

# MINISTRY OF NEW AND RENEWABLE ENERGY

(Action Taken on the recommendations contained in the Thirteenth Report (14<sup>th</sup> Lok Sabha) on the Demands for Grants (2006-07)

# SEVENTEENTH REPORT



# LOK SABHA SECRETARIAT NEW DELHI

November 2006/Agrahayana 1928 (Saka)

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# STANDING COMMITTEE ON ENERGY (2006-2007)

# (FOURTEENTH LOK SABHA)

# MINISTRY OF NEW AND RENEWABLE ENERGY

(Action Taken on the recommendations contained in the Thirteenth Report (14<sup>th</sup> Lok Sabha) on the Demands for Grants (2006-07)

Presented to Lok Sabha on 30<sup>th</sup> November, 2006

Laid in Rajya Sabha on 30<sup>th</sup> November, 2006



LOK SABHA SECRETARIAT NEW DELHI

November 2006/Agrahayana 1928 (Saka)

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### **COMPOSITION OF THE STANDING COMMITTEE ON ENERGY (2006-07)**

1. Shri Gurudas Kamat - Chairman

### **MEMBERS**

## LOK SABHA

- 2. Shri Rashid J.M. Aaron
- 3. Shri Kailash Baitha
- 4. Shri Gaurishanker Chaturbhuj Bisen
- 5. Shri Nandkumar Singh Chauhan
- 6. Smt. Anuradha Choudhary
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- 8. Prof. Chander Kumar
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- 12. Dr. Ravindra Kumar Rana
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- 19. Shri G. Venkatswamy
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- 21. Shri Kailash Nath Singh Yadav

# **RAJYA SABHA**

- 22. Shri Motilal Vora
- 23. Shri Jesudasu Seelam
- 24. Shri V. Hanumantha Rao
- 25. Shri Keshubhai S. Patel
- 26. Dr. (Shrimati) Najma A. Heptulla
- 27. Shri Veer Pal Singh Yadav
- 28. Shri Sudarshan Akarapu
- 29. Dr. K. Kasturirangan
- 30. Dr. Bimal Jalan
- 31 Shri Syed Azeez Pasha

# **SECRETARIAT**

Shri P.K. Bhandari	-	Joint Secretary
Shri B.D. Swan	-	Deputy Secretary
Shri Shiv Kumar	-	Under Secretary
Smt. Neena Juneja	-	Senior Executive Assistant

# **INTRODUCTION**

I, the Chairman, Standing Committee on Energy having been authorized by the Committee to submit the Report on their behalf, present this Seventeenth Report on the Action Taken by the Government on the Recommendations/Observations of the Committee contained in their 13<sup>th</sup> Report (Fourteenth Lok Sabha) on the Demands for Grants (2006-07) of the Ministry of New and Renewable Energy.

2. The Thirteenth Report of the Standing Committee on Energy was presented to Lok Sabha on  $22^{nd}$  May, 2006 and was laid in Rajya Sabha on the same day. Replies of the Government to all the recommendations contained in the Report were received on  $21^{st}$  September, 2006.

3. The Standing Committee on Energy considered and adopted this Report at their sitting held on 23.11.2006.

4. An Analysis on the Action Taken by the Government on the recommendations contained in the Thirteenth Report of the Committee is given at Annexure-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; <u>24<sup>th</sup> November 2006</u> 3<sup>rd</sup> Agrahayana 1928 (Saka) GURUDAS KAMAT, Chairman, Standing Committee on Energy

(v)

# **Chapter-I**

# Report

This Report of the Committee deals with the Action Taken by the Government on the recommendations contained in the Thirteenth Report (14<sup>th</sup> Lok Sabha) of the Standing Committee on Energy on the Demands for Grants (2006-07) of the Ministry of Non-Conventional Energy Sources.

2. The Thirteenth Report was presented to Lok Sabha on 22.05.2006 and was laid on the Table of Rajya Sabha on the same day. It contained 17 Observations/ Recommendations. The Ministry furnished the Action Taken Replies to the recommendation contained therein on  $21^{st}$  September 2006.

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:		
	Sl No.1, 4, 7, 8, 9, 10, 11, 13 and 14 Total : 9		
	Chapter – II		
(ii)	Recommendations/Observations which the Committee do not desire to persue in view of the Government's replies:		
	Sl No.Nil Total : 0		
	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:		
	Sl Nos.2, 3, 5, 6, 12, 15, 16 and 17 Total : 8		
	Chapter – IV		
(iv)	Recommendations/Observations in respect of which the final replies of the		
	Government are still awaited:		
	Sl Nos. Nil Total : 0		
	Chapter – V		

4. The Committee desire that utmost importance should be given to the implementation of recommendations accepted by the Government. In cases, where it is not possible for the Government to implement the recommendations in letter and spirit for any reasons, the matter should be reported to the Committee in time along with reasons for their non-implementation.

5. The Committee note that the name of the Ministry of Non-Conventional Energy Sources has been changed to Ministry of New and Renewable Energy vide Ministry's circular dated 20.10.2006. Accordingly at all places in the Report i.e. in the recommendations of the Committee as well as the replies of the Government the name of the Ministry has been changed. The Committee will now deal with action taken by the Government on some of their recommendations.

#### **NON-UTILISATION OF FUNDS**

#### Recommendation (Sl. No.2 & 3, Para Nos. 1.14 & 1.15)

6. The Committee found that there was a shortfall in utilisation of funds was seen in almost all the major programmes of the Ministry i.e. Village Electrification, Energy Recovery from urban and Industrial Waste and Solar Energy, etc. The Committee also noted that there was another unhealthy tread of utilising a major portion of Budgetary outlay during the last two quarters of the financial year by the Ministry. The Ministry had given various reasons for non-utilisation of funds which did not justify the slow pace and under utilisation of funds by the Ministry. One of the factors responsible therefor, as stated by the Ministry, was that the States were not sending their utilisation certificates in time and due to that also there appeared to be uneven utilisation of funds. Further the Ministry added that it was difficult to monitor the projects executed in the States. To overcome these problems the Ministry had stated that for implementation of Renewable Energy Programmes at the district level, District Advisory Committees had been set up in districts. These Committees were headed by the District collector with Project Director, DRDA as Member Secretary and also comprised of the district level functionaries of Departments of industry, power, forest, renewable senergy, agriculture and horticulture, NIC and NGOs, social workers, doctors, lawyers, engineers, scientists, Rotarians, two representatives of the concerned MPs, etc. Senior scientists of the Ministry of New and Renewable Energy had been assigned various States/UTs for maintaining close liaison review. for purpose of monitoring, implementation and coordination of programmes/projects of the Ministry. The Committee noted that the reasons advanced by the Ministry for non-utilisation were administrative in nature, for which, corrective action should have been taken in advance.

