Ministry in their reply has not mentioned about the approval of the proposed new scheme of Rural Area Energy Access Programme (REAP) and also its status of implementation. While the Committee expected the Ministry to provide detailed status of implementation of the new scheme, the Ministry has merely stated that they are in the process of formulating the scheme "Rural Area Energy Access Programme" modifying and renaming (conforming to the global nomenclature) the earlier RVE scheme for**

**wider coverage. The Committee, therefore would like to reiterate their recommendation to expedite the approval of the new scheme of Rural Area Energy Access Programme and re-emphasize that the objective of the programme should not only be energy accessibility but also to ensure its availability and affordability to the rural population.**

## CHAPTER II

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

#### Status of implementation of the recommendations of the Committee contained in Twenty-Seventh Report, under Direction 73A of the 'Directions by the Speaker'

##### (Recommendation Sl. No.1, Para No. 2.2)

The Twenty-Seventh Report of the Standing Committee on Energy on Demands for Grants of the MNRE for the year 2012-13 was presented to Parliament on 3rd May, 2012. The Action Taken Replies of the Government to all the recommendations contained in the Report were received on 25th September, 2012. The Thirty-First Report of the Committee on the Action Taken by the Government on the recommendations contained in the Twenty-Seventh Report was presented to Parliament on 18<sup>th</sup> December, 2012. In the said Report, the Committee had reiterated their recommendation on 'Remote Village Electrification Programme (RVEP)' and final reply on their recommendation on 'Renewable Power - Evacuation Problem is still awaited. The Committee had also commented on two recommendations viz 11th Five Years Plan performance and National Solar Mission. Final Action Taken Statements on the recommendations contained in the 31st Report are still awaited. The same may be furnished in the prescribed format immediately. Moreover, the Committee observe that more than six months have passed since the presentation of the Twenty-Seventh Report to the Parliament. The Committee would like to remind the Ministry to observe the provisions of Direction 73A of the 'Directions by the Speaker' and arrange for the Statement by the Minister in the House regarding the status of implementation of the recommendations of the Committee contained in their Twenty-Seventh Report, expeditiously.

#### Reply of the Government

ATR of 31<sup>st</sup> Report of the Standing Committee has been submitted to the Standing Committee on 5<sup>th</sup> June, 2013. The Statement by the Minister for New and Renewable Energy regarding the status of implementation of the Recommendations contained in the 27<sup>th</sup> Report of the Standing Committee on Energy was presented to the Lok Sabha on 3<sup>rd</sup> May, 2013.

[Ministry of New & Renewable Energy  
File.No.08/05/2012-P&C Dated:07/08/2013]

## 12TH FIVE YEAR PLAN

### (Recommendation Sl. No.2, Para No. 2.3)

The Committee note that the Ministry of New and Renewable Energy has proposed a target of capacity addition to the tune of 30,000 MW during the 12<sup>th</sup> Five Year Plan period for which a financial requirement of Rs. 40,000 crore was projected in the 12<sup>th</sup> Plan proposal of the Ministry. Against this, the Planning Commission after detailed discussions on various aspects of renewable energy activities proposed during the 12<sup>th</sup> Plan, has indicated an allocation of Rs. 19,113 crore only, which is less than half of what the Ministry had proposed. When asked about the likely impact of the substantial reduction in budgetary allocation, the Committee have been informed that this would affect the overall targets of the 12<sup>th</sup> Plan. In this connection the Committee further note that the budgetary allocation for the terminal year of the 11<sup>th</sup> Plan i.e. 2011-12 was Rs. 1,200 crore and the actual expenditure was Rs. 1,348.83 crore. Whereas, the budgetary allocation for the first two years of the 12<sup>th</sup> Plan i.e. 2012-13 and 2013-14 is Rs. 1,385 crore and Rs. 1,521 crore respectively, leaving a remaining balance of Rs. 16,207 crore to be utilized during the last three years of the Plan at an average of Rs. 5,400 crore annually. The Committee are astonished to note the business as usual approach of the Government for New and Renewable Energy sector despite the ambitious targets set in this sector during the 12<sup>th</sup> Plan. The Committee find that fund allocation for the first two years of the 12<sup>th</sup> Plan reflects a mere incremental budgeting over the previous year's budget. It seems that the Government has not appreciated the fact that the actual expenditure for the terminal year of the 11<sup>th</sup> Plan was Rs. 1,348.83 crore against the BE of Rs. 1,200 crore. The Committee fail to comprehend the skewed allocation for the sector despite their excellent performance during the 11th Plan and the promising future. Although, the Secretary, MNRE assured the Committee that the Ministry will try to achieve the targets with whatever fund is allocated by encouraging other Ministries like Railways, Home, Defence etc, Public Sector Undertakings to take up renewable energy development projects through their budgets, it cannot be stated with certainty as to how much fund can be mobilized through this and whether that will be sufficient. The Committee also feel that there are several issues and projects which are very vital and need attention for the proper development of this sector viz. development of Green Energy Corridor for evacuation and grid connectivity of renewable energy, reintroduction of Generation Based Incentive scheme for wind energy due to decrease in their performance, developing the sector to achieve grid and cost parity with the conventional energy source etc. Given the importance this sector hold in fulfilling the energy need of the Country and the quantum of investment that would be required for mainstreaming the renewable energy, the budget outlay proposed for the 12<sup>th</sup> Plan appears to be grossly inadequate. At the time when the Government is supposed to accelerate the growth of the renewable sector, the Committee

are inclined to infer that even the current pace is being de-accelerated and the fledgling sector may be left with insufficient funds and efforts essential for its growth. The Committee believes that the Sector deserves more attention of the Government at this crucial juncture as this has just started making its presence felt. The Committee, therefore, strongly recommend that required funds should be made available for this important sector so that the ambitious targets set for 12<sup>th</sup> Plan should not be curtailed due to paucity of the funds.

### **Reply of the Government**

The Ministry is thankful to the Committee for its concerns and will try to get additional Funds during the remaining years of the 12<sup>th</sup> plan. The Ministry is also trying to mobilize additional resources from other Sources such as National Clean Energy fund, bilateral fund to meet its targets. As mentioned, the Ministry will try to achieve the targets by encouraging and involving other Ministries like Railways, Home, Defence etc. and Public Sector Undertakings to take up renewable energy development projects through their budgets. In this direction the Ministry has already had a meeting with Railways and major public sectors in the field of oil and gas during April 2013.

Regarding Development of Green Energy Corridors the Ministry of New and Renewable Energy in coordination with the Ministry of Power is exploring possibilities of securing funding from bilateral and multilateral sources and also grant from in-country resources. In this process an Indo-German Joint Declaration of Intent for establishment of Green Energy Corridors has been signed in April 2013. The declaration stipulates concessional loans from Germany up to one billion Euro over the next six years. On 26 June, 2013 a consolidated proposal for KfW loan assistance for Intra-state and Inter-state Transmission infrastructure and for technical assistance for setting up Renewable Energy management center has been submitted to the department of Economic Affairs for posing it to the German counterpart organization under Indo-German Bilateral Development Corporation.

The Cabinet note on Generation Based Incentives in the Wind Sector including reintroduction of Accelerated Deprecation has been submitted for approval of Cabinet Committee of Economic Affairs (CCEA).

