39

STANDING COMMITTEE ON ENERGY

(2023-24)

SEVENTEENTH LOK SABHA

MINISTRY OF NEW AND RENEWABLE ENERGY

[Action-taken by the Government on observations/recommendations contained in Thirty-Fourth Report (17th Lok Sabha) on Demands for Grants (2023-24) of the Ministry of New and Renewable Energy]

THIRTY-NINTH REPORT

LOK SABHA SECRETARIAT
NEW DELHI

December, 2023/ Agrahayana, 1945 (Saka)

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Presented to Lok Sabha on 19th December, 2023

Laid in Rajya Sabha on 19th December, 2023

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CONTENTS

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3.	Shri S. Lakshmikanta Singh	Deputy Secretary
4.	Ms. Deepika	Committee Officer

** Vacant vice Shri Uttam Kumar Nalamada Reddy ceased to be Member of the Committee w.e.f. 13th December, 2023 consequent upon his resignation from membership of the Lok Sabha.*

INTRODUCTION

I, the Chairperson, Standing Committee on Energy, having been authorized by the Committee to present the Report on their behalf, present this Thirty-Ninth Report on action-taken by the Government on observations/recommendations contained in the Thirty-Fourth Report (17th Lok Sabha) on Demands for Grants (2023-24) of the Ministry of New and Renewable Energy.

2. The Thirty-Fourth Report was presented to the Lok Sabha on 21st March, 2023 and was laid on table of the Rajya Sabha on the same day. Replies of the Government to the observations/recommendations contained in this Report were received on 21st June, 2023.

3. The Report was considered and adopted by the Committee at their sitting held on 14th December, 2023.

4. An Analysis of action-taken by the Government on the observations/ recommendations contained in the Thirty-Fourth Report (17th Lok Sabha) 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
December 14, 2023
Agrahayana 23, 1945 (Saka)

Jagdambika Pal,
Chairperson,
Standing Committee on Energy

CHAPTER – I

This Report of the Standing Committee on Energy deals with action-taken by the Ministry of New and Renewable Energy on observations/ recommendations contained in the Thirty-Fourth Report (Seventeenth Lok Sabha) on Demands for Grants (2023-24) of the Ministry of New and Renewable Energy.

2. The Thirty-Fourth Report was presented to the Lok Sabha on 21st March, 2023 and was laid on table of the Rajya Sabha on the same day. The Report contained 11 Recommendations/Observations.

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

(i) Observations/Recommendations which have been accepted by the Government:
Serial Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and 11 Total - 11
Chapter-II

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

Nil Total - 00
Chapter-III

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

Nil Total– 00
Chapter-IV

(iv) Observation/Recommendation 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 Statement on the Recommendations/Observations contained in Chapter-I of this 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.

Recommendation No. 4

6. The Committee had recommended as under:

> "The Committee note that against the overall target of 40 GW, only 7.40 GW of rooftop solar projects have been installed in the Country. This Committee have been flagging the issues responsible for deficient performance under Solar Roof-top Programme like non-availability of information at the grass root level, lack of awareness about this scheme amongst the masses, apathy of Discoms, time consuming and complicated procedures for setting it up, delays in disbursement of subsidy, inconsistent policy framework at the State level, absence of non-recourse financing, etc. The Ministry has submitted before this Committee that in order to make the process simple, a National Portal has been developed wherein any residential consumer from any part of the Country can apply for installation of Solar Roof-top and all the processes starting from registration of application till the release of subsidy can be tracked online. The Committee observe that as on 27.02.2023, 43171 number of applications are received on National Portal, of which 18437 applications have been approved by DISCOMs, 3031 applications have been rejected on technical grounds and approval is pending for 21703 applications. The Committee feel that even with the National Portal, Discoms are still the focal point for this programme and their role can not be wished away as the subsidy is released only after technical feasibility approval, installation of net-meter and inspection of the system by the Discoms. The Committee, therefore, recommend that:
>
> i) A strict timeline should be imposed for approvals/rejection of applications, installation of net-meter, inspection of the system, etc. by the Discoms. Reasons should mandatorily be provided by the Discoms in case of rejection of Application on the National Portal.
>
> ii) Discoms may be incentivized so that their apprehensions regarding losing their high paying consumers because of installation of

Solar Roof-tops are addressed and they positively participate in the Programme."

7. In its action-taken reply, the Ministry of New and Renewable Energy has stated as under:

> "The installation of rooftop solar (RTS) has increased from around 1 GW cumulative RTS installations in March 2018 to 8.4 GW in April 2023. Extensive efforts have been made regarding IEC at the grassroot level and increase awareness levels and to that end, states have been allocated to Central PSUs to run awareness campaigns through print and electronic media for promoting rooftop solar. To bring DISCOMs on board as key partners for RTS installation, MNRE is providing incentives for installation and so far, cumulative incentive amount of Rs 748 Crores for cumulative RTS capacity addition of 2963 MW has been approved under the program. Regular reviews and monitoring of DISCOM progress are undertaken and a national level review of their performances was undertaken by the Ministry on 23.05.2023. Procedures for claiming of subsidy and applying for rooftop have been simplified and the National Portal has streamlined the processes to a large extent. Subsidy value support has also been standardized and DISCOMs are being constantly aligned to simplify their internal processes, including inter alia, ease of change of name, change of load, net metering applications etc. To speed up disbursement of subsidy, the national portal provides for quick transmission of subsidy applications through the approval process. For subsidies claimed under state tenders, the Ministry issues advance amounts/CFA to states at the stage of grant of Letter of Award by DISCOMs so that subsidy claims can be processed without delay in these cases by the respective DISCOM. The policy environment for RTS has been strengthened by inclusion of definition of "prosumers" in the Electricity (Rights of Consumers) Rules, 2020 and detailed provisions regarding the responsibilities of distribution licensee vis-a-vis prosumer."

8. The Committee note that the policy environment for Roof-top Solar (RTS) has been strengthened by inclusion of definition of "Prosumers" in the Electricity (Rights of Consumers) Rules, 2020 along with detailed provisions regarding the responsibilities of Distribution Licensee vis-a-vis Prosumer. Acknowledging that the installation of

Roof-top Solar (RTS) has increased from around 1 GW in March 2018 to 8.4 GW in April 2023, the Committee observe that it is still short of the overall target of 40 GW which was supposed to be achieved by the year 2022. However, the Committee appreciate that the Ministry has worked upon the concerns related to delay in disbursement of subsidy wherein it issues advance amount/Central Financial Assistance (CFA) to the States at the stage of grant of Letter of Award by DISCOMs so that subsidy claims can be processed without any delay. Further, the Committee would like the Ministry to furnish the details regarding States/UTs allocated to the respective CPSUs and the progress made by each one of them in running the awareness campaign along with the impact thereof.

Recommendation No. 5

9. The Committee had recommended as under:

"The Committee note that PM-KUSUM Scheme was launched in March, 2019 to provide financial support to the farmers for installation of standalone solar pumps, solarization of existing grid-connected agriculture pumps and also to provide the farmers an opportunity to become solar entrepreneurs by installing solar power plants on their barren/fallow agriculture land. The Committee observe that targets under different components of the Scheme could not be achieved. The Ministry has stated that the reasons for slow progress under the scheme are increase in prices of solar panels due to imposition of Basic Custom Duty (BCD) and increase in Goods and Services Tax (GST) from 5% to 12%; low demand from the States, non-availability of farmers' share of funds, etc. It has also been furnished that under Component-A, for a solar plant of 1 MW, investment of Rs. 4-4.5 crore is required as there is no subsidy and these projects are purely based on commercial viability. Since the timeline for implementation of the Scheme has been extended till 31.03.2026, the Committee recommend that:

i) In order to achieve the target under Component-A, the Ministry needs to make some positive interventions in the form of subsidy, etc.

ii) The Ministry should coordinate and hold consultations with the State Governments in order to make them prioritize the Scheme in the interest of the farmers particularly small and marginal farmers.

iii) It should also be ensured that there is no demand-supply gap in making available the required number of solar pumps for the farmers."

