5

STANDING COMMITTEE ON ENERGY

(2024-25)

EIGHTEENTH LOK SABHA

MINISTRY OF NEW AND RENEWABLE ENERGY

DEMANDS FOR GRANTS
(2025-26)

FIFTH REPORT

LOK SABHA SECRETARIAT
NEW DELHI

March, 2025/Phalguna, 1946 (Saka)

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Presented to the Lok Sabha on 12th March, 2025

Laid in the Rajya Sabha on 12th March, 2025

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2.	Shri Kulmohan Singh Arora	Director
3.	Shri Ajitesh Singh	Deputy Secretary
4.	Ms. Madhumita	Assistant Committee Officer

INTRODUCTION

I, the Chairperson, Standing Committee on Energy having been authorized by the Committee to present the Report on their behalf, present this Fifth Report on Demands for Grants (2025-26) of the Ministry of New and Renewable Energy.

2. The Committee took oral evidence of representatives of the Ministry of New and Renewable Energy on 25th February, 2025. The Committee wish to express their thanks to representatives of the Ministry and concerned Organizations for appearing before the Committee for evidence and furnishing the information desired by the Committee in connection with the issues relating to the subject.

3. The Report was considered and adopted by the Committee at their Sitting held on 11th March, 2025.

4. The Committee place on record their appreciation of the assistance rendered to them by the Officials of the Lok Sabha Secretariat attached to the Committee.

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

New Delhi;
11 March, 2025
Phalguna 20, 1946 (Saka)

Shrirang Appa Barne
Chairperson,
Standing Committee on Energy

LIST OF ABBREVIATIONS	
AIF	Agriculture Infrastructure Fund
ALMM	Approved List of Models and Manufacturers
A&N	Andaman and Nicobar
ARCI	Advanced Research Centre for Powder Metallurgy and New Materials
BE	Budget Estimates
BESS	Battery Energy Storage System
CAPEX	Capital Expenditure
CASE	Commission for Additional Sources of Energy
CCEA	Cabinet Committee on Economic Affairs
CFA	Central Financial Assistance
Ckm	Circuit Kilometers
CNG	Compressed Natural Gas
Committee	Standing Committee on Energy (2024-25)
CO2	Carbon dioxide
CoP-26	26th Session of the Conference of Parties held at Glasgow in 2021
COVID-19	Coronavirus disease of 2019
CPSU/CPSE	Central Public Sector Undertaking/Enterprise
CRAR	Capital to Risk Weighted Assets Ratio
CSIR	Council of Scientific & Industrial Research
cum	Cubic metre
DA JGUA	Dharti Aabha Janjatiya Gram Utkarsh Abhiyan
DM	Demineralized Water
DPR	Detailed Project Report
DISCOM	Distribution Companies
EFC	Expenditure Finance Committee
Exp.	Expenditure
EV	Electric Vehicle
FY	Financial Year
FLS	Feeder Level Solarization
GBI	Generation Based Incentive
GBS	Gross Budgetary Support
GEC	Green Energy Corridor
GIA Capital	Grant-in-Aid for creation of Capital Assets
GIB	Great Indian Bustard
GHS	Group Housing Society
GW	Giga Watt
GWh	Giga Watt hour
GWp	Giga Watt peak
GWPA	Giga Watt Per Annum
HH	Household
HP	Horsepower
HRD	Human Resource Development
HVDC	High-Voltage Direct Current
IDC	Interest During Construction
IEBR	Internal and Extra-Budgetary Resource
IIT	Indian Institute of Technology
I&PA	Information and Public Advertising
IPO	Initial Public Offer
IPS	Individual Pump Solarization

IREDA	Indian Renewable Energy Development Agency
IREP	Integrated Rural Energy Programme
InSTS	Intra State Transmission System
ISA	International Solar Alliance
ISTS	Inter State Transmission System
KW	Kilo Watt
KWe	Kilo Watt equivalent
KWh	Kilo Watt hour
KWp	Kilo Watt peak
LoA	Letter of Award
Ministry	Ministry of New and Renewable Energy
MMTPA	Million Metric Tons Per Annum
MNRE	Ministry of New and Renewable Energy
MoP	Ministry of Power
MoU	Memorandum of Understanding
MPC	Multi-Purpose Centre
MSME	Micro, Small and Medium Enterprise
MSW	Municipal Solid Waste
MTPH	Metric Tonne per Hour
MVA	Mega Volt Amperes
MW	Mega Watt
MWeq	Mega Watt equivalent
MWp	Mega Watt peak
NCPRE	National Centre of Photovoltaic Research and Education
NE	North-East
NER	North-East Region
NIBE	National Institute of Bio Energy
NISE	National Institute of Solar Energy
NIWE	National Institute of Wind Energy
NPA	Non-Performing Assets
NPL	National Physical Laboratory
NTPC	National Thermal Power Company
O&M	Operations and Maintenance
OREA	Other Renewable Energy Applications
PBG	Performance Bank Guarantee
PBI	Procurement Based Incentive
PEM	Proton-Exchange Membrane
PGCIL	Power Grid Corporation of India Limited
PLI	Productivity Linked Incentive
PM	Prime Minister
PM JANMAN	Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan
PM-KUSUM	Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan
PRI	Panchayat Raj Institution
PSU	Public Sector Undertaking
PTB	Physikalisch-Technische Bundesanstalt (Germany)
PV	Photo Voltaic
PVTG	Particularly Vulnerable Tribal Group
Q1	Quarter 1
R&D	Research and Development
RE	Revised Estimates
RE-RTD	Renewable Energy Research and Technology Development Programme

RESCO	Renewable Energy Service Company
RfS	Request for Selection
RTS	Roof-top Solar
RWA	Residential Welfare Association
SC	Scheduled Caste
SECI	Solar Energy Corporation of India
SERC	State Electricity Regulatory Commission
SEZ	Special Economic Zone
SHP	Small Hydro Power
Si	Silicon
SIA	State Implementing Agency
SIGHT	Strategic Interventions for Green Hydrogen Transition
SNAs	State Nodal Agencies
SPV	Solar Photo Voltaic
ST	Scheduled Tribe
STU	State Transmission Utility
TPA	Tonnes Per Annum
TPH	Tonnage Per Hour
ULB	Urban Local Body
UTs	Union Territories
VGF	Viability Gap Funding
wef	With effect from

PART - I
NARRATION ANALYSIS

CHAPTER - I
INTRODUCTORY

1.1 The Ministry of New and Renewable Energy (MNRE) is the nodal Ministry of the Government of India for all matters relating to renewable energy resources. Under the Allocation of Business Rules, the Ministry has been assigned the following specific subjects:

- Research and development of biogas and programmes relating to biogas units;
- Commission for Additional Sources of Energy (CASE);
- Solar Energy including Solar Photovoltaic (SPV) devices and their development, production and applications;
- All matters relating to small/mini/micro hydel projects of, and below, 25 MW capacity,
- Programmes relating to improved chulhas and research and development thereof;
- Indian Renewable Energy Development Agency Limited (IREDA);
- Research and Development of other non-conventional/renewable sources of energy and programmes relating thereto;
- Tidal Energy;
- Integrated Rural Energy Programme (IREP);
- Geothermal Energy.

1.2 Talking about the position of India in global Renewable Energy (RE) scenario, the Additional Secretary, MNRE made the following observation during the Sitting of the Committee on 25.02.2025:

> "If we look at all renewable energy, the international data is available only till December 2023, we are in the fourth place, but if we look at today's date, we have definitely crossed and reached the third place. After China and USA, we have the maximum installed capacity."

1.3 With regard to the future of RE and reduction of carbon emissions in the country, the Additional Secretary made the following statement:

> "Sir, in CoP-26 the Honourable Prime Minister has given the Panchamrit goal, in which 500 gigawatt non-fossil energy capacity has to be achieved by the year 2030. In this, 50 per cent electricity capacity should be from non-fossil sources by the year 2030. Projected carbon emissions to reduce by one billion tonnes by 2030. Emission intensity of

GDP to reduce by 45 per cent vis-à-vis 2005. So, by 2030, the intensity of carbon emissions has to be reduced by 45 per cent. Overall, there is net zero goal."

1.4 The Ministry has stated that it is working towards achieving 500 GW of installed electricity capacity from non-fossil sources by 2030. So far, a total of 220.36 GW of non-fossil power capacity has been installed in the country as of 31.01.2025. This includes 212.18 GW Renewable Energy (including Large Hydro) and 8.18 GW Nuclear Power capacity. Non-fossil power has a share of 47.26% in the total installed electricity capacity of 466.26 GW (as on 31.01.2025). The present power scenario (as on 31.01.2025) in the country has been given below:

Sector	Capacity (in GW)	Percentage
Thermal	245.90	52.74%
Nuclear	8.18	1.75%
Renewable Energy (including Large Hydro)	212.18	45.51%
Total	**466.26**	**100%**

1.5 Status regarding installation capacity of Non-Fossil Fuel Based Electricity as on 31.01.2025 and Tentative Non-Fossil Fuel Based Electricity Capacity by 2030, as furnished by the Ministry is given below:

Sector	Installed capacity (GW)	Total Installed + Pipeline (GW)	Targeted Capacity by 2030 (GW)
Solar Power	100.33	296.6	292
Wind Power	48.37	77.44	100
Bio Energy	11.41	11.41	15
Hydro (including large hydro)	52.07	72.56	78
Total Renewable Energy (including large hydro)	**212.18**	**458.01**	**485**
Nuclear	8.18	22.48	15
Total Non-Fossil Fuels	**220.36**	**480.49**	**500**

CHAPTER - II
DEMANDS FOR GRANTS (2025-26) OF THE MINISTRY

2.1 The Ministry of New and Renewable Energy presented its Demands for Grants (Demand No. 71) to the Parliament for financial year 2025-26 on 13th February, 2025. The voted provisions made in the Revenue and the Capital Heads of the demands are as under:

(In Rs. Crore)

	Revenue	Capital	Total
Charged	---	---	---
Voted	26,542.18	7.20	26,549.38

2.2 The Ministry informed the Committee that the Department of Expenditure has rationalized the programme heads of the Ministry for Demands for Grants (2022-23) and onwards as per its work allocation. The new heads are as follows:

- Solar Energy
- Bio Energy Programme
- Programe for Wind and other Renewable Energy
- Support Programme
- Hydrogen Mission
- Storage and Transmission

2.3 A statement showing the details of the Budget Estimates for the financial year 2025-26 *vis-à-vis* Budget Estimates and Revised Estimates of 2024-25 and actual expenditure during 2023-24 is given at **Annexure-I.**

2.4 Regarding the allocations sought for the year 2025-26 and the amount actually sanctioned by the Ministry of Finance, the Ministry furnished as under:

> "For the year 2025-26, against the demand of Rs. 41,343.19 crore raised by the Ministry, an amount of Rs. 26,549.38 crore has been allocated by Ministry of Finance for carrying out various activities of the Ministry during the year. This amount includes Rs. 21,349.38 crore as BE and amount of Rs. 5,200 crore from Sovereign Green Fund. The details are given below:

			(In Rs. Crore)
Sl. No.	**Name of Umbrella /Scheme**	**Proposed BE 2025-26**	**Approved BE 2025-26**
1	Solar Energy	36,840.97	24,224.36
2	Bio Energy Programme	540.00	325.00
3	Programme for Wind and other Renewable Energy	562.00	551.00
4	Support Programme	187.26	99.01
5	Hydrogen Mission	1,200.00	600.00
6	Storage and Transmission	1,820.00	600.00
Total of Central Sector Schemes		**41,150.23**	**26,399.37**
7	Autonomous Bodies	95.86	73.40
8	Secretariat Economic Services	86.10	69.41
9	Office Building	5.00	5.00
10	Capital Outlay on other General Economic Service	6.00	2.20
Total of Non-Scheme		**192.96**	**150.01**
Grand Total		**41,343.19**	**26,549.38**

2.5 When asked about the hike in Budgetary Outlay for the year 2025-26 as compared to last year, the Ministry stated that:

> "During the year 2025-26, BE of Rs. 26,549.38 crore has been allocated to the Ministry, which is an increase of about 53.48% on the RE of Rs. 17,298.44 crore for the year 2024-25. Additional funds have been provided for the implementation of PM Surya Ghar: Muft Bijli Yojana which has been launched on 13th February, 2024 with the aim of installing rooftop solar plants in one crore households by 2026-27."

2.6 On being questioned about the sufficiency of the budgetary allocation made for the year 2025-26 in order to achieve the physical targets, the Ministry stated as under:

> "The Ministry will try and manage within allotted funds for 2025-26. Additional funds if any required will be sought at RE stage."