[Ministry of New & Renewable Energy  
File.No.08/05/2012-P&C Dated:07/08/2013]

### **(Recommendation Sl. No.3, Para No. 2.4)**

The Committee take note of the fact that energy generation through conventional sources have limitations on account of limited availability of required fuel and other essentials. The Government proposes to add about 30,000 MW from Renewable sources by end of 12<sup>th</sup> Plan. The cumulative contribution by renewable sources till that time will be about 55,000 MW which will be approximately 17% of the total installed capacity of energy from all sources. The Committee appreciate the efforts of the Government to involve other Ministries like Railways, Home, Defence etc. in promoting renewable energy. Nonetheless the Committee are of the view, that this should be done through a legal and statutory mechanism making it compulsory to use certain percentage of this energy failing which it should be followed by the penal provisions. The Committee are aware that as of now CERC guidelines in the forms of Renewable Purchase Obligations (RPO), exist, yet they are not being followed by the power utilities. These guidelines also lack teeth as they are not backed by penal action in case of failure. Absence of penalty in non-adherence to guidelines over Renewable Purchase Obligations may not benefit the utilities, but its affirmation will also not harm them (utilities) and in-turn it will give thrust to the development of renewable sector in the country. The Committee, therefore, are of the view that in addition the existing provision in Policy, Act and CERC guidelines, action should be taken to formalize them into statute with policy and legal framework. For the purpose a Cabinet decision should be taken in consultation with the Planning Commission and other concerned Departments of the Government of India, State Governments and all stakeholders to ensure that it is made mandatory to use at least 10% of the energy from renewable sources out of the total energy requirements of the utilities. The Committee, therefore, strongly recommend that with a view to keep our energy future secure and affordable, promote clean and green energy to protect environment, to discourage monopolies in energy sector, to ensure energy access in remote and inaccessible areas and also to encourage people participation in energy generation it is high time that a holistic and comprehensive view is taken about the renewable energy vis-à-vis conventional energy for its usefulness and development accordingly. A legislation should also be enacted with the approval of the Cabinet for making 10% usage of renewable energy mandatory by all power utilities with the appropriate penal provisions in case of non-compliance with the statutory provisions.

### **Reply of the Government**

The Ministry of New & Renewable Energy, in coordination with the Ministry of Power has been making efforts to amend Electricity Act 2003 and also the Tariff Policy to incorporate provisions for Renewable Purchase Obligation (RPO) compliance and also for long term RPO trajectory. The ultimate attempt is to achieve 15% share of renewable energy, excluding

large hydro, in the electricity mix by 2020, as suggested under National Action Plan on Climate Change.

[Ministry of New & Renewable Energy  
File.No.08/05/2012-P&C Dated:07/08/2013]

**(Recommendation Sl. No.4, Para No. 2.5)**

The Committee note that the 12<sup>th</sup> Plan of the Ministry aims at accelerated exploitation of the renewable energy potential. The main focus would be on research, development and deployment of renewable energy generation systems for rural, urban and industrial/ commercial applications in addition to grid interactive renewable energy. Productivity and reliability will be the hallmark for renewable energy growth in the Country. As of now, the contribution from this Sector in the national electricity installed capacity is 12% and the target is to achieve 17% contribution from renewable sector by the end of the 12<sup>th</sup> Plan period. However, going by the performance in the first year of the 12<sup>th</sup> Plan and the target set for the year 2013-14, it is inconceivable that the end targets of the 12<sup>th</sup> Five Year Plan can be achieved. As against the physical target of 4,125 MW in the year 2012-13 under grid-interactive power, only 2,608 MW could be achieved. The performance in wind, small hydro and solar has been far from satisfactory. In the off-grid sector also performance in solar applications, energy from urban and industrial waste, biomass gasifiers in the rural areas has been very poor. Similarly, the target for the year 2013-14 in the grid interactive segment has been fixed as 4,330 MW with an outlay of Rs. 600 crore. In off-grid the target is about 138 MW with an outlay of Rs. 430 crore. The Committee find the mismatch between physical and financial targets for the year 2013-14 when compared to the target achievement and financial expenditure in the year 2012-13 in off-grid segments. In the grid interactive, the target set for 2013-14 is quite high as compared to the performance in the first year of the 12<sup>th</sup> Five Year Plan. Although, the outlay has been increased as compared to the previous year yet the performance mainly hinges around the efforts made by the private sector. Even if the target for the year 2013-14 is fully achieved then also the target for the remaining three years of the 12<sup>th</sup> Plan will have to be 8000 MW per year to attain the 12<sup>th</sup> Plan targets. The Government has to act as a facilitator creating congenial environment for the private entrepreneurs to perform in the right earnest. The target of the 12<sup>th</sup> Plan, which is around 30,000 MW, is also not based upon the latest potential in the renewable energy sector which is about 2,50,000 MW. Hence, the targets set for 12<sup>th</sup> Plan must be achieved by overcoming prevailing constraints. The Committee, therefore, strongly recommend that for registering the presence of renewable energy sector in a significant manner it is high time that the target set under both, grid interactive and off-grid, categories should be vigorously followed for achievement as any laxity in achieving them may demoralize the entire upcoming entrepreneurship which is so vital for the



growth of the sector. Needless to emphasise that the MNRE in coordination with Ministry of Power will implement a holistic programme to evacuate the electricity from renewable sources.

### **Reply of the Government**

The Suggestions of the Committee has been noted. The Ministry is aware of the ambitious targets set for itself for the 12<sup>th</sup> Plan specifically when the budget provisions made for the plan period are not adequate. Keeping this in view, various steps are being taken specifically for attracting investment by public sector and facilitating private sector. The achievements during 2012-13 under grid interactive power category were 3163 MW at the end of March 2013. The Ministry would make all out efforts to achieve the 12<sup>th</sup> Plan targets both in grid connected as well as off-grid category of its programmes and more and more entrepreneurship activities would be encouraged as suggested by the Committee. The Ministry is working in close co-ordination with the Ministry of Power to address the issues mentioned by the Committee and also to systematically develop evacuation facilities for power generated from renewable sources.

[Ministry of New & Renewable Energy  
File.No.08/05/2012-P&C Dated:07/08/2013]

### **DEMANDS FOR GRANTS OF MNRE FOR 2013-14**

#### **(Recommendation SI. No.5, Para No. 2.6)**

The Committee find that the budgetary allocation of Rs.1385 crore during the year 2012-13 was reduced to Rs.1150 crore at RE stage and an amount of only Rs. 979.67 crore could be spent as on 28th February, 2013 which is 85 per cent of the RE. For the year 2013-14, the Ministry has sought an allocation of Rs.6236 crore in their Annual Plan. The Committee are surprised to note that the Planning Commission and Ministry of Finance have subsequently reduced the amount and allocated a meager amount of Rs.1521 crore as Budgetary Support. The Committee do not find any justification by the Ministry in demanding Rs. 6236 crore as the highest annual fund utilization during the last 3 years was Rs.3715.43 crore i.e. in 2011-12 of which the GBS was Rs. 1348.83 crore and IEBR was Rs.2366.60 crore. This is nothing but an improper assessment and estimation of requirement of funds by the Ministry. Moreover, this also reflects about the lack of synergy between the targets set and strategy adopted to achieve them. If at all, the proposed amount is required to achieve the proposed targets of the Ministry for 2013-14, the Committee are concerned that the Ministry's projects under various programmes would be adversely affected with the drastic reduction in financial allocation vis-à-vis proposed budget. In

view of the importance and significance of renewable energy in the country energy scenario, it is all the more necessary that there should be perfect coordination based on scientific formula between the target set and requirement of funds for achieving the set targets. In the present circumstances, the Ministry has no option but to maneuvered within the limitations of funds constraints and to strive to achieve the physical targets with the truncated allocations. Nevertheless, the Committee are aware that the allocated fund is insufficient to achieve the targets and some out of box thinking and caution will have to be taken. The Committee, therefore, recommend that issue of insufficient allocation should be taken up with the Planning Commission and Ministry of Finance emphasizing the importance of the sector for additional allocation of funds at RE stage. The Ministry should also make all efforts to mobilize additional funds from internal and external budgetary resources and other renewable energy development agencies so that the targets set for the year are achieved fully.

### **Reply of the Government**

The expenditure of MNRE during 2012-13 was Rs. 1106.79 which was 96.24% of the funds available at RE stage (Rs. 1150 crore). As soon as the budget allocations for 2013-14 were known to the Ministry, the matter was taken up by Secretary, MNRE with the Planning Commission with a request to enhance the allocation of renewable energy. Similar efforts were also made with the Ministry of Finance through Hon'ble Minister of New and Renewable Energy. The Ministry is continuously making efforts to mobilize additional resources for renewable energy programmes and posing projects to the National Clean Energy Fund and to bilateral agencies. Due to consistent efforts of the Ministry, Inter Ministerial Group Constituted to Approve/Appraise the projects under the National Clean Energy Fund in its 8<sup>th</sup> meeting have approved 5 projects worth Rs.275.99 crore out of 6 projects posed by the Ministry worth 1882.92 crore. However, Funds from these projects will only be received at the second supplementary stage. The Ministry would also try to get some additional fund at RE stage for the year 2013-14.