10. In its Action-taken reply, the Ministry has stated as under:

"The Ministry has noted the recommendations made by the Committee for compliance and efforts are underway to implement the same. Further, to make PM KUSUM more accessible to farmers and to achieve targets set under the scheme, following actions are being taken:

(i) Component A, of the scheme operates in commercial mode where a performance-based incentive is provided to the DISCOMs. In this regard, MNRE is coordinating with State Electricity Regulatory Commissions to revise the tariff from time to time, and banks to provide viable financial options to farmers. In addition, the Ministry is in active conversation with Ministry of Agriculture and Farmers Welfare to include Component A of the scheme under Agriculture Infrastructure Fund (AIF). This will further enable the access of easy and affordable finance to small and marginal farmers to install solar plants up to 2MW under Component A of the scheme.

(ii) The Ministry regularly holds consultation meetings with state governments and state implementing agencies at various levels. National workshops are being organized on quarterly basis where best practices and good implementation models are showcased providing forum for exchange of ideas among stakeholders and to facilitate peer-to-peer learning. In addition, Ministry also holds weekly and biweekly meetings with state implementing agencies to ease out the implementing process and address bottlenecks if any. To create robust awareness about the scheme, the Ministry is conducting comprehensive awareness campaigns through CPSU in all states where so far more than 80,000 banners and hoardings are installed about information related to PM KUSUM.

(iii) PM KUSUM is a demand-based scheme and State Government/ State Implementing Agencies had raised the demands which are allocated to them. The progress is revised at regular interval and the capacities are reallocated if there is no progress or unsatisfactory progress. All efforts are made to ensure that there is not demand-supply gap in making available the requisite number of solar pumps."

11. Regarding PM-KUSUM Scheme, the Committee acknowledge that the Ministry has been coordinating with the State Electricity Regulatory Commissions to revise the tariff from time to time and with Banks to provide viable financial options to the Farmers. Further, National

Workshops for stakeholders, regular consultation meetings with State Governments and State Implementing Agencies are also being held to ease out the implementing process and address bottlenecks. The Committee would like the Ministry to hold consultation with the Farmers/Farmers' Organizations/Associations too who are the most important stakeholders of this Scheme. With respect to its implementation status, the Ministry has stated that PM-KUSUM Scheme is a demand based Scheme. The Committee are of the opinion that for successful implementation of this Scheme, coordinated efforts are required from all the stakeholders including the State Implementing Agencies, Discoms, Regulatory Bodies, Financial Institutions and of course the concerned Ministries. The Committee would also like to be apprised about the status of the proposal regarding inclusion of Component-A of the Scheme under Agriculture Infrastructure Fund.

Recommendation No. 6

12. The Committee had recommended as under:

> "The Committee note that small hydro power programme was discontinued w.e.f. 31st March, 2017 and since then, the budget allocations have been used to clear old liabilities only. The Ministry has submitted before the Committee that it has been trying to come up with a new programme for small hydro power since 2017 but the same could not materialize for one or the other reasons. The Committee have been apprised that Note for the Cabinet Committee on Economic Affairs (CCEA) regarding Small Hydro Programme is under preparation. The Committee, therefore recommend that the Ministry should critically review its performance under the previous small hydro power programme and ensure that the factors which hindered the implementation of the programme are properly addressed in the new scheme."

13. In its Action-taken reply, the Ministry has stated as under:

> "The observations/recommendations of the Committee have been duly noted. The proposed new SHP Scheme aims for a faster exploitation of the SHP potential across the Country. The draft CCEA Note was circulated for Inter-Ministerial Consultation (IMC) on

28.03.2023. A revised Note, after incorporating the response of MNRE on the comments received from various Ministries/Departments, is under submission."

14. In their recommendation, the Committee raised concerns regarding discontinuation of Small Hydro Power Programme *w.e.f.* 31st March, 2017 and noted that the Ministry had been trying to come up with a new programme for Small Hydro Power since 2017 but the same could not materialize for one or the other reasons. Now, in its action taken reply, the Ministry has stated that the draft Note for Cabinet Committee on Economic Affairs (CCEA) was circulated for Inter-Ministerial Consultation on 28th March, 2023 and a revised Note, after incorporating its response on the comments received from various Ministries/Departments, is under submission. The Committee expect the Ministry to speed up the process and come up with a Small Hydro Power Programme at the earliest.

Recommendation No. 7

15. The Committee had recommended as under:

"The Committee note that the Intra-State GEC project was started in 2015 with total target of 9767 ckm transmission lines and 22689 MVA sub-stations. Phase-I of Intra-State GEC which is being implemented by the State Transmission Utilities (STUs) of 8 States has been delayed and given multiple extensions. The Committee observe that a total of 8759 ckm of transmission lines have been constructed and a total of 19868 MVA substations have been charged as on 31st December, 2022. The Ministry has submitted that all the projects have been completed in Rajasthan, Tamil Nadu and Madhya Pradesh and the remaining five states viz. Andhra Pradesh, Gujarat, Himachal Pradesh, Karnataka and Maharashtra have requested for further extension up to June 2023. Since 8 years have lapsed since the start of the Project, the Committee hope that this will be the last extension and this Project will finally be completed by June, 2023. It has also been submitted that Phase–II of Intra-State GEC is being implemented by State Transmission Utilities of 7 States (Gujarat, Himachal Pradesh, Karnataka, Kerala, Rajasthan, Tamil Nadu and Uttar Pradesh) for addition of 10753 ckm of transmission lines and 27546 MVA of

substations and it is scheduled to be completed by FY 2025-26. In order to ensure that Phase-II of Intra-State GEC does not get delayed like the Phase-I, the Committee recommend that the Ministry should take into account the reasons for delayed implementation of Phase-I and proactively persuade the concerned States from the start in order to ensure timely completion of Phase-II of Intra-State Green Energy Corridor."

16. In its Action-taken reply, the Ministry has stated as under:

"The recommendations of the Committee have been noted. Out of 8 states under GEC Phase-I, 4 states have completed all their projects (viz. Karnataka, Madhya Pradesh, Rajasthan and Tamil Nadu. The projects in the remaining 4 states have been delayed mainly due to land acquisition, Right of Way (RoW) issues and forest clearances. The last extension given by the Ministry was up to March 2023. However, due to pending issues mentioned above, the states have requested further extension up to December 2023.

With respect to GEC Phase-II, the Ministry is continuously following it up with the states to ensure timely completion of the projects. Considering the challenges in GEC Phase-I, the scheme guidelines under GEC Phase-II have been framed, which states that the first instalment of Central Financial Assistance (CFA) for a particular project will be subject to the following conditions:

i) Work is tendered and awarded to the contractor;

ii) For transmission lines: all statutory clearances (like crop compensation, forest clearances etc.) are available for a contiguous line length which is at least 80% of the total line length;

iii) For Sub-stations: 100% land required should be acquired by the state implementing agency.

Further, the scheme guidelines clearly state that all the packages must be tendered and awarded to the contractors by the STUs within a period of two years, i.e. by 31st December 2023."

17. In response to the recommendation of the Committee regarding Green Energy Corridor (GEC), the Ministry has submitted that under GEC Phase-I, out of the 8 States, 4 States (Karnataka, Madhya Pradesh, Rajasthan and Tamil Nadu) have completed all their projects and the remaining 4 States (Andhra Pradesh, Gujarat, Himachal Pradesh and

Maharashtra) have requested extension up to December 2023. With respect to GEC Phase-II, the Ministry has furnished that as per scheme guidelines; all the packages must be tendered and awarded to the contractors by the State Transmission Utilities (STUs) by 31st December 2023. The Committee hope that this will be the last extension for GEC Phase-I and the same will be completed by December, 2023. Further, the deadline of 31st December, 2023 regarding tendering and award of projects under GEC Phase-II is round the corner; therefore, the Committee would like to know about the status regarding the envisaged tendering and award of the required contracts by the STUs as per the scheme guidelines.