2.7 The financial allocations & physical targets for various programmes/ Schemes for the financial year 2025-26, as furnished by the Ministry, are as follows:

Sl. No.	**Scheme**	**BE (Rs. in Crore)**	**Target/ Capacity Likely to be commissioned during 2025-26**
1.	PM Surya Ghar: Muft Bijli Yojana	20,000.00	35 Lakh Rooftop Solar (RTS) Systems
2.	Solar Power Grid	1,500.00	34,000 MW

Sl. No.	Scheme	BE (Rs. in Crore)	Target/ Capacity Likely to be commissioned during 2025-26
3.	Solar Power Off Grid	0.01	The currently operational New Solar Power Scheme (for Tribal and PVTG Habitations/Villages) under PM JANMAN and DA JGUA is a demand driven Scheme, in which based on proposals received from States/UTs, sanction is being issued by the MNRE. Thus, the Scheme does not have any year-wise physical target.
4.	PM-KUSUM	2,600.00	1,000 MW- Component -A 5,00,000 – Component-B 3,00,000 – Component-C
5.	R & D	46.00	On project to Project basis
6.	Bio Power	325.00	For Biomass Projects: Briquette/ Pellet Manufacturing Plants – 350 tonne per hour (TPH) Non-Bagasse Cogeneration Power Plant – 25 MW For Waste to Energy – 125 MWeq 25000 Small Biogas Plants
7.	National Green Hydrogen Mission	600.00	By the year 2030, the Mission targets to achieve 5 MMTPA of Green Hydrogen production capacity with an associated renewable energy capacity of about 125 GW. The targets outlined in the Mission

Sl. No.	Scheme	BE (Rs. in Crore)	Target/ Capacity Likely to be commissioned during 2025-26
			are projected for the FY 2029–2030.
8.	Wind Power	500.00	The budget allocated is to fulfil the old liabilities of Wind Generation Based Incentive (GBI) Scheme which was available for wind power projects commissioned till 31.03.2017. However, the wind power capacity likely to be commissioned during 2025-26 is 5,500 MW. The targets are not linked with the budget.
9.	HRD	40.00	10,000 no. of trainees
10.	Green Energy Corridor	600.00	InSTS GEC-I: 631 ckm of transmission lines and 1,276 MVA of sub-stations. InSTS GEC-II : 1,980 ckm (cumulative) of transmission lines and 61,10 MVA (cumulative) of sub-stations.
11.	Hydro Power	51.00	100 MW
12.	Autonomous Bodies	73.40	N.A.
13.	Others	213.97	N.A.
	Total	**26,549.38**	

2.8 A statement showing the details of Central Financial Assistance (CFA) being provided under various ongoing Schemes/programmes of the Ministry is given at **Annexure-II**.

CHAPTER - III
REVIEW OF PAST PERFORMANCE OF THE MINISTRY

(A) BUDGET ALLOCATION AND UTILIZATION

3.1 The budgetary allocation of the Ministry of New and Renewable Energy both at BE and RE stages and its actual utilization during the last five years is given below:

(In Rs. Crore)

Year	BE	RE	Funds utilized	%Utilization
2020-21	5,753.00	3,591.00	3,096.73	86.23
2021-22	5,753.00	7,681.80	6,792.83	88.43
2022-23	6,900.68	7,033.00	5,745.85	81.70
2023-24	10,222.00	7,848.00	6,479.11	82.56
2024-25	21,230.00	17,298.44	11,703.45 (till 15.02.2025)	67.66

3.2 When asked about the reasons for variations in BE/RE and actual expenditure during the last five years, the Ministry stated as under:

"Reasons for variation during 2020-21, 2021-22, 2022-23, 2023-24 and 2024-25 are as follows:

2020-21: During the year 2020-21, against the RE of Rs.3591.00 crore, an expenditure of Rs. 3096.73 crore was incurred which was 86.23% of RE. Utilisation of funds was low because of COVID and also non-receipt of adequate proposals from N.E. States.

2021-22: During the year 2021-22, against the RE of Rs.7681.80 crore, an expenditure of Rs. 6792.83 crore was incurred which was 88.43% of RE. Utilisation of funds was low because of two consecutive waves of COVID and also non-receipt of adequate proposals from N.E. States.

2022-23: The expenditure of Rs.5745.85 crore has been incurred against RE of Rs.7033 crore for 2022-23. The expenditure was 81.7% of RE. The utilization of funds has been low due to:

- Revised Procedure for flow of funds for the central sector Scheme was implemented by Department of Expenditure, Ministry of Finance wef 01 April 2022. The procedure involved categorization of Schemes, nomination of Central Nodal Agencies and opening of Central Nodal Account in scheduled Commercial Banks. It took about 3 to 4 months in completion of necessary action for putting in place revised procedure for flow of fund.
- Non receipt of adequate number of proposals from N. E. States make achievements of Gross Budgetary Support (GBS) target much difficult.

2023-24: During the year 2023-24, total BE was Rs. 10222 crore and the RE was Rs. 7848 crore, against which an expenditure of Rs. 6479.11 crore was incurred which is 82.55% of RE. One of the reasons for low utilisation of funds was non-receipt of adequate proposals from N.E. States. Further, under National Green Hydrogen Mission, funds could not be utilized as the framing of detailed Scheme guidelines required numerous stakeholder consultations.

2024-25: During the year 2024-25, the RE is Rs.17298.44 crore, against which an expenditure of Rs. 11,703.45 crore has been incurred till 15.02.2025which is 67.65% of RE."

3.3 Quarter-wise utilization of budgetary allocations during the previous years, as submitted by the Ministry, is given below:

Year	Actual Exp.	Quarter			
		1st	2nd	3rd	4th
2020-21	3,096.73	854.90	855.62	692.59	693.62
2021-22	6,792.83	418.02	1,439.70	1,212.33	3,722.78
2022-23	5,745.85	110.09	1,781.50	1,601.20	2,253.06
2023-24	6,479.11	2,119.81	1,732.52	1,919.30	707.48
2024-25	11,703.45 (till 15.02.2025)	1,458.17	3,280.65	5,771.52	1,193.11 (till 15.02.2025)

3.4 On being asked about the reasons for deviation in quarterly spending, if any, during these financial years, the Ministry stated that:

"Quarterly expenditure is broadly in line with the Ministry of Finance norms. A periodical monitoring mechanism is already in place to ensure that phasing of expenditure is as per the norms prescribed by the Ministry of Finance."

3.5 In response to a question about the amount of budgetary allocation that was surrendered due to non-utilization during the last five years, the Ministry furnished the following:

Year	Major Head	Amount (In Rs. Crore)
2020-21	3451- Secretariat Economic Services	11.23
	2810 - New and Renewable Energy	206.81
	2552 – North Eastern Areas	115.35
	4810 - Capital Outlay on New and Renewable Energy	20.03
	Total	**353.42**
2021-22	3451- Secretariat Economic Services	9.96

	2810- New and Renewable Energy	413.24
	2552 – North Eastern Areas	432.20
	4810- Capital Outlay on New and Renewable Energy	34.02
	Total	**889.42**
2022-23	3451- Secretariat Economic Services	9.43
	2810- New and Renewable Energy	590.06
	2552 – North Eastern Areas	678.36
	Total	**1,227.85**
2023-24	2810- Solar Power Grid	3,081.78
	2810- Bio Power (Grid)	293.34
	2810- Storage & Transmission	8.43
	2810- Wind Power (Grid)	312.8
	2810- PM JANMAN	4.00
	2810- Support Programme	141.44
	2810- National Green Hydrogen Mission	296.88
	2810- Green Energy corridor	71.50
	2810- Autonomous Bodies	12.35
	4810- Office Buildings	2.30
	5475- Capital Outlay	3.97
	2552- North Eastern Areas	948.03
	3451- Secretariat Economic Services	9.19
	Total	**5,186.01**
2024-25 (till 15.02.2025)	2552- North Eastern Areas	1473.98

(B) PHYSICAL TARGETS AND ACHIEVEMENTS

3.6 The physical targets and achievements of the Ministry during the previous years are given below:

Sl. No	Programme/ System	2022-23		2023-24		2024-25	
		Target	Ach.	Target	Ach.	Target	Ach. (upto 31.01.2025)
GRID POWER (Capacities in MW)							
1	Wind Power	1,750	2,275.55	5,393	3,253.39	5,000	2,478.75
2	Small Hydro	100	95.20	100	58.95	100	97.30
3	Bio Mass	30	42.40	25	107.34	25	387.76
4	Waste to Energy (MWeq)#	55	77.30	25	31.76	80	77.64
5	Solar Power*	16,000	12,783.82	16,400	15,033.24	24,000	18,516.22
OTHER RENEWABLE ENERGY SYSTEMS							
6	Family Type Biogas Plants (No. in lakh)	22,500	11,143	46,000	13,503	25,000	6,000

Includes Waste to Energy Offgrid/Distributed Component.

*Includes Solar Offgrid/Distributed Component.

CHAPTER - IV
PROGRAMMES/SCHEMES OF THE MINISTRY

(A) SOLAR ENERGY

4.1 As per the Ministry, the estimated solar power potential in the country is 748.99 GWp. Against the overall target of 292 GW by 2030, the installed capacity is 100.3 GW as on 31.01.2025.

4.2 The Ministry stated that most of the solar power projects in the country are being set up by private sector developers, selected through a transparent bidding process. Budgetary allocation and actual expenditure under Solar Energy heads during the previous years, as furnished by the Ministry are given below:

(In Rs. Crore)

Year	BE	RE	Funds utilized
2020-21	3,640.19	1,900.62	1,480.08
2021-22	3,727.78	3,499.87	2,732.86
2022-23	5,205.89	4,980.56	3,881.27
2023-24	7,452.31	6,041.56	4,830.07
2024-25	18,394.75	15,061.35	10,153.82 (as on 15.02.2025)

4.3 The physical achievements in solar sector during the last five years, as furnished by the Ministry are given below:

Year	Capacity added during the year (GW)
2020-21	5.63
2021-22	12.76
2022-23	12.78
2023-24	15.03
2024-25	18.52 (as on 31.01.2025)

(i) Off-Grid Solar

4.4 When asked about the physical achievements vis-à-vis targets with respect to Off-Grid solar power, the Ministry furnished as under:

> "There has been no operational programme/Scheme under the Off-Grid solar power since April 2021 except the New Solar Power

Scheme [for Tribal and Particularly Vulnerable Tribal Groups (PVTG) Habitations/Villages] under Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan (PM JANMAN) and Dharti Aabha Janjatiya Gram Utkarsh Abhiyan (DA JGUA) for which the initial approval was issued on 4.1.2024 and was later revised on 18.10.2024. The budget allocation was being utilized to meet the committed liabilities of the previous programmes/Schemes."

4.5 As per the Ministry, **PM JANMAN** and **DA JGUA** will cover electrification of One Lakh un-electrified households (HHs) in Tribal and PVTG areas identified by Ministry of Tribal Affairs (MoTA) by provision of off-grid solar systems. The Scheme includes a provision for providing off-grid solar lighting in 1500 Multi-Purpose Centres (MPCs) in PVTG areas as approved under PM JANMAN. Similarly, the Scheme also includes provision for solarisation of 2000 public institutions through off-grid solar systems as approved under DA JGUA. The off-grid solar systems shall be provided only where electricity supply through grid is not techno-economically feasible.

4.6 The total budget allocation and utilization during last five years under the budget head Off-Grid solar power is given below:

(In Rs. crore)

Year	RE	Budget utilized
2020-21	312.14	149.43
2021-22	210.00	160.24
2022-23	61.50	57.11
2023-24	59.90	34.42
2024-25	28.00	11.71 (as on 15.02.2025)

4.7 When asked to furnish the physical targets along with budgetary allocation under Off-Grid solar power for 2025-26, the Ministry furnished as under:

"Under the present operational New Solar Power Scheme (for Tribal and PVTG Habitations/Villages) under PM JANMAN and DA JGUA, Ministry has sanctioned electrification of 9961 PVTG HHs. Against these sanctions till 31.01.2025, a total of 1694 HHs have been reported electrified and balance are likely to be completed in 2025. In addition, based on the proposals that will be received from States/UTs, the sanction will be issued by the MNRE during FY 2025-26. For the year 2025-26, the BE approved under Off-grid Solar Power is Rs. 0.01 crore."

(ii) Grid-connected Solar

4.8 When asked to furnish the physical targets along with budgetary allocation under Grid connected solar power for 2025-26, the Ministry furnished as under:

> "A budget allocation of Rs. 1500 crore has been made for the year 2025-26 for grid-connected solar energy programmes. A solar capacity of around 34 GW is expected to be commissioned in the year 2025-26."

4.9 As per the Ministry, the budgetary allocation for two Schemes viz. **Scheme for Development of Solar Parks and Ultra-mega Solar Power Projects** and **Central Public Sector Undertaking (CPSU) Scheme Phase-II (Government Producer Scheme)** is met from the budget head for grid-connected solar power.

4.10 The details of year-wise funds released under Solar Park Scheme and CPSU Scheme Phase-II, as furnished by the Ministry is given below:

Year	**Fund Released to the Solar Park Developers/CTU/STU** (In Rs. crore)	**Fund Released to CPSUs/ Government Organization setting up project * (in Rs crore)** (rounded off to nearest crore Rs.)
2020-21	68.2	620
2021-22	207.3	27
2022-23	676.1	2
2023-24	715.5	1,088
2024-25	163.6 (Till 15.02.2025)	557 (Till 15.02.2025)
Total	**1830.7**	**2,294**

**Excluding Scheme Implementing Agency (SECI/IREDA) fund handling fee of 1% of VGF released.*

4.11 As per the Ministry, the Solar Park Scheme has a target of setting up 40,000 MW capacity with an outlay of Rs. 8,100 crore. Under the Scheme, the infrastructure such as land, roads, transmission system (internal and external), pooling stations, water feasibility is developed with all statutory clearances/ approvals. Thus, the RE project developers can set up projects in a hassle-free manner.