[Ministry of New & Renewable Energy  
File.No.08/05/2012-P&C Dated:07/08/2013]

### **WIND ENERGY**

#### **(Recommendation SI. No.6, Para No. 2.7)**

The Committee note that wind energy has substantial contribution which is about 70 per cent of the renewable energy power capacity installed

in the country. The Wind power potential in the country has been varying at different heights, but at the height of 80 metre it has been estimated to be more than 1,00,000 MW. Against this, the installed capacity of wind energy as on March, 2013 is 19,051 MW. Despite the facts, that it contributes substantially in the total installed capacity of renewable energy, it is only about 19 per cent of its potential. This situation is not at all satisfactory despite having a leading share in the renewable energy achievement. On a conservative consideration a fraction of 2 per cent land availability for all States except Himalayan States, North-Eastern States and Andaman and Nicobar islands has been assumed for potential estimation. In these States i.e. Himalayan, North-Eastern and Andaman and Nicobar Islands it is assumed as 0.5 per cent. Hence, it would be appropriate to infer that potential would change substantially if land availability in each States is real and certain. This would also necessitate changes in the Wind Resource Assessment Programme because as of now only about 696 automated wind monitoring stations are working under the aegis of C-WET in collaboration with State Nodal Agencies. For assessing of wind energy resources all over India, the establishment of meteorological basis by Indian Wind Atlas is still a distant reality. Hence the entire scenario of wind energy is yet to crystallize into some formal shape wherein something can be done with certainty and reliability. The Committee, therefore, strongly recommend that for proper exploitation of wind energy potential in the country a scientific and implementable strategy is the need of the hour for which necessary steps should be taken immediately. Without being sure of the potential, no definite strategy can be drawn to harness it with proper and adequate infrastructure support. Therefore, potential identification and steps to harness it should go hand in hand in a stable manner with the involvement of all the stakeholders ensuring their positive contribution.

### **Reply of the Government**

The wind power potential in the country has been estimated to be around one lakh MW at 80 m height. So far, a capacity of 19600 MW has been commissioned in the country. The estimated potential of one lakh MW is the gross potential and harnessing of the same depends upon many factors such as the State Government policies/regulatory framework to attract private sector investment, power evacuation/transmission infrastructure, identification of specific suitable wind potential locations to install the wind turbines, availability of incentives and market condition. Constant efforts on these issues are being made at Central as well as State Government levels and installations are progressively increasing. During last year i.e. 2012-13 and upto June 2013 in current financial year, the installations have dropped due to absence of Generation Based Incentive (GBI) and Accelerated Depreciation (AD). The Ministry has submitted a proposal before the Union Cabinet for re-introducing GBI and AD benefits.

The Expenditure Finance Committee (EFC) has considered the proposal and now it has to be taken up by the Cabinet (CCEA).

It is true that the estimated potential of one lakh MW is based on conservative assumption of potential land availability, land requirement per MW and wind turbine's capacities. The Ministry through the Centre for Wind Energy Technology (C-WET) has initiated a study for more ground level validation of the estimate of wind potential. It will be done by taking up extensive wind resource assessment studies by installation of approximately 500 wind monitoring stations in the country.

[Ministry of New & Renewable Energy  
File.No.08/05/2012-P&C Dated:07/08/2013]

## **SOLAR ENERGY**

### **(Recommendation Sl. No.8, Para No. 2.9)**

The Committee note that our country is endowed with vast solar energy potential which is estimated to be more than 1,00,000 MW on conservative assessment. Despite, the vast availability of solar radiation, a total capacity of only 1686 MW has been reportedly installed (upto March, 2013) which constitutes 6% of the total renewable energy installed capacity of 28000 MW and only 1.6% of its potential. During the first phase of Jawaharlal Nehru National Solar Mission (JNNSM) i.e. from January, 2010 to March, 2013, against the physical target of 1100 MW grid connected solar power, 680 MW capacity projects have been commissioned. Against a target of 200 MWp capacity equivalent off-grid solar photovoltaic systems, SPV systems aggregating to 207 MW have been sanctioned and about 50 MW systems have been installed. A budget of Rs.1450 crore provided for first phase of the Mission has been reported fully utilised. Under grid interactive solar power, the achievement during 2012-13 was 505 MW against the target of 800 MW. The physical target for the 12th Plan is 10,000 MW of which 3000 MW of grid connected solar power projects and 800 MWp off-grid SPV systems is the physical target for second phase of JNNSM. The Committee have been informed that these targets are subject to availability of funds for the scheme. Keeping in view, the first phase performance of the Ministry under JNNSM, the Committee have a serious doubt about the accomplishment of second phase targets of the Mission which will subsequently have a cascading affect on 12th Plan target and ultimately on the ambitious target of JNNSM which aims at deployment of 20,000 MW of grid connected solar power by 2022. Even if the 12th Plan target is achieved miraculously, the total installed capacity of solar power by end of 12th Plan would be around 11,600 MW. In that event, to achieve the target set under JNNSM, a capacity addition of 8400 MW would be required to achieve during the last five years of the Mission. The Committee find that with this target

and half hearted efforts to achieve it, the phase II of the Mission are bound to head the phase I way. The uncertain fund arrangements will further add to the woes resulting in the non-achievement of targets under JNNSM Phase II. From an energy security perspective, the Committee find that Solar is the most secure of all sources of renewable energy since it is abundantly available all over the country. It is felt that if captured effectively, the solar energy can meet the entire country's power requirement. Keeping in view the large proportion of poor and energy deprived population in the country, every effort needs to be made to exploit the relatively abundant sources of solar energy available in the country. The Committee are apprehensive that due to shortage of funds there is possibility of interruption in the implementation of projects under solar energy sector. The Committee, therefore, strongly recommend that the Government should make every effort to ensure uninterrupted implementation of the solar energy projects. For this, the Ministry should pursue the matter with the Planning Commission and the Ministry of Finance for more allocation of funds at RE stage. They should also seek the assistance from other renewable energy development agencies. Needless to say, the Ministry should also involve larger participation of private sector, renewable energy service providing companies, financing institutions, State Renewable Energy Development Agencies, reputed

NGOs etc. to ensure that targets under 12th Plan as well as JNNSM are met successfully.

### **Reply of the Government**

It is clarified that during the first phase of JNNSM, the physical target of 1100 MW grid connected solar power comprised of 100 MW capacity small grid solar power plant and 1000 MW capacity large solar power plants (500 MW Photovoltaic and 500 MW Solar Thermal). Against this target of 1100 MW, 468 MW (large) + 89 MW (small) =557MW capacity projects and not 680 MW as mentioned in Para 2.9, have been commissioned. The figure of 680 MW included achievements against grid as well as non-grid solar power projects as mentioned under Para 1.50 on page 21 of the Report.

The actual achievement during 2012-13 has been 754 MW against the target of 800 MW under all schemes, Central as well as States.

The physical target for grid-connected solar power capacity addition during 12th Plan is 9000 MW of which 3000 MW is envisaged under Central schemes and the remaining 6000 MW under State Initiatives and other initiatives like Renewable Energy Certificate (REC) mechanism, Renewable Power Obligation (RPO) etc.

Against the target of 500 MW large grid solar thermal power plants, 52.5 MW have been commissioned. Plants of 420 MW capacity under Batch-I are scheduled for commissioning by March 2014 and are in various stages of implementation.

The major reason for shortfall in the achievement of targeted addition of 800 MW grid solar power in the year 2012-13 has been the delay in commissioning of the solar thermal power plants allotted under JNNSM as per their original scheduled commissioning date of May 2013 and not enough grid solar power capacity being commissioned under State initiatives and REC/RPO mechanism. Solar thermal power developers under JNNSM are being provided necessary support by the Ministry and have been allowed extended time for commissioning till March 2014. The Ministry is also pursuing States to take up projects under their respective solar policies to comply with the Solar RPO requirements.

Though the solar thermal projects under JNNSM have got delayed as per their original schedule, it will not affect Phase-II of the Mission and the Ministry is moving ahead for implementation of solar PV power projects under Phase-II as per schedule. PV power projects under the JNNSM have mostly been commissioned within permissible time, hence the non-achievement of targets in Phase-I may not have any major effect in the progress of Phase-II of JNNSM.