CHAPTER – II

Observations/Recommendations which have been accepted by the Government

Recommendation No. 1

The Committee note that under Government of India (Allocation of Business) Rules, 1961, the Ministry of New and Renewable Energy has been allocated subjects like Biogas, Commission for Additional Sources of Energy (CASE), Solar Energy, Small Hydro, Programme relating to improved Chulhas, Integrated Rural Energy Programme (IREP), Tidal Energy, Geothermal Energy, etc. The Committee observe that there is no mention of Wind Energy, Biomass Power, Waste to Energy, Green Hydrogen, Solar Energy Corporation of India Limited, National Institute of Wind Energy, National Institute of Solar Energy, National Institute of Bio Energy, etc. in the subjects allocated to the Ministry. Further, the subjects like Commission for Additional Sources of Energy, Integrated Rural Energy Programme, etc. are no longer applicable. Moreover, Large Hydro Power which has been categorized as Renewable Energy by the Government since 2019, is still under the jurisdiction of the Ministry of Power. Thus, there is a need to incorporate the emerging areas/subjects in the mandate of the Ministry to make it more relevant and contemporary.

The Ministry has furnished that there is no linkage between renewable capacity commissioned and budgetary allocation as most of the investment in solar energy comes from private sector and some CPSUs like NTPC Ltd., NHPC Ltd., SJVN Ltd., etc. Currently, the Ministry does not have any scheme/programme for Wind Energy, Small Hydro Power and Off-Grid & Decentralized Renewable Energy and allocated funds under these heads are utilized for clearing past liabilities only. The Committee expect the Ministry to play a more dynamic and pro-active role for holistic development of the Renewable Energy Sector in tandem with other concerned Ministries/ Departments/Organizations instead of being a mere fund disbursement agency.

Reply of the Government

(a) Allocation of Business Rules**:** It is informed that the Standing Committee on Energy (2021-22) on the Demand for Grants (2022-23) in its 24th Report (17th Lok Sabha) inter alia recommended that:

"there should be an overhauling of the central administrative entities dealing with electricity with creation of a set up which can bring generation

from all sources along with transmission and distribution under a single administrative Ministry for administrative convenience and also to harmonize the policy making for all matters relating to this Sector. The Ministry of New and Renewable Energy should take initiatives in this direction and apprise the Committee about the outcome." Accordingly, a Committee was constituted under the Chairmanship of Additional Secretary, MNRE to assess the adequacy of the provisions of the Allocation of Business Rules in light of the present scenario and future outlook of Renewable Energy. The Committee has proposed modification in the MNRE's allocation of Business rules according to present RE scenario. The modified draft Allocation of Business Rules has been circulated for Inter-Ministerial consultation with the approval of Hon'ble Minister. After the consultation, a proposal for modification of the Rules will be forwarded for approval of the Government.

(b) Utilization of Funds: Most of Grid-scale Power Projects are implemented by the private sector. Hence, there is no direct linkage between renewable capacity commissioned and budgetary allocation as most of the investment in solar energy comes from private sector and some CPSUs like NTPC Ltd., NHPC Ltd., SJVN Ltd., etc.

However, the Budget of the Ministry is used for providing CFA/Incentives under some of the schemes, details of these schemes are given in **Annexure**. All these schemes are helping in expansion of Renewable energy capacity in the country. Further, Green Energy Corridor scheme, which is for setting up of transmission lines and substations, directly contributes to creation of evacuation infrastructure for RE projects.

(c) Schemes of Small hydro power (SHP), off-grid solar and off-shore wind are at various stages of approval: Small Hydro Power - The proposed new SHP Scheme aims for a faster exploitation of the SHP potential across the Country. The draft CCEA Note was circulated for Inter-Ministerial Consultation (IMC) on 28.03.2023. A revised note, incorporating comments received and MNRE's response thereon, is under submission.

Off-grid Solar - An Off-grid Solar PV/Thermal and Decentralized Renewable Energy Livelihood Application Programme has been formulated and a concept note is under process for approval of Ministry of Finance and the same will be implemented after approval.

Offshore Wind Energy - Government of India had notified Offshore Wind Energy Policy in October 2015. Based on preliminary meso-scale study, the potential offshore wind zones of about 70 GW capacity identified off Gujarat and Tamil Nadu coast. Ministry has issued the strategy for development of offshore wind through 'Strategy Paper for Offshore Wind

Development' indicating various business models for offshore wind project development and auction trajectory of 37 GW capacity by 2030.

For sea bed leasing of initial 04 GW capacity off Tamil Nadu coast, draft tender document along with contractual agreements are under finalization after two rounds of stakeholder consultation. Ministry has formulated the Offshore Wind Energy Lease Rules, 2023 and has been sent to Ministry of External Affairs for notification.

DoE vide its OM dated 27.04.2023 conveyed its in-principle approval for a VGF scheme for setting up of 1 GW offshore wind capacity (500 MW off the coast of Gujarat and 500 MW off the coast of Tamil Nadu). An EFC note is under preparation.

(d) The suggestions of the Committee have been noted to work in tandem with other concerned ministries/departments/ organizations. However, the Ministry is already working in coordination with other concerned central Ministries/State Governments/other organisations for promotion of RE sources in the country:

Subject	Concerned Ministries
Regulatory Affairs	Ministry of Power;
Hydrogen	Ministry of Chemical and Fertilizers; Ministry of Steel; Ministry of Ports, Shipping and Waterways; Ministry of Petroleum and Natural Gas;
PM KUSUM	Ministry of Agriculture & Farmers' Welfare;
Bio Power	Ministry of Housing and Urban Affairs; Ministry of Petroleum and Natural Gas; Ministry of Water Resources, River Development and Ganga Rejuvenation; Ministry of Agriculture & Farmers' Welfare.

[Ministry of New and Renewable Energy
O.M. No. 372-12/8/2022-PU, Dated: 21/06/2023]

Recommendation No. 2

The Committee note that the Ministry had projected the budgetary requirement of Rs. 10422.54 crore for the financial year 2023-24 and Rs. 10222 crore has actually been allocated with an increase of about 45% against Revised Estimates of the last year. The Committee observe that about 72% budget of the Ministry is allocated for only two components i.e. Solar Power (Grid and Off-Grid) and KUSUM Scheme. About 11% of the budget has been allocated for Bio-Energy Programme, National Green Hydrogen Mission and Green Energy Corridor. About 14% of the budget has been allocated for

interest payment and clearing past liabilities related to wind and small hydro projects. The remaining about 3% of the Budget has been allocated for Establishment Expenditure, Autonomous Bodies and Support Programme including Research and Development. Although for 2023-24, the Ministry has been allocated more or less what it demanded with a negligible cut of only about 2% which is highest ever budgetary allocation for the Ministry till date. Since the Budgetary Estimates of the Ministry for 2023-24 has been considerably enhanced as compared to the previous years, the Committee recommend that the Ministry should increase its fund absorption capacity and focus on exhaustive utilization of the budgetary allocation.

