2

STANDING COMMITTEE ON ENERGY

(2024-25)

EIGHTEENTH LOK SABHA

MINISTRY OF NEW AND RENEWABLE ENERGY

DEMANDS FOR GRANTS
(2024-25)

SECOND REPORT

LOK SABHA SECRETARIAT
NEW DELHI

December, 2024/Agrahayana, 1946 (Saka)

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MINISTRY OF NEW AND RENEWABLE ENERGY
DEMANDS FOR GRANTS
(2024-25)

Presented to the Lok Sabha on 10th December, 2024

Laid in the Rajya Sabha on 10th December, 2024

LOK SABHA SECRETARIAT
NEW DELHI

December, 2024/ Agrahayana, 1946 (Saka)

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COMPOSITION OF THE STANDING COMMITTEE ON ENERGY (2024-25)

LOK SABHA

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3. Shri Jagadish Chandra Barma Basunia
4. Shri Devusinh Chauhan
5. Shri Shahu Shahaji Chhatrapati
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SECRETARIAT

1.	Shri Ramkumar Suryanarayanan	Joint Secretary
2.	Shri Kulmohan Singh Arora	Director
3.	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 Second Report on Demands for Grants (2024-25) 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 15th October, 2024. 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 3rd December, 2024.

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
3 December, 2024
Agrahayana 12, 1946 (Saka)

Shrirang Appa Barne
Chairperson,
Standing Committee on Energy

LIST OF ABBREVIATIONS	
AIF	Agriculture Infrastructure Fund
ALMM	Approved List of Models and Manufacturers
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
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
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
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
PTB	Physikalisch-Technische Bundesanstalt (Germany)
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

SEZ	Special Economic Zone
SHP	Small Hydro Power
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 RE scenario, the Secretary made the following observation:

> "If we look at the total cumulative renewable energy capacity, India is in fourth place. China is at the top, then USA, then Brazil and then India. These are the figures of December 2023. If we look at today's figures, there is only a little gap between Brazil and us."

1.3 with regard to the future of renewable energy and reduction of carbon emissions in the country, the Secretary made the following statement:

> "Hon'ble Prime Minister had announced some major targets in COP-26 in October 2021, which were quite bold and visionary. He had said that up to 500 GW of installed capacity will come only from renewable energy, from non-fossil fuel. Along with this, it was said that we will become 'net zero' by the year 2070 and the third thing was that

we will reduce the emission intensity by 45 percent as compared to the year 2005."

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 209.63 GW of non-fossil power capacity has been installed in the country as of 30.09.2024. This includes 201.45 GW Renewable Energy (including Large Hydro) and 8.18 GW Nuclear Power capacity. Non-fossil power has a share of 46.31% in the total installed electricity capacity of 452.7GW (as on 30.09.2024). The present power scenario (as on 30.09.2024) in the country has been given below:

Sector	**Capacity (in GW)**	**Percentage**
Thermal	243.06	53.69%
Nuclear	8.18	1.81%
Renewable Energy (including Large Hydro)	201.45	44.50%
Total	**452.69**	**100%**

1.5 Status regarding installation capacity of Non-Fossil Fuel Based Electricity as on 30th September, 2024 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	90.76	293.43	292
Wind Power	47.36	70.97	100
Bio Energy	11.33	11.33	15
Hydro (including large hydro)	52.00	70.56	78
Total Renewable Energy (including large hydro)	**201.45**	**446.29**	**485**
Nuclear	8.18	22.48	15
Total Non-Fossil Fuels	**209.63**	**468.77**	**500**

CHAPTER - II
DEMANDS FOR GRANTS (2024-25) 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 2024-25 on 31st July, 2024. 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	21,212.55	17.45	21,230.00

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 2024-25 *vis-à-vis* Budget Estimates and Revised Estimates of 2023-24 and actual expenditure during 2022-23 is given at **Annexure-I.**

2.4 Regarding the allocations sought for the year 2024-25 and the amount actually sanctioned by the Ministry of Finance, the Ministry furnished as under:

(In Rs. Crore)

Sl. No.	**Name of Umbrella /Scheme**	**Proposed BE 2024-25**	**Approved BE 2024-25**

1	Solar Energy	8,964.40	18,394.75
2	Bio Energy Programme	365.00	300.00
3	Programme for Wind and Hydro	981.00	981.00
4	Support Program	211.01	207.01
5	Hydrogen Mission	600.00	600.00
6	Storage and Transmission	600.00	600.00
Total of Central Sector Schemes		**11,821.41**	**21,082.76**
7	Secretariat Economic Services	69.79	69.79
8	Autonomous Bodies	93.00	60.00
9	Office Buildings	12.00	12.00
10	Capital Outlay on other General Economic Services	5.50	5.45
Total of Non-Scheme		**180.29**	**147.24**
Grand Total		**12,001.70**	**21,230.00**

2.5 When asked about the hike in Budgetary Outlay for the year 2024-25 as compared to last year, the Ministry stated that:

> "During the year 2024-25, BE of Rs. 21,230 crore has been allocated to the Ministry, which is an increase of about 170.51% over the RE of Rs. 7,848 crore for the year 2023-24. Additional funds have been provided for the implementation of PM Surya Ghar: Muft Bijli Yojana which has been launched on 13th February, 2024."

2.6 On being questioned about the sufficiency of the budgetary allocation made for the year 2024-25 in order to achieve the physical targets, the Ministry stated as under:

> "The funds allocated for the year 2024-25 will be sufficient to meet the requirements of the Ministry for the year 2024-25. 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 2024-25, as furnished by the Ministry, are as follows:

Sl. No.	**Scheme**	**BE (Rs. in Crore)**	**Target/ Capacity Likely to be commissioned during 2024-25**
1.	Solar Power Grid	10,000.35	24000 MW
2.	Solar Power Off Grid	20.00	The Programme is not

Sl. No.	Scheme	BE (Rs. in Crore)	Target/ Capacity Likely to be commissioned during 2024-25
			being implemented. The Budget is for catering liabilities created during previous years.
3.	PM JANMAN	4.01	0.75 MWp
4.	PM Surya Ghar: Muft Bijli Yojna	6,250.00	25 Lakh Rooftop Solar (RTS) Systems
5.	PM-KUSUM	1,996.00	500 MW- Component - A 200000 – Component-B 200000 – Component-C
6.	R & D	46.00	On project to Project basis
7.	Bio Power	300.00	For Biomass Projects: Briquette/ Pellet Manufacturing Plants – 200 TPH Non-Bagasse Cogeneration Power Plant – 25 MW For Waste to Energy – 80 MWeq 25000 Small Biogas Plants
8.	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 are projected for the FY 2029–2030, with no intermediate milestones set.
9.	Wind Power	930.00	The budget allocated is to fulfil the old

Sl. No.	Scheme	BE (Rs. in Crore)	Target/ Capacity Likely to be commissioned during 2024-25
			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 2024-25 is 5000 MW. The targets are not linked with the budget.
10.	HRD	47.00	15000 no. of trainees
11.	Green Energy Corridor	600.00	InSTS GEC-I: 657 ckm of transmission lines and 1386 MVA of sub-stations. InSTS GEC-II : 850 ckm of transmission lines and 2500 MVA of sub-stations.
12.	Hydro Power	51.00	100 MW
13.	Autonomous Bodies	60.00	N.A.
14.	Others	325.64	N.A.
	Total	**21,230.00**	

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

CHAPTER - III
REVIEW OF PAST PERFORMANCE OF THE MINISTRY

(A) BUDGET ALLOCATION AND UTILIZATION

3.1 A statement showing year-wise allocation and actual expenditure of the Ministry including Gross Budgetary Support (GBS) and Internal and Extra Budgetary Resources (IEBR) is given below:

(In Rs. Crore)

	2021-22			2022-23			2023-24		
	BE	RE	Actual Exp	BE	RE	Actual Exp	BE	RE	Actual Exp
GBS	5,753.00	7,681.80	6,792.83	6,900.68	7,033.00	5,745.85	10,222.00	7,848.00	6,479.11
IEBR	11,778.00	21,474.19	15,880.59	28,570.99	27,547.47	18,248.75	37,828.15	21,355.22	25,851.99
Total	17,531.00	29,155.99	22,673.42	35,471.67	34,580.47	23,994.60	48,050.15	29,203.22	32,331.10

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

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

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 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. Utilisation of funds was low due to 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.