It is true that from energy security perspective, solar is the most secure of all sources of renewable energy since it is abundantly available all over the country and if captured effectively can meet the entire country's power requirement. However, given the present state of development of solar power technology globally, the capturing of solar power is a capital intensive and requires Government's continued financial support for making it commercially viable. The persisting shortage of funds available to the Ministry for this sector is a definite bottleneck as also observed by the Committee. The Ministry is making all efforts and pursuing Planning Commission as well as Ministry of Finance for more allocation of funds at RE stage as well as from the National Clean Energy Fund. Once the same are available/ committed, the same will help attract larger involvement of private sector, RESCOs, FIs, NGOs, etc. for ensuring that the targets set for 12th Plan are met successfully. The Ministry has already got the In-Principle approval for a grant of Rs. 1875 crore from National Clean Energy Fund for setting up 750 MW grid solar power projects through Viability Gap Funding mechanism.

Against a target of 200 MWp capacity equivalents off- grid solar photovoltaic systems/power plants, the SPV systems and power plants aggregating to 234 MWp were sanctioned and 67MWp systems were installed during first phase of JNNSM. For first year (2013-14) of the second phase of the JNNSM Ministry had set the target of 200MWp capacity

equivalent off-grid SPV systems for which the financial requirement was about Rs.2000 cr. The budget allocation is Rs. 279.00 Cr. (for N.E. Rs. 80 Cr, General Rs 155.77 Cr and SCP Rs. 43.23 Cr.) for the financial Year 2013-14 for off grid SPV Scheme implementation. With this budget allocation, the Ministry could release funds for the projects of about 40 MWP capacities already sanctioned during the first phase of JNNSM. No New projects could be sanctioned during the current year.

Here it may be noted that about Rs 1300Cr. are required to fulfill the liabilities of the projects sanctioned in previous years.

The Ministry will approach Ministry of Finance to obtain additional funds under National Clean Energy Fund or any other scheme. For implementation of off grid SPV projects the Ministry is also seeking the assistance from State Renewable Energy Development Agencies and other Channel Partners for larger participation of private sector.

The officials of the Ministry and State Nodal Agencies monitor the implementation of the projects sanctioned by the Ministry. All off grid SPV power plants and a few SPV systems installed under the JNNSM are also inspected by the officials of the Ministry and State Nodal Agencies. Ministry is also empanelling the retired personals who have knowledge and experience .of the SPV technology for inspection of Projects as per MNRE norms in the field.

[Ministry of New & Renewable Energy  
File.No.08/05/2012-P&C Dated:07/08/2013]

## **SMALL HYDRO POWER**

### **(Recommendation SI. No.9, Para No. 2.10)**

The Committee find that the estimated potential for power generation in the country from small/mini hydel projects is 19,749 MW from 6474 identified sites. They are also informed that the cumulative installed capacity of small hydro projects is 3632 MW (upto March, 2013) which is 18% of the identified potential. The achievement in the last three years of the 11<sup>th</sup> Plan under Small Hydro Power has been satisfactory as the set targets have been achieved during each of the year i.e. in 2009-10 achievement was 305 MW and in 2010-11 it was 307 MW against the target of 300 MW in each year, while in the year 2011-12 achievement was 352 MW against the target of 350. However, the Committee are unhappy to note the poor performance in the sector during the year 2012-13 i.e against the target of 350 MW, only 176 MW could be achieved which is about 50 per cent of the target. In the financial front too the performance was not satisfactory as about 17 per cent of the allocated budget remains unutilized. It is also unexplained that a capacity addition of 352 MW was achieved with an expenditure of Rs. 154

crore in the year 2011-12, whereas in the year 2012-13, 176 MW could be achieved with an expenditure of Rs.125 crore. This mismatch in financial and physical figures of the performance is incomprehensible. The Committee, therefore, strongly recommend that a fine balance should be maintained between the expenditure in the target achievements in terms of Megawatt. Variation to a limited extent in expenditure vis-à-vis achievement can be justified owing to circumstances beyond control but huge difference in expenditure and achievement cannot be justified as the installation of SHP and the technique required in it are similar and local in nature. Therefore, planning for installation of SHP should be done in a careful manner by utilizing funds in an efficient manner.

### **Reply of the Government**

The total installed capacity from small hydro projects during the year 2012-13 was 236.93 MW against a target of 350 MW. The expenditure during the year was Rs. 147.34 crore. The mismatch between physical figures in comparison to the last year is mainly because the expenditure is not only for subsidies but is also booked for other activities which includes R&D, support for Ladakh Renewable Energy Initiative Project, Arunachal Pradesh Special Package etc. It may also be mentioned that in most of the cases, the subsidy for a small hydro project commissioned in a particular year becomes due in the next year or so which is released only after performance testing and achieving generation for over three months. Hence, in the small hydro programme the expenditure in a particular year reflects commissioning of projects in the previous year(s). The direction of Standing Committee to carefully plan and utilize the funds in an effective manner has been noted.

[Ministry of New & Renewable Energy  
File.No.08/05/2012-P&C Dated:07/08/2013]

### **(Recommendation Sl. No.10, Para No. 2.11)**

The Committee was informed that the target for capacity addition under Small Hydro Power for the 12<sup>th</sup> Plan period is 2100 MW and the capacity addition target during each year of the plan period is 350 MW. The Committee observe mis-match of figures of the 12th Plan target vis-a-vis the target set for each year of the Plan period. If the target of 350 MW set for each year of the plan period is achieved, the total capacity addition of 12th plan would be only 1750 MW. Moreover, the performance during the first year of the plan period raises many questions. With an expenditure of about 83 per cent of the financial allocation a physical target of only 50 percent



could be achieved and there is no indication of achieving the leftover target in the remaining years as the target for the year 2013-14 has been set as 300 MW with an outlay of Rs.135 crore. With this pace a deficit of 200 MW has existed in the second year of the plan and it is almost impossible to make it up in the leftover target in the remaining years of the plan for target achievement. The poor performance in the sector is unjustifiable. More so, a small hydro project usually do not encounter the problems associated with large hydro projects such as acquisition of land, deforestation and resettlement and various other clearances. The positive sides of these projects are that they have the potential to meet power requirements of remote and isolated areas. The Committee are of the opinion that special emphasis should be given to promote use of new and efficient designs of watermills for mechanical as well as electricity generation for the purpose of setting up of small and micro hydel projects for rural village electrification. The sector is of such a nature that involvement of local people become necessary for its success and hence Associations, Cooperative Societies, NGOs, Village Panchayat/Gram Sabhas should be associated for making the projects a success. The Committee also find that SHP has a great social bearing as it can create a sense of belonging to the modern world among the villagers besides providing them the electricity and earning and ensuring their livelihood. This is also one of the most cost effective options for power generation as it does not rely on conventional fuel for its operation. The Committee, therefore, strongly recommend that option of SHP should be explored and utilized to its full capacity owing to its importance to the rural masses. The Committee also recommend that the Government should critically review its performance for the year 2012-13 and ensure that the factors which hindered the growth of the sector are addressed and are not repeated henceforth.

### **Reply of the Government**

The target for capacity addition under small hydro power for the 12<sup>th</sup> Plan Period is 2100 MW which is kept by taking into consideration the projects under implementation in various States and their schedule of completion. Due to natural calamities leading to delay in commissioning of projects was the main reason for a lower capacity addition during 2012-13. It is expected that while some projects may face similar difficulties, other projects would be commissioned as per schedule and in overall terms it will be possible to achieve the 12<sup>th</sup> Plan target in the SHP sector. The Ministry is giving special emphasis to small size projects and involvement of co-operatives, NGOs, village Pachayats etc. in construction of micro hydel projects. R&D efforts are being made to get developed low head turbines and velocity turbines so that smaller streams can be utilized and smaller capacity projects are also developed in future. As suggested by the Standing Committee, a critical review is being done for delay in installation of private sector projects with the States so that this can be avoided. The Ministry

recently had meetings with the States of Karnataka, Kerala on 23<sup>rd</sup> May 2013 and J&K, Himachal, Uttarakhand and Punjab on 5<sup>th</sup> July 2013 to discuss these issues and strategy for achieving the 12<sup>th</sup> Plan targets.