4.12 With regard to progress under Solar Park Scheme as well as the physical targets and budgetary allocation for 2025-26, the Ministry furnished as under:

> "So far, the Ministry have approved 55 Solar Parks with aggregate capacity of around 39,958 MW in 13 States across the country. Out of 55 approved parks, 18 parks of aggregate capacity 10,856 MW are fully developed in which solar projects of aggregate capacity 10,461 MW have been commissioned. In addition, 6 parks of aggregate capacity 4775 MW are partially developed in which solar projects of total capacity 1798 MW have been commissioned. Thus, total 12,259 MW solar projects have been commissioned in 24 parks as on 31-01-2025. The remaining parks are at various stages of development. In FY 2025-26, capacity of around 5 GW solar power projects is expected to get commissioned under the Solar Park Scheme and fund requirement under the Scheme for FY 2025-26 is expected to be around Rs 1000 crore which is envisaged to be met from the budgetary allocation under the budget head for grid-connected solar power."

4.13 Similarly, the CPSU Scheme Phase-II is being implemented for setting up grid-connected Solar Photovoltaic (PV) Power Projects by Government Producers with Viability Gap Funding (VGF) support, for self-use or use by Government/ Government entities, either directly or through Distribution Companies (DISCOMS).

4.14 With regard to progress under the CPSU Scheme Phase-II, the Ministry furnished as under:

> "Under this Scheme, net aggregate capacity of around 8.2 GW has been sanctioned to 11 different CPSUs/Government Organization, out of which around 1.81 GW capacity has been commissioned till 31.01.2025 and the balance capacity is under various stages of commissioning. In FY 2025-26, capacity of around 5 GW solar power projects is expected to get commissioned under CPSU Scheme Phase-II and fund requirement under the Scheme for FY 2025-26 is expected to be around Rs 1150 crore which is envisaged to be met from the budgetary allocation under the budget head for grid-connected solar power, which caters to CPSU Scheme Phase-II as well as few other Schemes."

(iii) PM Surya Ghar: Muft Bijli Yojana

4.15 The Ministry stated that the PM-Surya Ghar: Muft Bijli Yojana was launched on February 13, 2024, with the aim of installing rooftop solar plants in one crore households. The total financial outlay for the Scheme is Rs. 75,021 crore and is to be implemented till FY 2026-27. Before the launch of PM Surya Ghar: Muft Bijli Yojana, the Ministry had been implementing the Phase II Rooftop Solar program. With the launch of PM - Surya Ghar: Muft Bijli Yojana, Phase-II was subsumed under this Scheme, along with the remaining financial outlay and liabilities effective from the launch of the PM-Surya Ghar: Muft Bijli Yojana, i.e. 13.02.2024. For 2025-26, the Scheme has been allocated a budget of Rs. 20,000 crore to complete 35 lakh installations equaling around 10.5 GW capacity. The key elements of the Scheme are:

- **National Portal:** The Scheme is being implemented through the National Portal (https://www.pmsuryaghar.gov.in) where all consumers can apply, select vendors, mutually decide rate of installation and after due approvals and inspection of system, are eligible for the subsidy claim as per the installed capacity of the RTS system.
- **Vendor Registration and Empanelment:** Vendors have to register with the beneficiaries' Distribution Utility (DISCOM) by submitting an application with a declaration and a Performance Bank Guarantee (PBG) of ₹2.5 lakh valid for at least five years. DISCOMs will take action against vendors providing misleading information or failing to meet the conditions, including blacklisting and forfeiture of the PBG.
- **Vendor Rating Programme:** To enhance consumer confidence and ensure high-quality installations, the Scheme includes a comprehensive Vendor Rating Programme. This framework will evaluate and rate vendors based on consumer feedback, quality assessments, and techno-financial evaluations. The rating system will help consumers make informed choices and encourage vendors to adhere to industry best practices.
- **Saturation of Government Buildings:** Objective is to saturate all the government buildings with rooftop solar. No Central Financial Assistance to be provided under the Scheme for buildings in the Government sector. In this regard, an online module has been developed on the National Portal in order to track the progress. Central Public Sector Enterprises (CPSEs) under Ministry of Power and Ministry of New and Renewable Energy have been allocated to assist

all Ministries and States/UTs in undertaking RTS installations on their assets in a mission mode by December, 2025.

- **Financing by Banks:** The Scheme also provides for easy, collateral free loans from public sector banks at 7% rate of interest that can be accessed seamlessly through the Jan Samarth portal under the Department of Financial Services.

4.16 About the progress of PM Surya Ghar: Muft Bijli Yojana, the Additional Secretary submitted during the Sitting of the Committee on 25.02.2025 as under:

> "Sir, 1.72 crore registrations have been done in which 45.84 lakh applications are there. Installation has been done in 9.05 lakh households. Subsidy has been credited to the bank accounts of about 6 lakh households. Apart from this, there is also a provision to give incentives to Discoms in the Scheme. Incentives worth two thousand crore rupees have been released in this. 12,257 vendors have been registered in vendor registration. Discoms have waived the technical feasibility. Feasibility approval is not required up to ten kilowatts. In the last ten years, 7.9 lakh rooftops have been installed in the country and in the last one year, 9 lakh residential rooftops have been installed. In this, the bills of 48 percent households have become zero."

(iv) PM-KUSUM

4.17 PM KUSUM was launched by the Government in March, 2019 to de-dieselise farm sector, provide energy and water security to farmers and increase income of farmers. The Scheme aims to add a solar capacity of 34.8 GW with total central financial outlay of Rs. 34,422 crore. The timeline for implementation of the Scheme has been extended till 31.03.2026. The Scheme has been allocated a budget of Rs. 2,600 crore for the year 2025-26.

4.18 The physical targets and achievements under the Scheme, as furnished by the Ministry is given below:

Component of PM-KUSUM	Targets	Achievements (as on 31.01.2025)
A	Installation of 10,000 MW of decentralized ground-mounted grid connected solar power plants of size up to 2 MW on barren/fallow/marshy/grassland.	417.98 MW
B	Installation of 14 lakh standalone Solar Agriculture Pumps to replace diesel pumps in off-grid	6,69,484

	areas.	
C	Solarisation of 35 lakh existing grid-connected Agriculture Pumps, including Feeder level Solarisation.	5,272 solar pumps installed under Individual Pump Solarisation (IPS) mode and 653.80 MW (1,87,633 pumps) installed under Feeder Level Solarisation (FLS)

4.19 When asked about actual expenditure vis-à-vis allocation for PM-KUSUM Scheme, the Ministry furnished the following:

(In Rs. Crore)

Year	BE	RE	Funds utilized	% Expenditure with respect to RE
2019-20*	-	-	151.26	-
2020-21	1,000.00	210.00	156.43	74.49
2021-22	997.30	690.26	406.05	58.82
2022-23	1,715.90	1,325.00	801.36	60.48
2023-24	1,996.46	1,100.00	1,000.58	90.96
2024-25	1,996.00	2,525.00	1,989.16 (as on 15.02.2025)	78.78

* Separate head was not available for PM-KUSUM, funds were released from Solar Off-grid head.

4.20 Regarding the causes of shortfall in physical and financial achievements and the changes incorporated to alleviate those causes, a representative of the Ministry furnished the following during the Sitting of the Committee on 25.02.2025:

> "The committee's guidance was that four-five changes should be made in this Scheme. One of these was that many States are not able to pay their share on time. I am happy to inform that we have exempted it. State share is no more compulsory now and states can go ahead. The second recommendation was that we include the component A under AIF because access of finance was an issue. I am happy to share that last year in September, component A has been included in AIF which means access of finance to farmers will now be available at 6 per cent. I do agree that first two years have been lost to COVID-19. So, our review happens from 2019 onwards. However, the Scheme started accelerating from 2023 onwards. We heard the Members both things. One, there is overdrawal of water, and two, we need higher capacity pump because a pump of 7.5hp capacity is not sufficient to meet the farmers' demand. For that, we have made a provision of water saving techniques. If PM KUSUM Yojana pumps are installed in groups in dark zones, like by Farmer Producer Organisation, PACS, Water Users Association, then higher pump capacity can be installed. If five farmers want to apply for pumps, then they can install capacity up to 40 HP. The third question was that farmers have to pay a lot of bills in Component B. Wherever

there is a diesel pump, it is replaced under Component B. That is an off-grid solution. However, we found that in aggregated number, if we could solarize the feeder itself, that would be much more beneficial to the farmers because it saves the agricultural subsidy which is regularly paid out by the State and secondly, farmers will have assured daytime solarized power. As per your extensive guidance for feeder level solarization, as you had told as to how the land model should be ensured, how the sub-station should be ensured, all those provisions have been included in our Scheme. Our Scheme has section 6.4.2, which includes simplified steps for procedure, identification of sub-station, land for setting up of the solar plant, development of the online portal, just like PM Gati Shakti, similarly a land portal has been ensured to be made by the state. I am happy to tell you that states like Maharashtra, Gujarat etc. have understood the actual work of this Scheme. Since most of the tenders for feeder level solarization have been done last year and the completion period of the project is 18 to 24 months, we will see this capacity being installed in the year 2026. Since this Scheme is applicable only till 2026, we had to cancel the allocation of states which are not making progress in this and allocate it to the states which are making progress. Since the Scheme is ending 2026, we are also working towards an EFC note for Kusum 2.0. We are prioritizing the farmer facing pump installation as has been suggested by the Committee. This Scheme is essentially about the solarization of the agriculture sector. We would also be continuing in the feeder level solarization so that the State subsidy which is an ongoing process for the States can be saved and farmers can have an access to free solar power."

4.21 About the progress of PM KUSUM, the Additional Secretary submitted during the Committee meeting on 25.02.2025 as under:

"In Component A, LoAs of 1858 MW have been issued against 10,000 MW. Installations of 418 MW have been done. Sanctions of 12.39 lakh have been done in Component B. LoAs of 9.58 lakh have been issued. Installations of 6.69 lakh pumps have been done. In Component C, sanction of 1 lakh 19 thousand independent pumps have been issued. LoAs of 14 thousand have been issued and installations of 5272 have been done. In feeder level solarization, the sanction is 35.35 lakh. The tendered out amount is 48.64 lakh. Many states have tendered more than our sanction. LoA is 42.82 lakh and installations are 1.87 lakh."

(v) Production Linked Incentive (PLI) Scheme for High Efficiency Solar PV Modules

4.22 As per the Ministry, PLI Scheme is aimed at achieving manufacturing capacity of Giga Watt (GW) scale in High Efficiency Solar PV modules with

outlay of Rs. 24,000 crore. This Scheme has a provision for Production Linked Incentive (PLI) to the selected solar PV module manufacturers for five years post commissioning, on manufacture and sale of High Efficiency Solar PV modules. The Scheme is being implemented in two tranches as follows:

Tranche-I: Letters of Award have been issued in November/December 2021 to three successful bidders for setting up 8,737 MW per annum capacity of fully integrated solar PV module manufacturing units. The projects are under implementation.
Tranche-II: Letters of award have been issued in April 2023 to eleven successful bidders for setting up 39,600 MW per annum capacity of fully/ partially integrated solar PV module manufacturing units. The projects are under implementation.

4.23 Regarding the progress under PLI Scheme, the Additional Secretary submitted during the Committee meeting on 25.02.2025 as under:

> "In the Solar PLI Scheme, the outlay of Tranche-I is Rs 4,500 crore and the outlay of Tranche-II is Rs 19,500 crore. These projects have already been allotted.
> Sir, as per the details of the PLI Scheme, this is a program of Rs 24,000 crore. The current installed capacity of 67 GW of solar PV modules is already approved in ALMM. The other 15 GW is already under process. Hence, more than 80 GW of manufacturing capacity has been installed in India. 76 GW of installed capacity of solar PV modules, 25 GW of installed capacity of solar PV cells and 15 GW of installed capacity of solar glass are currently installed. By the year 2030, 150 GW, 100 GW and 50 GW of all these modules are expected respectively."

(B) NATIONAL BIOENERGY PROGRAMME

4.24 The Ministry stated that for the year 2025-26, a budget of Rs. 325 crore has been allocated under the National Bioenergy Programme. The Programme has a provision of Central Financial Assistance for setting up of Bioenergy projects in the country under the following components:

- Biomass Programme (Scheme to Support Manufacturing of Briquettes & Pellets and Promotion of Biomass (non-bagasse) based cogeneration in Industries)
- Waste to Energy Programme (Programme on Energy from Urban, Industrial and Agricultural Wastes /Residues)
- Biogas Programme (Programme to support setting up of small (1 m3 to 25 m3 biogas per day) and medium size Biogas plants i.e., above 25 m3 to 2500 m3 bio gas generation per day).