Regarding IEBR, the major portion of it comes from IREDA. The reasons for variation as informed by IREDA are as follows:

In the FY 2022-23 there was a decrease in IEBR due to the reversal in the interest rate cycle and sluggish loan demand. In the FY 2023-24, there was a decrease in the IEBR as :

a) the targets for Short / medium term loans to the state utilities could not be materialised due to non-compliance of MoP prudential norms for State Utilities.

b) the targets towards Green Hydrogen Storage, etc. could not be materialised due to lack of technology, know-how and delay by developers.

c) there was a delay in IPO, planned in Q1 was fruitful in November 2023."

3.3 When asked about under-utilization of budget over the years, the Secretary stated as under:

"You are right that our budget has not been fully spent for the last many years. It has been seen that every time BE is there, its RE is less. Our RE expenditure has also not been completed. We have intimated the entire Ministry about it. This time the BE budget was Rs. 21,230 crore. As against this, our expenditure till September was only Rs. 4,738 crore. If we look at the current figures, it is touching about 6000 crore rupees. In the last full year, we had spent six and a half thousand crore rupees. We have gained speed. Sir, one thing in this is that our expenditure is project based. The project has to be completed in the current year 2024-25, but it is completed only by the end of the year."

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

(In Rs. Crore)

Year	BE	RE	Actual Exp	Quarter			
				1st	2nd	3rd	4th
2021-22	5,753.00	7,681.00	6,792.83	418.02	1,439.70	1,212.33	3,722.78
2022-23	6,900.68	7,033.00	5,745.85	110.09	1,786.50	1,596.20	2,253.06
2023-24	10,222.00	7,848.00	6,479.11	2,119.81	1,732.52	1,919.30	707.48

3.5 On being asked whether the quarterly expenditure during these years was as per the plan and norms, 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."

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

Year	Major Head	Amount (In Rs. Crore)
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
2022-23	3451- Secretariat Economic Services	9.43
	2810- New and Renewable Energy	590.06
	2552 – North Eastern Areas	678.36
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 East Areas	948.03
	3451- Secretariat Economic Services	9.19

(B) PHYSICAL TARGETS AND ACHIEVEMENTS

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

Sl. No	Programme/ System	2021-22		2022-23		2023-24	
		Target	Ach.	Target	Ach.	Target	Ach.
GRID POWER (Capacities in MW)							
1	Wind Power	3260.80	1110.53	1750	2275.55	5393	3253.39
2	Small Hydro	100.00	63.75	100	95.20	100	58.95
3	Bio Mass	170.00	30.00	30	42.40	25	107.34
4	Waste to Energy (MWeq)#	70.00	82.20	55	77.30	25	31.76
5	Solar Power*	16040	12760.51	16000	12783.82	16400	15033.24
OTHER RENEWABLE ENERGY SYSTEMS							
6	Family Type Biogas Plants (No. in lakh)	$		22500	11143	46000	13503

Includes Waste to Energy Offgrid/Distributed Component.

*Includes Solar Offgrid/Distributed Component.

$ The programme was not implemented during 2021-22 as EFC had recommended the continuation of the National Bioenergy Programme, for the period FY2021-22 to FY 2025-26, only to meet the already committed liabilities.

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 90.76 GW as on 30.09.2024.

4.2 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 or scheme covered under the budget head Off-Grid solar power since April 2021. The budget allocation was being utilized to meet the committed liabilities of previous programs and schemes."

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

(In Rs. crore)

Year	Budget allocated (RE)	Budget utilised
2021-22	210.00	160.00
2022-23	61.50	57.11
2023-24	60.00	34.34

4.4 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	Actual Expenditure
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	-	1,867.82 (as on 19.08.2024)

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

Year	Capacity added during the year (GW)
2021-22	12.76
2022-23	12.78
2023-24	15.03

(A)(i) PM SURYA GHAR: MUFT BIJLI YOJANA

4.6 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 2026-27. Before the launch of PM Surya Ghar: Muft Bijli Yojana, the Ministry has 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.

4.7 The Ministry stated that following steps have been taken/proposed to be taken under PM Surya Ghar: Muft Bijli Yojana to meet the targets during 2024-25:

a) Ministry has notified National vendor registration and multistate vendors registration to ensure the sufficient availability of vendors across all States/UTs.

b) Regular coordination with the State DISCOMs to resolve the issues faced/for simplification of the RTS installation process under the Programme.

c) Consumers are able to access loan upto 90% of system cost @ 7% interest rate through integration with Jan Samarth portal of Department of Financial Services. Coordination with the financial institutions for easy availability of loans.

d) The Ministry of Power has notified amendments to Electricity (Rights of Consumers) Rules with several RTS friendly provisions such as deemed technical feasibility for small RTS systems, time-bound inspection of RTS installations etc. Most of the DISCOMs have already adopted deemed feasibility provisions, substantially reducing time delays for consumers.

e) The Ministry is coordinating with all State/UT Governments to undertake saturation of Government buildings with Rooftop Solar. 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 States/UTs in undertaking RTS installations on their assets in a mission mode by December, 2025.

f) An online grievance raising tool has been developed as part of National Portal, which allows consumers (i.e., applicant, vendors or any other) to submit their grievances and also upload supporting documents, if any. Upon submission of the grievance, a unique ticket number is generated for tracking purpose.

g) The Ministry is carrying out awareness and outreach activities to educate and engage consumers about the Rooftop Solar schemes through various mediums like hoardings, print media, social media, TV channels, Radio/FM channels etc.

h) Capacity building/Training of various stakeholders such as Vendors, DISCOM officials for effective implementation of PM Surya Ghar Muft Bijli Yojana.

4.8 About the progress of PM Surya Ghar: Muft Bijli Yojana, the Secretary submitted during the Committee meeting on 15.10.2024 as under:

"The target in this is to install solar panels and grid connectivity on one crore residential houses and to do the same on Government residential buildings. Sir, the implementation of the scheme is by the year 2026-27. The total outlay on this is about Rs 75 thousand crore. It will generate about one lakh crore units of electricity and there will be a reduction of 72 crore tonnes of CO2 emission. Around 1.4 crore registrations have been done in it, 20 lakh people have applied for it, who want to actually do it. The current figure of establishment is 4.8 lakh. Subsidy release has been done for around 2.8 lakh. In between, there was a rainy season, when the momentum became a little less. But

the average capacity is still around three to three and a half thousand, which we can do on a daily basis. We hope that we will easily be able to cross the target of about 12 lakh households this year. As the number of this scheme increases, its growth will also increase at the same pace. Four-five months ago, there were about three and a half thousand connections, which has also increased to around nine thousand. Vendor registration, their training, their facilitation is a continuous exercise which we are doing.

Sir, there is an interesting component in it of Model Solar Village in which one village would be selected in every district, in which the local administration should run a challenge and the village which gets the maximum solarization in that six month period will get a CFA of about one crore rupees. So this process has also been started. It has to pick up pace now."

(A)(ii) PM-KUSUM

4.9 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 34.80 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. 1,996 crore for the year 2024-25.

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

Component of PM-KUSUM	Targets	Achievements (till Sept, 2024)
A	10,000 MW of Grid Connected Solar Power Plants.	298.83 MW
B	Installation of 14 lakh standalone Solar Powered Agriculture Pumps.	4.99 Lakh
C*	Solarisation of 35 Lakh Grid-connected Agriculture Pumps.	37271 Lakh

*Under Component-C, apart from solarizing individual agriculture pumps, solarisation of complete agriculture feeder is also allowed.

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

(In Rs. Crore)

Year	BE	RE	Actual Expenditure	% 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	1000.58	90.96
2024-25	1,996.00	-	357.48 (as on 31.07.2024)	-

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

4.12 On being asked about the reasons of shortfall in physical and financial achievements over the years, the Ministry stated as under:

"Under the PM-KUSUM Scheme, during the FY 2021-22, the shortfall has been mainly due to the COVID-19 pandemic due to which implementation was affected drastically because of disruption of supply chains and limited access to sites. However, over the years, the scheme is accelerating and expenditure is increasing.

Besides above, under **Component-A,** availability of financing to the farmers was an issue as banks were initially reluctant to extend loans. After continued efforts of the Government, banks have now started extending loans to the farmers under the component.

Further, under **Component-B**, the time taken to conclude the centralized tendering process and lesser number of vendors led to slow progress during initial phase of the scheme. Moreover, some States curtailed the State share of the budget for providing State subsidies under Component-B which led to the lesser number of installations against the sanctioned quantity. In order to ease the implementation of the scheme, the revised comprehensive scheme guidelines have been issued in January 2024 under which State-level tender is allowed for the procurement of standalone solar pumps. Further, eligibility criteria have been revised to also include the system integrators as vendors for increasing the number of empanelled vendors for the installation of solar pumps.