[Ministry of New & Renewable Energy  
File.No.08/05/2012-P&C Dated:07/08/2013]

## **BIOMASS POWER**

### **(Recommendation Sl. No.11, Para No. 2.12)**

The Committee note that biomass power programme of the Ministry is implemented with the objective of harnessing the potential for grid quality power from biomass resources through various conversion technologies. The biomass materials used for power generation *inter-alia* include bagasse, rice husk, straw, cotton stalk, coconut shells, soya husk, de-oiled cakes, coffee waste, jute wastes, groundnut shells, saw dust etc. The Committee find that biomass resources are abundantly available in the country. They also note that the potential could be increased substantially if linked with dedicated plantations on forest and non-forest degraded lands. It has been reported that Studies sponsored by the Ministry has estimated that about 18000 MW of power can be generated from agro-residues covering agricultural and forestry residue. During the year 2012-13, the capacity addition from biomass is 255 MW taking the cumulative cogeneration capacity in the country to 2240 MW (upto December, 2012). In view of the abundant availability of biomass resources, the Committee find the performance so far under the sector far from satisfactory. Biomass is found to be a clean renewable energy resources derived from the waste of various human and natural activities and the resources are widely available all over the country. The use of biomass energy has the potential to greatly reduce greenhouse gas emissions. The other benefits is that it generate direct and indirect income for the rural communities, generate employment in rural areas and results in net positive environmental benefits due to reduction of local pollution from field burning and methane emission from decay of surplus biomass. In regard to constraints in development of Biomass Sector it was stated that the constraints are competitive uses of biomass as cattle feed and partly used by process and power industries leading to unavailability or rise in the cost of fuel for biomass power plant. However, they can be overcome by way of promotion of dedicated energy plantations through appropriate waste land development programme in each district/ taluk based on a suitable public-private partnership model or contract farming. The Committee strongly feels that using the resources that are easily available would make the production of energy efficient and reliable and biomass is certainly one of such resources. Therefore, to encourage the use of biomass, the Committee recommends that the supply of biomass material should be improved by improving the technologies. Moreover, provision of financial incentives and

subsidies should also be improved to attract more investment from private participants.

### **Reply of the Government**

The concerns of the Committee have been noted. During the year 2012-13, the capacity addition from biomass co-generation projects has been 352.20 MW against a target of 350 MW taking the cumulative capacity in the country to 2337.43 MW as on 31.3.2013. The Ministry is taking following measures in the promotion of Biomass Sector:

- I. Efforts are underway to provide support for pilot energy plantation linked with biomass power projects and initiated discussions with concerned Central/State Ministries/Departments.
- II. Awareness is being created amongst private developers to establish biomass supply chain using improved technologies.
- III. Ministry is already providing higher financial incentives for setting up of small (up to 2 MW capacity) biomass power projects connected at the tail end of the grid.

[Ministry of New & Renewable Energy  
File.No.08/05/2012-P&C Dated:07/08/2013]

## **RENEWABLE ENERGY FOR RURAL APPLICATIONS**

### **(Recommendation SI. No.12, Para No. 2.13)**

The Committee find that the Ministry's programmes under Renewable Energy for Rural Applications include deployment of renewable energy systems and devices such as biogas plants, photovoltaic systems, biomass, gasifiers, solar cookers and other solar thermal systems, etc. in rural areas of the country as well as remote village electrification programme and village energy security test projects. The Committee observe that the physical targets and financial outlays proposed and approved for the year 2013-14 under renewable energy for rural applications are quite confusing. Under RVE Programme, the physical target of 250 villages/hamlets with a financial outlay of Rs. 500 crore were proposed. The approved outlay is Rs. 15 crore which is only about 3 per cent of the proposed outlay with no changes in the physical target. Similarly, the approved outlay under family type biogas plant is Rs. 123 crore against the proposed outlay of Rs.200 crore. However, there is no reduction in the physical target which remains 1.1 lakh. The Committee are apprehensive about the attainability of the physical targets of the above categories with the reduced approved outlay. They would like to know that if they are attainable, than how the inflated proposed outlay can be justified and if they are unattainable why the physical targets have not been revised. With regard to performance in the year 2012-13, the Committee are

astonished to note that 746 villages/hamlets were completed under Remove Village Electrification Programme without any target and without any budget as well. This is a very peculiar situation which requires to be explained as to how 746 villages were electrified without any pre-set financial outlay as well as physical targets. The performance under biogas programme is also far from satisfactory as only 77,000 plants could be set-up against the target of 1.25 lakh plants. Financial performance is also not very encouraging as only Rs.91 crore could be spent against the revised estimate of Rs. 120 crore. The Committee feel that the action plan of the Government under renewable energy for rural applications is extremely sketchy without any definite goal and appropriate and implementable strategy. The areas where this system is meant for are isolated, remote and far-flung for the purpose of accessibility and the proper working of these devices will bring the people of those areas to the mainstream and hence the importance of these systems cannot be over-emphasized. The Committee, therefore, recommend that the proper survey must be done for devising an effective strategy with regard to the implementation of various systems and devices under renewable energy for rural applications. It should be followed by a clear and definite strategy to implement it in a result oriented manner so that the benefits reach the intended beneficiaries.

### **Reply of the Government**

The Ministry is in the process of modifying and renaming the existing RVE scheme as “Rural Area Energy Access Programme” where after it will be approved by competent authority. The Rural Area Energy Access Programme for providing basic lighting facility of un-electrified villages / hamlets will be continuing in the 12<sup>th</sup> Plan, modifying the existing RVE programme as per feedback from different stakeholders. The Ministry has proposed requirement of funds of Rs. 3000 Crore with a target of 20000 villages / hamlets / padas / bastis during the current plan period under the proposed scheme. The amount of Rs. 500 Crore has been asked as proportionate allocation for 2013-14. Historically, for the year 2010-11 and 2011-12, expenditure to the tune of around Rs. 80 crore per year had been incurred on existing RVE programme.

Request for allocation of more funds for this programme for 2013-14 is being made for meeting the current year target as well as liabilities under RVEP for past plan period. Once the modified RVE scheme is approved by the competent authority, projection for more funds will be made. Physical target will be decided based on the request consideration for fund allocation.

The figure of completion of 746 villages / hamlets was out of villages / hamlets sanctioned during the 11<sup>th</sup> Plan Period. During 2012-13, total 975 nos. of villages / hamlets were reported to be completed out of villages / hamlets sanctioned during the 11<sup>th</sup> Plan Period.

**Bio – Gas:**

The requirement of Rs.200 crore under the National Biogas and Manure Management Programme (NBMMP) for setting up family type biogas plants during the year 2013-14 was projected in view the past liabilities of the NBMMP programme implemented upto 31st March, 2013 (2012-13), which will be claimed by the States during the year 2013-14 for final settlement and release of their balance due amounts. The past liabilities at the time of preparing Annual Plan 2013-14 proposal were estimated to be about Rs.73.00 crore. However, looking to the approved outlay of Rs.123 crore, the revised annual physical targets of about 1.00 lakh biogas plants has been fixed and conveyed to the States on 22-5-2013. Funds required for this physical goal and also to clear past liabilities would still not be sufficient, hence, in order to achieve the physical targets of One Lakh Biogas Plants, it would be proposed to enhance the outlay at the RE stage to bridge the gap, particularly if the States submit all the required documents for settlements of the accounts during current year 2013-14 itself.

About 1.24 lakh family type biogas plants have been set up against an annual target of 1.25 lakh plants as on 31.03.2013 (2012-13). During the financial year 2012-13, a total of Rs.116.52 crore have been released against the revised estimate of Rs.120.00 crore. There is a slight shortfall in financial performance/fund release which is attributable to hindrance caused by the outstanding Utilization Certificates of the previous years upto 31st March, 2011 (2010-11) of the State Agencies in respect of the other programmes/projects of the Ministry.

