

**1. Bio Energy Programme - Biogas Programme (CS)**

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2023-24			OUTCOMES 2023-24		
	2023-24	Output	Indicators	Targets 2023-24	Outcome	Indicators
95	1. Installation of biogas plants	1.1 No. of small size Biogas Plants Commissioned <sup>2</sup>	46,000	1. Effective promotion of biogas as clean fuel to meet out the energy requirements in remote, rural, semi-urban areas of the country, including tribal areas	1.1 Amount of biogas generated from the total number of biogas plant installed during the FY 2022-23 which will generate in FY 2023-24 (in cubic meter per year)	1,21,50,000 <sup>3</sup>

<sup>1</sup> Framework excluding 2 schemes: Programme for Wind and other Renewable Energy: Wind Power – Grid with a tentative allocation of Rs. 1,214 cr.; and Hydrogen Mission: National Green Hydrogen Mission with a tentative allocation of Rs. 500 cr.

<sup>2</sup> Small Size Biogas Plant = up to 25 cubic meter biogas generation per day capacity.

<sup>3</sup> Approximate value

## 2. Bio Energy Programme - Bio Power – Off Grid (CS)

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2023-24			OUTCOMES 2023-24		
	2023-24	Output	Indicators	Targets 2023-24	Outcome	Indicators
127.85	1. Commissioning of Bio-Power plants [Non-Bagasse], Briquette/Pellet manufacturing plants and BioCNG [Waste to energy] generation capacity	1.1 Capacity commissioned in Bio-Power [Non-Bagasse] (MW) [Biomass]	25	1. Electricity, Energy and BioCNG Generation from Bio-energy Projects	1. Amount of biogas generated from the total number of biogas plant installed during the FY 2022-23 which will generate in FY 2023-24 (in cubic meter per year)	131.50
		1.2 Capacity commissioned in Briquette/Pellet manufacturing plants (Tonnes per Hour) [Biomass]	100		2. Annual energy equivalent available (in Megajoules) [Biomass]	60,19,000
		1.3 1.3Capacity commissioned in BioCNG [Waste to Energy] (MWeq)	25		3. BioCNG [Waste to Energy] (Metric Tonnes per year)	33.6

## 3. Supporting Programmes - Human Resources Development and Training (CS)

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2023-24			OUTCOMES 2023-24		
	2023-24	Output	Indicators	Targets 2023-24	Outcome	Indicators
47	1. Creating skilled manpower for RE sector	1.1 No. of Technicians/ Persons trained for performance, testing, installation, and maintenance of RE projects.	7,500	1. Feedback for the trainings and Percentage of Trainees Employed	1.1. Percentage of trainees' feedback: 6 and above on 10 scale	60 <sup>4</sup>
					1.2. Percentage of Trainees Employed	50

<sup>4</sup> and above

#### 4. Solar Energy - Kisan Urja Suraksha Evam Utthaan Mahabhiyan (KUSUM) – Grid Interactive Renewable Power (CS)

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2023-24			OUTCOMES 2023-24			
	2023-24	Output	Indicators	Targets 2023-24	Outcome	Indicators	Targets 2023-24
496.46	1.	Solarization of Grid-connected Agriculture Pumps under PM-KUSUM Scheme.	1.1. Number of Grid-connected Agriculture Pumps solarized under PM-KUSUM Scheme.	2,00,000	1. Total Generation under the scheme.	1.1 Generation under the scheme (BU) <sup>5</sup>	2.82
	2.	Setting up of Decentralized Ground Mounted Grid Connected Solar Power Plants under PM-KUSUM Scheme	2.1. Capacity of Decentralized Ground Mounted Grid Connected Solar Power Plants installed under PM-KUSUM Scheme (MW)	200			

#### 5. Supporting Programmes - Research and Development (CS)

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2023-24			OUTCOMES 2023-24			
	2023-24	Output	Indicators	Targets 2023-24	Outcome	Indicators	Targets 2023-24
70	1.	Support to research projects in the area of Renewable Energy	1.1 No. of research projects	10	1. Solar Cell efficiency improvement, Product Development, Demonstration/Pilot Projects	1.1 High efficiency solar cells	22 to 26
						1.2 High efficiency pervoskite solar cell	15 to 27
						1.3 Alternative materials for storage technologies	1
			1.2 No. of start-ups	3		1.4 Solar Air Conditioning	1

<sup>5</sup> Estimated approximate generation in Billion Units and calculated at 19% CUF

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2023-24			OUTCOMES 2023-24			
	2023-24	Output	Indicators	Targets 2023-24	Outcome	Indicators	Targets 2023-24
						1.5 Purification of water through RE technologies	1
						1.6 Demonstration/Pilot projects in Geothermal Energy (power generation, cooling and heating)	1
						1.7 Solar cooking (clean cooking systems integrating with RE)	1
						1.8 Recycling of PV module	1