4.25 Regarding the installed capacity under the different components of Bioenergy, the Ministry furnished as under:

Bioenergy Components	**Installed Capacity** (as on 31.01.2025)
Biomass (GW)	10.74
Biogas (No.)	3,70,059
Waste to Energy (MWeq)	663.44

4.26 Regarding the physical achievements *vis-à-vis* targets under the Bio Energy Programme during the last five years, the Ministry furnished as below:

Year	**Waste to Energy**		**Biomass**		**Biogas**	
	Targets (in MWeq)	**Achievement (in MWeq)**	**Target (MW) (includes both grid connected and off-grid)**	**Achievement* (MW) (includes both grid connected and off-grid)**	**No. of biogas plants**	**Achievement (in No.)**
2020-21	30	43.30	250	5	60,000	23,019
2021-22	70	82.20	170	30.00	--**	--**
2022-23	55	77.30	30	42.40	22,500	11,143
2023-24	25	31.76	25	107.34	46,000	13,503
2024-25	80	77.64 (as on 31.01.2025)	25	387.76 (as on 31.01.2025)	25,000	6,000 (as on 31.01.2025)

*As reported by SNAs

** Biogas programme was not implemented during the FY 2021-22.

4.27 Regarding the budgetary allocation and actual expenditure under Bio Energy Programme during previous years, the Ministry furnished the following:

(In Rs. Crore)

Year	**BE**	**RE**	**Funds utilized**
2020-21	188.00	74.88	49.64
2021-22	285.00	118.33	97.16
2022-23	100.00	84.46	72.79
2023-24	381.85	75.00	70.51
2024-25	300.00	185.00	120.58 (as on 15.02.2025)

4.28 When asked about the reasons for non-achievement of targets and non-utilization of funds in the previous years, the Ministry stated that:

"**Biomass and Waste to Energy Programme:** As per Scheme guidelines, eligible CFA is disbursed only after commissioning (COD) and successful performance of the plant for a period of 3 months. There have been some instances of delay in commissioning, non-achievement of plant performance as mandated by Scheme guidelines and delay in inspection resulting in lower utilization of fund.

Biogas:

- The cost of construction of biogas plants has increased mainly due to increase in prices of cement, sand, bricks and steel and balance of equipment along with its accessories. These are the major contributors to the total cost of a biogas plant, and the result is that there are lower number of installations.
- Delay in continuation of the Biogas Programme, Central Sector Scheme after the end of FY 2020-21, hence restricted the smooth flow of funds and RE was limited to the actual expenditure for the F.Y. 2022-23. As Scheme came into existence only on 02.11.2022.
- North Eastern States did not perform as envisaged against the assigned and allocated targets due to difficult topography.
- SC & ST special component funds could not be fully utilized by the States, owing to the financial constraints being faced by the intended beneficiaries and less cattle holding with these community."

4.29 When asked to furnish the major activities/projects proposed during 2025-26, the Ministry stated as under:

"• EFC approval to be sought for Phase-II of National Bioenergy Programme.
• Revise the Scheme Guidelines for Waste to Energy, Biomass & Biogas Programes to streamline funds disbursal in a timely manner.
• To develop Standard Operation Procedure manual for Bio-CNG plants.
• To organize outreach workshops for creating awareness regarding stopping paddy straw burning in NCR States and utilization of maximum paddy straw."

(C) WIND ENERGY

4.30 The Ministry stated that the estimated wind power potential of the country is 1,163.86 GW at 150 meter height above ground level. The corresponding cumulative installed capacity of wind power in the country is 48,365.26 MW (as on 31.01.2025).

4.31 As per the Ministry, the new wind power projects are being set up by private developers based on techno-economic viability of the project.

Government is not providing any direct central financial assistance for installing new wind power projects and hence, there is no linkage between capacity commissioned and budgetary allocation. A budget of Rs. 500 crore has been allocated for 2025-26 under Generation Based Incentive (GBI) which was closed in 2017 and the fund allocated under GBI will be utilized for clearing past liabilities only. Wind power installations for the year 2025-26 are expected to reach 5,500 MW.

4.32 Regarding the fund utilization *vis-à-vis* allocation during the previous years, the Ministry furnished the following:

(In Rs. Crore)

Year	BE	RE	Funds utilized
2021-22	1,100.00	1,100.00	1,100.00
2022-23	1,050.00	1,413.00	1,266.96
2023-24	1,214.00	916.30	916.30
2024-25	930.00	800.00	800.00 (as on 15.02.2025)

4.33 Regarding the status of Offshore wind projects in the country and domestic manufacturing of equipments related to wind energy, the Additional Secretary submitted during the Committee meeting on 25.02.2025 as under:

> "Sir, our annual manufacturing capacity in wind energy is 18 GW. There are 14 manufacturers. Most of the components, up to 80%, are manufactured in India. Our bid trajectory is 10 GW per year. There is no Scheme for wind energy yet. Our potential for offshore wind has been assessed at 70 GW on Gujarat and Tamil Nadu coasts. The trajectory of bids for 37 GW has been issued. A government Scheme has just been approved. A VGF Scheme has been implemented on 500 MW Gujarat coast and Tamil Nadu coast for setting up 1 GW offshore wind of viability gap funding of Rs 7,453 crore. The tender for 500 MW on Gujarat coast has already been floated through SECI."

4.34 When asked to furnish the major activities/projects to be undertaken during 2025-26, the Ministry stated as under:

> "The major activities/ projects proposed to be undertaken during 2025-26 includes issuance of bids for wind-solar hybrid power, firm and dispatchable renewable energy in which generally wind power is a component, and vanilla wind power projects, award of 500 MW of offshore wind energy capacity off the coast of Gujarat and issuance of

tender of 500 MW of offshore wind energy capacity off the coast of Tamil Nadu supported by a Viability Gap Funding (VGF) Scheme."

(D) SMALL HYDRO POWER (SHP)

4.35 The Ministry stated that the total identified potential of Small Hydro Power generation capacity in the country is 21,133.61 MW from 7,133 identified sites. Installed Small Hydro Power generation capacity is 5,100.55 MW from 1,192 SHP projects as on 31.01.2025.

4.36 As per the Ministry, there is no existing SHP Scheme to provide Central Financial Assistance (CFA) for new SHP projects since September, 2017. Only old liabilities, created for projects sanctioned in earlier SHP Schemes, are being cleared from the budget allocation. The budget allocation for the year 2025-26 is Rs. 51.00 crore and the target is 100 MW.

4.37 Details regarding utilization of funds *vis-à-vis* allocation during the previous years for small hydro power, as furnished by the Ministry, are given below:

Year	(In Rs. Crore)		
	BE	**RE**	**Funds utilized**
2021-22	92.00	66.00	28.01
2022-23	52.00	21.00	17.96
2023-24	31.00	20.00	13.45
2024-25	51.00	46.00	30.21 (as on 15.02.2025)

4.38 Regarding the physical targets and achievements with respect to small hydro power during previous years, the Ministry furnished the following:

Year	Target (MW)	Achievement (MW)
2021-22	100	63.75
2022-23	100	95.20
2023-24	100	58.95
2024-25	100	97.30 (as on 31.01.2025)

4.39 In reply to a question about reasons for non-utilization of allocated budget and shortfall in achievement of targets, the Ministry stated that:

> "During 2021-22, 2022-23 and 2023-24 the achievement was short by 36.25MW, 4.8MW and 41.05MW respectively. Reasons for the non-achievement of target are the difficult locations of SHP projects, short working season in hilly areas and natural calamities such as flash floods. Further, due to the nation-wide lockdown imposed for the outbreak of Covid-19, supply of material and manpower got affected which resulted in non-achievement of targets in the FY 2021-22."

4.40 Regarding major activities/projects proposed to be undertaken during 2025-26, the Ministry furnished the following:

> "The Ministry is considering the following major activities during 2025-26:-
> - Approval of the new SHP Scheme.
> - Achievement of 100 MW Capacity addition through Small Hydro during 2025-26."

(E) GREEN ENERGY CORRIDOR (GEC)

4.41 As per the Ministry, the budgetary allocation for GEC Scheme is Rs. 600 crore for the year 2025-26. The objectives of different components of GEC are:

- **Green Energy Corridor (GEC) Phase-I (Intra-State)** Scheme is for addition of approx. 9767 circuit kilometres (ckm) of transmission lines and approx. 22689 Mega Volt-Amperes (MVA) transformation capacity of substations in eight States, namely Andhra Pradesh, Gujarat, Himachal Pradesh, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan & Tamil Nadu. The Scheme will facilitate grid integration and power evacuation of approx. 24 GW of renewable energy power projects in these States.
- **GEC Phase-II (Intra-State)** Scheme is for addition of approx. 10,750 circuit kilometres (ckm) of transmission lines and approx. 27,500 Mega Volt-Amperes (MVA) transformation capacity (subsequently revised to 7,919 circuit kilometres (ckm) of transmission lines and approx. 24,488 Mega Volt-Amperes (MVA) transformation capacity) of substations in seven States, namely Gujarat, Himachal Pradesh, Karnataka, Kerala, Rajasthan, Tamil Nadu and Uttar Pradesh. The Scheme will facilitate grid integration and power evacuation of approx. 20 GW of renewable energy power projects in these States.
- **GEC-II (Inter-State)** project is for setting up of 713 km [or 1268 circuit kilometres (ckm)] of transmission lines and two nos. of 5 GW capacity of High Voltage Direct Current (HVDC) terminals – one each at Pang (Ladakh) and Kaithal (Haryana). The project will facilitate power

evacuation from renewable energy power project of 13 GW capacity along with 12 GWh Battery Energy Storage System (BESS) in Ladakh.

4.42 When asked about the timeline for meeting the objectives of GEC, its present status and the targets for 2025-26, the Ministry stated as under:

"In GEC Phase-I, all projects have been completed in Rajasthan, Tamil Nadu, Karnataka and Madhya Pradesh. The InSTS GEC Phase-I has been delayed in remaining four states. Andhra Pradesh, Himachal Pradesh and Maharashtra have sought extension up to June 2025 and Gujarat has been given further extension up to March 2025. GEC phase-II Scheme is scheduled to be completed by FY 2025-26. Inter-State Transmission System for 13 GW Renewable Energy Project in Ladakh is anticipated to be completed by FY 2029-30.

The physical targets for the year 2025-26 for the GEC programme is as follows-

- InSTS GEC-I: The cumulative physical targets for FY 2025-26 is construction of 9767 ckm of transmission lines and 22689 MVA of substations. As on 31.01.2025, 9136 ckm of lines and 21413 MVA of substations have been completed. The balance of 631 ckm of transmission lines and 1276 MVA of substations will be completed upto June 2025-26.
- InSTS GEC-II: The cumulative physical targets for FY 2025-26 is construction of 1980 ckm transmission lines and 6110 MVA substations.
- GEC-II – Inter-State Transmission System (ISTS) for 13 GW Renewable Energy project in Ladakh: All tenders to be awarded by Power Grid Corporation of India Ltd (PGCIL) and survey work to be completed."

4.43 The financial allocations vis-à-vis utilization under GEC during the previous years, as furnished by the Ministry, are given below:

Year			(In Rs. Crore)
	BE	**RE**	**Funds utilized**
2021-22	300.00	150.00	134.67
2022-23	300.00	250.00	250.00
2023-24	500.00	434.00	413.15
2024-25	600.00	600.00	345.81 (as on 15.02.2025)

4.44 When asked about the reasons for non-achievement of targets and non-utilization of allocated funds, the Ministry stated that:

"The Intra-State Transmission System (InSTS) GEC-I Scheme has been delayed due to various reasons such as Right of Way (RoW) issues, delay in issuing tenders because of delay in substation land acquisition, delay in award of works due to low bid turnout in various projects which resulted in re-tendering several times, court cases, forest clearances, Great Indian Bustard (GIB) related clearance etc."

4.45 The physical targets and achievements under InSTS GEC-I, as furnished by the Ministry, are as follows:

Year	Transmission lines target – cumulative (ckm)	Transmission lines constructed – cumulative (ckm)	Substations capacity target – cumulative (MVA)	Substations charged – cumulative (MVA)
2021-22	9700	8515	20000	18326
2022-23	9767	8857	22689	20868
2023-24	9767	9110	22689	21303
2024-25	9767	9136 (as on 31.01.2025)	22689	21413 (as on 31.01.2025)

4.46 Regarding major activities/projects proposed to be undertaken during 2025-26, the Ministry furnished the following:

"Major activities/projects proposed to be undertaken are completion of phase-I of the GEC, completion of tendering process and award of works for InSTS and ISTS in GEC-II. Further, it is anticipated that phase-III of the GEC will be rolled out during the year 2025-26."

(F) NATIONAL GREEN HYDROGEN MISSION

4.47 As per the Ministry, the National Green Hydrogen Mission aims to build capabilities to produce at least 5 Million Metric Tonne (MMT) of Green Hydrogen per annum by 2030, with potential to reach 10 MMT per annum with growth of export markets. The Mission will support replacement of fossil fuels and fossil fuel-based feedstocks with renewable fuels and feedstocks based on Green Hydrogen. The Mission also aims to make India a leader in technology and manufacturing of electrolysers and other enabling technologies for Green Hydrogen.

4.48 The Mission had an outlay of Rs. 600 crore at BE and Rs. 300 crore at RE 2024-25. As of 15th February, 2025, an expenditure of Rs. 81.15 crore has been incurred under the Mission. For financial year 2025-26, an amount of Rs. 600 crore has been allocated to National Green Hydrogen Mission.