Further, the interest of farmers in individual pump solarization under **Component-C** was meager and they were reluctant to contribute the required beneficiary share. In December 2022, the Ministry had issued feeder solarization guidelines where instead of solarizing individual pumps, agriculture feeders can be solarized. Feeder level solarization can be done by the Discoms in CAPEX or RESCO modes and it does not require any contribution from the farmers. There is a huge demand for this component and over 33 lakh pumps have been allocated by the Ministry. State Implementing Agencies (SIAs) have

issued Letter of Award (LoA) for 14 GW capacity (covering around 25 lakh Pumps) as on 31.07.2024. The gestation period for such projects is 18 months from the date of the issuance of LoA. Therefore most of the capacities are expected to be commissioned in the FY 2025-26."

4.13 With regard to the subsidy component under PM-KUSUM and inclusion of component-A under Agriculture Infrastructure Fund (AIF), the Secretary submitted as below:

"We do not give any central financial assistance in component A. We give it in component B and C. Also, earlier the provisions of AIF were not applicable for component A. Just in the last one and a half months, we have covered component A under AIF, so it is expected that there will be some growth here also."

(A)(iii) PM JANMAN

4.14 On being asked about the role of the Ministry in implementation of PM JANMAN, the Ministry furnished the following:

"Under PM JANMAN, Ministry has launched New Solar Power Scheme (for PVTG Villages/Habitations) on 04.01.2024, for Particularly Vulnerable Tribal Groups (PVTG) households (HHs) located in 18 States (including Tripura & Manipur) and UT of Andaman & Nicobar Islands. The scheme has provision for:

(i) electrification of one lakh un-electrified households (HHs) in PVTG areas, by provision of off-grid solar systems where electricity supply through grid is not techno-economically feasible, and

(ii) solar street lighting and solar lighting in 1500 Multi-Purpose Centers (MPCs) of PVTG areas where electricity through grid is not available.

The financial outlay and incentives approved under the scheme is given below:

Sl. No.	**Components**	**Approved Financial Outlay** (In Rs. Crore)
1	Provision of 0.3 kW solar off-grid system for 1 lakh PVTG HHs @Rs. 50,000 per HH or as per actual cost	500
2	Solar street lighting and provision of lighting in 1500 MPCs of PVTG @ Rs. 1 lakh per MPC	15

Based on proposals received from the States, the Ministry has sanctioned the electrification of 6932 PVTG households in six States under the scheme as of 23.08.2024."

(A)(iv) DOMESTIC SOLAR MANUFACTURING

4.15 Regarding status of domestic solar manufacturing in the country, the Ministry furnished as under:

> "The total capacity for manufacturing Solar Photovoltaic Modules in the country, as per the Approved List of Models and Manufacturers (ALMM) is around 51 GW per annum.
>
> As per the Industry inputs, the capacity for manufacturing Solar Photovoltaic Cells in the country is around 8 GW per annum."

4.16 Regarding the implementation status of Production Linked Incentive (PLI) Scheme for High Efficiency Solar PV Modules, the Ministry furnished the following:

> "The Government of India is implementing the Production Linked Incentive (PLI) Scheme for National Programme on High Efficiency Solar PV Modules, for 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 providing 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.
>
> Under **Tranche-I** with outlay of Rs. 4500 crore, Letters of Award have been issued by IREDA on 11.11.2021 / 02.12.2021 to three successful bidders for setting up 8,737 MW capacity of fully integrated solar PV module manufacturing units (involving manufacturing of polysilicon + ingot-wafer + cell + module). The aforesaid 8,737 MW manufacturing capacity is scheduled for commissioning within three years from the date of issuance of Letters of Award, i.e by around November/December, 2024.
>
> Under **Tranche-II** with outlay of Rs. 19,500 crore, Letters of Award (LoAs) have been issued by SECI to 11 bidders in April 2023 for setting up 39,600 MW of fully / partially integrated solar PV module manufacturing, which is scheduled for commissioning from October 2024 to April 2026, depending upon the extent of integration."

4.17 Regarding the future of domestic solar manufacturing in the country under PLI, the Secretary stated as under:

> "Everyone knows about manufacturing that earlier, all the capacity was in China. But through the PLI scheme, a lot of emphasis has been given to solar module manufacturing. Earlier, we used to make

only two giga watts of solar panels in the year 2014, today we are able to make about 60 giga watts of it. In the next two-three years, we will reach a capacity of 100 giga watts. Big companies, mid-size companies are all engaged in this, because they also see business sense in it, because the demand pull factor is very good. Apart from this, the next level is of solar cells. All the solar cells also used to come from outside. In the year 2014, the capacity of solar cells was one giga watt, today it is about eight giga watts. By March, it will increase to about 15-16 giga watts. This will also become 70 giga watts by the year 2030, that is, the cell will also be made in India and the panel will also be made here. A lot of work is being done on this under the PLI scheme."

(B) NATIONAL BIOENERGY PROGRAMME

4.18 The Ministry stated that the National Bioenergy Programme has a provision of Central Financial Assistance for setting up of Bioenergy projects in the country under the following components:

(i) Biomass Programme (Scheme to Support Manufacturing of Briquettes & Pellets and Promotion of Biomass (non-bagasse) based cogeneration in Industries)
(ii) Waste to Energy Programme (Programme on Energy from Urban, Industrial and Agricultural Wastes /Residues)
(iii) 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).

4.19 Regarding the estimated power potential and installed capacity under the different components of Bioenergy, the Ministry furnished as under:

Bioenergy Components	Estimated Potential	Installed Capacity
Biomass (MW)	42,265.32	10,355.34 (as on 31.07.2024)
Biogas (No.)	1,23,39,300	51,04,950 (as on 31.03.2024)
Waste to Energy (MWeq)	Not estimated	600.9 (as on 31.07.2024)

4.20 Regarding physical achievements *vis-à-vis* targets under the Bio Energy Programme during previous years, the Ministry furnished the following:

	Waste to Energy	Biomass	Biogas

Year	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.)
2021-2022	70	82.20	170	30.00	--**	--**
2022-2023	55	77.30	30	42.40	22,500	11,143
2023-2024	25	31.76	25	107.34	46,000	13,503

*As reported by SNAs
** Biogas programme was not implemented during the FY 2021-22.

4.21 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
2021-2022	285.00	118.33	97.16
2022-2023	100.00	84.46	72.79
2023-2024	381.85	75.00	70.51

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

"**Biomass:** As per scheme guideline, eligible CFA is disbursed only after commissioning (COD) and successful performance of the plant for a period of 3 months. There have been instances of delay in commissioning, non-achievement of plant performance and delay in inspection resulting in lower utilisation of fund.

Biogas:

a) 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.

b) 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.

c) North Eastern States did not perform as envisaged against the assigned and allocated targets

d) SC & ST special component funds could not be utilized by the States, owing to the poor conditions of the intended beneficiaries and less cattle holding with these community."

4.23 Regarding the sufficiency of budgetary allocation for National Bioenergy Programme, the Secretary stated as under:

"Bio Energy programme is an old scheme. These works are being done in three components. One is waste to energy. The second is the scheme to support manufacturing of briquettes and pellets, promotion of biomass; and then there is biomass to support small and medium biogas plants. There is less allocation in this, we will try to increase allocation in this."

(C) WIND ENERGY

4.24 The Ministry stated that the estimated wind power potential of the country is 1,163.85 GW at 150 meter height above ground level. The corresponding cumulative installed capacity of wind power in the country is 47,075.43 MW (as on 31st July 2024).

4.25 In response to a query about the fund utilization *vis-à-vis* allocation during the last three years, the Ministry furnished the following and stated that these are liabilities of the Wind GBI Scheme which was closed in 2017:

(In Rs. Crore)

Year	BE	RE	Funds utilized
2021-22	1,100	1,100	1,100
2022-23	1,050	1,413	1,266.96
2023-24	1,214	916.30	916.30

4.26 About the budgetary allocations and its sufficiency for wind energy sector, the Ministry furnished the following:

"It may be noted that there is no linkage between capacity commissioned and budgetary allocation. A budget of Rs 930 crore has been allocated for 2024-25 under GBI scheme which will be utilized for

clearing past liabilities. Funds are being utilized for meeting liabilities under Wind Generation Based Incentive Scheme which was operational till March, 2017. We have sufficient funds for the financial year in this regard. 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. Wind power installations for the year 2024-25 are expected to reach 5000 MW."