**6. Solar Energy: Solar Power – Grid (CS)**

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2023-24			OUTCOMES 2023-24		
	2023-24	Output	Indicators	Targets 2023-24	Outcome	Indicators
5,000	1. Commissioning of Grid Connected solar power (Ground mounted/ Rooftop) in the country. (Excluding PM KUSUM)	1.1 Capacity commissioned in Solar Parks (MW)	7,000	1. Electricity Generation from Solar Power projects under the scheme	1.1 Solar Energy Generated under the scheme (BU)	16.56 <sup>6</sup>
		1.2 Capacity commissioned in Rooftop Solar (MW)	2,500			
		1.3 Capacity commissioned in projects under Central Public Sector Undertaking (CPSU) scheme (MW)	450			

<sup>6</sup> Calculated with 19% CUF

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2023-24			OUTCOMES 2023-24		
	2023-24	Output	Indicators	Targets 2023-24	Outcome	Indicators
	2. Increased domestic manufacturing of solar panels and solar cells	2.1 Capacity of Solar Panels and cells manufactured domestically (MW) due to MNRE's DCR Schemes: CPSU Scheme P-II	675	2. Reduced import dependency due to the scheme	2.1. Reduction in value of imports due to domestic manufacturing of solar panels and cells (Rs. in Cr.) due to the scheme: CPSU Scheme P-II	1,350 <sup>7</sup>
		2.2 Capacity of Solar Modules and cells manufactured domestically (MW) due to MNRE's DCR Schemes: PM-KUSUM Com-B	1,200		2.2. Reduction in value of imports due to domestic manufacturing of solar modules and cells (Rs. in Cr.) due to the scheme: PM-KUSUM Com-B	2,400 <sup>2</sup>
		2.3 Capacity of Solar Modules manufactured domestically (MW) due to MNRE's DCR Schemes: PM-KUSUM Com-C	1,500		2.3. Reduction in value of imports due to domestic manufacturing of solar modules and cells (Rs. in Cr.) due to the scheme: PM-KUSUM Com-C	900 <sup>2</sup>
		2.4 Capacity of Solar Modules and cells manufactured domestically (MW) due to MNRE's DCR Schemes: Rooftop Solar P-II	1,000		2.4. Reduction in value of imports due to domestic manufacturing of solar modules and cells (Rs. in Cr.) due to the scheme: Rooftop Solar P-II	2,000 <sup>2</sup>

<sup>7</sup> Reduction in value of imports = Expected Quantity of domestic Solar Modules deployed × Average International Prices (Rs. 2 crore/MW for the outcome indicators mentioned at 2.1, 2.2 and 2.4 & Rs. 0.6 crore/MW for the outcome indicator mentioned at 2.3)

**7. Solar Energy - Kisan Urja Suraksha Evam Utthaan Mahabhiyan (KUSUM) – Off-Grid/Distributed and Decentralized Renewable Power (CS)**

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2023-24			OUTCOMES 2023-24		
	2023-24	Output	Indicators	Targets 2023-24	Outcome	Indicators
1,500	1. Installation of standalone Solar Powered Agriculture Pumps under PM-KUSUM Scheme	1.1 Number of standalone Solar Powered Agriculture Pumps installed in the financial year	2,50,000	1. Total Generation from the pumps	1.1. Generation from the pumps (BU)	1.23 <sup>8</sup>

**8. Storage and Transmission - Green Energy Corridor (CS)**

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2023-24			OUTCOMES 2023-24		
	2023-24	Output	Indicators	Targets 2023-24	Outcome	Indicators
500	1. Construction of Transmission system in 8 implementing RE rich States	1.1 Cumulative Intrastate Transmission lines constructed (ckm <sup>9</sup> )	9,700 <sup>5</sup>	1. Grid integration of large-scale renewable generation capacity in 8 implementing RE rich States	1.1. Cumulative Renewable Energy Capacity added (MW) due to 8 implementing RE rich States	24,000 <sup>10</sup>

<sup>8</sup> Generation from pumps calculated @ 17% CUF

<sup>9</sup> ckm = circuit kilometers

<sup>10</sup> The scheduled commissioning timeline for GEC Phase-I has been extended till 31<sup>st</sup> March 2023. The above numbers are targets for GEC Phase-I and will in all possibility be achieved by 31<sup>st</sup> March 2023. Any shortcomings in the target will be achieved in FY 2023-24. Further, the GEC Phase-II scheme was approved in January 2022 & scheme guidelines issued in March 2022. The projects under the GEC Phase-II scheme are currently in tendering stage. Any physical achievement will come from FY 2024-25 onwards.