4.49 With regard to the progress made under National Green Hydrogen Mission and the reasons for non-achievement of targets, if any, the Ministry has furnished the following:

Sl. No.	Component	Progress	Reason
1	Incentives for electrolyser manufacturing under SIGHT Scheme	• Incentives have been awarded for a total capacity of 3,000 MW per annum of electrolyser manufacturing.	Disbursement of incentives will commence after the companies start manufacturing of electrolysers, as per the stipulated timelines.
2	Incentive for Green Hydrogen production (Mode 1) – SIGHT	• Incentives for Green Hydrogen production capacity of 4,12,000 tons-per-annum has been awarded.	Disbursement of incentives will start after the developers start producing Green Hydrogen / Green Ammonia as per the project timelines.
3	Pilot projects in steel, shipping and transport sectors	• Three pilot projects have been awarded to use Green Hydrogen in steel sector. Funds allocated for these projects are about ₹347 Crore. • Four pilot projects have been awarded in transport sector to deploy 36 hydrogen fueled vehicles and 8 hydrogen refueling stations. Funds allocated for these projects are about ₹191 Crore.	• Funds for these projects are disbursed in a phased manner upon achievement of pre-defined milestones. • Since these are emerging technologies, finalization of pilot projects has taken more time.
4	Research and Development	• Seven projects have been awarded in the Safety Category. • Six projects have been shortlisted in the Biomass-based Production Category. • Projects in other categories are under evaluation.	• Funds for these projects are disbursed in a phased manner upon achievement / fulfilment of pre-defined targets / parameters. • Since these are emerging technologies, the proposals are being thoroughly evaluated by R&D sub-committees.

4.50 Regarding the challenges in Green Hydrogen sector and the measures being taken by the Government to overcome them, the representative of the Ministry furnished the following during the Sitting of the Committee on 25.02.2025:

> "The biggest challenge in this is that as in the year 2021 in Glasgow, all the countries together have declared the goal of net zero in the whole world by the year 2050, so in the 'hard-to-abate' sector, that is, sectors in which renewable electricity cannot be used, such as steel, cement, transport, Green Hydrogen has emerged as a good solution. The biggest challenge in this is the cost. About 70 percent of the cost in this is the cost of renewable energy and the rest is related to electrolyser and water. Chairman Sir, fresh water was discussed because the technology of electrolysis today requires demineralized water (DM) water or fresh water. There are two solutions for this, either a new source of fresh water should be found, like very big projects are coming up on the coast of Odisha, Gopaldeep and Paradeep. There has been a discussion with the government there that a common desalination facility should be created. Clean water should be provided from sea water for all these projects, because the demand for them is very high. With this kind of common facility, the problem of water will also be reduced to a great extent and there will be availability of water at a low cost. A lot of work is going on in R&D to directly take sea water and make hydrogen from it, in our country as well as in other countries."

4.51 Regarding major activities/projects being undertaken during 2025-26, the Ministry furnished the following:

> "The major activities / projects proposed to be undertaken during 2025-26 are as follows:
>
> - Incentives will be awarded for another 4,50,000 tons per annum of Green Hydrogen production capacity.
> - Incentives will be awarded for production and supply of 7,39,000 tons per annum of Green Ammonia to Fertilizer units.
> - Incentives will be awarded for production and supply of 42,000 tons per annum of Green Hydrogen to Refineries.
> - More Pilot projects will be commissioned in steel sector and transport sector.
> - Green Hydrogen Certification Scheme will be launched.
> - R&D projects in different categories will be awarded.
> - Financial support will be given to support setting up of Testing facilities in Green Hydrogen equipment and products.
> - Conversion of Vessels will be undertaken to use Green Methanol / Green Ammonia by Shipping Corporation of India.
> - International Conference on Green Hydrogen – 2025 will be organized in September, 2025."

CHAPTER - V
RENEWABLE ENERGY FOR NORTH-EASTERN STATES, SCs/STs AND ISLANDS

5.1 When asked about the programmes being implemented by the Ministry in North-Eastern (NE) States, Andaman & Nicobar (A&N) Islands and Lakshadweep Islands, the Ministry stated that PM Surya Ghar: Muft Bijli Yojana, PM-KUSUM, Solar Park Scheme and CPSU Scheme Phase-II, New Solar Power Scheme under PM JANMAN and DA JGUA and National Bioenergy Programme are being implemented in the NE Region and the two Islands.

5.2 Under PM KUSUM, the Ministry has furnished that no demand has been received from Lakshadweep Islands and thus, no sanction has been carried out. Further, no fund has been released to A&N and Lakshadweep Islands under the Scheme. Similarly, under Small Hydro Power, no commissioned projects have been reported from A&N and Lakshadweep Islands between 2020-21 to 2024-25 (till 31.01.2025).

5.3 In response to a query about financial expenditure *vis-à-vis* allocation during the previous years for the North-Eastern States, the Ministry furnished the following:

(In Rs Crore)

Year	BE	RE	Funds utilized
2021-22	565	499	65.18
2022-23	679	670	16.37
2023-24	988	749*	33.14*
2024-25	1,459.43	_	_

*Out of the total RE amount of Rs. 749 crore for NE Region, an amount of Rs. 704 crore was placed at the disposal of Department of North East Region to enable them to incur the expenditure.

5.4 To a query regarding the reasons for non-achievement of targets and low utilization of funds in NE States, A&N and Lakshadweep Islands, the Ministry stated as below:

"**PM KUSUM**: Delay in the achievements is due to:

- Low demand received under the Scheme in NER, A&N Islands and Lakshadweep Islands.
- Delay in implementation due to time taken in getting State approval for its share and delay in vendor empanellment.

- Delay in approval of tariff by SERCs by regulators.
- Under Component A, the availability of financing to the farmers was an issue as banks were initially reluctant to extend loans. After continued efforts of the Government, the component is now taken under Agricultural Infrastructure Funds which enable farmers access to fianncing at interest subvention.
- Under Components B, the delay in finalization of the centralized tendering process and empanelment of the lesser number of vendors led to slow progress. Moreover, the unavailability of the State share of subsidy has also impacted the progress.
- Under Component C the reluctance of the farmers to contribute the required beneficiary share for individual pump solarization has led to slow progress.

Small Hydro Power: No separate targets were set for NER, Andaman & Nicobar Islands and Lakshadweep Islands. Reasons for low physical achievement in NER are difficult locations of SHP projects, short working season in hilly areas and natural calamities such as flash floods. Also, since there is no existing SHP Scheme, no new projects are being sanctioned.

Biogas Programme

- The increase in costs of construction of biogas plant in NER Regions mainly due to increase in prices of cement, sand, bricks and steel and other equipment and accessories which are the major contributors in total cost of a biogas plant, have resulted in lower installations of household biogas plant.
- Impact of PM-Ujjwala Scheme.
- Back-ended subsidy/ CFA support & problem faced in DBT mode of Scheme implementation.
- Most of the newly designated State Programme Implementing Agencies; mainly the State Rural Development Departments could not initiate the implementation during last three years also and Ministry has taken up this matter with the States/UTs."

5.5 When asked about the budgetary allocations for the programmes during 2025-26 in NE States, A&N Islands and Lakshadweep Islands, the Ministry furnished the following:

"During the year 2025-26, Rs. 2,626 crore have been earmarked for North Eastern States. The Scheme/programme-wise details are as follows:

Statement of Budget Estimates		
		(In Rs Crore)
Sl. No.	**Name of Scheme**	**BE 2025-26**
1.	Solar Power (Grid) - NER	200.00
2.	PM Surya Ghar Muft Bijli Yojana - NER	2,150.00
3.	PM-KUSUM - NER	261.50
4.	Biogas Programme (Off-grid) -NER	9.50
5.	Hydro Power (Grid) - NER	5.00
Total		**2,626.00**

All the major Schemes being implemented by the ministry in the NE region are based on demand received from NE states.

In the Islands, projects are sanctioned as per proposals received from the Budget of the concerned programme."

5.6 Details regarding financial expenditure vis-à-vis allocation by the Ministry for SCs and STs during the last five years, as furnished by the Ministry are given below:

						(In Rs Crore)
	SC component			**ST component**		
Year	**BE**	**RE**	**Funds utilized**	**BE**	**RE**	**Funds utilized**
2020-21	469.00	278.00	206.22	486.00	288.00	204.99
2021-22	469.00	414.00	245.37	486.00	429.00	239.65
2022-23	564.00	556.00	367.67	584.00	576.00	349.98
2023-24	820.00	621.00	395.09	850.00	644.00	381.28
2024-25	1,225.92	1,405.00	956.12 (upto15.02.2025)	1,259.12	1,455.80	803.37 (upto15.02.2025)

5.7 As per the Ministry, for the year 2025-26, Rs. 2,180 crore and Rs. 2,258 crore has been allocated towards SC component and ST component respectively.

CHAPTER - VI
NEW TECHNOLOGIES, RESEARCH AND DEVELOPMENT IN RENEWABLE ENERGY SECTOR

6.1 As per the Ministry, to promote research & development (R&D) in renewable energy sector, Renewable Energy Research and Technology Development Programme (RE-RTD) is being implemented with a total budget of Rs. 228 crore for the period 2021-22 to 2025-26. A budget of Rs. 46 crore has been allocated for 2025-26.

6.2 The budgetary allocation and actual expenditure incurred on development/incorporation of new technologies as well as research and development in renewable energy sector, as furnished by the Ministry are given below:

(In Rs Crore)

Year	BE	RE	Funds utilized
2021-22	75.00	27.50	26.93
2022-23	35.00	45.00	40.39
2023-24	70.00	4.00	1.96
2024-25	46.00	30.00	26.52* (upto 15.02.2025)

*Limit assigned

6.3 When the Committee wanted to know the reasons for non achievement of targets and low utilization of funds during the previous years, the Ministry stated that:

> "R&D projects are generally completed with a duration of three to four years and the associated efforts are continuous in nature. The Funds are released after compilation of various milestones achieved and proper evaluation of the ongoing projects. The Scheme was under review and was continued on 9th December 2021 and 7 nos. of new R&D projects have been sanctioned during this period. During year 2023-24, due to a modified mechanism for research and development in RE sector implemented with Ministry of Power, new projects could not be undertaken and this resulted into low utilization of fund."

6.4 In response to a query about the major programmes/research being undertaken and major achievements during the previous years, the Ministry stated as under:

"Major research were supported in the area of Solar Photovoltaic, Solar Thermal, Hydrogen, Fuel cells and Wind-Solar hybrid systems under the R&D programme. The major achievements are given below:

- Development of high-efficiency perovskite solar cells of 25.8% efficiency and 30% efficient of perovskite-silicon tandem solar cells by NCPRE, IIT Bombay.
- To Develop 100 cm2 perovskite solar modules through AI assisted robotic system by IIT Bombay.
- The CSIR-National Physical Laboratory (NPL) collaborated with PTB Germany (Physikalisch-TechnischeBundesanstalt) developed the first-of-its-kind primary standard solar cell facility in the country with the lowest calibration uncertainty in the world which would help the solar manufacturing industry achieve significant cost savings.
- As a major impetus to India's Green Hydrogen ambitions, NTPC launched India's first Hydrogen fuelled Bus trials in Leh.
- International Advanced Research Centre for Powder Metallurgy and New Materials, Centre for Fuel cell Technology (ARCI-CFCT) established a first-of-its-kind automated assembly line for the fabrication of a Proton-Exchange Membrane (PEM) Fuel cell in the country utilizing indigenous components.
- The Ministry launched bids for the development of 4 GW offshore wind capacity off the coast of Tamil Nadu in February 2024 drawing on the findings of the R&D project on Met-Ocean measurements carried out by the National Institute of Wind Energy (NIWE) at the Gulf of Khambhat and Gulf of Mannar.
- In Bioenergy area, a Biomass Gasification through Plasma Pyrolysis Technology for Chemicals Production has been developed by IIT Roorkee. Densification and co-firing of agro-waste for power generation through gasification is going on at SSS-NIBE Kapurthala.
- A Centre of Excellence for Small Hydro at IIT-Roorkee has been sanctioned for research and development for Small Hydro, Ultra Low head and Hydrokinetic Turbines and its testing."

6.5 Regarding the thrust areas that have been identified for R&D support in the renewable energy sector during the year 2025-26, the Ministry furnished as below:

"Support will be provided for development, demonstration, testing, standardization, and validation of technologies/ systems/ components with emphasis on application oriented R&D, improving efficiency, reliability and cost effective for indigenous development and manufacture. Participation of industry will be encouraged. In solar thermal, the thrust areas include development of solar thermal

technology for power generation and industrial process/heat, storage systems, hybridization, etc.

In Solar Photovoltaic (SPV), thrust is on improving Solar PV efficiency, reducing the cost, developing solar cells by using alternative materials, production of Si material from sand, improving modules quality and reliability, development of standard designs for support structure for SPV systems, materials and fabrication technology for solar cells and modules, inverters, power conditioning units, grid integration, etc. In addition, focus would also be on storage solutions like sodium ion battery, thermal storage etc.

The thrust areas in biogas include development of efficient and cost-effective designs of biogas plants, standardization of multiple designs of biogas plants, standardization of biogas slurry-based bio-fertilizer, bio-manure up-gradation, development of biogas purification systems, development of efficient biogas engine for power generation.

In wind, the thrust areas include wind turbine system design, integration, off-shore technology and wind solar hybrid systems.

In Small Hydropower (SHP), thrust areas include development of ultra-low head turbines (below 3m), generators, monitoring systems, pumped storage systems, etc.

In New Technologies, the thrust area includes development of Geothermal Energy, tidal and wave energy demonstrations plants."

CHAPTER - VII
PSUs/AUTONOMOUS BODIES UNDER THE MINISTRY OF NEW AND RENEWABLE ENERGY

7.1 To support the Ministry, there are five institutions i.e. two Public Sector Undertakings - Indian Renewable Energy Development Agency (IREDA) and Solar Energy Corporation of India (SECI) and three autonomous bodies- National Institute of Solar Energy (NISE), National Institute of Wind Energy (NIWE) and National Institute of Bio Energy (NIBE).