4.27 When asked to furnish the major activities/projects to be undertaken during 2024-25, the Ministry stated that:

" The major activities/ projects proposed to be undertaken during 2024-25 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, tender for development of 500 MW of offshore wind energy capacity off the coast of Gujarat supported by a Viability Gap Funding (VGF) scheme, and for leasing out of 4 GW equivalent offshore wind seabed for studies/ surveys and subsequent project development under Open Access Mode."

4.28 With regard to indigenization in wind sector and the future of offshore wind power, the Secretary stated as under:

"Manufacturing capacity in wind is quite mature. There are 14 big manufacturers in the country and our capacity is around 18 GW. The good thing is that about 80 percent indigenization has been done. Only critical components like gear box, bearings etc. are imported. Our target is to add up to 10 GW capacity every year till 2030 so that we can easily achieve our target of 500 GW.

Sir, if we talk about offshore wind, earlier only developed countries had this thing. If we go to the North Sea, look there near the European coast. Now it has started in India as well. The potential in this is around 70 GW. There are two zones in this – it is on the Gujarat coast and it is on the Tamil Nadu coast. Assessment is going on for both. To a large extent, it has been completed. The first tender has been issued, for about 500 MW, that is for Gujarat Coast right now. The one for Tamil Nadu will also come soon."

(D) SMALL HYDRO POWER (SHP)

4.29 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 5,036.75 MW from 1,185 SHP projects as on 31.07.2024.

4.30 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	26.53	17.96
2023-24	31.00	20.00	13.45

4.31 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

4.32 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.
>
> 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."

4.33 Regarding major activities/projects being undertaken during 2024-25, the Ministry furnished the following:

> "The Ministry is considering the following major activities during 2024-25:-
>
> a. Approval of the new SHP Scheme which has been recommended by the EFC.

b. Achievement of 100 MW Capacity addition through Small Hydro during 2024-25."

(E) GREEN ENERGY CORRIDOR (GEC)

4.34 About the present status of Green Energy Corridor, the Ministry stated as under:

"**InSTS GEC Phase-I**: The Phase-I is being implemented by the State Transmission Utilities (STUs) of 8 States (Andhra Pradesh, Gujarat, Himachal Pradesh, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Tamil Nadu). As of 31.07.2024, a total of 9135 circuit kilometres (ckm) of transmission lines have been constructed out of total target of 9767 ckm, and a total of 21313 Mega Volt-Amperes (MVA) substations have been charged out of total target of 22689 MVA. Upon requests of the State implementing agencies, the commissioning timeline for projects under the scheme was extended till June 2024. All projects have been completed in Rajasthan, Tamil Nadu, Karnataka and Madhya Pradesh. The remaining States – Andhra Pradesh, Himachal Pradesh and Maharashtra have requested for further extension up to December 2024 and Gujarat has requested for further extension up to March 2025.

InSTS GEC Phase-II: The Phase-II is being implemented by the STUs of 7 States (Gujarat, Himachal Pradesh, Karnataka, Kerala, Rajasthan, Tamil Nadu and Uttar Pradesh). The InSTS GEC-II scheme is for addition of 10,753 ckm of transmission lines and 27,546 MVA of substations. The STUs are currently in process of tendering the projects under the scheme. Till now 68 nos. of packages have been tendered out of 92 sanctioned packages. The scheme is scheduled to be completed by FY 2025-26.

GEC Phase-II - Inter-State Transmission System for 13 GW Renewable Energy Project in Ladakh: MNRE plans to set up 13 GW renewable energy project along with 12 GWh Battery Energy Storage System (BESS) in Ladakh. An Inter-State Transmission System would be set up for power evacuation and grid integration of the 13 GW renewable energy projects in Ladakh and dispatch of power from the U.T. of Ladakh to other parts of the country. The project will also ensure reliable power supply to the Ladakh region as well as Jammu & Kashmir.

The transmission project has been approved by the Cabinet Committee on Economic Affairs (CCEA) on 18.10.2023. Power Grid Corporation of India Ltd. (PGCIL) is the implementing agency for this project. The project cost for this transmission project is Rs. 20,773.70 crore (excluding IDC of Rs. 2168.69 crore) and the central grant @ 40% of project cost is Rs. 8,309.48 crore. The project is anticipated to be completed by FY 2029-30. Under this project, 1268 ckm transmission

lines and two nos. of HVDC terminals of 5000 MW capacity each would be setup."

4.35 The financial allocations vis-à-vis utilization during the last three years for GEC, as furnished by the Ministry, are given below:

Year	(In Rs. Crore)		
	BE	**RE**	**Funds utilized**
2021-22	300	150	134.67
2022-23	300	250	250
2023-24	500	434	413.15

4.36 When asked about the reasons for non-utilization of allocated funds, the Ministry stated that:

"Under InSTS GEC-I, the grant is disbursed in two instalments:
(a) 70% as advance on award of work, and,
(b) remaining 30% after three months of commissioning of project.

The States have submitted proposals for release of 30% balance grant only for few projects which have been commissioned during last two years. The proposals for release of 30% balance grant for remaining projects are yet to be received."

4.37 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	9000	8583	20000	18326
2022-23	9767	8857	22689	20868
2023-24	9767	9110	22689	21303
2024-25 (as on 31.07.2024)	9767	9135	22689	21313

(F) NATIONAL GREEN HYDROGEN MISSION

4.38 For financial year 2024-25, an amount of Rs. 600 crore has been allocated for National Green Hydrogen Mission.

4.39 About the National Green Hydrogen Mission, the Ministry furnished as follows:

> "The Ministry of New and Renewable Energy is implementing the National Green Hydrogen Mission, approved by the Union Cabinet on 4th January 2023, with an initial outlay of Rs. 19,744 crore up to the year 2029-30. The Mission aims to make India the Global Hub for production, usage and export of Green Hydrogen and its derivatives. By the year 2030, the Mission aims to achieve 5 MMTPA (million metric tonne per annum) of Green Hydrogen production capacity with an associated renewable energy capacity of about 125 GW.
>
> Green Hydrogen is the hydrogen produced using renewable energy, including but not limited to, production through electrolysis or biomass. While Green Hydrogen can be used for power generation using fuel cells, the Mission does not set specific targets for this application."

4.40 Regarding the future of Green hydrogen in the country, the Secretary stated as under:

"Green hydrogen is emerging as a very promising fuel. The good thing is that India has also taken a very good initiative in this. Many times we were left behind. This time we have adopted the policy at the right time, issued all the guidelines. The targets are very clear, tenders have been done. Work is going well on this. Our target is about five million tonnes of green hydrogen by the year 2030. For this, it will come mainly through the electrolyzer route which will split water into hydrogen and oxygen, about 60 to 100 gigawatts of capacity will be installed. To make it green, 125 Gigawatts of renewable energy will be required. Nearly one lakh crore rupees of revenue will be saved. Nearly 50 million tonnes of carbon dioxide emission will be reduced by this. There is also a good possibility of employment in this. We have identified nearly 6 lakh jobs. This will entail an investment of about eight lakh crore rupees."

4.41 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	Incentive for electrolyser manufacturing -	• 1.5 GWPA electrolyser manufacturing capacity awarded	Disbursement of incentives will start after the Companies

	SIGHT	under Tranche I. • RfS for additional 1.5 GWPA of electrolyser manufacturing capacity issued.	start manufacturing electrolysers, within the stipulated timeframe.
2	Incentive for Green Hydrogen production (Mode 1) – SIGHT	• 4,12,000 TPA Green Hydrogen production awarded under Tranche I. • RfS for additional 4,50,000 TPA production capacity issued.	Disbursement of incentives will start after the Companies start producing Green Hydrogen/Green Ammonia within the stipulated timeframe.
3	Incentive for production and supply of Green Ammonia (2A) - SIGHT	• RfS for 7,39,000 TPA of Green Ammonia has been issued.	
4	Incentive for production and supply of Green Hydrogen (2B) - SIGHT	• Tenders for 27,000 TPA of Green Hydrogen have been issued by petroleum companies	
5	Pilot projects in steel, shipping and transport sectors	• Tenders for setting up pilot projects in steel, shipping and transport sectors underway.	• Scheme guidelines framed after numerous stakeholder discussions. • Incentives to be allocated following the selection of proposals for pilot projects.
6	Establishment of Green Hydrogen hubs	• Scheme guidelines for establishment of Green Hydrogen hubs issued on 15th March 2024.	• Guidelines finalized after numerous stakeholder discussions. • Request for Proposal being developed.
7	Establishment of testing infrastructure	• Scheme guidelines for establishment of testing infrastructure issued on 4th July	• Guidelines finalized after numerous stakeholder discussions.