Reply of the Government

The proposal for Budget of subsequent year is formulated during the months of September-October of the previous year. The divisions prepare these proposals on the basis of their requirement including pending liabilities and pending UCs. The consolidated umbrella wise proposal is posed to Ministry of Finance which allocates BE for the subject year according to fund availability and discussions with the concerned Ministry. During the year 2023-24, an amount of Rs. 10222 Crore has been allocated to the Ministry as BE. The umbrella wise details of Budget Estimates for 2023-24 and number of programmes covered under each umbrella are given below:

S. No.	Umbrella	Programme/Scheme covered under the Umbrella	BE 2023-24 (Rs in Cr.)
Scheme Components			
I	Solar Energy	1) CPSU+ Modhera 2) Solar Park 3) Defence/Indo Park 4) PMDAP Ladhak 5) RPSSGP & Demo GBI 6) VGF 7) Roof Top(GCRT) 8) Solar Power (off Grid) 9) KUSUM 10) Interest payment and issuing Expenses on the Bond	7452.31
II	Bio Energy Programme	1) Bio Power 2) Waste to Energy 3) Biogas Programme	381.85
III	Programme for Wind and other	1) Wind Power 2) Hydro Power	1245.00

	Renewable Energy		
IV	Supporting Programmes	1) Monitoring/Evaluation and other Studies 2) Information and Public Advertising(I&PA) 3) Human Resource Development and Training 4) International Relations 5) ISA Cooperation 6) Research and Development	226.65
V	Hydrogen Mission	National Green Hydrogen Mission	297.00
VI	Storage and Transmission	Green Energy Corridor	500.00
Sub Total			**10102.81**
Non Scheme Components			
VII	Autonomous Bodies	Institute	54.00
VIII	Secretariat Economic Services	Administrative Expenses	65.19
Sub Total			**119.19**
Total			**10222.00**

a) The major ongoing programmes/schemes of the Ministry are CPSU, Solar park, Roof Top, PM-KUSUM, Bio-Energy programme, R&D, Human Resources Development, National Green Hydrogen Mission, Green Energy Corridor Scheme, etc. These major programmes have been allocated maximum budget which will be utilized during the year.

b) Further, programmes such as off-grid solar power, small hydro power, offshore wind power, etc. are under various stages of approval.

As per above position stated, Ministry will be able to utilize the allocated BE to the fullest extent during the current year. However, the Ministry has noted the suggestions of the Committee to increase its fund absorption capacity. The following steps have also been taken by MNRE to increase its fund absorption capacity:-

- New programmes of Bio-Energy, Green Energy Corridor Phase-II, National Green Hydrogen Mission, PLI have been launched and are being implemented.
- All PDs have been asked to work proactively with States/SNAs to ensure that bills are raised by them timely.

- A Special Cell has been made to ensure increase in expenditure for North East states.
- Weekly meetings are held at apex level to ensure funds are released in time.
- As and when need for amendment in the schemes to ensure smooth execution of scheme is observed, it is being carried out as per prescribed procedure.

[Ministry of New and Renewable Energy
O.M. No. 372-12/8/2022-PU, Dated: 21/06/2023]

Recommendation No. 3

The Committee note that a total renewable energy capacity of 120.90 GW has been installed in the Country as on 31st December, 2022 which is about 69% of the overall target of 175 GW. Keeping in view the fact that renewable energy installed capacity has increased by more than 236% since 2014; this is indeed a commendable achievement. However, it should also be mentioned that whatever shortfall has occurred in achievement of the target that is because of low installation of Solar Roof-tops and Wind Energy Projects. Keeping in view India's commitment to increase our non-fossil fuel based energy capacity to 500 GW by the year 2030, the Committee expect the Ministry to ramp up its pace for timely achievement of targets. The Ministry should also monitor implementation of the projects and ensure adherence to prescribed timeline for their commissioning so that renewable energy projects do not get unduly delayed.

Reply of the Government

In line with Hon'ble Prime Minister's announcement at COP-26, the Ministry of New and Renewable Energy is working towards achieving 500GW of installed electricity capacity from non-fossil sources by 2030. So far, a total of 180.39 GW capacity from non-fossil fuel based energy resources has been installed in the country as on 31.05.2023, which includes 173.61 GW Renewable Energy and 6.78 GW Nuclear Power. Further, towards achievement of 500 GW of installed electricity capacity from non-fossil sources by 2030, MNRE announced on March 31, 2023, a Bidding Trajectory for Renewable Power Projects as follows:

- Bids for RE capacity of 50 GW per annum, with at least 10 GW per annum of Wind Energy capacity, will be issued each year from Financial Year (FY) 2023-24 to FY 2027-28.

The declaration of trajectory of short-term and long-term RE capacity by the Government is a significant step towards achieving the goal of 500 GW of non-fossil fuel capacity by 2030 and towards a faster energy transition. The

structured bidding trajectory shall provide sufficient time to the RE developers to plan their finances, develop their business plans and manage the supply chain more efficiently. It shall also enable the power procurers, including the distribution companies, to manage their RE procurement plans effectively. The trajectory shall also provide a fillip to the RE manufacturing industry in the country by indicating the demand that would be created for their equipment.

Wind Energy: MNRE is regularly monitoring the progress of under implementation wind power projects. The wind power projects of 2.27 GW capacity were installed during the FY 2022-23, which is almost twice as compared to the capacity installed in FY 2021-22.

Solar Rooftop: a) Ministry has specified timeline of 15 days for issuance of technical feasibility by the DISCOMs and is having regular meetings with DISCOMs for strict adherence to the timelines specified by the Ministry.

b) The Ministry has also made provisions on the National Portal so that the reasons for rejection of the application on National Portal are to be mandatorily mentioned by the concerned DISCOM.

c) MNRE is providing incentives to DISCOMs for installation of rooftop solar projects in their area. So far, cumulative incentive amount of ₹ 748 Cr for cumulative RTS capacity addition of 2963.193 MW has been approved under the Programme.

[Ministry of New and Renewable Energy
O.M. No. 372-12/8/2022-PU, Dated: 21/06/2023]

Recommendation No. 4

The Committee note that against the overall target of 40 GW, only 7.40 GW of rooftop solar projects have been installed in the Country. This Committee have been flagging the issues responsible for deficient performance under Solar Roof-top Programme like non-availability of information at the grass root level, lack of awareness about this scheme amongst the masses, apathy of Discoms, time consuming and complicated procedures for setting it up, delays in disbursement of subsidy, inconsistent policy framework at the State level, absence of non-recourse financing, etc. The Ministry has submitted before this Committee that in order to make the process simple, a National Portal has been developed wherein any residential consumer from any part of the Country can apply for installation of Solar Roof-top and all the processes starting from registration of application till the release of subsidy can be tracked online. The Committee observe that as on 27.02.2023, 43171 number of applications are received on National Portal, of which 18437 applications have been approved by DISCOMs, 3031 applications have been rejected on technical grounds and approval is pending for 21703

applications. The Committee feel that even with the National Portal, Discoms are still the focal point for this programme and their role can not be wished away as the subsidy is released only after technical feasibility approval, installation of net-meter and inspection of the system by the Discoms. The Committee, therefore recommend that:

i) A strict timeline should be imposed for approvals/rejection of applications, installation of net-meter, inspection of the system, etc. by the Discoms. Reasons should mandatorily be provided by the Discoms in case of rejection of Application on the National Portal.

ii) Discoms may be incentivized so that their apprehensions regarding losing their high paying consumers because of installation of Solar Roof-tops are addressed and they positively participate in the Programme.

Reply of the Government

The installation of rooftop solar (RTS) has increased from around 1 GW cumulative RTS installations in March 2018 to 8.4 GW in April 2023. Extensive efforts have been made regarding IEC at grassroot level and increase awareness levels and to that end, states have been allocated to Central PSUs to run awareness campaigns through print and electronic media for promoting rooftop solar. To bring DISCOMs on board as key partners for RTS installation, MNRE is providing incentives for installation and so far, cumulative incentive amount of Rs 748 Crores for cumulative RTS capacity addition of 2963 MW has been approved under the program. Regular reviews and monitoring of DISCOM progress are undertaken and a national level review of their performances was undertaken by the Ministry on 23.05.2023. Procedures for claiming of subsidy and applying for rooftop have been simplified and the National Portal has streamlined the processes to a large extent. Subsidy value support has also been standardized and DISCOMs are being constantly aligned to simplify their internal processes, including inter alia, ease of change of name, change of load, net metering applications etc. To speed up disbursement of subsidy, the national portal provides for quick transmission of subsidy applications through the approval process. For subsidies claimed under state tenders, the Ministry issues advance amounts/CFA to states at the stage of grant of Letter of Award by DISCOMs so that subsidy claims can be processed without delay in these cases by the respective DISCOM. The policy environment for RTS has been strengthened by inclusion of definition of “prosumers” in the Electricity (Rights of Consumers) Rules, 2020 and detailed provisions regarding the responsibilities of distribution licensee vis-a-vis prosumer.