7. The Committee further noted the steps being taken by the Ministry of New and Renewable Energy to ensure proper utilisation of funds, and desired to be apprised of the results of these measures during the first six months of the current financial year and periodically thereafter. The Committee recommended that the States which did not submit utilisation certificates should be subjected to certain penalties like stoppage of release of funds, etc. Under utilisation and uneven utilisation of funds allocated to a Ministry/Department was a serious matter and all efforts should be made in this regard to tackle this problem. The main reasons for curtailing funds at RE stage by the Ministry of Finance is the inability of the Ministry to spend the amount allocated during the first two quarters of the year. The Committee trusted that the Ministry would take all corrective steps in this regard to avoid such situation in the current financial year, i.e., 2006-07.

8. To this the Ministry has replied:

"While it is reiterated that implementation of this Ministry's programmes/schemes continues to remain heavily dependent upon State agencies, the recommendation has been noted."

9. As regards recommendation of the Committee that the Ministry should take all corrective steps in regard to avoid such situation in the current financial year, the Ministry has replied "The recommendation has been noted".

10. The Committee are unhappy to note that the Ministry has not provided any details of the steps taken by them to implement the Committee's recommendations. It appears that the Ministry has not analysed the results of the setting up of District Advisory Committee and assigning of various States and Union Territories to senior scientists of the Ministry for monitoring programme implementation and expenditure in the States. The Ministry has also not categorically stated as to whether any steps for effective monitoring of the expenditure made by the States under major programmes of the Ministry and also steps like stoppage of funds etc. to the non - performing States have been initiated. The Committee once again reiterate that the Ministry should put in place some innovative monitoring mechanisms to ensure that the funds allocated to the States are utilized timely and properly. The Committee are also of the view that the better performing States under various programmes of the Ministry should be given incentives. The Committee also desire that the Ministry should adopt some corrective steps so that funds allocated to the Ministry of New and Renewable Energy are used extensively in the first two quarters of the financial year so that Finance Ministry do not have to curtail its funds due to non-utilisation thereof. The Committee trust that the Ministry would be able to make judicious use of their funds during 2006-07.

#### SOLAR ENERGY PROGRAMME

#### Recommendation (Sl. No.5 & 6, Para No.2.20 & 2.21)

11. The Committee noted that as the estimated cost of generation of grid interactive SPV power was around Rs.20 kwh and hence the programme was discontinued. Due to high cost, the utilities in the States have not shown much interest in the grid interactive solar power projects. The Ministry had further informed that the removal of subsidy on grid interactive solar photovoltaic power would not have any adverse effect on the over all progress of the solar photovoltaic programme of the country as the main objective of such programmes was technology awareness. The Ministry, however, continued to provide support for development of other solar systems/devices. The Committee was however very unhappy to note poor performance in regard to this programme in the North-Eastern States. The targets for distribution of solar lanterns and solar street lights could not be achieved in the financial year 2005-06. The Committee emphasized as the Solar Energy Programme of the Ministry was an ambitious programme and as such it should be continued in right earnest.

12. The Committee further noted that basic user friendly projects of the Ministry viz solar traffic lights, street lighting, solar water lighting programmes should be pursued vigorously as they helped in saving grid connected electricity. The Committee also desired that equipment like solar lanterns should be distributed in large numbers in villages/hamlets not having any grid connectivity and such important programmes of larger public interest should in no case be allowed to be stalled for lack of co-ordination in the decision making organs of the Government.

#### 13. The Ministry in it's reply has stated:

"The Commission for Additional sources of Energy has recommended that renewable electricity interventions should not be made in electrified or to be electrified areas as the same would tantamount to 'double dipping', i.e. providing benefit twice over for the same service with consequent wastage of scarce national resources. In this regard, the Commission also noted that there was no necessity for enhancing comfort level of households through provision of subsidized renewable back-up electricity systems/ devices in such areas. Alongside, the need to supplement electricity supply in electrified or to be electrified areas through renewables or otherwise has been felt by the Commission."

14. The Ministry further replied:

"It may be mentioned that under the Rural Electrification Policy of the Government notified on 23 August 2006, SPV home-lighting systems would not qualify for recognizing a village as having been electrified since the same would not be in a position to provide for the minimum life line consumption of 1kWh/household/day. Hence, SPV lighting in remote villages can be considered only as an interim solution."

15. The Committee were of the view that the solar energy programme of the Ministry was an ambitious programme and should be continued in right earnest. The Committee had also specifically pointed out that there was poor performance under this programme in the North Eastern States and targets for distribution of solar lanterns and streetlights could not be achieved. The Committee feel that SPV lighting in remote villages can only be considered as an interim solution though according to the Rural Electrification Policy of the Government notified on 23<sup>rd</sup> August, 2006, 'SPV home lighting systems could not qualify for recognizing a village as being electrified'. The Committee, however, feel that until the time electricity reaches these remote villages, solar lanterns would provide at least some relief to the population living in those areas where it was not possible to provide grid interactive power, i.e., the areas like North-east, Sunderbans etc.. The Committee also reiterate that projects on solar traffic lights, street lights and solar water heaters should be perused more vigorously and funds and loans may be made available for these schemes easily as after initial capital investment, subsequent cost of electricity generated thereby is almost negligible. The Committee would like to be apprised of the recommendations made by the Commission for Additional Sources of Energy and the Government's reaction thereto.