[Ministry of New & Renewable Energy

File.No.08/05/2012-P&C Dated:07/08/2013]

## **RENEWABLE ENERGY FOR URBAN, INDUSTRIAL AND COMMERCIAL APPLICATIONS**

### **(Recommendation SI. No.14, Para No. 2.15)**

The Committee note that the Ministry has been promoting the use of technologies for solar energy recovery and energy from municipal, industrial and commercial waste, formatting certain niche energy demands of urban, industrial and commercial sectors in the country. The programmes being implemented include Energy Efficient Solar/Green Building Programme, Energy Recovery from Urban, Industrial and Commercial Wastes and Bioenergy and Cogeneration in industry. On scrutiny of the performance under the sector for the last five years, the Committee observe an improvement in the physical achievement during the years 2010-11 and 2011-12, where in the achievements are 31.20 MW and 48.41 MW against the targets of 30 MW and 40 MW respectively. However, the achievement

prior to that periods were less than targets. Keeping in view, the available potential, the overall performance under the sector is not satisfactory. The Committee have been informed that the existing potential for generation of power from urban and industrial wastes in the country is about 4000 MW. They, however, feel that with proper survey/assessment, the potential would be much higher than the present estimate. It has been informed that five pilot projects on energy recovery from Municipal Solid Wastes have been working for some years, however the success story has never been reported on any of the pilot projects. The Committee are aware that the Ministry itself is not setting up the projects but is playing the role of a catalyst and accordingly the progress of the projects should be monitored by the Ministry. The Committee, therefore, recommend that the Ministry should play a proactive role in coordinating with the State Governments, Municipal Corporations and other concerned Departments so that more projects for recovery of waste to energy are implemented. Besides, they should also strengthen their monitoring system for timely completion of the on-going projects. They also feel that the concept of Green Building, which aims to increase use of renewable energy in buildings by using solar passive design, use of eco-friendly and less energy intensive building materials, integration of renewable energy and energy efficiency, needs promotions through financial and promotional incentives and other promotional activities such as awareness campaign, seminar, workshops etc. For this the Ministry should coordinate with the Ministry of Urban Development and State/UT administrations for adequate policy for uniform application across the country.

### **Reply of the Government**

The progress under Waste-to-Energy programme is restricted by a decision of Hon'ble Supreme Court allowing the Government to support only five Projects on Energy Recovery from Municipal Solid Wastes. This was after a complete ban on Government support for such projects imposed in the year 2005. Only one new pilot project of 16mw installed at Okhla, New Delhi has so far been commissioned whereas other four are likely to be commissioned during the current year. A full fledged programme for the promotion of Waste-to-Energy projects based on municipal solid wastes can be taken up only after an evaluation of performance of the five pilot projects is carried out. In the meanwhile, Ministry of Urban Development has been assigned the task of promoting waste-to-energy projects based on municipal solid wastes through Municipal Corporations and other Urban Local Bodies.

The Ministry has been implementing a Scheme on "Energy Efficient Solar/Green Buildings" since, February, 2009 which aims to promote the widespread construction of energy efficient solar/green buildings in the country through a combination of financial and promotional incentives. The major achievements made under the scheme are as follows:

- i) 97 building projects of Govt. with 3.05 million sq. m built - up area have been sanctioned for the exemption from the registration cum rating fees for acquiring GRIHA rating . These buildings are at various stages of construction.
- ii) The Ministry approached various Central and State Departments/PSUs to adopt the concept of green buildings with GRIHA ratings in their future constructions.
- iii) An independent registered society ADaRSH (Association for Development and Research for Sustainable Habitats) created and headed by TERI has been provided some financial support by the Ministry which is promoting the GRIHA rating .
- iv) So far 148 capacity building programmes including Workshops for Evaluators and Trainers on GRIHA Ratings and awareness programmes on Green Buildings/GRIHA Ratings/Green Architecture were sanctioned/organized across the country by various organisations.
- v) Under this scheme, the total CFA of Rs. 6.82 crore have been sanctioned of which Rs. 4.48 crore have been released to various Implementing Agencies.

[Ministry of New & Renewable Energy  
File.No.08/05/2012-P&C Dated:07/08/2013]

## **RESEARCH, DESIGN AND DEVELOPMENT IN NEW AND RENEWABLE ENERGY**

### **(Recommendation Sl. No.15, Para No. 2.16)**

The Committee note that in view of the yawning gap between demand and supply of the electricity due to ever growing demand of energy in the Country and the inability of the conventional electricity generation sector to match the pace due to several reasons including constraints in supply of fuel, the need for developing the renewable sources at a rapid pace has gained significance in the recent times. The Country, at present, has about 27,000 MW renewable energy installed capacity, against the total identified potential of 2,50,000 MW, producing only 55 Billion Units annually. The figures mentioned, in no way justify large geographical dimension of the Country. It is not that there is scarcity of renewable energy potential in the Country but the technological inadequacy has restricted the scope of optimal exhaustion of these sources. The Committee during their study visit to Gujarat in January, 2013 had noted that the installed wind and solar energy plant were having Plant Load Factor (PLF) as low as 15%. The low PLF of the renewable installation due to poor efficiency of the equipment increases the overall cost of the electricity produced therefrom. The Committee find that the

indigenous research projects have failed to achieve any significant technological breakthrough in terms of reducing cost or increasing efficiency of renewable equipment. The Committee believe that it is not possible to become a leader in renewable energy sector unless we become a leading nation in renewable technological innovation and advancement also. Today, most of the renewable equipment are being imported and our country is dependent on the developed nations for technological advancement in renewable sector due to the inadequate indigenous research and support programme. Though, the ambitious programme in Solar Energy i.e. National Solar Mission has completed its first phase, proper assessment of solar energy capabilities of some parts of the Country, especially Eastern India where not a single Solar Radiation Assessment Centre has been established, are yet to be done. This reflects the non-seriousness of the Government on technological advancements of the Sector. Though some attention is being paid to technological advancements of grid connected renewable energy sector, the off-grid sector is still deprived of the due attention. Off-grid renewable energy such as bio-mass holds the key in the states where there is not much scope for grid connected renewable energy. The Committee believe that to become a leading country in the field of Renewable Energy, it is of paramount importance that Research and Development is given highest priority to improve their quality, reliability and costing. If the country remains dependent on other developed nations for technological advancement in the field of renewable energy and import of key components/materials required for the sector, optimum exhaustion of the available potential renewable energy source of the country will remain a distant dream making the speculation of Country's becoming a leader of the Sector preposterous. The Committee, therefore, strongly recommend that indigenous research and development in the field of renewable energy should be given utmost priority to bring the cost of renewable equipment substantially cheaper and improve their efficiency considerably to attract substantive investment which will provide much needed impetus to this Sector.

### **Reply of the Government**

Realizing the importance of indigenous research and development to attain better efficiencies, reliability and reduction in cost, the Ministry is supporting research and development activities in almost all areas of renewable energy including product development and involvement of industry. The main objective of R&D in the renewable energy sector during the 12<sup>th</sup> Plan is to focus on cost effective and efficient products with higher reliability. The Ministry is also supporting R&D activities in the futuristic areas of hydrogen energy, fuel cells and biofuels.

The wind electric generator technology has evolved quite rapidly over the last decade in the country. Today, state-of-art technologies are available in the country for the manufacture of wind turbines. All the major manufacturers in the field of wind technology have their presence in the



country and wind turbines upto the capacity of 2.5 MW (single turbine) are being manufactured in the country. India has emerged as an important manufacturing hub for wind electric generators. The wind turbines have international level efficiencies. As the wind power development in the country is mainly through private sector investment, the technological advancements and related basic Research and Development (R&D) is also driven by the private manufacturers. The Ministry, through C-WET, is focusing on the research projects related with the problems of interfacing such turbines in Indian grid conditions and wind regimes.

The Ministry is supporting R&D activities in all the sub-areas of solar photovoltaic and solar thermal energy. Specific roadmaps have been developed to achieve higher efficiencies and new materials for solar cell development. Co-ordinated research programmes have been initiated involving all leading R&D institutions in the country. As a part of Solar Radiation Resource Assessment (SRRRA) Phase - I project, initially 51 high potential sites were identified by the MNRE/CWET and installation of ground level measurement stations have been completed in the country. Similarly, in SRRRA Phase - II project, 60 additional sites have been identified to install the similar kind of measurement equipments in the remaining parts of the country. 25 locations have been identified in the eastern parts of the country to set up solar monitoring stations. The sites where SRRRA stations installed, as a part of Phase - I of the project, started generating the data and receiving online through GPRS and stored at CWET, Chennai for further analysis. Similarly, from Phase - II stations also data will be received online and analysed for further applications.