[Ministry of New and Renewable Energy
O.M. No. 372-12/8/2022-PU, Dated: 21/06/2023]

Comments of the Committee
(Please see Para No. 8 of Chapter – I of the Report)

Recommendation No. 5

The Committee note that PM-KUSUM Scheme was launched in March, 2019 to provide financial support to the farmers for installation of standalone solar pumps, solarization of existing grid-connected agriculture pumps and also to provide the farmers an opportunity to become solar entrepreneurs by installing solar power plants on their barren/fallow agriculture land. The Committee observe that targets under different components of the Scheme could not be achieved. The Ministry has stated that the reasons for slow progress under the scheme are increase in prices of solar panels due to imposition of Basic Custom Duty (BCD) and increase in Goods and Services Tax (GST) from 5% to 12%; low demand from the States, non-availability of farmers' share of funds, etc. It has also been furnished that under Component-A, for a solar plant of 1 MW, investment of Rs. 4-4.5 crore is required as there is no subsidy and these projects are purely based on commercial viability. Since the timeline for implementation of the Scheme has been extended till 31.03.2026, the Committee recommend that:

i) In order to achieve the target under Component-A, the Ministry needs to make some positive interventions in the form of subsidy, etc.

ii) The Ministry should coordinate and hold consultations with the State Governments in order to make them prioritize the Scheme in the interest of the farmers particularly small and marginal farmers.

iii) It should also be ensured that there is no demand-supply gap in making available the required number of solar pumps for the farmers.

Reply of the Government

The Ministry has noted the recommendations made by the Committee for compliance and efforts are underway to implement the same. Further, to make PM KUSUM more accessible to farmers and to achieve targets set under the scheme, following actions are being taken:

(i) Component A, of the scheme operates in commercial mode where a performance-based incentive is provided to the DISCOMs. In this regard, MNRE is coordinating with State Electricity Regulatory Commissions to revise the tariff from time to time, and banks to provide viable financial options to farmers. In addition, the Ministry is in active conversation with Ministry of Agriculture and Farmers Welfare to include Component A of the scheme under Agriculture Infrastructure Fund (AIF). This will further enable

the access of easy and affordable finance to small and marginal farmers to install solar plants up to 2MW under Component A of the scheme.

(ii) The Ministry regularly holds consultation meetings with state governments and state implementing agencies at various levels. National workshops are being organized on quarterly basis where best practices and good implementation models are showcased providing forum for exchange of ideas among stakeholders and to facilitate peer-to-peer learning. In addition, Ministry also holds weekly and biweekly meetings with state implementing agencies to ease out the implementing process and address bottlenecks if any. To create robust awareness about the scheme, the Ministry is conducting comprehensive awareness campaigns through CPSU in all states where so far more than 80,000 banners and hoardings are installed about information related to PM KUSUM.

(iii) PM KUSUM is a demand-based scheme and State Government/ State Implementing Agencies had raised the demands which are allocated to them. The progress is revised at regular interval and the capacities are reallocated if there is no progress or unsatisfactory progress. All efforts are made to ensure that there is not demand-supply gap in making available the requisite number of solar pumps.

[Ministry of New and Renewable Energy
O.M. No. 372-12/8/2022-PU, Dated: 21/06/2023]

Comments of the Committee
(Please see Para No. 11 of Chapter – I of the Report)

Recommendation No. 6

The Committee note that small hydro power programme was discontinued w.e.f. 31st March, 2017 and since then, the budget allocations have been used to clear old liabilities only. The Ministry has submitted before the Committee that it has been trying to come up with a new programme for small hydro power since 2017 but the same could not materialize for one or the other reasons. The Committee have been apprised that Note for the Cabinet Committee on Economic Affairs (CCEA) regarding Small Hydro Programme is under preparation. The Committee, therefore recommend that the Ministry should critically review its performance under the previous small hydro power programme and ensure that the factors which hindered the implementation of the programme are properly addressed in the new scheme.

Reply of the Government

The observations/recommendations of the Committee have been duly noted. The proposed new SHP Scheme aims for a faster exploitation of the SHP potential across the Country. The draft CCEA Note was circulated for Inter-Ministerial Consultation (IMC) on 28.03.2023. A revised Note, after incorporating the response of MNRE on the comments received from various Ministries/Departments, is under submission.

[Ministry of New and Renewable Energy
O.M. No. 372-12/8/2022-PU, Dated: 21/06/2023]

Comments of the Committee

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

Recommendation No. 7

The Committee note that the Intra-State GEC project was started in 2015 with total target of 9767 ckm transmission lines and 22689 MVA sub-stations. Phase-I of Intra-State GEC which is being implemented by the State Transmission Utilities (STUs) of 8 States has been delayed and given multiple extensions. The Committee observe that a total of 8759 ckm of transmission lines have been constructed and a total of 19868 MVA substations have been charged as on 31st December, 2022. The Ministry has submitted that all the projects have been completed in Rajasthan, Tamil Nadu and Madhya Pradesh and the remaining five states viz. Andhra Pradesh, Gujarat, Himachal Pradesh, Karnataka and Maharashtra have requested for further extension up to June 2023. Since 8 years have lapsed since the start of the Project, the Committee hope that this will be the last extension and this Project will finally be completed by June, 2023. It has also been submitted that Phase–II of Intra-State GEC is being implemented by State Transmission Utilities of 7 States (Gujarat, Himachal Pradesh, Karnataka, Kerala, Rajasthan, Tamil Nadu and Uttar Pradesh) for addition of 10753 ckm of transmission lines and 27546 MVA of substations and it is scheduled to be completed by FY 2025-26. In order to ensure that Phase-II of Intra-State GEC does not get delayed like the Phase-I, the Committee recommend that the Ministry should take into account the reasons for delayed implementation of Phase-I and proactively persuade the concerned States from the start in order to ensure timely completion of Phase-II of Intra-State Green Energy Corridor.

Reply of the Government

The recommendations of the Committee have been noted. Out of 8 states under GEC Phase-I, 4 states have completed all their projects (viz. Karnataka,

Madhya Pradesh, Rajasthan and Tamil Nadu. The projects in the remaining 4 states have been delayed mainly due to land acquisition, Right of Way (RoW) issues and forest clearances. The last extension given by the Ministry was up to March 2023. However, due to pending issues mentioned above, the states have requested further extension up to December 2023. With respect to GEC Phase-II, the Ministry is continuously following it up with the states to ensure timely completion of the projects. Considering the challenges in GEC Phase-I, the scheme guidelines under GEC Phase-II have been framed, which states that the first instalment of Central Financial Assistance (CFA) for a particular project will be subject to the following conditions:

i) Work is tendered and awarded to the contractor;

ii) For Transmission Lines: all statutory clearances (like crop compensation, forest clearances etc.) are available for a contiguous line length which is at least 80% of the total line length;

iii) For Sub-stations: 100% land required should be acquired by the state implementing agency.

Further, the scheme guidelines clearly state that all the packages must be tendered and awarded to the contractors by the STUs within a period of two years, i.e. by 31st December 2023.