#### **BIOMASS POWER CO-GENERATION**

#### Recommendation (Sl. No.12, Para No.2.38)

16. The Committee in their 11th Report on Action Taken by the Government on the recommendations contained in the sixth Report on Demands for Grants (2005-06) had desired that targets for Biomass/co-generation should be enhanced in the 10th and 11th plan periods. The Committee reiterated their earlier recommendation to this effect as well. The Committee desired that 'Biomass Resource Atlas for India' should be finalised at the earliest and private sector should be encouraged to make investment in this field. The Committee further desired that the private players may also be granted some fiscal and other benefits. The Committee further desired to be informed of the recommendations made by the Committee set up to accelerate growth of bagasse Cogeneration in the cooperative sector and Government's reaction thereto.

#### 17. The Ministry has replied:

"The matter regarding development of the bio-energy sector is engaging attention of the Working Group on Non-Conventional Energy Sources for the 11th Plan. Action Plans will be drawn once the 11th Plan proposals of this Ministry are approved."

The Committee have recommended in their 11<sup>th</sup> Report on Action 18. Taken on 6<sup>th</sup> Report on Demands for Grants (2005-06) and again in their 16<sup>th</sup> Report on Action Taken on 8<sup>th</sup> Report on Biomass Power Co-generation Programme - An Evaluation that the targets for utilisation of biomass for energy production should be enhanced. The Committee once again stress on the fact that if 10 per cent of the power is to come from renewable sources during the 10<sup>th</sup> and 11<sup>th</sup> plan periods, we must make maximum use of biomass for energy production. The Committee feel that for this purpose Bio Resource Atlas of India should be prepared and put up on the website of the Ministry at the earliest. The Committee would also like to be informed of the points of action proposed to be taken in the biomass field by the working group on Non-Conventional Energy Sources for the 11<sup>th</sup> Plan, their suggestions and recommendations in the formulation of 11<sup>th</sup> Plan proposals of the Ministry. The same should be made available to the Committee at the earliest.

#### **BIO-FUELS**

#### Recommendation (Sl. No.13 & 14, Para No.2.46 & 2.47)

19. The Committee noted that the Ministry of New and Renewable Energy was involved in the Project on Bio-fuels in co-ordination with various other Ministries. The role of the Ministry was mainly envisaged in developing technologies for conversion of vegetable oils to bio-fuels and develop specifically designed bio-diesel engines. The Committee also noted that the Ministry had taken up a scheme on Bio-fuel Pilot Demonstration Project initially in one village each in Karnataka, Uttar Pradesh, Madhya Pradesh and Jharkhand with the objective of providing energy for lighting, agricultural operation and other community, requirements such as drinking water. The Nodal Ministry for the Bio-diesel project is the Ministry of Rural Development. The Committee felt that all the Ministries should act in proper coordination with unity of purpose to fulfil the objective of development of Biofuels. The Committee were happy to note that some State Governments are operating their vehicles on Bio-diesels and oil companies had agreed to purchase bio-diesel at Rs.25 per liter. It had also been stated to be the most preferred alternative to petrol and diesel particularly in the transport sector.

20. The Committee further noted that the project on Bio-diesel requires coordinated efforts of the various Ministries i.e. Rural Development, Petroleum and Chemicals, Panchayati Raj, Environment & Forests etc. It required a launching of a Mission with a special focus on Jatropha caucas/other oil yielding plants to be planted on large scale to produce Bio-diesel from non-edible oils. The Committee recommended that the State Governments should be actively involved in assessing the potential of growing non-edible oil seeds for producing Bio-diesel. The Committee desired the Ministry of New and Renewable Energy should continue its R&D activities to develop technologies which can run Bio-diesel in transport vehicles, for lighting, in pump sets, gensets to increase their efficiency. Accordingly they recommended that all the funds required for the same may be made available to the Ministry.

21. In response to the recommendation, the Ministry has replied:

"The subject of Bio-fuels has been allocated to various Ministries/ Departments of the Government as per Cabinet Secretariat Notification no. 1/22/1/2006-Cab dated 12 July 2006. The Ministry of New and Renewable Energy has been allocated the following subjects:

- (i) National Policy on bio-fuels;
- (ii) Research, development and demonstration on transport, stationary and other application of bio-fuels;
- (iii) Setting up of a National Bio-fuels Development Board and strengthening the existing institutional mechanism; and
- (iv) Over coordination concerning bio-fuels.

Ministry/Department-wise remaining allocation is as under:

Ministry of Environment & Forests:

- Bio-fuel plantations in forests and wastelands;
- Environmental issues concerning bio-fuels.

Ministry of Petroleum & Natural Gas:

- Blending and blending prescriptions for bio-fuels and standards for such blending;
- Marketing, distribution and retailing of bio-fuels and its blended products.

Ministry of Rural Development:

- National Mission on Bio-fuels;
- Bio-fuel plants production, propagation and commercial plantation of bio-fuel plants

Department of Science & Technology:

- R&D for development of indigenous technologies concerning biofuel production, processing, standardization and applications;
- R&D for utilization of by-products to develop value added chemicals.

Department of Biotechnology:

R&D programme on bio-diesel."

# 22. The Ministry has further replied:

"While the mandate for launching a Mission on Bio-fuels has been allocated to the Ministry of Rural Development, this Ministry would be focusing on design and development of bio-fuel systems for transport, portable and stationary applications. Detailed Action Plan will be drawn once 11th Plan proposals of this Ministry are finalized." 23. The Committee note that the Cabinet Secretariat vide notification No.1/22/1/2006 dated 12th July, 2006, the subject of bio - fuels has been allocated to various Ministries/Departments of the Government. The Ministry of New and Renewable Energy has been allocated the subjects in relation to development of bio-fuels like (i) National Policy on bio-fuels; (ii) Research, development and demonstration on transport, stationary and other application of bio-fuels; (iii) Setting up of a National Bio-fuels Development Board and strengthening the existing institutional mechanism; and (iv) Over coordination concerning bio-fuels. The Committee do not appreciate vertical and horizontal distribution of the subject bio - fuel. The Committee, therefore, are of the considered opinion that the Ministry of New and Renewable Energy should take up this matter with the Cabinet Secretariat for a relook so that the subject of 'Bio-fuels' is entrusted to only one Ministry.