		2024.	• Request for proposal being developed.

4.42 On being asked about the fiscal and financial incentives provided by the Government in Green Hydrogen sector, the Ministry furnished as under:

"**i.** Incentive scheme under National Green Hydrogen Mission
Strategic Interventions for Green Hydrogen Transition (SIGHT) programme, is a key component under the Mission, which provides for incentives for Green Hydrogen production and indigenous manufacturing of electrolyser

- Incentive scheme for electrolyser manufacturing

o Incentive Scheme for Electrolyser Manufacturing has an allocation of ₹4440 Crore by 2029-30 for establishment of 3GW per annum of manufacturing capacity. The annual breakup of incentive cap is as follows:

Year of sales	Year 1	Year 2	Year 3	Year 4	Year 5
Base Incentive Available (₹/kW)	4440	3700	2960	2220	1480

- Incentive scheme for Green Hydrogen production

o SIGHT programme for Green Hydrogen production (Mode-1: bidding on least incentive demanded) provides incentives for Green Hydrogen production, which are capped at ₹50/kg, ₹40/kg and ₹30/kg for the first, second and third year respectively.

o For Mode 2A (Green Ammonia) and 2B (Green Hydrogen), i.e. demand aggregation model with bidding on least cost of supply, the incentives are fixed at ₹ 50/kg, ₹ 40/kg and ₹ 30/kg for the first, second and third year respectively.

ii. Exemption from payment of ISTS charges for a period of 25 years on renewable energy being utilized for production of Green Hydrogen/Green Ammonia in plants commissioned before 31.12.2030.

iii. Duty benefits under the SEZ Act for installation and O&M of renewable energy equipment exclusively for captive consumption."

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 States, Andaman & Nicobar Islands and Lakshadweep Islands, the Ministry stated that schemes like PM-KUSUM Scheme, Rooftop Solar Scheme, Solar Park Scheme, new Solar Power Scheme under PM JANMAN and National Bioenergy Programme are open for implementation in the NE Region and the two Islands. Further, there is no scheme to provide financial support to new Small Hydro Power projects.

5.2 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	B.E.	R.E.	Funds Utilized
2021-22	565	499	65.18
2022-23	679	670	16.37
2023-24	988	749*	33.14*

*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.

5.3 When asked about the budgetary allocations for the programmes during 2024-25 in North-Eastern States, Andaman & Nicobar Islands and Lakshadweep Islands, the Ministry furnished the following:

"During the year 2024-25, Rs. 1,459.43 crore have been earmarked for North Eastern States. The programme-wise details are as follows:

Statement of Budget Estimates

(In Rs Crore)

Sl. No.	Name of Scheme	BE 2023-24
1.	Solar Power (Grid) - NER	1,142.43
2.	Solar Power (Off-grid) - NER	2.00
3.	PM-KUSUM - NER	300.00
4.	Biogas Programme (Off-grid) -NER	10.00
5.	Hydro Power (Grid) - NER	5.00

Total	**1,459.43**

All the major schemes being implemented by the Ministry in the NE region are based on demand received from NE states. In addition, about 1300 no. of small biogas plants are proposed under National Biogas Program during the year 2024-25.

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

5.4 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**	**Actuals**	**BE**	**RE**	**Actuals**
2019-20	426.00	311.00	284.88	441.00	322.00	279.92
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

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

6.1 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

6.2 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 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 5 nos. of new R&D projects could be sanctioned during this period. During year 2023-24, a modified mechanism for research and development in RE sector combined with Ministry of Power, the new projects could not be undertaken and resulted into low utilization of fund. However, now Renewable Energy Research and Technology Development Programme (RE-RTD) guidelines is being implemented with a total budget of Rs. 228 crores for the period FY 2021-22 to FY 2025-26 and funds will be utilized."

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

> "Major programmes 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:

a. Development of high-efficiency perovskite solar cells of 25.8% efficiency and 30% efficient of perovskite-silicon tandem solar cells by NCPRE, IIT Bombay.

b. The CSIR-National Physical Laboratory (NPL) collaborated with PTB Germany (Physikalisch-Technische Bundesanstalt) to develop 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.

c. As a major impetus to India's Green Hydrogen ambitions, NTPC launched India's first Hydrogen Bus trial in Leh.

d. Advanced Research Centre for Powder Metallurgy and New Materials (ARCI) 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.

e. 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.

f. In Bioenergy area, a Biomass Gasification through Plasma Pyrolysis Technology for Chemicals Production is under process by IIT Roorkee. Densification and co-firing of agro-waste for power generation through gasification is going on at SSS-NIBE Kapurthala.

g. 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."

6.4 Regarding the thrust areas that have been identified for R&D support in the renewable energy sector during the year 2024-25, 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 Silicon 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 2024-25 for PSUs/Institutions under MNRE, as furnished by the Ministry, are given below:

Sl. No.	Institution	Objective/Focus Areas	BE 2024-25 (In Rs Crore)
1	Indian Renewable Energy Development Agency (IREDA)	It is a Non-Banking Financial Institution. It is 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 section 3 company under the Companies Act. It functions as the implementing and executing arm for development of renewable energy sector in the country.	-
3	National Institute of Solar Energy (NISE)	It is the national research and development institution in the field of solar energy.	20.00
4	National Institute of Wind Energy (NIWE)	It serves as the technical focal point for wind power research & development.	30.50
5	National Institute of Bio Energy (NIBE)	It focuses on research & development in Bio Energy	9.50

(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:

(In Rs Crore)

Parameters	2021-22	2022-23	2023-24
Loan Sanctions	23,921.06	32,586.60	37,353.68
Loan Disbursements	16,070.82	21,639.21	25,089.04
Total Income	2,874.16	3,483.05	4,965.29
Profit Before Tax	833.83	1,139.25	1,685.24
Profit After Tax	633.52	864.63	1,252.23
NPA % (Gross)	5.21%	3.21%	2.36%
NPA % (Net)	3.12%	1.66%	0.99%
Net Worth	5,268.11	5,935.17	8,559.43
Loan Book	33, 930.61	47,075.52	59,698.11
CRAR (%)	21.22%	18.82%	20.11%
MoU Ratings	Excellent	Excellent	--

(B) SOLAR ENERGY CORPORATION OF INDIA (SECI)

7.4 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**

*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).

7.5 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)

7.6 Financial allocation vis-à-vis utilization for the last three years is as follows:

(In Rs. Crore)

Year	BE	RE	Funds utilized
2021-22	19.50	15.04	13.66
2022-23	16.00	16.00	16.00
2023-24	20.00	20.00	18.00

7.7 The Ministry furnished that in the year 2023-24, approved BE for the National Institute of Solar Energy (NISE) was Rs. 20.00 crore. NISE received Rs. 18.00 crore, and Rs. 2.00 crore was surrendered by NISE under GIA-Capital due to the delay in some procurement of lab equipment. The delay was due to insufficient bids received to complete the procurement process.

(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
2021-22	20.84	20.00	20.00
2022-23	22.00	22.00	22.00
2023-24	24.50	24.50	12.25

(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
2021-22	8.33	4.96	4.96
2022-23	7.00	7.00	7.00
2023-24	9.50	11.50	11.40

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. 12,001.70 crore for the financial year 2024-25 and Rs. 21,230 crore has actually been allocated which is an increase of about 170% against Revised Estimates of last year. This amount includes Rs. 19,100 crore as Budget Estimates and Rs. 2,130 crore from Sovereign Green Fund. The Committee observe that about 87% budget of the Ministry is allocated for only one component i.e. Solar Energy. Under Solar Energy component itself, about 72% of the budget is for implementation of only one scheme i.e. PM Surya Ghar: Muft Bijli Yojana. About 4% 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% of the budget. National Green Hydrogen Mission and Green Energy Corridor have been allocated a budget of about 3% each. The remaining about 2% of the Budget has been allocated for Establishment Expenditure, Autonomous Bodies and Support Programme including Research and Development. For 2024-25, the Ministry has been allocated a budget which is about 77% higher than its demand. This is the highest ever budgetary allocation for the Ministry till date. Since the Budgetary allocation of the Ministry for 2024-25 has been considerably enhanced as compared to the previous years, the Committee hope that the Ministry would increase its fund absorption capacity and focus on exhaustive utilization of the budgetary allocation in a timely manner.