[Ministry of New and Renewable Energy
O.M. No. 372-12/8/2022-PU, Dated: 21/06/2023]

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

Recommendation No. 8

The Committee note the National Green Hydrogen Mission has been approved with an outlay of Rs. 19744 crore and an amount of Rs. 297 crore has been allocated for this Mission for financial year 2023-24. The Mission aims to make India a global hub for production, utilization and export of Green Hydrogen and its derivatives. It will help India in becoming energy independent and in decarbonisation of major sectors of the economy thereby eventually facilitating the Country to meet the target of Net-Zero by 2070. The Committee appreciate the fact that this Mission is expected to help bring in over Rs. 8 lakh crore in investments, import savings of Rs. 1 lakh crore, creation of 6 lakh jobs, annual aversion of 50 MMT CO2 emission, etc. The Committee have been apprised that current cost of production of green hydrogen is quite high, so the challenge is that the proposed green hydrogen hubs should be located at a place which is renewable energy rich, water resource rich, close to demand centres in order for them to be economically viable. While applauding the Government for taking a plunge into an area

which is quite nascent the world over, the Committee recommend that the Ministry should focus on appropriate advance planning for development of electrolyser manufacturing capacity along with indigenisation of higher value components in the Country and research & development in the Sector. Further, solution needs to be found to cater to the additional demand of water for this Mission.

Reply of the Government

The suggestions of the Committee have been noted.

Measures to support electrolyser manufacturing: The recently launched National Green Hydrogen Mission aims to position India as a leader in the global clean energy transition by creating a globally competitive Green Hydrogen ecosystem in India, including the indigenous manufacturing of electrolysers. This will create new job opportunities in the renewable energy sector and support India's economic growth. The following specific measures are envisaged under the Mission to support large scale manufacturing of electrolysers in India to ensure fulfillment of the expected demand:

i) Strategic Interventions for Green Hydrogen Transition (SIGHT) programme is a major component of the National Green Hydrogen Mission. It is envisaged as a comprehensive incentive programme to facilitate growth of Green Hydrogen industry value chain in the country. At the initial stage, two distinct financial incentive mechanisms, targeted at support for domestic manufacturing of electrolysers, and production of green hydrogen are proposed. The approved outlay for the SIGHT programme is ₹ 17,490 crore up to 2029-30. It is expected that the incentive will make indigenous electrolysers competitive with global products and ensure availability of domestic supply chain to support our ambitious production and export goals. The beneficiaries for the incentives will be selected through a competitive process which will encourage greater share of local value addition.

ii) The Mission will also support targeted Research & Development for development and indigenization of electrolyser technologies and critical components. The approved outlay for the R&D programme is ₹ 400 crore up to 2026-26.

Water requirement: For production of 1 kg of green hydrogen via electrolysis, around 10 litres of treated water is needed. Accordingly, the water requirement for 5 MMT Green Hydrogen production per annum is estimated at around 50 Million Cubic Meter (MCM) per annum. The treated water required for hydrogen production can also be sourced by desalinating seawater or treating wastewater, with only a marginal impact on the cost of hydrogen production. Under the Mission, sustainable use of water will be encouraged. R&D will also be supported for technologies that can utilize

seawater or waste water directly, thereby reducing the need for treatment and further decreasing the water requirement.

[Ministry of New and Renewable Energy
O.M. No. 372-12/8/2022-PU, Dated: 21/06/2023]

Recommendation No. 9

During the financial years 2019-20, 2020-21, 2021-22 and 2022-23, against the Revised Estimates of Rs. 375 crore, Rs. 335 crore, Rs. 499 crore and Rs. 670 crore for North-East Region, expenditure of Rs. 128.09 crore, Rs. 104.04 crore, Rs. 65.18 crore and Rs. 13 crore (upto February 2023) respectively have been incurred. It has been submitted that the shortfall in utilization of allocated funds was due to low solar insolation, low wind power density, high tariff, non-receipt of adequate proposals from the North-East States, etc. The Committee observe that under Solar Park Scheme, 6 Solar Parks were supposed to be developed in 6 States namely Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram and Nagaland. However due to various reasons, all the parks except one park in Mizoram have been cancelled. It is observed that the North-Eastern States are interested in off-grid and decentralized schemes of the Ministry and the Region has substantial potential for small hydro power; however, presently, there is no scheme/programme of the Ministry for solar off-Grid and small hydro power. The Committee have been apprised that the Bio Energy Programme has been launched for implementation upto 2025-26. Hoping that the Ministry will receive proposals from North-East States under Bio Energy Programme, it is expected to give due priority to the requirements of these States under Bio Energy Programme and launch the new Schemes/Programmes for Off-grid & Decentralized Solar PV Applications and Small Hydro Power at the earliest.

Reply of the Government

Under PM-KUSUM Scheme and Rooftop Solar Programme Ph-II, the Ministry is providing higher CFA for North Eastern Region (NER). In case of PM-Kusum Scheme for solarisation of agricultural pumps, both diesel and existing grid connected pumps, higher CFA upto 50% of the benchmark cost is being provided as against CFA upto 30% of the benchmark cost in general category States. In case of Rooftop Solar Programme, CFA for residential sector in NER is 21% higher than general category States. As the schemes are demand driven, efforts are being made to create awareness among the general public and farmers of the NER to come forward and take benefit of these schemes. The scheme for small hydro projects is under process of approval and will be implemented on approval by the Cabinet. Similarly, an Off-grid Solar PV/Thermal and Decentralized Renewable Energy Livelihood

Application Programme has been formulated and a concept note is under process for approval of Ministry of Finance and the same will be implemented in NER after approval. Ministry will take all necessary efforts in maximizing the expenditure in the NER States against the budget allocated for NER.

[Ministry of New and Renewable Energy
O.M. No. 372-12/8/2022-PU, Dated: 21/06/2023]

Recommendation No. 10

The Committee note that in 2019-20, BE of Rs. 60 crore was reduced to Rs. 15 crore at RE stage; in 2020-21, BE of Rs. 20 crore was increased to Rs. 49 crore; in 2021-22, BE of Rs 75 crore was reduced to Rs. 27 crore and in 2022-23, BE of Rs. 35 crore was increased to Rs. 45 crore. It is found that during the years when allocation was increased at the time of RE i.e. 2020-21 and 2022-23, the Ministry could not fully spend the allocated amount. The Ministry has submitted that 17 number of Research and Development Projects are under implementation for the last three years and the major research institutions/universities which collaborated in these projects include IIT Bombay, IIT Roorkee, IISc Bangalore, NISE, NIWE, NIBE, CSIR-National Physical Laboratory, International Advanced Research Centre for Powder Metallurgy and New Materials (ARCI) and PSUs like BHEL & NTPC Limited. The Committee desire that the Ministry should collaborate with and provide funds to more universities and specialized research institutions in order to support them for research in renewable energy. Moreover, the Ministry should focus on devising a workable solution for management and recycling of solar waste, particularly PV Cells that is going to grow exponentially in the near future. In general, the Committee recommend a holistic recycling policy for both Solar Cells and Wind Turbines, which would help in sustainable development of the Renewable Energy Sector.

Reply of the Government

The recommendations of the Committee have been noted. The Renewable Energy Research and Technology Development (RE-RTD) Programme has been continued for a period 2021-22 to 2025-26 with a total budget of Rs. 228.00 crore. The programme aims to increase R&D efforts for "Renewable Energy Research and Technology Development" in order to promote indigenous technology development and manufacturing for widespread applications of new and renewable energy in an efficient and cost-effective manner across the country. Research and development projects typically last for three to four years, and the associated work is ongoing. After reaching the

defined milestones and conducting a thorough assessment of the ongoing projects, the funds are released.