24. The Committee have been further informed that detailed action plan on Biofuels would be drawn once 11<sup>th</sup> Plan proposals of the Ministry were finalised. The Committee note that the Ministry has been entrusted with the most important and a major task of forming National Policy on Biofuels and coordination concerning the same. This by itself is quite a comprehensive task apart from the task of R & D demonstration projects on the transport, stationary and other applications of Biofuels. The Committee, therefore, desire that the Ministry should at the earliest form the National Policy on Biofuels as entrusted to them and also take up work on Design and Development of bio-fuels systems for transport, portable and stationary applications so that the mission on bio-diesels can be accomplished with coordinated efforts from other Ministries.

#### **ENERGY RECOVERY FROM URBAN AND INDUSTRIAL WASTE**

#### Recommendation (Sl. No.15, Para No.2.53)

25. The Committee once again reiterated their earlier recommendation made in 8th Report (Fourteenth Lok Sabha) on the subject 'Biomass Power/Cogeneration-An Evaluation' that the Ministry should prepare a time bound programme in consultation with State Governments, Major Municipal Bodies, Government Institutions and Private developers to know the quantity and quality of urban wastes in all the major cities. The Committee noted that concerted efforts were being made by the Ministry to formulate projects in 16 cities for energy recovery from MSW and these projects could only be supported once stay on subsidy for projects is vacated by Apex Court. Report of Expert Committee constituted in this regard on the directive of Supreme Court had already been submitted to the Court. The Committee recommended that the Ministry should pursue the case earnestly in order to get the stay vacated. The Committee further recommended that the feasibility to set up Waste to Energy plants in all the major metropolitan cities like Delhi, Mumbai, Chennai, Kolkata, etc. be worked out to make available grid interactive power available from the renewable sources like waste products, etc. - as recommended in their 11th Report on Action Taken on the sixth report on Demands for Grants (2005-06).

26. The Ministry has replied:

"The recommendation has been noted."

27. The Committee note that despite their recommendations in their earlier reports (11<sup>th</sup>, 13<sup>th</sup> and 16<sup>th</sup> Report) on waste to energy projects of the Ministry of New and Renewable Energy, the Ministry has merely stated that it has 'noted the recommendation of the Committee'. The Committee once again desire that action should be initiated towards the setting up of waste to energy plants in all major metropolitan cities like Delhi, Mumbai, Chennai and Kolkata. The Committee further stress that utilisation of urban waste will not only provide an alternate source of energy but also help in proper disposal of waste material in the cities – where dumping of wastes has become a major problem as a health hazard. The Committee desire that action on the same may be initiated forthwith and they may be apprised of the same at the earliest.

#### WIND ENERGY

#### Recommendation (Sl. No.16 & 17, Para No.2.65 & 2.66)

28. The Committee were surprised to note that Rs.3 crore (BE) earmarked for R&D in Wind Energy Sector in 2005-06 with the broad aim of indigenising design and manufacture of Wind turbine by 2012, had to be scaled down at RE stage for C-Wet as sufficient R&D proposals could not be generated and due to non-setting up of Wind demonstration projects. The Committee were unable to accept these as valid reasons to scale down the allocations. It showed slackness on the part of the Ministry to handle the Wind Power projects. The Ministry was asked to make all out efforts so that funds allotted under BE are optimally utilized. The Committee further found to their utter surprise that C-WET did not have any role in designing indigenous equipment for harnessing wind energy and its role was limited to wind resource assessment, testing and certification, training and commercial services.

29. The Committee were also of the strong view that a specific agency needed to be appointed/set up to look into R&D aspects of indigenizition of wind turbines and all related equipment required for harnessing wind energy, for which, the funds had already been allocated, as equipment being used presently for the purpose was imported. In line with this, the Committee further desired that indigenization should be taken up by the Ministry in a fast track mode.

#### 30. To this, the Ministry replied:

"There is an inherent conflict of interest in the two roles of testing & certification, and research & development since manufacturers would not like to submit detailed design information and drawings to a Testing & Certification agency, which is also engaged in R&D. Accordingly, the Sub-Group on Research, Design & Development for the 11<sup>th</sup> Plan is addressing the issue."

#### 31. The Ministry has further stated:

"The Sub-Group on Research, Design & Development for the 11<sup>th</sup> Plan of this Ministry is addressing the issue of indigenous design, development and manufacture of MW-scale wind turbines for low wind regimes."

32. The Committee were of the view that a strong agency was required to be set up to look into R & D aspects of indigenization of wind turbines and all related equipment required for harnessing wind energy for which allocation had already been made. Although the Ministry have stated that the sub-group on Research, Design and Development for the 11<sup>th</sup> Plan is addressing the issue of indigenous design, development and manufacture of MW-scale wind turbines for low wind regimes, the Committee, once again reiterate that steps for indigenizing the equipment required for harnessing wind energy need to be taken up in a fast track mode and special attention must be paid to the R & D aspects of indigenisation of wind turbines which are being imported at present making it more expensive to set up the wind power projects.

#### **CHAPTER II**

# RECOMMENDATIONS/OBSERVATIONS THAT HAVE BEEN ACCEPTED BY THE GOVERNMENT

#### Recommendation (Sl. No. 1, Para No.2.18)

The Committee are concerned to note that during 2004-05, the utilisation of fund was Rs.218.06 crore against Rs.373.10 crore (RE) and in 2005-06 upto 28.02.2006, the utilisation of fund was Rs.213.79 crore against RE Rs.316.74 crore and Rs.603.64 crore has been allocated for 2006-07. The Committee observe that expenditure by the Ministry in the First quarter, Second, Third and Fourth quarter upto 28.02.2006 was Rs.9.55 crore, Rs.35.31 crore, Rs.91.21 crore and Rs.77.72 crore respectively during 2005-06. Due to uneven quarterly expenditure, the Ministry of Finance/Planning Commission has been reducing the Gross Budgetary support since 2002-03.