BUDGET UTILIZATION TRENDS

2. The Committee note that complete utilization of budgetary allocations by the Ministry over the years has not taken place. The utilization has been about 88%, 82% and 83% in the years 2021-22, 2022-23 and 2023-24 respectively. The 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 Northeastern States. The Committee understand the difficulties faced by the Ministry in effective implementation of schemes during COVID waves. With regard to utilization in Northeastern areas, the Committee note the extremely poor utilization at about 13%, 2% and 4% in the years 2021-22, 2022-23 and 2023-24 respectively. The Committee, therefore, recommend that the Ministry should take concrete steps for proper utilization of budgetary allocations wherever there is a shortfall. For Northeast areas in particular, the Committee feel that it has huge potential for renewable energy and therefore, extra efforts need to be made by the Ministry for exhaustive utilization of funds allocated for its development. The Committee are of the view that the Ministry should hold regular meetings with the Governments of all Northeastern States as well as the stakeholders in renewable energy sector. The Committee feel that incentivization of renewable energy sector in these areas would provide additional impetus to developers to setup renewable energy projects there.

PM-SURYA GHAR: MUFT BIJLI YOJANA

3. The Committee note that PM-Surya Ghar: Muft Bijli Yojana has been launched 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 2026-27. An allocation of Rs. 13,175.33 crore has been made for 2024-25. The Committee further

note that before this scheme, the Ministry had been implementing the Phase II Rooftop Solar program which has been subsumed under the new scheme. The Committee observe that till date, the schemes for developing solar power has not performed that well, as against the solar potential of 7,48,990 MWp in the country, only 89,432 MW has been installed till 31.08.2024. With the launch of PM Surya Ghar, the Committee hope that the pace of solar installations will gain momentum and the target of 1 crore rooftop solar installations would be achieved. The Committee in their previous reports have often flagged the issues related to rooftop installations and urged the Ministry to take substantive steps to address them. The Committee, therefore, appreciate the Ministry for streamlining the process under PM Surya Ghar i.e. dedicated national portal, easy vendor registration, loan availability for consumers, deemed technical feasibility, time-bound inspection, online grievance redressal tools etc. However, the Committee would like to highlight the slow pace of installations, as only around 5 lakh installations have been done out of around 20 lakh applications made on the portal by October 2024. Out of this 5 lakh installations, subsidy disbursal has been done for only around 3 lakh. The Secretary informed the Committee that the momentum of installation was reduced due to monsoons and it has picked up now. The Committee feel that the Ministry should make concerted efforts to popularize this laudable scheme further, especially highlighting its subsidy component so that large scale consumers are encouraged to adopt it. The Committee also recommend that apart from households and Government buildings, the Ministry may consider including schools, hospitals, small industries and other institutional buildings within the subsidy component of the scheme. This will not only increase the demand in the market but will

also bring in private investments, encourage domestic manufacturing as well as create more job opportunities in solar sector.

MODEL SOLAR VILLAGE

4. The Committee note that the scheme of PM Surya Ghar: Muft Bijli Yojana has a component of Model Solar Village whereby one village is to be selected from each district. This selection would be based on level of solarization within a given six month time and the village so selected will get a central financial assistance of one crore rupees. The Committee appreciate the Ministry for launching this new initiative which will encourage competition among the villages towards adoption of solar energy. However, the Committee are of the view that many districts in India are very large and selecting one village in such large area would not be helpful in creating enough awareness and enthusiasm among the local administration to solarise their villages. Therefore, the Committee recommend that the Ministry may consider reducing the level for selection of Model Solar Village like that of a block instead of district.

PM-KUSUM

5. The Committee note that PM-KUSUM Scheme was launched in March, 2019 to provide financial support to the farmers for installation of standalone solar pumps, solarization of existing grid-connected agriculture pumps and also to provide the farmers an opportunity to become solar entrepreneurs by installing solar power plants on their barren/fallow agriculture land. The Committee observe that targets under different components of the Scheme could not be achieved and hence its timeline has been extended till March, 2026. The Ministry has stated that the reasons for slow progress under the scheme include lack

of financing to farmers under Component-A, delay in tendering process and lack of interest by States under Component-B and lack of interest by farmers in individual pump solarization under Component-C. To overcome these issues, the Ministry has undertaken certain measures like inclusion of Component-A under Agriculture Infrastructure Fund (AIF), allowing State-level tender for procurement of standalone pumps, including system integrators to work as vendors, solarization of agriculture feeders instead of individual pumps under Component-C etc. The Committee while acknowledging the developments made, would also like to recommend that:

i) Component-A as part of the scheme should be revisited by the Ministry as the investment required to setup a 2MW solar power plant is around Rs. 9 crore which is huge by all means, especially for marginal and small farmers. Further, there is no subsidy on this component.

ii) With regard to Component-B, the subsidy is only upto 7.5 Horsepower (HP) solar pumps which is proving to be insufficient for farmers. Given the fact that many districts of India has become water-deficient, 7.5 HP pump capacity is not suitable for all regions. Therefore, the Ministry may conduct a detailed study to understand the ground situation and accordingly modify the component.

iii) With regard to Component-C, only around 37 thousand pumps have been solarised even though more than 33 lakh pumps have been sanctioned. Therefore, the Ministry may see to it that long gestation period of more than 18 months is reduced and the sanctioned pumps actually reach the farmers on time.

<u>NATIONAL BIOENERGY PROGRAMME</u>

6. 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, Waste to Energy and Biogas Programmes. The Committee observe budgetary mismanagement under the programme whereby the allocation has been reduced at revised stage over the years. The reduction is significant in 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 huge reduction, the entire amount was not utilized. Under-utilization has also been a persistent issue under this programme. The Committee, therefore, would like to recommend prioritization of this much needed programme and timely disbursement of the subsidy to encourage private developers to invest and develop Bioenergy sector. The Committee note that the increased prices of construction materials is proving costly for developing biogas plants in rural areas. The Committee feel that a part of the subsidy may be given in advance to encourage biogas development in rural areas.

<u>WIND ENERGY</u>

7. The Committee note the Ministry's submission that the potential of offshore wind power in the country is around 70 GW in the two zones of Gujarat coast and Tamil Nadu coast. The first tender for development of 500 MW of offshore wind energy capacity off the coast of Gujarat supported by a Viability Gap Funding (VGF) scheme has been issued by the Government. The Ministry has informed the Committee that the tender for development of offshore wind energy capacity off the coast of Tamil Nadu will also be issued soon. The Committee also note that the Ministry's plan of leasing out 4 GW equivalent of offshore wind seabed for studies/surveys in 2024-25 and subsequent project development under Open Access Mode. The Committee are aware that earlier the technology for developing offshore wind power was available only with

developed countries and therefore, appreciate the Ministry for finally taking the leap towards developing offshore wind energy within the country. The Committee expect the development of offshore wind power to move as per plan without any further delay. The Committee urge the Ministry to dedicate a special team to closely monitor its development and resolve bottlenecks timely in order to achieve the targets on time. The Ministry has furnished that manufacturing capacity in wind is mature in the country with 14 big manufacturers capable of adding around 18 GW annually. However, the Committee note that critical components like gear box, bearings 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 offshore wind energy generation. Further, the Committee are of the view that evacuation and grid integration of this power should also be planned in advance by the Ministry.

SMALL HYDRO POWER (SHP)

8. The Committee note that small hydro power programme was discontinued *w.e.f.* 31st March, 2017 and since then, the budget allocations have been used to clear old liabilities only. The Ministry has submitted before the Committee that it has been trying to come up with a new programme for small hydro power since 2017 but the same could not materialize for one or the other reasons. This year again, the approval of the new SHP scheme, which has been recommended by the Expenditure Finance Committee (EFC), is awaited. The Committee, therefore recommend that the Ministry should critically review its performance under the previous small hydro power programme and ensure that the factors which hindered the implementation of the programme are properly addressed in the new scheme.