During 2020-21, BE of Rs. 20.00 crore was increased to Rs. 49.00 crore at RE stage against which the actual expenditure was Rs. 36.57 crore. The balance Rs. 12.43 crore could not be released due to some technical difficulties in operation in EAT module by the implementing organization. During 2022-23, a budgetary allocation of Rs. 45.00 crore was made at RE stage, out of which Rs. 40.39 crore has been utilized. The balance fund could not be utilized due to some technical issues. During 2023-24, a budgetary allocation of Rs 70 Crore has been made.

During 2022-23, two Centers of Excellence have been sanctioned and continued for Solar PV at IIT Bombay and for small hydro at IIT Roorkee. Most of the R&D projects are being implemented through the premier research institutions. The Ministry has received various research and development proposals from universities and specialized research institutions through a 'Call for Proposal' as per the current thrust areas including for recycling of PV modules which are under evaluation.

For sustainable development of the Renewable Energy Sector, the Ministry of Environment, Forest and Climate Change has notified the E-Waste (Management) Rules, 2022, which includes the management of solar PV modules, solar cells. For the major constituents of wind turbines, i.e., steel and FRP, the CPCB's guidelines for disposal are available. The Ministry has also identified Solar PV Recycling as one of the priority area under the R & D Scheme. Some proposals have been developed on recycling of Solar PV Modules under the R & D scheme which are under consideration for pilot level demonstration. The National Institute of Solar Energy is also working to suggest the appropriate solutions for handling of the PV module waste, including with appropriate technology mechanism.

[Ministry of New and Renewable Energy
O.M. No. 372-12/8/2022-PU, Dated: 21/06/2023]

Recommendation No. 11

The National Institute of Bio Energy is a specialized institution under administrative control of the Ministry of New and Renewable Energy. Since high level of Pollution is a recurring problem in the Country especially in North India, the Committee feel that National Institute specifically established for research in the field of Bio Energy and situated in Punjab is naturally expected to do research on the subject and come out with a solution, as it will also promote circular economy in the agricultural waste. The Committee, therefore recommend that the National Institute of Bio Energy should focus on developing a practical and sustainable solution for

the problem of pollution arising out of stubble burning. If required, the Ministry may provide requisite funds to the Institute for this purpose from its R&D Head.

Reply of the Government

The recommendations of the Committee have been noted. SSS-NIBE is working on development of technologies for sustainable use of agricultural waste, aimed at prevention of stubble burning and associated air pollution in North India. In this context it has undertaken the following R&D activities:

i) NIBE has developed the technology of conversion of paddy stubble/straw into bioethanol and biogas/CBG. Towards these two pilot plants are being setup in the state of Punjab in FY 2023-24, one each for bioethanol and biogas/CBG.

ii) NIBE is developing the technology of converting any organic waste including paddy straw, liquid effluent to Hydrogen + biogas. Similarly, research is underway on biorefinery concept to extract value added products such as vanillin along with bioethanol and biogas.

iii) NIBE is working on fuel efficient biomass cook stoves/combustors for heat application at domestic, institution, semi-industrial level. These devices are designed to operate on straw pellets/briquettes and other types of biomass. NIBE is undertaking a program of demonstration of these devices at selected sites in Punjab

iv) Similarly, it is working on development of an advanced tool for forecasting of agro-residue (including paddy straw) availability on yearly basis for the entire country. This tool would serve as a data base and guidance for optimum utilization of biomass.

v) NIBE is also researching on emerging topics such as deriving torrefied biomass, biochar, activated carbon, graphene from agricultural waste.

vi) Advanced testing centre (with NABL accreditation) for biomass characterization and biogas testing is being setup at the institute to facilitate industries.

MNRE has already sanctioned necessary funds towards these R&D activities.

[Ministry of New and Renewable Energy
O.M. No. 372-12/8/2022-PU, Dated: 21/06/2023]

CHAPTER – III

Observations/Recommendations 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

Nil

CHAPTER – V

Observations/Recommendations in respect of which the final Replies of the Government are still awaited

Nil

New Delhi;
December 14, 2023
Agrahayana 23, 1945 (Saka)

Jagdambika Pal,
Chairperson,
Standing Committee on Energy

ANNEXURE - I

Incentives being provided as Central Financial Assistance (CFA) for the implementation of major Renewable Energy Schemes/Programmes

Scheme/Programmes	Incentive presently eligible as per the Scheme
Grid Connected Rooftop Solar PV Power Projects	**(i) For Residential Sector** • Central Financial Assistance (CFA) up to 40% for capacity up to 3 kWp • CFA up to 20% for capacity beyond 3 kWp and up to 10 kWp • CFA up to 20% for GHS/RWA capacity up to 500 kWp (limited to 10 kWp per house and total upto 500 kWp) **(ii) For Discoms** Incentives up to 10% of project cost depending upon achievements in capacity addition above baseline. Vide its OM dated 27.01.2023, Ministry has fixed the CFA for the entire country. The revised CFA rates would be applicable on all future bids and the bids which are scheduled to be closed after 15 days of issuance of this OM. The revised rates are as follows: **For general category States/UTs:** i) Individual Household - For first 3 kW: Rs. 14588/ kW and for RTS capacity beyond 3 kW and upto 10 kW: Rs. 7294/kW. ii) Resident Welfare Associations/Group Housing Societies (RWA/GHS) - Rs. 7294/kW for common facilities up to 500 kWp @ 10 kWp per house. **For special category States/UTs:** i) Individual Household - For first 3 kW: Rs. 17662/ kW and for RTS capacity beyond 3 kW and upto 10 kW: Rs. 8831/kW. ii) Resident Welfare Associations/Group Housing Societies (RWA/GHS) - Rs. 8831/kW for common facilities up to 500 kWp @ 10 kWp per house.
Central Public Sector Undertaking (CPSU) Scheme Phase-II (Government Producer Scheme) for grid-connected Solar Photovoltaic (PV) Power Projects by the Government Producers	Viability Gap Funding (VGF) support up to Rs 55 lakhs per MW to the CPSUs/Government Organizations entities selected through competitive bidding process.
PLI Scheme 'National Programme on High Efficiency Solar PV Modules'	The beneficiaries are eligible for Production Linked Incentive (PLI) on production and sale of solar PV modules. The quantum of PLI eligible for disbursal depends upon: (i) quantum of sales of solar PV modules; (ii) performance parameters (efficiency and temperature coefficient of maximum power) of solar PV

Scheme/Programmes	Incentive presently eligible as per the Scheme
	modules sold; and (iii) percentage of local value addition in modules sold.
Solar Park Scheme	Up to 25 lakhs per Solar park, for preparation of Detailed Project Report (DPR). 20 Lakh per MW or 30% of the project cost, whichever is lower, for development of infrastructure.
PM-KUSUM scheme	**Component A**: Setting up of 10,000 MW of Decentralized Ground/Stilt Mounted Solar Power Plants Benefit available: Procurement Based Incentive (PBI) to the DISCOMs @ 40 paise/kWh or Rs. 6.60 lakhs/MW/year, whichever is lower, for buying solar power under this scheme. The PBI is given to the DISCOMs for a period of five years from the Commercial Operation Date of the plant. Therefore, the total PBI that payable to DISCOMs is upto Rs. 33 Lakh per MW. **Component B**: Installation of 20.00 Lakh Stand-alone Solar Pumps Benefit available: CFA of 30% of the benchmark cost or the tender cost, whichever is lower, of the stand-alone solar agriculture pump is provided. However, in North Eastern States, Sikkim, Jammu & Kashmir, Ladakh, Himachal Pradesh and Uttarakhand, Lakshadweep and A&N Islands, CFA of 50% of the benchmark cost or the tender cost, whichever is lower, of the stand-alone solar pump is provided. **Component C:** Solarisation of 15 Lakh Grid Connected Agriculture Pumps including through feeder level solarisation Benefit available: (a) Individual Pump Solarization: CFA of 30% of the benchmark cost or the tender cost, whichever is lower, of the solar PV component will be provided. However, in North Eastern States, Sikkim, Jammu & Kashmir, Ladakh, Himachal Pradesh and Uttarakhand, Lakshadweep and A&N Islands, CFA of 50% of the benchmark cost or the tender cost, whichever is lower, of the solar PV component is provided. (b) Feeder Level Solarization: Agriculture feeders can be solarized by the State Government in CAPEX or RESCO mode with CFA of Rs. 1.05 Crore per MW available from MNRE. However in North Eastern States, Sikkim, Jammu & Kashmir, Ladakh, Himachal Pradesh, Uttarkhand, Lakshadweep and Andaman & Nicobar Island, CFA of Rs. 1.75 crore per MW is available.
Green Energy Corridor Scheme (for development of intra-	GEC Phase-I: CFA of 40 % of DPR cost or awarded cost whichever is lower. GEC Phase-II: CFA of 33 % of DPR cost or awarded cost