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

The recommendation has been noted. An amount of Rs.38.50crore has already been utilized during the first quarter of 2006-07 i.e., April to June 2006.

#### [Ministry's O.M. No. 8/3/2006-P&C Dated: 21/09/2006]

#### Recommendation (Sl. No. 4, Para No. 2.9)

The Committee note that hydrogen as a form of energy has the potential to provide a clean, convenient and affordable fuel for meeting future needs. It is envisaged by the Ministry that hydrogen will be available in the future for stationary, transport, portable and commercial applications. However, the transition to a hydrogen economy requires solutions to many challenges – scientific, technological and economic. The Committee note that Rs.20 crore has been earmarked for new R&D activities in this field, out of a total of Rs.41 crore kept aside for research and development in different sectors for the Ministry as a whole. The Committee are of the view that hydrogen is a future fuel of the world and more funds for R&D in the field are required to be earmarked. The Committee note that the Ministry of New and Renewable Energy desire to increase the allocation to R&D and propose to go to the Ministry of Finance again for the same. The

Committee, therefore, recommend that the matter of more funds for R&D should be taken up with the Ministry of Finance and Planning by the Ministry at the earliest so that it could get the enhanced funds at RE stage. The Committee further desire that all out efforts should be made to carry out research in this field as this fuel have a wide range of applications for power generation and vehicular transport as also in other fields. The Committee hope that with the endorsement of National Hydrogen Energy Road Map document by the Hydrogen Energy Board, advancements in this field shall take place more rapidly. The Committee would like to be apprised of the developments in this field from time-to-time.

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

The Planning Commission has constituted a Working Group for the formulation of 11<sup>th</sup> Plan proposals for the Non-Conventional Energy Sector under which four Sub-Groups have been constituted, one of which relates to Research, Design and Development (RDD) in New and Renewable Energy, chaired by Dr. A. Ramachandran, former Secretary, DST and co-chaired by Shri A.V. Singh, former Defence Secretary and former Secretary, MNES. This Sub-Group is covering the areas recommended by the Committee. Once the 11<sup>th</sup> Plan proposals of this Ministry are approved, a detailed Action Plan for RDD in New and Renewable Energy, including Hydrogen Energy will be drawn up.

#### [Ministry's O.M. No. 8/3/2006-P&C Dated: 21/09/2006]

#### Recommendation (Sl. No. 7, Para No. 2.22)

The Committee find that a budgetary provision of only Rs.11 crore for 2006-07 for the R&D and related activities at solar energy centre. To a specific query whether allocated fund is adequate to meet the requirement of the projects, no reply has been furnish in this regard. The Committee feel expenditure on R&D activities for such an important projects should be more. The Committee, therefore, desire the Ministry should take steps to enhance the fund at RE stage, if need be. The Committee further note that the Government is supporting R&D in the solar photovoltaic (PV) technology, the aim of which is to reduce the cost of solar cells, modules and systems, support industry to

indigenously produce critical materials like silicon etc. As stated by the Ministry continued R&D efforts in the above areas are expected to bring down the cost of generation of solar energy and make it competitive in the next 15-20 years.

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

The recommendation has been noted.

#### [Ministry's O.M. No. 8/3/2006-P&C Dated: 21/09/2006]

#### Recommendation (Sl. No. 8, Para No. 2.23)

The Committee note with great concern that the solar programme has already been delayed and the Ministry's has been unable to bring down the cost of solar photovoltaic materials which was candidly admitted by the Secretary. The Committee, therefore, recommend the Ministry should make vigorous R&D efforts to bring down the cost of silicon and develop other materials for use in the solar programme. The Committee would like the Ministry to lay special emphasis on photovoltaic research programmes and the Committee be apprised of the same.

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

As stated in reply to recommendation at serial No.4, the Sub-Group on Research, Design & Development in New and Renewable Energy is addressing issues relating to making SPV systems/devices more affordable and grid-interactive SPV power generation more cost-competitive. However, it might be stated that there is also an ongoing global effort in this regard and there are no clear signals as to the time-frame in which solar technologies are likely to become commercially viable on a large scale.

#### [Ministry's O.M. No. 8/3/2006-P&C Dated: 21/09/2006]

#### Recommendation (Sl. No. 9, Para No. 2.35)

The Committee note that of the total theoretically feasible potential of 16,000 MW, 26% i.e. 359 MW of Bio-mass grid interactive power and 66 MW Bio-mass gasification has already been achieved. Around 14.5% of the total estimated potential of 3500 MW of Bagasse co-generation has been harnessed through 508 MW of Bagasse co-

generation in sugar mills. Projects aggregating 858 MW are already under implementation. As stated by the Ministry, it may not be feasible to harness, the entire theoretical potential on account of problems associated with collection and transportation of agro-residues to the centralized power plant locations. The Committee were informed by the Ministry the Bagasse based co-generation are facing certain problems like inability of the co-generative sugar mills to generate bankable projects and many old sugar mills have small crushing capacities that are lower than the minimum economic capacity specified by the Government.

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

The recommendation has been noted.

# [Ministry's O.M. No. 8/3/2006-P&C Dated: 21/09/2006] Recommendation (Sl. No. 10, Para No. 2.36)

The Committee find that the Bagasse based co-generation units are also facing some difficulties in getting subsidy/clearances for setting up co-generation units in the sugar mills and many of the sugar producing factories have put up applications for getting clearances. The Committee have been informed that many agencies are involved in giving clearances to the sugar producing factories for setting up Bagasse based cogeneration. The State Regulatory Commissions are involved in fixing tariff and the State Electricity Boards in buying of electricity from sugar mills. The Committee recommend that the clearance procedures for the co-generation projects should be simplified and the State Electricity Boards should be persuaded to enter into long term power purchase agreements with the sugar mills to ensure the success of Biomass Cogeneration projects.