7.2 Details regarding budgetary allocation for the year 2025-26 for PSUs/Institutions under MNRE, as furnished by the Ministry, are given below:

Sl. No.	Institution	Objective/Focus Areas	BE 2025-26 (In Rs Crore)
1	Indian Renewable Energy Development Agency (IREDA)	It is a Non-Banking Financial Institution engaged in promoting, developing and extending financial assistance for setting up projects relating to new and renewable sources of energy and energy efficiency/conservation.	-
2	Solar Energy Corporation of India (SECI)	It is a Navratna CPSU dedicated to the development and expansion of renewable energy capacity in India.	-
3	National Institute of Solar Energy (NISE)	It is the national research & development institution in the field of solar energy.	28.40
4	National Institute of Wind Energy (NIWE)	It serves as the technical focal point for wind power research & development.	31.00
5	National Institute of Bio Energy (NIBE)	It focuses on research & development in Bio Energy	14.00

(A) INDIAN RENEWABLE ENERGY DEVELOPMENT AGENCY (IREDA)

7.3 The financial performance of IREDA during the previous years, as furnished by the Ministry, is as follows:

Amount: In Rs. Crore

Parameters	2022-23	2023-24	2024-25 (as on 31.12.2024)

Loan Sanctions	32,586.60	37,353.68	31,086.81
Loan Disbursements	21,639.21	25,089.04	17,236.09
Total Income	3,483.05	4,965.29	4,840.08
Profit Before Tax	1,139.25	1,685.24	1,473.84
Profit After Tax	864.63	1,252.23	1,196.81
NPA % (Gross)	3.21%	2.36%	2.68%
NPA % (Net)	1.66%	0.99%	1.50%
Net Worth	5,935.17	8,559.43	9,842.07
Loan Book	47,075.52	59,698.11	68,959.61
CRAR (%)	18.82%	20.11%	19.63%
MoU Ratings	Excellent	Excellent	_

7.4 The details of Internal and Extra Budgetary Resources (IEBR) of IREDA for the last 5 years are given below:

(In Rs. Crore)

Year	BE	RE	Funds utilized
2020-21	13,551.85	9,496.26	8,926.28
2021-22	11,017.82	19,639.74	15,145.21
2022-23	27,572.34	25,603.51	18,065.32
2023-24	35,777.35	20,496.59	25,633.94
2024-25	30,130.00	31,132.58	20,209.04*

*Provisional as on 31.01.2025

(B) SOLAR ENERGY CORPORATION OF INDIA (SECI)

7.5 The Ministry furnished the following details regarding financial allocation (equity) to SECI during the previous years:

(In Rs Crore)

Year	Equity	Capital Grant
2020-21	NIL	NIL
2021-22	1000*	NIL
2022-23	NIL	NIL
2023-24	NIL	12.10**
2024-25	NIL	5***

*Govt. of India, vide SO No. 123/5/2020-SECI dated 27.03.2022, infused the equity support of Rs. 1000 Cr. on 28.03.2022.

**Govt of India, vide F. No. 320/14/2017-NSM (Part-1) dated 29.09.2023 has sanctioned the Capital Grant of Rs. 12.10 Cr. for 100MW Rajnandgaon Solar Park, Chhattisgarh, which has been received on 01.11.2023 and fully utilized for the purposes granted. Further, Govt of India, vide F. No. 320/14/2017-NSM (Part-1) dated 26.03.2024 has sanctioned the Capital Grant of Rs. 5.00 Cr. for 100MW Rajnandgaon Solar Park, Chhattisgarh, which has been received in FY 2024-25 (till 31st July 2024).

*** Grant received from MNRE in FY 2024-25, however, capital expenditure in relation to 100MW Rajnandgaon, Chhattisgarh has already been incurred in FY 2023-24.

7.6 The Ministry stated that SECI's available financial resources are adequate to meet the present working capital requirements arising from its power trading activities, and the Capital Expenditure (in the form of equity

and debt) for funding its ongoing own projects. SECI has already tied up with the World Bank for funding some of its projects, and commercial loans will be raised at the appropriate time for raising the balance funds requirement.

(C) NATIONAL INSTITUTE OF SOLAR ENERGY (NISE)

7.7 Financial allocation vis-à-vis utilization for the last five years is as follows:

(In Rs. Crore)

Year	BE	RE	Funds utilized
2020-21	5.00	13.00	13.00
2021-22	19.50	15.95	13.78
2022-23	16.00	16.00	13.00
2023-24	20.00	20.00	17.31
2024-25	20.00	25.55	16.36 (upto 12.02.2025)

(D) NATIONAL INSTITUTE OF WIND ENERGY (NIWE)

7.8 On being asked about financial allocation vis-à-vis utilization by NIWE during the previous years, the Ministry furnished the following:

(In Rs. Crore)

Year	BE	RE	Funds utilized
2020-21	1.50	13.50	13.50
2021-22	20.84	20.00	20.00
2022-23	22.00	22.00	22.00
2023-24	24.50	12.25	12.25
2024-25	30.50	25.95	25.95

(E) NATIONAL INSTITUTE OF BIO ENERGY (NIBE)

7.9 Details regarding financial allocation vis-à-vis utilization by NIBE during the previous years, as furnished by the Ministry are as follows:

(In Rs. Crore)

Year	BE	RE	Funds utilized
2020-21	4.70	_	4.70
2021-22	8.33	4.96	4.96
2022-23	7.00	7.00	7.00
2023-24	9.50	11.50	9.77
2024-25	9.50	11.00	_

PART – II
OBSERVATIONS/RECOMMENDATIONS OF THE COMMITTEE

BUDGET ALLOCATION AND UTILIZATION

1. The Committee note that the Ministry had projected the budgetary requirement of Rs. 41,343.19 crore for the financial year 2025-26 against which an amount of Rs. 26,549.38 crore has been allocated to the Ministry. This is a reduction of about 36% in the allocation vis-à-vis demand. The allocated amount of Rs. 26,549.38 crore includes Rs. 21,349.38 crore as Budget Estimates and Rs. 5,200 crore from Sovereign Green Fund. The Committee observe that about 91.2% budget of the Ministry is allocated for only one component i.e. Solar Energy. Under Solar Energy component itself, about 82.5% of the budget is for implementation of only one Scheme i.e. PM Surya Ghar: Muft Bijli Yojana. About 2.1% of the budget has been allocated for clearing past liabilities related to Wind and Small Hydro projects. National Bioenergy Programme has been allocated about 1.2% of the budget. National Green Hydrogen Mission and Green Energy Corridor have been allocated a budget of about 2.3% each. The Support Programme which includes Renewable Energy related Research & Development has been allocated 0.3% of the budget. The remaining 0.6% of the Budget has been allocated for Establishment Expenditure, Autonomous Bodies and other Capital expenditure. The Committee observe that the utilization has been about 86%, 88%, 82% and 83% in the years 2020-21, 2021-22, 2022-23 and 2023-24, respectively. For the year 2024-25, the utilization has been about 68% (till 15.02.2025). The two major reasons cited by the Ministry for under-utilization of budgetary allocations include two consecutive waves of COVID and non-receipt of adequate proposals from the North-Eastern States. The Committee understand the difficulties faced by the Ministry in effective implementation of Schemes during COVID pandemic. With regard to poor utilization in North-Eastern areas,

the Committee are of the view that mere allocation of funds is not enough to develop renewable energy sector in this area. The Committee feel that North-East region has huge potential of renewable energy but the region's difficult terrain, economic and technological backwardness as well as lack of skilled manpower discourage RE developers from setting projects there. Therefore, the Committee are of the opinion that regular stakeholder consultations, additional incentivization of renewable energy developers and allaying apprehensions of the local communities by closely working with them could create suitable conditions for setting up of renewable energy projects in the region.

PM-SURYA GHAR: MUFT BIJLI YOJANA

2. The Committee note that PM-Surya Ghar: Muft Bijli Yojana was launched on 13th February, 2024 with the aim of installing rooftop solar plants in one crore households. An allocation of Rs. 20,000 crore has been made for 2025-26. As per the information furnished by the Ministry during the Sitting of the Committee on 25th February, 2025, around 1.72 crore registrations have been done and 45.85 lakh applications have been submitted on the National Portal for Rooftop Solar. However, when it comes to actual installation, only around 9.05 lakh households have been installed with solar panels and around 6 lakh households have received subsidies. The Ministry has further furnished that the target for 2025-26 is around 35 lakh installations which is around four times of the current installations. The Committee are of the view that given the current pace of installations, achieving the target of 2025-26 will be challenging for the Ministry. The Committee are happy to note the measures taken by the Ministry to simplify the installation process viz. dedicated national portal, easy vendor registration, vendor training, loan availability to consumers, deemed technical feasibility, time-bound inspection and online grievance redressal tools, etc. However, the Committee are of the opinion that the

Scheme needs to hasten its pace in terms of actual installations made. The Committee are of the view that for the Scheme to be successful as envisaged, the State Governments, DISCOMs and other stakeholders need to be fully onboard. The Committee recommend the Ministry to take appropriate measures towards increasing awareness and educating the public about the Scheme, preferably in their local language, highlighting the benefit of long term savings in their electricity bill after opting for the Scheme. The Committee would also recommend for strengthening the Operation & Maintenance clause alongwith their strict compliance which would instill confidence among the consumers about the long term support under the Scheme. With regard to Solarization of Government buildings which is also a component under the Scheme, the Committee recommend the Ministry to regularly monitor their progress in order to ensure their timely completion.

PM-KUSUM

3. 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 total central financial outlay under the Scheme is Rs. 34,422 crore and a budget of Rs. 2,600 crore has been allocated for the year 2025-26. The Committee observe that targets under different components of the Scheme could not be achieved and hence its timeline has been extended till March, 2026. The Committee note that the component-A has been brought under Agriculture Infrastructure Fund (AIF) as a result of which loans at a subsidized rate are expected to be available to farmers for setting up solar plants of size upto 2 MW. The Committee appreciate the inclusion of the Component-A under AIF and hope this will provide the required impetus to encourage

farmers towards investing in solar plants. For Component-B, during last year, the Committee had highlighted the inadequacy of 7.5 Horsepower (HP) solar pumps in drawing required quantities of water in dark zones. The Committee are happy to note that a provision has been made to allow higher capacity solar pumps in dark zones, when applied as a group viz. Farmer Producer Organisations (FPOs), Primary Agricultural Credit Societies (PACS), Water Users Association (WUA) etc. Under Component-C, the Committee note with satisfaction the revisions in provisions related to land, sub-station and development of online portal, etc. to simplify feeder level solarisation in the country. The Committee further observe that under Component-C, the allocations of non-performing States have been diverted to States like Gujarat and Maharashtra etc. which are capable of adding solar capacity by the end of the Scheme viz. March, 2026. Given the wide changes incorporated under all three components of the Scheme, the Committee hope that the respective targets for the year 2025-26 would be met. The Ministry has furnished to the Committee that it is working towards a proposal for the approval of the Expenditure Finance Committee for PM KUSUM 2.0. The Committee expect the new version to be robust and flexible, incorporating all the important learnings from the current version and addressing issues thereto. The Committee also anticipate that under the new version, the Ministry would work towards handholding the weaker States in achievement of their targets alongwith justifiable share of allocation to economically stronger States of the country.

NATIONAL BIOENERGY PROGRAMME

4. The Committee note that the National Bioenergy Programme has a provision of Central Financial Assistance for setting up of Bioenergy projects in the country under the three components of Biomass Programme, Waste to Energy Programme and Biogas Programme. The Committee observe inconsistent target allocation and achievement

under the programme. Under Waste to Energy Programme, during the last five years, the achievement has consistently been higher than the target except during 2024-25 when 97% of the target has been met by 31st January, 2025. Under Biomass Programme, during 2020-21 and 2021-22, the achievement was too low compared to the target but for the last three years, the achievement has constantly overshot target by huge margins. Under Biogas Programme, the achievement has been poor and in no year during the last five years, it has been even close to the target. When it comes to budgetary allocation, the Committee note that during last five years, the allocation has been reduced at revised stage for each year. The reduction was significant during 2023-24 when the estimated amount of Rs. 381.85 crore was reduced by a huge 80% to only Rs. 75 crore at revised stage. Even after this significant reduction, the entire amount was not utilized. Similarly, for 2024-25, the Budget Estimate of Rs. 300 crore has been reduced by around 62% to Rs. 185 crore at revised stage, of which only around 65% has been utilized till 15th February, 2025. Overall, the Committee find under-utilization as a persistent issue under this programme. The reasons cited by the Ministry for low utilization of funds include delay in commissioning of plants, non-achievement of plant performance and delay in inspection. The Committee believe that the reasons cited by the Ministry for low utilization of funds under the National Bioenergy Programme are avoidable and could have been mitigated to achieve the target. The Committee are of the view that the Phase-I of the Scheme is nearing completion in March 2026 and yet the Ministry has not been able to synchronize the targets and allocations under the Scheme. The Ministry has furnished that proposal for Phase-II of the Programme is under preparation for submission to Expenditure Finance Committee (EFC). The Committee, therefore, recommend for prioritization of this much needed programme and urge the Ministry to closely monitor the projects under all three components to ensure timely inspection,

commissioning, achievement of required plant performance as well as timely disbursal of subsidies.