Scheme/Programmes	Incentive presently eligible as per the Scheme
state transmission system for RE projects)	whichever is lower.
Biomass Programme	(a) For Briquette/Pellet manufacturing plants: Rs. 9.00 Lakhs/ MTPH (Maximum CFA- Rs. 45.00 Lakh per project) (b) For Non-Bagasse Cogeneration Projects: Rs. 40 Lakhs/ Megawatt (Maximum CFA- Rs. 5.00 Crore per project)
Waste to Energy Programme	(a) for Biogas generation: Rs 0.25 crore per 12000 cum/day (Maximum CFA- Rs.5.00 crore/project) (b) for BioCNG/Enriched Biogas/Compressed Biogas generation: (Maximum CFA- Rs.10 crore/project) (i) BioCNG generation from new Biogas plant- Rs 4.0 Crore per 4800 Kg/day; (ii) BioCNG generation from existing Biogas plant- Rs 3.0 Crore per 4800 Kg/day; (c) for Power generation based on Biogas (Maximum CFA- Rs. 5.00 crore/project):- (i) Power generation from new biogas plant: Rs 0.75 Crore per MW (ii) Power generation from existing biogas plant: Rs 0.5 crore / MW (d) for Power generation based on bio & agro-industrial waste (other than MSW through incineration process):- Rs. 0.40 crore/MW (Maximum CFA - Rs.5.00 Crore/Project) (e) for Biomass Gasifier for electricity/ thermal applications: (i) Rs. 2,500 per kW_e with duel fuel engines for electrical application (ii) Rs. 15,000 per kW_e with 100% gas engines for electrical application (iii) Rs. 2 lakh per 300 kW_{th} for thermal applications. Note: • In case, the Waste to Energy plants are set up in Special Category States (NE Region, Sikkim, Himachal Pradesh and Uttarakhand), Jammu & Kashmir, Ladakh, Lakshadweep and Andaman & Nicobar Islands, the eligible CFA would be 20% higher than Standard CFA pattern given above. • Biogas/BioCNG/Power (biogas based) generation plants based on cattle dung as main feedstock set up by Gaushalas independently or through joint ventures/partnerships will be eligible for 20% higher CFA than Standard CFA pattern given above. These Gaushalas (Shelters) should be registered with the respective State Government.
Biogas Programme	a) Rs. 9800/- to Rs. 70,400/- per plant based on size of the plant in cubic meter for small biogas plants (1-25 cubic meter/day

Scheme/Programmes	Incentive presently eligible as per the Scheme
	plant capacity); b) Rs. 35,000/- to Rs. 45,000/- per kilowatt for power generation and Rs. 17,500/- to Rs. 22,500/- per kilowatt equivalent for thermal applications (25 - 2500 cubic meter/day plant capacity). The eligible CFA would be 20% higher than Standard CFA in for NER, Island, Registered Gaushalas and SC/ST beneficiaries.
R&D Programme	The Ministry encourages research and technology development proposals in collaboration with the industry and provides upto 100% financial support to Government/non-profit research organizations and upto 50-70% to Industry, Start-ups, Private Institutes, Entrepreneurs and Manufacturing units.

APPENDIX - I

STANDING COMMITTEE ON ENERGY

MINUTES OF EIGHTH SITTING OF THE STANDING COMMITTEE ON ENERGY (2023-24) HELD ON 14th DECEMBER, 2023 IN COMMITTEE ROOM-3, PARLIAMENT HOUSE ANNEXE EXTENSION, NEW DELHI

The Committee sat from 1500 hours to 1530 hours

PRESENT

Shri Jagdambika Pal - Chairperson

MEMBERS - LOK SABHA

2. Shri Chandra Sekhar Bellana
3. Shri Pradeep Kumar Chaudhary
4. Dr. A. Chellakumar
5. Shri Kishan Kapoor
6. Shri Sunil Kumar Mondal
7. Shri Jai Prakash
8. Shri Rajveer Singh (Raju Bhaiya)
9. Shri Shivkumar Chanabasappa Udasi

MEMBERS - RAJYA SABHA

10. Shri Rajendra Gehlot
11. Shri Narain Dass Gupta
12. Shri Javed Ali Khan
13. Shri Muzibulla Khan
14. Shri Maharaja Sanajaoba Leishemba
15. Shri Krishan Lal Panwar
16. Dr. Sudhanshu Trivedi
17. Shti K.T.S. Tulsi

SECRETARIAT

1.	Shri Ramkumar Suryanarayanan	Joint Secretary
2.	Shri Kulmohan Singh Arora	Additional Director
3.	Shri S. Lakshmikanta Singh	Deputy Secretary

2. At the outset, the Chairperson welcomed the Members of the Committee and apprised them about the agenda of the sitting. The Committee then took up for consideration and adoption the following draft Reports:

(i) Report on action taken by the Government on observations/ recommendations contained in 34th Report (17th Lok Sabha) on Demands for Grants (2023-24) of the Ministry of New and Renewable Energy.

(ii) Report on action taken by the Government on observations/ recommendations contained in 35th Report (17th Lok Sabha) on Demands for Grants (2023-24) of the Ministry of Power.

(iii) Report on the subject 'Bio-Energy and Waste to Energy - Recovery of Energy from Urban, Industrial and Agricultural Wastes/ Residues and role of Urban Local Bodies in Energy Management'.

3. After discussing the contents of the Reports in detail, the Committee adopted the draft Report on 'Action taken by the Government on observations/recommendations contained in 34th Report (17th Lok Sabha) on Demands for Grants (2023-24) of the Ministry of New and Renewable Energy and draft Report on 'Action taken by the Government on observations/ recommendations contained in 35th Report (17th Lok Sabha) on Demands for Grants (2023-24) of the Ministry of Power without any amendment/ modification. The draft Report on the subject 'Bio-Energy and Waste to Energy - Recovery of Energy from Urban, Industrial and Agricultural Wastes/ Residues and role of Urban Local Bodies in Energy Management' was adopted with minor modifications/amendments.

4. The Committee authorized the Chairperson to finalize the above-mentioned Reports and present the same to both Houses of the Parliament during the current session.

The Committee then adjourned.

APPENDIX - II

(*Vide Introduction of the Report*)

Analysis of action-taken by the Government on Observations/ Recommendations contained in the Thirty-Fourth Report (17th Lok Sabha) of the Standing Committee on Energy

(i)	Total number of Recommendations	11
(ii)	Observations/Recommendations which have been accepted by the Government: Sl. Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and 11	
	Total:	11
	Percentage:	100 %
(iii)	Observations/Recommendations which the Committee do not desire to pursue in view of the Government's replies: Sl. No. Nil	
	Total:	Nil
	Percentage:	00
(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. Nil	
	Total:	Nil
	Percentage:	00
(v)	Observations/Recommendations in respect of which final replies of the Government are still awaited: Sl. No. Nil	
	Total:	Nil
	Percentage:	00