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

As would be appreciated, clearances for setting up cogeneration projects are not required from the Union Government. However, State Governments have been moved to simplify procedures. Regarding tariff issues, it would be appreciated that since they fall in a quasi-judicial domain with the setting up of Regulatory Commissions in states, this Ministry has no direct role in the matter.

#### [Ministry's O.M. No. 8/3/2006-P&C Dated: 21/09/2006]

#### Recommendation (Sl. No. 11, Para No. 2.37)

The Committee note that the financial and physical targets under 10<sup>th</sup> Plan for Biomass Power/Cogeneration programme is Rs.125 crore and 700 MW respectively. Achievement of targets as on 31.12.2005 are Rs.35.97 crore and 486.23 MW. The Committee are surprised that the Ministry has utilized about 30% of the allocated fund even after the elapse of 4 years of 10<sup>th</sup> Plan, how it will be able to fully utilize the fund within 10<sup>th</sup> Plan when only one year is left. Although the Secretary was confident that the Ministry will achieve the targets, yet the Committee in the absence of any concrete proposal in this regard find it difficult to subscribe to his optimism. Needless to mention that the matter is required to be taken up more seriously than done hitherto.

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

Against a target of 700 MW for biomass combustion/bagasse cogeneration for the 10<sup>th</sup> Plan, the achievement during the first four years of the Plan i.e. up to 31.3.2006 is 530 MW. Further, projects with an installed capacity of about 1000 MW are under various stages of implementation in different states. Consequently, the 10<sup>th</sup> Plan target of 700 MW is likely to be achieved in full. As regards utilization of funds, expenditure is likely to be around Rs.80 crore on this programme during the 10<sup>th</sup> Plan.

#### [Ministry's O.M. No. 8/3/2006-P&C Dated: 21/09/2006]

#### Recommendation (Sl. No. 13, Para No. 2.46)

The Committee note that the Ministry of New and Renewable Energy is involved in the Project on Bio-fuels in co-ordination with various other Ministries. The role of the Ministry is mainly envisaged in developing technologies for conversion of vegetable oils to bio-fuels and develop specifically designed bio-diesel engines. The Committee also note that the Ministry had taken up a scheme on Bio-fuel Pilot Demonstration Project initially in one village each in Karnataka, Uttar Pradesh, Madhya Pradesh and Jharkhand with the objective of providing energy for lighting, agricultural operation and other community, requirements such as drinking water. The Nodal Ministry for the Bio-diesel project is the Ministry of Rural Development. The Committee feel that all the Ministries should act in proper coordination with unity of purpose to fulfil the objective of development of Biofuels. The Committee are happy to note that some State Governments are operating their vehicles on Bio-diesels and oil companies have agreed to purchase bio-diesel at Rs.25 per liter. It has been stated to be the most preferred alternative to petrol and diesel particularly in the transport sector.

### **Reply of the Government**

The subject of Bio-fuels has been allocated to various Ministries/ Departments of the Government as per Cabinet Secretariat Notification no. 1/22/1/2006-Cab dated 12 July 2006. The Ministry of New and Renewable Energy has been allocated the following subjects:

- (i) National Policy on bio-fuels;
- (ii) Research, development and demonstration on transport, stationary and other application of bio-fuels;
- (iii) Setting up of a National Bio-fuels Development Board and strengthening the existing institutional mechanism; and
- (iv) Over coordination concerning bio-fuels.

Ministry/ Department-wise remaining allocation is as under:

Ministry of Environment & Forests:

- Bio-fuel plantations in forests and wastelands;
- Environmental issues concerning bio-fuels.

Ministry of Petroleum & Natural Gas:

- Blending and blending prescriptions for bio-fuels and standards for such blending;
- Marketing, distribution and retailing of bio-fuels and its blended products.

Ministry of Rural Development:

National Mission on Bio-fuels;

Bio-fuel plants production, propagation and commercial plantation of biofuel plants

Department of Science & Technology:

- R&D for development of indigenous technologies concerning bio-fuel production, processing, standardization and applications;
- R&D for utilization of by-products to develop value added chemicals.

Department of Biotechnology:

➢ R&D programme on bio-diesel.

#### [Ministry's O.M. No. 8/3/2006-P&C Dated: 21/09/2006]

(Please see para Nos. 23 and 24 of Chapter I of the Report)

#### Recommendation (Sl. No. 14, Para No. 2.47)

The Committee further note that the project on Bio-diesel requires coordinated efforts of the various Ministries i.e. Rural Development, Petroleum and Chemicals, Panchayati Raj, Environment & Forests etc. It requires a launching of a Mission with a special focus on Jatropha caucas/other oil yielding plants to be planted on large scale to produce Bio-diesel from non-edible oils. The Committee recommend that the State Governments should be actively involved in assessing the potential of growing non-edible oil seeds for producing Bio-diesel. The Committee desire the Ministry of New and Renewable Energy should continue its R&D activities to develop technologies which can run Bio-diesel in transport vehicles, for lighting, in pump sets, gensets to increase their efficiency. Accordingly they recommend that all the funds required for the same may be made available to the Ministry.

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

While the mandate for launching a Mission on Bio-fuels has been allocated to the Ministry of Rural Development, this Ministry would be focusing on design and development of bio-fuel systems for transport, portable and stationary applications. Detailed Action Plan will be drawn once 11<sup>th</sup> Plan proposals of this Ministry are finalized.