WIND ENERGY

5. The Committee note that against the potential of 1,164 GW of Wind energy in the country, the installed capacity is only around 48 GW. The Ministry has furnished that wind power projects are being set up by private developers based on techno-economic viability and the funds allocated to the Ministry is being utilized for meeting liabilities under Wind Generation Based Incentive Scheme which was operational till March, 2017. Currently, there is no Scheme for Onshore wind power and hence, there is no linkage between capacity commissioned and budgetary allocation. With regard to Offshore wind, the Ministry has furnished that the potential is around 70 GW in the two zones of Gujarat coast and Tamil Nadu coast and the first tender for development of 500 MW of Offshore wind energy capacity off the coast of Gujarat has already been floated by SECI. The Committee urge the Ministry to devise a mechanism to closely and effectively monitor the development of Offshore wind projects in the country. The Ministry has furnished that the annual manufacturing capacity in wind is more than 18 GW with 14 manufacturers producing nearly 80% of the components within the country. However, the Committee note that components like gear box, bearings, yaw components, wind turbine controllers etc. are still being imported. The Committee, therefore, recommend that adequate measures be taken by the Ministry to facilitate the development and indigenization of entire technology related to wind energy. Further, the Committee are of the view that evacuation and grid integration of wind power should also be planned in advance by the Ministry for proper utilization of the wind energy.

SMALL HYDRO POWER (SHP)

6. The Committee note that Small Hydro Power programme was discontinued in 2017 and since then, the budget allocations have been used to clear old liabilities only. The Committee observe that the target under small hydro over the years has remained constant at 100 MW but still it has not been achieved for most years. The reasons cited by the Ministry include difficult locations, short working season in hilly areas and natural calamities such as flash floods, apart from Covid outbreak. Like previous years, this year too, the Ministry has furnished that it is working on approval of a new SHP Scheme. The Committee, while acknowledging the difficulties faced in developing small hydro projects, would also expect that by now, the Ministry should have developed the knowhow and expertise to deal with difficulties associated with hydro projects. The Committee are further of the view that a new comprehensive Scheme would enable the Ministry to develop small hydro projects in a dedicated manner and therefore, urge the Ministry to come out with the new SHP Scheme at the earliest without any further delay.

GREEN ENERGY CORRIDOR (GEC)

7. The Committee note that the Phase-I of Intra-State GEC has been given multiple extensions, but still the work has not been completed. Last year, the Ministry stated that the target envisaged under the Scheme viz. 9,767 Circuit Kilometers (CKM) of transmission lines and 22,689 Mega Volt-Amperes (MVA) transformation capacity of substations in eight States of Andhra Pradesh, Gujarat, Himachal Pradesh, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Tamil Nadu, would be completed by March, 2025. However, as per the information furnished by the Ministry in February, 2025; the Intra-State GEC Phase-I has been further delayed as the States of Andhra Pradesh, Himachal Pradesh and Maharashtra have sought extension upto June,

2025. The reasons cited by the Ministry for the incessant delay under the Scheme include Right of Way (RoW) issues, delay in issuing tenders because of delay in substation land acquisition, delay in award of works, court cases, forest clearances, Great Indian Bustard (GIB) related clearance etc. Though, the Committee recognise Right of Way and land acquisition as major issues in laying of transmission lines and setting up of substations, they are also of the view that long delays should not become a regular feature in every transmission project. As transmission infrastructure is critical for timely evacuation of power from renewable energy projects, the Committee urge the Ministry to closely coordinate with State Governments as well as other stakeholders to resolve the issues being faced. The Committee also expect timely disbursement of compensation under RoW and land acquisition to prevent unnecessary delays under such Schemes. With regard to Phase-II of Intra-State GEC, the Committee note that it is scheduled to be completed by 2025-26. The Committee urge the Ministry to regularly monitor its progress to ensure its timely completion. For Inter-State Transmission project in Ladakh, the Committee note that PowerGrid has been made the nodal agency. Being the dominant player in transmission sector, the Committee expect PowerGrid to have the technological knowhow and manpower to execute this project within the given budget and timeline. The Committee also expect the Ministry to closely monitor this ambitious project for its timely completion.

NATIONAL GREEN HYDROGEN MISSION

8. The Committee note that the National Green Hydrogen Mission is an ambitious plan that is aimed at building capabilities to produce 5 million metric tonnes per annum (MMTPA) of Green Hydrogen by 2030. The Mission also aims to make India a leader in technology and manufacturing of electrolysers and other enabling technologies for Green Hydrogen. An amount of Rs. 600 crore has been allocated under

the Mission for 2025-26. The Committee believe that India has huge potential for developing and exporting Green Hydrogen and therefore, would like to appreciate the Government for launching this Mission. The Committee agree with the Ministry's submission that Green Hydrogen can prove beneficial in 'Hard to Abate' sectors, where power from renewable energy cannot be entirely relied upon like Steel, Cement, Transport etc. However, the Committee also note that there are certain issues associated with the development of Green Hydrogen which require attention. First and foremost, production of Green Hydrogen is an expensive process. Apart from high cost, the requirement of huge quantities of fresh water poses immense challenge to the sector. Therefore, the Committee are of the view that coherent advance planning is necessary to build the requisite infrastructure and technology for achieving scale and economy in Green Hydrogen production. The Committee are happy to note that discussions with coastal States like Odisha is underway to develop common facility for desalination of sea water to fresh water. Such a facility could lessen the burden on the already stressed fresh water resource in the country. The Committee would like to emphasise the need for investing in R&D related to Green Hydrogen. The Committee note that during 2024-25, the budgetary allocation of Rs. 600 crore was reduced to Rs. 300 crore at revised stage, out of which only Rs. 81.15 crore has been utilized till 15th February, 2025. Though, the Committee recognise that disbursement of funds under the Mission is largely dependent upon the progress of developers, they are also of the view that the Ministry need to work closely with the developers, removing any such regulatory bottlenecks that are causing delays in target achievement under the Mission.

RENEWABLE ENERGY RESEARCH AND TECHNOLOGY DEVELOPMENT PROGRAMME (RE-RTD)

9. The Committee note that for undertaking research and development (R&D) in Renewable Energy (RE) sector, the Ministry is implementing Renewable Energy Research and Technology Development Programme (RE-RTD) with a total budget of Rs. 228 crore for the period 2021-22 to 2025-26. For the year 2025-26, a budget of Rs. 46 crore has been allocated under the Scheme. The Committee note constant reduction in allocations at revised stage and even lesser utilization since the beginning of the Scheme, except during 2022-23 when the budget was increased by Rs. 10 crore at revised stage. Even last year i.e. 2024-25, the allocation of Rs. 46 crore was reduced to Rs. 30 crore at revised stage, out of which Rs. 26.52 crore has been utilized till 15th February, 2025. The Committee are of the view that R&D in RE needs greater focus in coming years, particularly considering the fact that India is still largely dependent on imports for meeting its requirement of Solar PV Modules as well as other RE-related equipments.

New Delhi;
11 March, 2025
Phalguna 20, 1946 (Saka)

Shrirang Appa Barne
Chairperson,
Standing Committee on Energy

ANNEXURE-I

EXPENDITURE									
SBE									
STATEMENT OF BUDGET ESTIMATES									
DEMAND NO.: 71									
MINISTRY/DEPARTMENT: MINISTRY OF NEW AND RENEWABLE ENERGY									
(Rs. In crores)									
		Actuals		BE		RE		BE	
		2023-24		2024-25		2024-25		2025-26	
		Revenue	Capital	Revenue	Capital	Revenue	Capital	Revenue	Capital
A.	CENTRE'S EXPENDITURE								
I	Establishment Expenditure								
3451	Secretariat Economic Services	49.26		69.79		65.58		69.41	0.00
4810	Office Buildings		8.20		12.00	-	5.00		5.00
5475	Capital Outlay on Other General Economic Services	-	2.67	-	5.45	-	2.00		2.20
TOTAL- Establishment Expenditure		**49.26**	**10.87**	**69.79**	**17.45**	**65.58**	**7.00**	**69.41**	**7.20**
II	Central Sector Schemes								
2	Schemes of MNRE								
2.05	Solar Energy								
2810	Solar Power (Grid)	3670.65		10000.35		1300.00		1500.00	
2810	Solar Power (Off-grid)	34.42		24.01		12.00		0.01	
2810	PM-Kisan Urja Suraksha evamUtthaanMahabhiyan (PM-KUSUM)	1000.58		1996.00		2525.00		2600.00	
2810	Interest Payment and issuance Expenses on Bonds	124.42		124.39		124.35		124.35	
2810	PM Surya Ghar Muft Bijli Yojna	0		6250.00		11100.00		20000.00	
Total – Solar Energy		**4830.07**		**18394.75**		**15061.35**		**24224.36**	
2.06	Bio Energy Programme								
2810	Bio Power (Grid)	4.97		80.00		0.00		30.00	
2810	Bio Power (Off-grid)	20.00		125.00		125.00		200.00	
2810	Biogas Programme (Off-grid)	45.55		95.00		60.00		95.00	
Total – Bio Energy Programme		**70.52**	**0.00**	**300.00**	**0**	**185.00**	**0**	**325.00**	
2.07	Programme for Wind and other Renewable Energy								
2810	Wind Power (Grid)	916.3		930.00		800.00		500.00	
2810	Hydro Power (Grid)	13.45		50.00		45.00		50.00	
2810	Hydro Power (Off-grid)	-		1.00		1.00		1.00	
Total – Programme for Wind and other Renewable Energy		**929.75**	**0.00**	**981.00**		**846.00**		**551.00**	
2.08	Support Programme								
2810	Monitoring & Evaluation	-		0.01		0.01		0.01	
2810	Information and Public Advertising (I&PA)	5.88		10.00		8.00		9.50	
2810	Human Resources Development and Training	23.64		47.00		30.00		40.00	
2810	International Relations	2.25		4.00		3.00		3.50	
2810	International Solar Alliance (ISA) Cooperation	100.00		100.00		100.00		-	
2810	Research and	1.96		46.00		30.00		46.00	

	Development								
Total – Support Programme		**133.73**	**0.00**	**207.01**		**171.01**		**99.01**	
2.09	**Hydrogen Mission**								
2810	National Green Hydrogen Mission	0.11		600.00		300.00		600.00	
Total – Hydrogen Mission		**0.11**	**0.00**	**600.00**		**300.00**		**600.00**	
2.10	**Storage and Transmission**								
2810	Green Energy Corridor	413.15		600		600		600.00	
Total – Storage and Transmission		**413.15**	**0.00**	**600.00**		**600.00**		**600.00**	
Total – Central Sector Schemes		**6377.33**	**0.00**	**21082.76**		**17163.36**		**26399.37**	
III	**Other Central Expenditure**								
3	**Autonomous Bodies**								
2810	National Institute of Wind Energy	12.25		30.50		25.95		31.00	
2810	National Institute of Bio Energy	11.40		9.50		11.00		14.00	
2810	National Institute of Solar Energy	18.00		20.00		25.55		28.40	
Total – Autonomous Bodies		**41.65**	**0.00**	**60.00**		**62.50**		**73.40**	
Investment in CPSEs									
4810	Indian Renewable Energy Development Agency (IREDA)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4810	Solar Energy Corporation of India (SECI)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total – Investment in CPSEs		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total		**6468.24**	**10.87**	**21212.55**	**17.45**	**17291.44**	**7.00**	**26542.18**	**7.20**
		6479.11		**21230.00**		**17298.44**		**26549.38**	

ANNEXURE-II

<table>
<tr><th>Scheme/Programmes</th><th>Incentives presently available as per the Scheme</th></tr>
<tr><td>a) PM Surya Ghar: Muft Bijli Yojana</td><td>1. Under the PMSG: MBY, the CFA for installation of Rooftop Solar in the Residential Sector is given below:
<table>
<tr><th>S.No.</th><th>Type of Residential Segment</th><th>CFA</th><th>CFA (Special Category States/UTs)</th></tr>
<tr><td>1</td><td>Residential Sector (first 2 kWp of Rooftop Solar (RTS) capacity or part thereof)</td><td>Rs.30,000/kWp</td><td>Rs.33,000/kWp</td></tr>
<tr><td>2</td><td>Residential Sector (with additional RTS capacity of 1 kWp or part thereof)</td><td>Rs.18,000/kWp</td><td>Rs.19,800/kWp</td></tr>
<tr><td>3</td><td>Residential Sector (additional RTS capacity beyond 3 kWp)</td><td>No additional CFA</td><td>No additional CFA</td></tr>
<tr><td>4</td><td>Group Housing Societies/ Residential Welfare Associations (GHS/RWA) etc. for common facilities including EV charging up to 500 kWp (@ 3 kWp per house)</td><td>Rs.18,000/kWp</td><td>Rs.19,800/kWp</td></tr>
</table>
2. The PMSG: MBY Scheme includes the provision for incentive to DISCOMs to motivate and help them in activities such as create conducive regulatory and administrative mechanisms, achieve targets for implementation. The incentive is pegged at 5% of applicable benchmark cost for capacity achieved above 10% and less than 15% of installed base capacity; 10% of the applicable benchmark cost for capacity achieved beyond 15% of installed base capacity.
3. To push the deployment of residential rooftop solar system (RTS) and undertake local mobilization efforts, the PMSG: MBY Scheme also includes the provision for incentive to the Urban Local Bodies (ULBs) and Panchayat Raj Institutions (PRIs), at the rate of Rs.1000 for every installation of RTS in residential segment in the jurisdiction of ULB/PRI, for which CFA has been transferred to consumer.
4. Further, a fund of Rs. 800 crore has been provisioned for developing a Model Solar Village in each district of the country, with an assistance of Rs 1 crore per Model Solar Village under PMSG: MBY Scheme.</td></tr>
<tr><td>b) Central Public Sector Undertaking (CPSU) Scheme Phase-II (Government Producer Scheme) for grid-connected Solar Photovoltaic (PV) Power</td><td>Viability Gap Funding (VGF) support up to Rs. 55 lakhs per MW to the CPSUs/Govt. Organizations entities selected through competitive bidding process.</td></tr>
</table>