GREEN ENERGY CORRIDOR (GEC)

9. The Committee note that the Intra-State GEC project was started in 2015 with a total target of 9767 circuit kilometers (ckm) transmission lines and 22689 mega-volt ampere (MVA) sub-stations. Phase-I of Intra-State GEC which is being implemented by the State Transmission Utilities (STUs) of 8 States has been delayed and given multiple extensions. The Committee observe that a total of 9135 ckm of transmission lines have been constructed and a total of 21313 MVA substations have been charged as on 31st July, 2024. The Ministry has submitted that all the projects have been completed in Rajasthan, Tamil Nadu, Karnataka and Madhya Pradesh. The remaining States – Andhra Pradesh, Himachal Pradesh and Maharashtra have requested for further extension up to December 2024 and Gujarat has requested for further extension up to March 2025. Since 9 years have lapsed after the start of the Project, the Committee hope that this will be the last extension and this Project will finally be completed by March, 2025. It has also been submitted that Phase–II of Intra-State GEC is being implemented by State Transmission Utilities of 7 States (Gujarat, Himachal Pradesh, Karnataka, Kerala, Rajasthan, Tamil Nadu and Uttar Pradesh) for addition of 10753 ckm of transmission lines and 27546 MVA of substations and it is scheduled to be completed by FY 2025-26. Further, the Ministry has furnished that an Inter-State Transmission System would be set up for power evacuation and grid integration of 13 GW RE projects along with 12 GWh Battery Energy Storage System (BESS) in Ladakh. The project is being setup by Power Grid Corporation of India Limited (PGCIL) at a total cost of Rs. 20,773.70 crore. Under this project, 1268 ckm transmission lines and two nos. of HVDC terminals of 5000 MW capacity each would be setup. The project is anticipated to be

completed by FY 2029-30. In order to ensure that Phase-II of Intra-State GEC and Inter-State Transmission project in Ladakh do not get delayed like the Phase-I, the Committee recommend the Ministry to take into account the reasons for delayed implementation of Phase-I and proactively persuade the concerned States as well as other stakeholders from the initial stage itself to ensure timely completion of these projects. Being the dominant player in transmission sector, the Committee expect PGCIL to have the technological knowhow and manpower to execute the Ladakh project within the given budget and timeline. The Committee recommend the Ministry to closely monitor both the projects for their timely completion.

NATIONAL GREEN HYDROGEN MISSION

10. The Committee note that the National Green Hydrogen Mission has been approved with an outlay of Rs. 19,744 crore and an amount of Rs. 600 crore has been allocated for this Mission for financial year 2024-25. The Mission aims to make India a global hub for production, utilization and export of Green Hydrogen and its derivatives. It is expected to help India in becoming energy independent and in decarbonisation of major sectors of the economy thereby eventually facilitating the country to meet the target of Net-Zero by 2070. The Committee note that the Mission aims to achieve 5 million metric tonnes per annum (MMTPA) of Green Hydrogen production capacity with an associated renewable energy capacity of about 125 GW by the year 2030. The Committee observe that the Mission is at a nascent stage with contracts being awarded and actual production has not started yet. The Committee, while appreciating the Government for launching this aspirational Mission, would like to recommend that advance planning for efficient resource utilisation like water should be ensured. Further,

indigenisation of technology and processes should be the major goal to make green hydrogen truly affordable in the long run.

NEW TECHNOLOGIES, RESEARCH AND DEVELOPMENT IN RENEWABLE ENERGY SECTOR

11. The Committee note that for undertaking research and development (R&D) and developing new technologies in Renewable Energy (RE) sector, BE of Rs. 75 crore in 2021-22 was reduced to Rs. 27.50 crore at RE stage; in 2022-23, BE of Rs. 35 crore was increased to Rs. 45 crore and in 2023-24, BE of Rs. 70 crore was reduced to a mere Rs. 4 crore. The Ministry has submitted that during 2023-24, a modified mechanism for research and development in Renewable Energy sector came into place that resulted in low utilization of funds as new projects could not be undertaken. The Ministry has further submitted that currently Renewable Energy Research and Technology Development Programme (RE-RTD) guidelines is being implemented with a total budget of Rs. 228 crore for the period of 2021-22 to 2025-26. The Committee would like to highlight the issue of reduced allocations coupled with lower utilization of funds in the important sector of R&D in Renewable Energy. During the last three years, the funds have not been fully utilized in even one year. The Ministry has submitted that improving Solar Photovoltaic efficiency; developing efficient and cost effective biogas plant designs; designing robust wind turbine systems; developing ultra-low head turbines; developing cost effective battery and pump storage systems and developing technologies in Geothermal, Tidal and Wave energy are some of its thrust areas. It is well known that to undertake substantive research and develop cutting edge technologies, sufficient funds and trained manpower is required. The Committee note the collaboration of the Ministry with premier

institutions of India like IITs for undertaking research projects. The Committee also note the modification in R&D mechanism whereby the Ministry of New and Renewable Energy will work alongside Ministry of Power. The Committee while appreciating the changes brought to enhance efficiency in R&D, feel that the allocations need to be enhanced appropriately under RE-RTD programme. Further, the Committee are of the view that three dedicated institutions under the Ministry i.e. National Institute of Solar Energy (NISE), National Institute of Wind Energy (NIWE) and National Institute of Bio Energy (NIBE) should have world class research facilities and qualified professionals to enable them to successfully develop and indigenize global renewable energy technologies. To reduce import dependency and develop large scale manufacturing like that of Solar cells and modules, technical collaboration at international level would help bring in investments as well as create large scale employment opportunities.

New Delhi
3 December, 2024
Agrahayana 12, 1946 (Saka)

Shrirang Appa Barne
Chairperson,
Standing Committee on Energy

ANNEXURE-I

EXPENDITURE									
STATEMENT OF BUDGET ESTIMATES									
DEMAND NO.: 71									
MINISTRY/DEPARTMENT: MINISTRY OF NEW AND RENEWABLE ENERGY									
									(Rs. In crores)
		Actuals		BE		RE		BE	
		2022-23		2023-24		2023-24		2024-25	
		Revenue	Capital	Revenue	Capital	Revenue	Capital	Revenue	Capital
A.	**CENTRE'S EXPENDITURE**								
I	**Establishment Expenditure**								
3451	Secretariat Economic Services	45.83		53.54		53.54		69.79	
4810	Office Buildings		13.47		5.00		10.50	-	12.00
5475	Capital Outlay on Other General Economic Services	-	-	-	6.65	-	4.5	-	5.45
TOTAL- Establishment Expenditure		**45.83**	**13.47**	**53.54**	**11.65**	**53.54**	**15.00**	**69.79**	**17.45**
II	**Central Sector Schemes**								
2	**Schemes of MNRE**								
2.05	**Solar Energy**								
2810	Solar Power (Grid)	2898.39		4970.00		4757.24		10000.35	
2810	Solar Power (Off-grid)	57.11		361.50		60.00		24.01	
2810	PM-Kisan Urja Suraksha evam Utthaan Mahabhiyan (PM-KUSUM)	801.36		1996.46		1100.00		1996.00	
2810	Other Renewable Energy Applications (OREA)	0.06		0.00		0.00		0.00	
2810	Interest Payment and issuance Expenses on Bonds	124.35		124.35		124.32		124.39	
2810	PM Surya Ghar Muft Bijli Yojna	0		0		0		6250	

Total – Solar Energy		**3881.27**		**7452.31**		**6041.56**		**18394.75**	
2.06	**Bio Energy Programme**								
2810	Bio Power (Grid)	51.75		159.00		5.00		80.00	
2810	Bio Power (Off-grid)	10.75		127.85		20.00		125.00	
2810	Biogas Programme (Off-grid)	10.28		95.00		50.00		95.00	
Total – Bio Energy Programme		**72.78**		**381.85**	**0.00**	**75.00**		**300.00**	
2.07	**Programme for Wind and other Renewable Energy**								
2810	Wind Power (Grid)	1266.96		1214.00		916.30		930.00	
2810	Hydro Power (Grid)	17.96		30.00		20.00		50.00	
2810	Hydro Power (Off-grid)	0.00		1.00		0.00		1.00	
Total – Programme for Wind and other Renewable Energy		**1284.92**		**1245.0**	**0.00**	**936.30**		**981.00**	
2.08	**Support Programme**								
2810	Monitoring & Evaluation	0.00		0.05		0.00		0.01	
2810	Information and Public Advertising (I&PA)	1.71		6.00		4.00		10.00	
2810	Human Resources Development and Training	8.89		47.00		25.00		47.00	
2810	International Relations	1.60		3.60		3.60		4.00	
2810	ISA Cooperation	100.00		100.00		100.00		100.00	
2810	Research and Development	40.39		70.00		4.00		46.00	
Total – Support Programme		**152.59**		**226.65**	**0.00**	**136.60**		**207.01**	
2.09	**Hydrogen Mission**								