### [Ministry's O.M. No. 8/3/2006-P&C Dated: 21/09/2006]

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

(Please see para Nos. 23 and 24 of Chapter I of the Report)

# **CHAPTER III**

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

NIL

#### **CHAPTER IV**

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

#### Recommendation (Sl. No. 2, Para No. 1.14)

A shortfall in utilisation of funds is seen in almost all the major programmes of the Ministry i.e. Village Electrification, Energy Recovery from urban and Industrial Waste and Solar Energy, etc. The Committee also note that there is another unhealthy trend of utilizing a major portion of Budgetary outlay during the last two quarters of the financial year by the Ministry. The Ministry has given various reasons for non-utilisation of funds which do not justify the slow pace and under utilisation of funds by the Ministry. One of the factors responsible therefor, as stated by the Ministry, is that the States were not sending their utilisation certificates in time and due to this also there appeared to be uneven utilisation of funds. Further the Ministry added that it was difficult to monitor the projects executed in the States. To overcome these problems the Ministry has stated that for implementation of Renewable Energy Programmes at the district level, District Advisory Committees had been set up in districts. These Committees are headed by the District collector with Project Director, DRDA as Member Secretary and also comprised of the district level functionaries of Departments of industry, power, forest, renewable energy, agriculture and horticulture, NIC and NGOs, social workers, doctors, lawyers, engineers, scientists, Rotarians, two representatives of the concerned MPs, etc. Senior scientists of the Ministry of New and Renewable Energy have been assigned various States/UTs for maintaining close liaison for purpose of review, monitoring, implementation and coordination of programmes/projects of the Ministry. The Committee note that the reasons advanced by the Ministry for non-utilisation are administrative in nature for which corrective action should have been taken in advance.

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

While it is reiterated that implementation of this Ministry's programmes/schemes continues to remain heavily dependent upon state agencies, the recommendation has been noted.

#### [Ministry's O.M. No. 8/3/2006-P&C Dated: 21/09/2006]

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

(Please see para No.10 of Chapter I of the Report)

#### Recommendation (Sl. No. 3, Para No. 1.15)

The Committee note the steps being taken by the Ministry of New and Renewable Energy to ensure proper utilisation of funds, the Committee would still like to be apprised of the results of these measures during the first six months of the current financial year and periodically thereafter. The Committee recommend that the States which do not submit utilisation certificates should be subjected to certain penalties like stoppage of release of funds, etc. Under utilisation and uneven utilisation of funds allocated to a Ministry/Department is a serious matter and all efforts should be made in this regard to tackle this problem. The main reasons for curtailing funds at the RE stage by the Ministry of Finance is the inability of the Ministry to spend the amount allocated during the first two quarters of the year. The Committee trust that the Ministry would take all corrective steps in this regard to avoid such situation in the current financial year, i.e., 2006-07

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

The recommendation has been noted.

#### [Ministry's O.M. No. 8/3/2006-P&C Dated: 21/09/2006]

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

(Please see para No.10 of Chapter I of the Report)

#### Recommendation (Sl. No. 5, Para No. 2.20)

The Committee note that as the estimated cost of generation of grid interactive SPV power is around Rs.20 kwh and hence the programme has been discontinued. Due to high cost the utilities in the States have not shown much interest in the grid interactive solar power projects. The Ministry has further informed that the removal of subsidy on grid interactive solar photovoltaic power will not have any adverse effect on the over all progress of the solar photovoltaic programme of the country as the main objective of such programmes was technology awareness. The Ministry, however, continues to provide support for development of other solar systems/devices. The Committee is however very unhappy to note poor performance in the North-Eastern States. The targets for distribution of solar lanterns and solar street lights could not be achieved in the financial year 2005-06. The Committee recommend that the Solar Energy Programme of the Ministry is an ambitious programme and it should be continued in right earnest.

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

The Commission for Additional Sources of Energy has recommended that renewable electricity interventions should not be made in electrified or to be electrified areas as the same would tantamount to `double dipping', i.e. providing benefit twice over for the same service with consequent wastage of scarce national resources. In this regard, the Commission also noted that there was no necessity for enhancing comfort level of households through provision of subsidized renewable back-up electricity systems / devices in such areas. Alongside, the need to supplement electricity supply in electrified or to be electrified areas through renewables or otherwise has been felt by the Commission.

It may be mentioned that under the Rural Electrification Policy of the Government notified on 23 August 2006, SPV home-lighting systems would not qualify for recognizing a village as having been electrified since the same would not be in a position to provide for the minimum life line consumption of 1kWh/household/day. Hence, SPV lighting in remote villages can be considered only as an interim solution.

#### [Ministry's O.M. No. 8/3/2006-P&C Dated: 21/09/2006]

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

(Please see para No.15 of Chapter I of the Report)

#### Recommendation (Sl. No. 6, Para No. 2.21)

The Committee note that basic user friendly projects of the Ministry viz solar traffic lights, street lighting, solar water lighting programmes should be pursued vigorously as they help in saving grid connected electricity. The Committee also desire

that equipment like solar lanterns should be distributed in large numbers in villages/hamlets not having any grid connectivity and such important programmes of larger public interest should in no case be allowed to be stalled for lack of co-ordination in the decision making organs of the Government.

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

Same as given in reply to Recommendation No. 5

#### [Ministry's O.M. No. 8/3/2006-P&C Dated: 21/09/2006]

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

(Please see para No.15 of Chapter I of the Report)

### Recommendation (Sl. No. 12, Para No. 2.38)

The Committee in their 11<sup>th</sup> Report on Action Taken by the Government on the recommendations contained in the sixth Report on Demands for Grants (2005-06) had desired that targets for Biomass/co-generation should be enhanced in the 10<sup>th</sup> and 11<sup>th</sup> plan periods. The Committee reiterate their earlier recommendation to this effect as well. The Committee desire that 'Biomass Resource Atlas for India' should be finalised at the earliest and private sector should be encouraged to make investment in this field. They may also be granted some fiscal and other benefits. The Committee may also be informed of the recommendations made by the Committee set up to accelerate growth of bagasse Cogeneration in the cooperative sector and Government's reaction thereto.

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

The matter regarding development of the bio-energy sector is engaging attention of the Working Group on Non-Conventional Energy Sources for the 11<sup>th</sup> Plan. Action Plans will be drawn once the 11<sup>th</sup> Plan proposals of this Ministry are approved.