[Ministry of New & Renewable Energy  
File.No.08/05/2012-P&C Dated:07/08/2013]

**(Recommendation Sl. No.16, Para No. 2.17)**

The Committee note that against the proposal of Rs. 261.5 crore in Annual Plan of the MNRE for Research and Development of Renewable Energy, only Rs. 160 crore has been allocated for the year 2013-14. However, the scrutiny of the data by the Committee reveals that the actual spending of the Ministry in Research and Development of Renewable Energy for the year 2010-11 and 2011-12 has been Rs.111.46 crore, Rs.109 crore respectively, whereas, the Ministry could spent only Rs. 85.09 cr. (upto Feb.2013) against the BE of Rs.192 cr. in 2012-13. The figures reflect poorly on the Ministry for attention being paid by them on R&D programmes for renewable energy. The spending pattern of the Ministry for this field has not been impressive enough to justify allocation of whopping Rs. 261.5 cr as proposed. The Committee, believe that due to poor utilization of the allocated fund in the previous years, this sector has not been allocated the fund which it otherwise deserves. As the Committee have discussed the importance of

Research and Development for the overall growth of this Sector in the preceeding para, they, therefore recommend that the Ministry instead of being discouraged for getting less allocation for R&D field should focus on full utilization of whatever fund allocated as soon as possible so that at the time of RE more fund for this head can be insisted. Needless to emphasize it will be ensured by the Government that no R&D activity of this Sector is adversely affected due to paucity of fund.

### **Reply of the Government**

At the outset, the Ministry would like to assure the Committee that no R&D activity in the renewable energy sector would be adversely affected due to paucity of fund. The Ministry gives highest priority to the R&D activities and projects considering that this is the back bone of realizing overall growth of this Sector and for achieving better efficiencies and reliability of renewable energy products.

The expenditure during 2012-13 on Research and Development of Renewable Energy was 108.90 crore. Funds during the year 2012-13 were mainly released for on-going R&D projects that were taken up during the 11th Plan Period. A two-day "R&D Conclave on New and Renewable Energy" was organized by the MNRE on 9-10th August 2012 to discuss the progress and seek inputs from experts for taking further steps for faster development of technology. Important results in the on-going R&D projects were presented by the Project Investigators and discussed for further development. It is proposed to make this as an annual exercise and the next conclave is proposed to be held in September, 2013. The Ministry is attempting to give further impetus to R&D efforts for faster development of technology for commercialization. In this connection, a detailed review meeting was held in the Ministry under the chairmanship of Secretary to further strengthen the R&D scheme of the Ministry. It has been decided that the

Ministry's institutions (Solar energy Center, C-WET and NIRE) will be further strengthened to take up advanced research activities and would act as focal point R&D in their respective areas.

**[Ministry of New & Renewable Energy  
File.No.08/05/2012-P&C Dated:07/08/2013]**

### **CHAPTER III**

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

**Nil**

## CHAPTER IV

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

#### WIND ENERGY

##### (Recommendation SI. No.7, Para No. 2.8)

The Committee note that there has been incoherence in the physical and financial targets with regard to the wind energy in the country. The targets during the last four years 2009-10, 2010-11, 2011-12 and 2012-13 were restricted to 2500 MW, 2000 MW, 2400 MW and 2500 MW respectively. The achievements during these years are 1565 MW, 2349 MW, 3196 MW and 1492 MW respectively. Despite the targets not being so high, the achievements were very poor in the years 2009-10 and 2012-13, whereas in the remaining two years the achievement exceeded the targets. The Committee feels that there should be correlation in the targets and growth in the successive years of planning and it should be ensured that the target set for the next year is not less than the preceding year. Otherwise, there is every chance that the cycle of sustainable growth will be hampered impacting the growth of the sector. The target for the year 2013-14 for wind energy has also been fixed as 2500 MW with an outlay of Rs.230 crore. The Committee presume that this outlay also include incentive components otherwise this kind of variation in financial allocations cannot be justified and it may raises serious questions about the planning and strategy as well as expenditure per MW in target achievements. The year 2012-13 has been extremely disappointing for the wind sector and the Committee have been apprised that the withdrawal of Accelerated Depreciation Benefits and Generation Based Incentive scheme have substantially affected investment from Private Sector resulting in low achievement of the target. But the performance exceeded the target in the year 2010-11 and 2011-12 with the meagre allocation of Rs.34.90 crore and Rs. 28 crore respectively. Hence, the Committee desire that relation between targets, financial allocations and incentives in the achievement of targets may be made more explicit. The Committee are happy to learn that an additional amount of Rs. 800 crore has been earmarked for GBI purposes for wind sector and this should accelerate the performance of the wind energy sector during the current as well as coming years. The Committee, therefore, strongly recommend that every effort should be made to outreach the target for the current year without any excuses and the planning of providing declared financial incentives. The Ministry should also initiate publicity for the incentives available to the industry so that wind energy continue to dominate its share in renewable energy and become an instrument for achieving 30,000 MW target set for the 12th Five Year Plan.

## **REPLY OF THE GOVERNMENT**

Targets of wind power for a prospective financial year are kept in view of the progress in present year and changes/likely changes in the policies. It is true that targets and achievements during 2009-10, 2010-11, 2011-12 & 2012-13 have not progressively increased. The achievement during 2009-10 and 2012-13 were particularly low. The progress during 2009-10 was adversely affected because of general global financial recession which dropped the investment in wind sector. As the wind power projects are established with private sector investment, the targets in 2009-10 could not be achieved. So far as 2012-13 is concerned, the progress/achievement is exceptionally low because of absence of Accelerated Depreciation (AD) benefit and Generation Based Incentive (GBI). The Ministry is in process of reinstating AD and GBI benefit in wind sector. The proposal has been considered by Expenditure Finance Committee (EFC). The Ministry of Finance has supported the GBI but they have reservations about AD. The final Cabinet Note has been sent for consideration of CCEA. The Ministry has kept a target of 15000 MW from wind power (out of total 30000 MW from all renewables). During 2012-13, only 1700 MW was achieved. Therefore, another 13300 MW is to be done in remaining 4 years of 12<sup>th</sup> Plan. The success will depend upon reinstatement of AD and GBI.

Regarding financial outlay, it is to be mentioned that until 2009-10, the Ministry was spending money for wind resource assessment, support to C-WET and other developmental work. No commercial projects were taken up with Ministry's financial support. After introduction of GBI since 2010-11, budget is also required to provide GBI for the projects commissioned during 11<sup>th</sup> Plan through GBI. Therefore, progressively, the overall budget requirement for wind power programme is increasing to give GBI.

### **Comments of the Committee**

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

## **REMOTE VILLAGE ELECTRIFICATION PROGRAMME**

**(Recommendation No.13 Para No.2.14)**

The Committee note that the Remote Village Electrification Programme is implemented for providing financial support for lighting/basic electricity using renewable energy sources in those remote un-electrified census villages and un-electrified hamlets of electrified census villages where grid extension is either not found feasible or not cost effective and are not covered under the

Rajiv Gandhi Gramin Vidyutikaran Yojana. The Committee observe that against the overall target of 10,000 villages and hamlet for 11th Plan, 7091 villages/hamlets have been sanctioned for electrification, out of which 6693 villages/hamlets have been completed till 31st January, 2013. The Committee are informed that with a view to modify the existing RVE programme, the Ministry is in the process of formulating a new scheme called “Rural Area Energy Access Programme” for providing basic lighting facility to un-electrified villages / hamlets. It has also been stated that if approval of Rural Area Energy Access Programme takes time, RVE programme will continue in 2013-14 also. The Committee is surprised to find that though the first year of 12th Plan is completed, the Government is yet to approve their new scheme of Rural Area Energy Access Programme for 12th plan. The Committee would like to know the reasons which necessitated the formulation of new scheme and in what manner it will be better than the existing one. The Committee endorse introduction of new scheme of Rural Area Energy Access Programme (by modifying the RVE Programme) as they believe that the new scheme is being introduced after thorough examination and review of their performance under RVE Programme for larger benefit of the rural population. The Committee, therefore, recommend that the Ministry should expedite the approval of the new scheme of Rural Area Energy Access Programme without delay so that the programme implementation does not suffer. They also recommend that the objective of the RAEA programme should not only be the energy accessibility but also to ensure its availability and affordability to the rural population.