2810	National Green Hydrogen Mission	0.00		297.00		100.00		600.00	
Total – Hydrogen Mission		**0.00**		**297.00**	**0.00**	**100.00**		**600.00**	
2.10	**Storage and Transmission**								
2810	Green Energy Corridor	250.00		500.00		434.00		600.00	
Total – Storage and Transmission		**250.00**		**500.00**	**0.00**	**434.00**		**600.00**	
Total – Central Sector Schemes				**10102.81**	**0.00**	**7723.46**		**21082.76**	
III	**Other Central Expenditure**								
3	**Autonomous Bodies**								
2810	National Institute of Wind Energy	22.00		24.50		24.50		30.50	
2810	National Institute of Bio Energy	7.00		9.50		11.50		9.50	
2810	National Institute of Solar Energy	16.00		20.00		20.00		20.00	
Total – Autonomous Bodies		**45.00**		**54.00**	**0.00**	**56.00**		**60.00**	
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		**5745.85**	**13.47**	**10210.35**	**11.65**	**7833.00**	**15.0**	**21212.55**	**17.45**

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>The details of the CFA pattern for the component “CFA to Residential Consumers” under this scheme are as follows:
<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></td></tr>
</table>

Scheme/Programmes	Incentives presently available as per the Scheme	
	5	• The 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. • To push the deployment of residential rooftop solar system (RTS) and undertake local mobilization efforts, the scheme 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. • 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.
b) Central Public Sector Undertaking (CPSU) Scheme Phase-II (Government Producer Scheme) for grid-connected Solar Photovoltaic (PV) Power Projects by the Government Producers	Viability Gap Funding (VGF) support up to Rs. 55 lakhs per MW to the CPSUs/Govt. Organizations entities selected through competitive bidding process.	
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.	

Scheme/Programmes	Incentives presently available as per the Scheme
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, Uttarakhand,

Scheme/Programmes	Incentives presently available as per the Scheme
	Lakshadweep and Andaman & Nicobar Island, CFA of Rs. 1.75 crore per MW is provided.
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-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) (c) 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) (d) For Non-Bagasse Cogeneration Projects: Rs. 40 Lakhs/MW (Maximum CFA- Rs. 5 Crore 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_e for thermal applications.

Scheme/Programmes	Incentives presently available as per the Scheme
	Note: • In case, the Waste to Energy plants are set up in Special Category States (NE Region, Sikkim, Himachal Pradesh and Uttarakhand), Jammu & Kashmir, Ladakh, Lakshadweep and Andaman & Nicobar Islands, the eligible CFA would be 20% higher than Standard CFA pattern given above. • Biogas/BioCNG/Power (biogas based) generation plants based on cattle dung as main feedstock set up by Gaushalas independently or through joint ventures/partnerships will be eligible for 20% higher CFA than Standard CFA pattern given above. These Gaushalas (Shelters) should be registered with the respective State Government.
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 for North Eastern Region (NER), Islands, Registered Gaushalas and SC/ST beneficiaries
j) New Solar Power Scheme [for Particularly Vulnerable Tribal Groups (PVTG) Villages/ Habitations] under PM JANMAN	(i) Provision of 0.3 kW solar off-grid system for 1 lakh PVTG HHs @Rs. 50,000 per HH or as per actual cost (ii) Solar street lighting and provision of lighting in 1500 Multi-Purpose Centres (MPCs) of PVTG @ Rs. 1 lakh per MPC

ANNEXURE – III

STANDING COMMITTEE ON ENERGY

MINUTES OF THIRD SITTING OF THE STANDING COMMITTEE ON ENERGY (2024-25) HELD ON 15th OCTOBER, 2024 IN COMMITTEE ROOM 3, PARLIAMENT HOUSE ANNEXE EXTENSION, NEW DELHI

The Committee met from 1330 hrs to 1445 hrs

MEMBERS - LOK SABHA

Shri Shrirang Appa Barne - Chairperson

2 Shri Shyamkumar Daulat Barve
3 Shri Jagadish Chandra Barma Basunia
4 Shri Devusinh Chauhan
5 Shri Shahu Shahaji Chhatrapati
6 Shri Chandra Prakash Joshi
7 Dr. Shivaji Bandappa Kalge
8 Dr. Kirsan Namdeo
9 Shri Dulu Mahato
10 Shri Ramprit Mandal
11 Smt. Bijuli Kalita Medhi
12 Shri Jagdambika Pal
13 Shri Kunduru Raghuveer
14 Smt. Shambhavi
15 Shri Chandubhai Chhaganbhai Shihora
16 Dr. Shrikant Eknath Shinde
17 Shri Abhay Kumar Sinha

MEMBERS - RAJYA SABHA

18 Shri Birendra Prasad Baishya
19 Shri N.R. Elango
20 Shri Javed Ali Khan
21 Shri Harsh Mahajan

SECRETARIAT

1 Shri Ramkumar Suryanarayanan Joint Secretary
2 Shri Kulmohan Singh Arora Director

WITNESSES		
MINISTRY OF NEW AND RENEWABLE ENERGY		
1	Shri Prashant Kumar Singh	Secretary
2	Shri Sudeep Jain	Additional Secretary
3	Shri Padam Lal Negi	Joint Secretary & Financial Advisor
4	Shri Lalit Bohra	Joint Secretary
5	Shri Ajay Yadav	Joint Secretary
PSUs/INSTITUTIONS		
6	Shri Pradip Kumar Das	Chairman & Managing Director, IREDA
7	Shri Rameshwar Prasad Gupta	Managing Director, SECI
8	Dr. Rajesh Katyal	Director General, NIWE
9	Dr. G. Sridhar	Director General, NIBE
10	Dr. Mohammad Rihan	Director General, NISE
11	Smt. Valli Natrajan	Executive Director, REC Limited

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 (2024-25) 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 Secretary of the Ministry of New and Renewable Energy which, *inter-alia,*

covered Global Renewable Energy Landscape, Major targets, Installed Generation Capacity (September 2024), Share of Renewable Energy, Sector-wise Capacity Status (in GW), Structural and Program Interventions, PM KUSUM, PM Surya Ghar Muft Bijli Yojana, Model Solar Village, PLI Scheme for High Efficiency Solar PV Modules, Solar Parks, Intra-State Transmission System Green Energy Corridors, GEC Phase-II Inter-State Transmission System for 13 GW Renewable Energy in Ladakh, Wind Energy, Offshore Wind Energy, National Bioenergy Programme, National Green Hydrogen Mission, Renewable Energy Research and Technology Development Programme and MNRE Budget & Expenditure 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) Gap between installed and generation capacity of Renewable Energy and need for robust storage mechanism;

ii) Enhanced budgetary allocation for Renewable Energy projects, especially PM Surya Ghar Muft Bijli yojana;

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

iv) Issues related to poor implementation and State share under PM KUSUM;

v) National Green Hydrogen Mission and issues related thereto;

vi) Green Energy Corridor and the issue of extended timelines;

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

viii) Renewable Energy potential from Ocean sources and their economic viability;

ix) Targets and performance of PM Surya Ghar Muft Bijli Yojana;

x) Need for inclusion of MSMEs, schools and hospitals under PM Surya Ghar Yojana.

xi) Domestic manufacturing of solar PV modules under PLI Scheme;

xii) Price gap between Indian and Chinese solar modules/cells and the steps needed to curb Chinese imports;

xiii) Model Solar Village and the need to solarise village at block instead of district level;

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.

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ANNEXURE – IV

STANDING COMMITTEE ON ENERGY

MINUTES OF FOURTH SITTING OF THE STANDING COMMITTEE ON ENERGY (2024-25) HELD ON 3rd DECEMBER, 2024 IN COMMITTEE ROOM-D, PARLIAMENT HOUSE ANNEXE, 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 Jagadish Chandra Barma Basunia
4. Shri Devusinh Chauhan
5. Shri Shahu Shahaji Chhatrapati
6. Captain Brijesh Chowta
7. Shri Malaiyarasan D.
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. Shri Kunduru Raghuveer
15. Smt. Shambhavi
16. Shri Chandubhai Chhaganbhai Shihora
17. Smt. Dimple Yadav

MEMBERS - RAJYA SABHA

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

SECRETARIAT

1.	Shri Ramkumar Suryanarayanan	Joint Secretary
2.	Shri Kulmohan Singh Arora	Director
3.	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 Demands for Grants (2024-25) of the Ministry of Power.

(ii) Report on Demands for Grants (2024-25) of the Ministry of New and Renewable Energy.

3. After discussing the contents of the Reports in detail, the Committee adopted the abovementioned two 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.