Scheme/Programmes	Incentives presently available as per the Scheme
Projects by the Government Producers	
c) 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 modules sold; and (iii) percentage of local value addition in modules sold.
d) Solar Park Scheme	(a) Up to Rs. 25 lakhs per Solar Park, for preparation of Detailed Project Report (DPR). (b) Rs. 20 lakh per MW or 30% of the project cost, whichever is lower, for development of infrastructure.
e) PM-KUSUM Scheme	**Component A**: Setting up of 10,000 MW of Decentralized Ground/Stilt Mounted Solar Power Plants Benefits 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 payable to DISCOMs is up to Rs. 33 Lakh per MW. **Component B**: Installation of 14 Lakh Stand-alone Solar Pumps Benefits 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, 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 B can also be implemented without State share of 30%. The Central Financial Assistance will continue to remain 30% and rest 70% will be borne by the farmer. **Component C:** Solarisation of 35 Lakh Grid Connected Agriculture Pumps including through Feeder Level Solarisation Benefits available: (a) Individual Pump Solarization (IPS): 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, 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. Component C (IPS) can also be implemented without State share of 30%. The Central Financial Assistance will continue to remain 30% and rest 70% will be borne by the farmer. (b) Feeder Level Solarization (FLS): Agriculture feeders can be solarized by the State Government in CAPEX or RESCO mode with CFA of Rs. 1.05 Crore per MW as provided by 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 provided.
f) Green Energy Corridor Scheme (for development of intra-state transmission system for Renewable Energy projects)	(a) GEC Phase-I: CFA of 40% of DPR cost or awarded cost whichever is lower. (b) GEC Phase-II: CFA of 33% of DPR cost or awarded cost whichever is lower.

Scheme/Programmes	Incentives presently available as per the Scheme
g) Biomass Programme	(a) For Briquette manufacturing plants: Rs. 9 Lakhs/MTPH (metric ton/hour) [Maximum CFA- Rs. 45 Lakh per project] (b) For Non-Bagasse Cogeneration Projects: Rs. 40 Lakhs/MW (on installed capacity) (Maximum CFA- Rs. 5 Crore per project) (c) For pellet plants whose applications have been received **before 16.07.2024**: Rs. 9 Lakhs/MTPH (metric ton/hour) [Maximum CFA- Rs. 45 Lakh per project] (d) For pellet plants whose applications have been received **on or after 16.07.2024** : i. For Non-Torrefied Pellet manufacturing plant: Rs. 21 lakhs/MTPH production capacity or 30% of the capital cost considered for plant and machinery of 1 MTPH plant, whichever is lower (Maximum Rs. 105 lakhs per project) ii. For Torrefied Pellet manufacturing plant: Rs. 42 lakhs/MTPH production capacity or 30% of the capital cost considered for plant and machinery of 1 MTPH plant, whichever is lower (Maximum Rs. 210 lakhs per project)
h) Waste to Energy Programme	(a) For Biogas generation: Rs. 0.25 crore per 12000 cum/day (Maximum CFA- Rs.5 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 Crore per 4800 Kg/day; (ii) BioCNG generation from existing Biogas plant - Rs 3 Crore per 4800 Kg/day; (c) For Power generation based on Biogas (Maximum CFA - Rs. 5 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 per MW (d) For Power generation based on bio & agro-industrial waste (other than Municipal Solid Waste (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 dual 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

Scheme/Programmes	Incentives presently available as per the Scheme
	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.
i) 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 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 North Eastern Region (NER), Island, Registered Gaushalas and SC/ST beneficiaries.
j) R&D programme	The Ministry encourages research and technology development proposals in collaboration with the industry and provides up to 100% financial support to Government/non-profit research organizations and up to 70% to Industry, Start-ups, Private Institutes, Entrepreneurs and Manufacturing units.
k) National Green Hydrogen Mission	• Strategic Interventions for Green Hydrogen Transition **(**SIGHT)programme for Electrolyser manufacturing has an allocation of ₹4,440 Crores. The incentives start from ₹4,440 per kW in the first year and end at ₹1,480 per kW in the fifth year. • SIGHT programme for Green Hydrogen production and its derivatives have an allocation of ₹13,050 Crores. o For Green Hydrogen Production, incentives are capped at ₹50/kg, ₹40/kg and ₹30/kg for the first, second and third year respectively. o For Green Ammonia production, incentives are ₹8.82/kg in the first year of production and supply, ₹7.06/kg during the second year of production and supply, and ₹5.30/kg during the third year of production and supply. • Pilot projects in Transport Sector have an outlay of ₹496 Crores till FY 2025-26. • Pilot projects in Shipping sector have an outlay of ₹115 Crores till FY 2025-26. • Pilot projects in Steel sector have an outlay of ₹455 Crores till FY 2029-30. • Hydrogen Hubs have an outlay of ₹200 Crores till FY 2025-26. • The R&D program of the Mission has a budget of ₹400 Crores till FY 2025-26. • Skill Development component of the Mission has an outlay of ₹35 Crores till FY 2029-30. • The Testing facilitation component of the Mission has an outlay of ₹200 Crores till FY 2025-26. • The New and Innovative Techniques and Applications for Green Hydrogen has an outlay of ₹200 Crores by FY 2025-26.

ANNEXURE – III

STANDING COMMITTEE ON ENERGY

MINUTES OF NINTH SITTING OF THE STANDING COMMITTEE ON ENERGY (2024-25) HELD ON 25th FEBRUARY, 2025 IN COMMITTEE ROOM 'D', PARLIAMENT HOUSE ANNEXE, NEW DELHI

The Committee met from 1100 hrs to 1330 hrs

MEMBERS - LOK SABHA

Shri Shrirang Appa Barne - Chairperson

2 Shri Shyamkumar Daulat Barve
3 Shri Devusinh Chauhan
4 Shri Shahu Shahaji Chhatrapati
5 Captain Brijesh Chowta
6 Shri Malaiyarasan D.
7 Dr. Shivaji Bandappa Kalge
8 Dr. Kirsan Namdeo
9 Shri Dulu Mahato
10 Shri Ramprit Mandal
11 Shri Jagdambika Pal
12 Smt. Shambhavi
13 Dr. Shrikant Eknath Shinde
14 Shri Abhay Kumar Sinha

MEMBERS - RAJYA SABHA

15 Shri Gulam Ali
16 Shri Ajit Kumar Bhuyan
17 Shri Javed Ali Khan
18 Shri Harsh Mahajan
19 Shri Rajeev Shukla

SECRETARIAT

1	Shri Ramkumar Suryanarayanan	Joint Secretary
2	Shri Kulmohan Singh Arora	Director
3	Shri Ajitesh Singh	Deputy Secretary
4	Ms. Deepika	Under Secretary

WITNESSES		
MINISTRY OF NEW AND RENEWABLE ENERGY		
1	Ms. Nidhi Khare	Secretary
2	Shri Sudeep Jain	Additional Secretary
3	Shri Padam Lal Negi	Joint Secretary & Financial Advisor
4	Shri Sanjay Chilwarwar	Joint Secretary
5	Shri J. Rajesh Kumar	Economic Advisor
PSUs/AUTONOMOUS BODIES		
6	Shri Rameshwar Prasad Gupta	CMD, SECI
7	Dr. Rajesh Katyal	Director General, NIWE
8	Dr. G. Sridhar	Director General, NIBE
9	Dr. Mohammad Rihan	Director General, NISE
10	Shri Vijay Kumar Singh	Director, REC Limited
11	Smt. Valli Natarajan	Executive Director, REC Limited
12	Shri Sushant Kumar	General Manager, IREDA

2. At the outset, the Hon'ble Chairperson welcomed the Members of the Committee and representatives of the Ministry of New and Renewable Energy, Indian Renewable Energy Development Agency, Solar Energy Corporation of India, National Institute of Wind Energy, National Institute of Bio – Energy, National Institute of Solar Energy and REC Limited to the Sitting and informed that the Sitting had been called for evidence in connection with examination of the Demands for Grants (2025-26) of the Ministry of New and Renewable Energy. The Chairperson also apprised them about the provisions of Directions 55(1) and 58 of the Directions by the Hon'ble Speaker.

3. During the discussion, a power-point presentation was made by the representatives of the Ministry of New and Renewable Energy which, *inter-alia,* covered Panchamrit Goals; RE Institutional Ecosystem; Installed Generation Capacity; India's RE – Past and Future; Source-wise Country Rankings; Sector-wise Capacity Status; Major Policy Reforms; Major Schemes & Programmes viz. PM Surya Ghar: Muft Bijli Yojana, PM KUSUM Scheme,

Solar Parks, Wind Energy, National Green Hydrogen Mission, National Bioenergy Programme, Intra-State Transmission System: Green Energy Corridors and GEC Phase-II Inter-State Transmission System for 13 GW RE in Ladakh; Manufacturing related to Solar PV Modules; PLI Scheme for High Efficiency Solar PV Modules; Wind Manufacturing; Renewable Energy Research and Technology Development Programme; Human Resource Development Scheme; MNRE Budget & Expenditure viz. MNRE Expenditure during last 3 years; Umbrella wise - RE and Expenditure 2024-25; Umbrella wise BE 2025-26 – Proposed and Sanctioned; BE 2025-26 viz-a-viz Capacity likely to be commissioned etc.

4. The Committee, *inter-alia,* deliberated upon the following points with representatives of the Ministry of New and Renewable Energy, IREDA, SECI, NIWE, NIBE, NISE and REC Limited:

i) Panchamrit Goals and the status related thereto;

ii) Reduction in allocated budget vis-à-vis proposed budget by the Ministry;

iii) Under-utilization of budget during past years and the need for improved expenditure;

iv) Performance of PM Surya Ghar: Muft Bijli Yojana;

v) Issues related to poor implementation of PM KUSUM;

vi) Reduced allocation under Wind and Small Hydro sector as well as for RE related research & development;

vii) Issues related to high cost and requirement of huge quantities of fresh water under National Green Hydrogen Mission;

viii) Performance of Green Energy Corridor and the challenges in Ladakh project;

ix) Poor expenditure in North-Eastern region and among SC/ST communities;

x) Domestic manufacturing of solar PV modules and Wind related equipments;

xi) Human Resource Development Scheme and the need for skilling manpower involved in RE sector;

xii) Performance of SECI, IREDA, NIWE, NIBE and NISE;

xiii) Achievements under Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan (PM JANMAN) and Dharti Aaba Janjatiya Gram Utkarsh Abhiyan (DA JGUA);

xiv) Progress of work under Battery Energy Storage System (BESS);

5. The Members also sought clarifications on various other issues relating to the Demands for Grants of the Ministry. The Committee directed the representatives to furnish within 10 days, written replies to those queries which could not be fully responded to.

The Committee then adjourned.

The verbatim proceedings of the Sitting have been kept for record.

*****

ANNEXURE – IV

STANDING COMMITTEE ON ENERGY

MINUTES OF TENTH SITTING OF THE STANDING COMMITTEE ON ENERGY (2024-25) HELD ON 11TH MARCH, 2025 IN COMMITTEE ROOM-3, PARLIAMENT HOUSE ANNEXE EXTENSION, NEW DELHI

The Committee sat from 1500 hours to 1530 hours

MEMBERS - LOK SABHA

Shri Shrirang Appa Barne - Chairperson

2. Shri Shyamkumar Daulat Barve
3. Shri Devusinh Chauhan
4. Captain Brijesh Chowta
5. Shri Malaiyarasan D.
6. Shri Chandra Prakash Joshi
7. Dr. Shivaji Bandappa Kalge
8. Dr. Kirsan Namdeo
9. Shri Nilesh Dnyandev Lanke
10. Shri Dulu Mahato
11. Shri Ramprit Mandal
12. Smt. Bijuli Kalita Medhi
13. Shri Jagdambika Pal
14. Smt. Shambhavi
15. Shri Chandubhai Chhaganbhai Shihora
16. Dr. Shrikant Eknath Shinde
17. Shri Abhay Kumar Sinha

MEMBERS - RAJYA SABHA

18. Shri Gulam Ali
19. Dr. Laxmikant Bajpayee
20. Shri Ajit Kumar Bhuyan
21. Shri R. Dharmar
22. Shri N.R. Elango
23. Shri Javed Ali Khan
24. Shri Harsh Mahajan
25. Smt. Mamata Mohanta

SECRETARIAT

1.	Shri Ramkumar Suryanarayanan	Joint Secretary
2.	Shri Kulmohan Singh Arora	Director
3.	Shri Ajitesh Singh	Deputy Secretary
4.	Ms. Deepika	Under 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 the 41st Report (17th Lok Sabha) 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'.

(ii) Report on Demands for Grants (2025-26) of the Ministry of Power.

(iii) Report on Demands for Grants (2025-26) of the Ministry of New and Renewable Energy.

3. After discussing the contents of the Reports in detail, the Committee adopted the abovementioned three draft Reports without any amendment/ modification.

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

The Committee then adjourned.