### **REPLY OF THE GOVERNMENT**

The Rural Area Energy Access Programme is continuation of the earlier RVE scheme with some modifications based on the past experiences of RVE programme and feedbacks from different stakeholders. The Ministry is in the process of formulating the scheme “Rural Area Energy Access Programme” modifying and renaming (conforming to the global nomenclature) the earlier RVE scheme for wider coverage. Through the modified RVE programme i.e. Rural Area Energy Access Programme, the Ministry’s focus is to cover more villages / hamlets removing the bottlenecks faced during the implementation of the RVE programme like population criterion, scattered approach to cluster approach etc.

However, the difference between the proposed Rural Area Energy Access Programme (REAP) and the RVE programme (RVEP) is given below:

Sl. No.	Items	REAP	RVEP
1.	Objectives	To provide access to electricity to un-electrified census villages, un-electrified hamlets of electrified remote census	To provide access to electricity to un-electrified remote census villages and remote un-electrified hamlets of

		villages not covered under RGGVY and <i>electrified villages / hamlets where power availability is less than 6 hours per day averaged over the year.</i>	electrified census villages where grid connectivity is either not feasible or not cost effective & not covered under RGGVY.
2.	Project Design	Two to five light points and one to three sockets for operating electronic gadgets for each of the willing households in the village / hamlet may be provided through mini / micro grid mode. Every household will be eligible for a maximum of 100 Watt.  In scattered population areas, if this is also not possible, then as a last resort, standalone solar lighting systems for each of the willing households in the village may be provided.	Creation of capability for availability of electricity as laid down in the National Electricity Policy, 2005, i.e. a minimum of 1 kWh/household/day. However, if the State Governments concluded after due consideration that the norm of 1 kWh / household / day was not achievable in a cost effective manner then as a last resort they might decide to provide at least the basic lighting facilities through solar photovoltaic home lighting systems for each of the willing households in the village.
3.	Eligibility of Villages / Hamlets	All census un-electrified villages and their hamlets not covered under RGGVY, as confirmed by REC.  Un-electrified hamlets of electrified census villages not covered under RGGVY, as confirmed by REC.  <i>Electrified villages and hamlets where power availability is less than 6 hours per day averaged over the year.</i>  Left out households in any of the above villages/hamlets which have already been supported under the Remote Village Electrification programme during the last two plan period.	All census un-electrified remote census villages and their hamlets not covered under RGGVY, as confirmed by REC.  <i>Un-electrified hamlets of electrified census villages having population of more than 300 and which are situated at least 3 kms from the nearest distribution transformer of the Grid.</i>  Hamlets below population of 100, subject to all the remote census villages and remote hamlets as above have been covered under the RVE Programme.  Uncovered households which existed as on 31.12.2008 of eligible villages and hamlets which have been earlier taken up under Remote Village Electrification Programme.
4.	Activities Eligible for Support	Installation of MINI GRID (10 kW to 500 kW per site) / MICRO GRID (up to 10 kW) through various renewable energy sources.  If MINI / MICRO GRID is not feasible or cost effective only then the villages / hamlets may be covered through standalone lighting systems	Installation of power plants based on small hydro power, solar, biomass, wind, biofuels, biogas, etc for electrification of remote villages/hamlets.  Solar home lighting systems for domestic and community lighting were supported where no other renewable energy technology is found to be feasible / cost effective.
5.	Implementation Mechanism	For MINI / MICRO GRID, the Project Developer(s) shall implement the project on Build, Operate, Maintain and Transfer (BOMT) basis for a period of 5 years.	The State Government was responsible for long term sustainability of the systems, including replacement of batteries as and when required. However, the State notified

		After 5 years, SNAs / State Governments will have the option to take over the project or handover the project to the same agency or any other agency as approved by the State Government for running the project.	implementing agency was responsible at the field level for repair and maintenance, upkeep, etc. of the systems installed under the project.
6.	Pattern of Release of Funds	Initial release along with the sanction order: 60% of the CFA & 100% of service charge of the implementing agency.  Second installment after commissioning including submission of requisite certificates: 40% of the CFA	Initial release along with the sanction order: 70% of the CFA  Final installment after commissioning and submission of requisite certification: 30% of the CFA
7.	Service Charges to the Implementing Agencies	The Ministry will provide the implementing Agencies onetime service charge of 2% of total CFA approved under the project.  A provision of 3% of the total outlay under the programme will be kept for monitoring & evaluation of projects, case study, technology development, capacity building, training, survey, publicity, publication and demonstration	The Ministry provided to the implementing agencies a one time service charge of Rs.50,000/- per village taken up for coverage through renewable energy devices. In the case of hamlets, service charges was limited to 10% of the approved CFA for each hamlet subject to a maximum of Rs.50,000/- per census village.

**[Ministry of New & Renewable Energy**

File.No.08/05/2012-P&C Dated:07/08/2013]

**Comments of the Committee**

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



## **CHAPTER V**

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

**Nil**

**New Delhi  
12 December, 2013  
Agrahayana 21,1935 (Saka)**

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

**MINUTES OF THE THIRD SITTING OF THE STANDING COMMITTEE ON ENERGY (2013-14) HELD ON 28<sup>th</sup> OCTOBER, 2013 IN COMMITTEE ROOM 'C' PARLIAMENT HOUSE ANNEXE, NEW DELHI**

The Committee met from 1100 hrs. to 1340 hrs.

**PRESENT**

**Shri Mulayam Singh Yadav - Chairman**

2. Shri P.C. Chacko
3. Shri Syed Shahnawaz Hussain
4. Shri Padamsinha Bajirao Patil
5. Shri Ravindra Kumar Pandey
6. Shri A. Raja
7. Shri Baju Ban Riyan
8. Shri Nripendra Nath Roy
9. Shri C.L. Ruala
10. Shri Sushil Kumar Singh
11. Shri Jagda Nand Singh
12. Shri Bhishma Shankar alias Kushal Tiwari

**RAJYA SABHA**

13. Shri V.P. Singh Badnore
14. Shri Shyamal Chakraborty
15. Shri Bhagat Singh Koshyari
16. Shri Kiranmay Nanda
17. Shri Motilal Vora

**SECRETARIAT**

1. Shri N.K.Pandey - Director
2. Smt. L.Nemjalhing Haokip - Under Secretary

X	X	X	X	X	X	X	X	X	X	X	X
	X	X	X	X	X	X	X	X	X	X	X

At the outset, the Chairman welcomed the Members of the Committee

X	X	X	X	X	X	X	X	X	X	X	X
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2.	X	X	X	X	X	X	X	X	X	X	X
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3.	X	X	X	X	X	X	X	X	X	X	X
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4.	X	X	X	X	X	X	X	X	X	X	X
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5. The Committee then took up for consideration of two Draft Reports (39<sup>th</sup> and 40<sup>th</sup>) on the Action Taken by the Government on the recommendations contained in the 34<sup>th</sup> and 35<sup>th</sup> Reports on Demands for Grants of the Ministry of New and Renewable Energy and the Ministry of Power for the year 2013-14 respectively. The Committee adopted the Reports without any modification and authorized the Chairman to present the Report to both the Houses of Parliament.

*The Committee then adjourned*

## APPENDIX II

(Vide Introduction of Report)

### ANALYSIS OF ACTION TAKEN BY THE GOVERNMENT ON THE OBSERVATIONS/ RECOMMENDATIONS CONTAINED IN THE THIRTY-FOURTH REPORT (15<sup>TH</sup> LOK SABHA) OF THE STANDING COMMITTEE ON ENERGY

(i)	Total number of Recommendations	16
(ii)	Observations/Recommendations which have been accepted by the Government:	
	Sl.Nos.1,2,3,4,5,6,8,9,10,11,12,14,15 and 16.	
	Total:	14
	Percentage	87.5%
(iii)	Observations/Recommendations which the Committee do not desire to pursue in view of the Government's replies:	
	Nil	
	Total:	0
	Percentage	0%
(iv)	Observations/Recommendations in respect of which the replies of the Government have not been accepted by the Committee and which require reiteration:	
	Sl. Nos. 7 and 13	
	Total:	02
	Percentage	12.5%
(v)	Observations/Recommendations in respect of which final replies of the Government are still awaited:	
	Nil	
	Total:	0
	Percentage	