#### [Ministry's O.M. No. 8/3/2006-P&C Dated: 21/09/2006]

**Comments of the Committee** 

(Please see para No.18 of Chapter I of the Report)

#### Recommendation (Sl. No. 15, Para No. 2.53)

The Committee once again reiterate their earlier recommendation made in 8<sup>th</sup> Report (Fourteenth Lok Sabha) on the subject 'Biomass Power/Cogeneration-An Evaluation' that the Ministry should prepare a time bound programme in consultation with State Governments, Major Municipal Bodies, Government Institutions and Private developers to know the quantity and quality of urban wastes in all the major cities. The Committee note that concerted efforts are being made by the Ministry to formulate projects in 16 cities for energy recovery from MSW and these projects can only be supported once stay on subsidy for projects is vacated by Apex Court. Report of Expert Committee constituted in this regard on the directive of Supreme Court has already been submitted to the Court. The Committee recommend that the Ministry should pursue the case earnestly in order to get the stay vacated. The Committee further recommend that the feasibility to set up Waste to Energy plants in all the major metropolitan cities like Delhi, Mumbai, Chennai, Kolkata, etc. be worked out to make available grid interactive power available from the renewable sources like waste products, etc. as recommended in their 11<sup>th</sup> Report on Action Taken on the sixth report on Demands for Grants (2005-06).

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

The recommendation has been noted.

#### [Ministry's O.M. No. 8/3/2006-P&C Dated: 21/09/2006]

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

(Please see para No.27 of Chapter I of the Report)

#### Recommendation (Sl. No. 16, Para No. 2.65)

The Committee are surprised to note that Rs.3 crore (BE) earmarked for R&D in Wind Energy Sector in 2005-06 with the broad aim of indigenising design and manufacture of Wind turbine by 2012, has to be scaled down at RE stage for C-Wet as sufficient R&D proposals could not be generated and due to non-setting up of Wind demonstration projects. The Committee is unable to accept these as valid reasons to scale down the allocations. It shows slackness on the part of the Ministry to handle the Wind Power projects. The Ministry should make all out efforts so that funds allotted under BE are optimally utilized. The Committee further find to their utter surprise that C-WET does not have any role in designing indigenous equipment for harnessing wind energy and its role is limited to wind resource assessment, testing and certification, training and commercial services.

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

There is an inherent conflict of interest in the two roles of testing & certification, and research & development since manufacturers would not like to submit detailed design information and drawings to a Testing & Certification agency, which is also engaged in R&D. Accordingly, the Sub-Group on Research, Design & Development for the 11<sup>th</sup> Plan is addressing the issue.

# [Ministry's O.M. No. 8/3/2006-P&C Dated: 21/09/2006] Comments of the Committee

(Please see para No.32 of Chapter I of the Report)

#### Recommendation (Sl. No. 17, Para No. 2.66)

The Committee are of the strong view that a specific agency needs to be appointed/set up to look into R&D aspects of indigenizition of wind turbines and all related equipment required for harnessing wind energy, for which, the funds have already been allocated, as equipment being used presently for the purpose are imported. In line with this, the Committee further desire that indigenization should be taken up by the Ministry in a fast track mode.

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

The Sub-Group on Research, Design & Development for the 11<sup>th</sup> Plan of this Ministry is addressing the issue of indigenous design, development and manufacture of MW-scale wind turbines for low wind regimes.

#### [Ministry's O.M. No. 8/3/2006-P&C Dated: 21/09/2006]

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

(Please see para No.32 of Chapter I of the Report)

### CHAPTER V

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

NIL

NEW DELHI; <u>24<sup>th</sup> November 2006</u> 3<sup>rd</sup> Agrahayana 1928 (Saka) GURUDAS KAMAT, Chairman, Standing Committee on Energy

#### APPENDIX – I

### MINUTES OF THE THIRD SITTING OF THE STANDING COMMITTEE ON ENERGY HELD ON 23<sup>rd</sup> NOVEMBER 2006 IN COMMITTEE ROOM NO 62, PARLIAMENT HOUSE, NEW DELHI

The Committee met from 1500 hrs. to 1600 hrs.

# PRESENT

#### Shri Gurudas Kamat – Chairman

#### MEMBERS

#### LOK SABHA

- 2. Shri Gaurishanker Chaturbhuj Bisen
- 3. Prof. Chander Kumar
- 4. Sardar Sukhdev Singh Libra
- 5. Shri Sanat Kumar Mandal
- 6. Dr. Ravindra Kumar Rana
- 7. Shri Vijayendra Pal Singh
- 8. Shri Tarit Baran Topdar

### RAJYA SABHA

- 9. Shri Bimal Jalan
- 10. Shri Syed Azeez Pasha
- 11. Shri V. Hanumantha Rao
- 12. Shri Jesudasu Seelam
- 13. Shri Motilal Vora

#### SECRETARIAT

- 1. Shri B.D. Swan Deputy Secretary
- 2. Shri Shiv Kumar Under Secretary

At the outset, the Chairman welcomed Members to the sitting of the Committee. The Committee then took up for consideration the Draft Seventeenth Report on Action Taken on the recommendations contained in the 13<sup>th</sup> Report of the Standing Committee on Energy on Demands for Grants of the Ministry of New and Renewable Energy for the year 2006-07.

2. The Committee then adopted the draft Report with some modifications as suggested by the Members of the Committee.

3. The Committee also authorized the Chairman to finalise the Report and to present/lay the same to both the Houses of Parliament.

The Committee then adjourned.

#### **APPENDIX – II**

#### (Vide Introduction of Report)

# ANALYSIS OF ACTION TAKEN BY GOVERNMENT ON THE THIRTEENTH REPORT OF STANDING COMMITTEE ON ENERGY (14<sup>TH</sup> LOK SABHA)

- Total number of Recommendations (i)
- (ii) Recommendations/Observations which have been accepted by the Government:

Sl Nos.1, 4, 7, 8, 9, 10, 11, 13 & 14 Total:9 53% Percentage

(iii) Recommendations/Observations which the Committee do not desire to persue in view of the Government's replies:

Sl No. NIL Total: 0 Percentage

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

Sl Nos.2, 3, 5, 6, 12, 15, 16, 17 Total: 8 47% Percentage

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

Total: Sl No. NIL

Percentage