

GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
LOKSABHA

UNSTARRED QUESTION NO 1725

TO BE ANSWERED ON 28/11/2019

CAPACITY ADDITION OF NEW AND RENEWABLE ENERGY SOURCES

1725. SHRI DEVUSINH JESINGHBHAI CHAUHAN

Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

- (a) whether the Government proposes to bring rural and backward areas of the country under new and renewable energy programme;
- (b) if so, the details along with the status thereof;
- (c) the targeted plan for capacity addition of new and renewable energy during 12th Plan period and mode of implementation of the same along with the target that has been achieved till June, 2019;
- (d) whether any State/UT-wise target had been fixed and if so, the details thereof;
- (e) the details of the work undertaken by state nodal agencies for renewable energy during the 12th Plan period, State/ UT-wise; and
- (f) the quantum of incentives given to State nodal agencies, State/UT-wise during the said period?

ANSWER

THE MINISTER OF STATE (I/C) FOR NEW & RENEWABLE ENERGY, POWER and MoS for SKILL DEVELOPMENT AND ENTREPRENEURSHIP

(SHRI R. K. SINGH)

(a) & (b) The details of the renewable energy schemes and programs being implemented in the country including rural and backward areas are given in the **Annexure-I**. The details of achievements made in the country including rural and backward areas under various Grid and Off-Grid renewable energy programmes upto October 2019 are given in **Annexure-II** and **III**.

(c) A target of 30 GW of renewable energy capacity addition was fixed during the 12th Plan period i.e. 2012-13 to 2016-17 against which 32.44 GW capacity was installed. Further, a total of 83.38 GW of renewable energy capacity has been installed in the country upto 31/10/2019.

(d) No sir.

(e) The State Nodal Agencies (SNAs) were involved in the implementation of various renewable energy programmes in the country which include identification of beneficiaries and project sites, provide assistance to various project developers for statutory clearances required, technical supervision, regular monitoring of projects being executed, submission of project completion reports etc. The details of the achievements made in the country under Grid connected renewable energy programmes during the 12th plan period are given in **Annexure-IV**.

(f) The Government is not providing any incentive to the SNAs. However, they are being paid service charges or administrative charges on completion of the sanctioned projects as per provisions of the scheme guidelines for promotion, coordination and monitoring of renewable energy projects.

Annexure referred to in reply to parts (a) & (b) of Lok Sabha Un-starred Question No. 1725 for 28/11/2019
regarding 'Capacity Addition of New and Renewable Energy Sources'

Details of the Renewable Energy Schemes / Programmes

1. Grid Interactive Power:

- **Wind Power:** Grid Interactive Wind Power projects.
- **Bio-power:** Biomass power/ Cogeneration and waste to energy programme.
- **Small Hydro Power:** Small hydro power plants up to 25 MW capacity.
- **Solar Power:** Grid-interactive –Solar power generation plants, Solar Roof Top programme.
- **Green Energy Corridors:** transmission Infrastructure for evacuation of Power from Renewable Energy Sources.

2. Off-Grid/ Distributed and Decentralized Renewable Power:

- **Solar Power** -To promote the solar devices such as Solar Lighting Systems, Solar Power Packs and Concentrated Solar Technology systems, **PM- KUSUM**, Atal Jyoti Yojna (AJAY).
- **Biogas Programme:** setting up of Family Type biogas plants for cooking/ lighting/ manure/ small scale power generation
- **Solar Thermal Systems:** deployment of decentralized solar thermal systems/ devices (mainly solar cookers / driers for cooking, drying farm produce) under National Solar Mission.

3. Other programmes:

- Supporting research and development projects at premier institutions and industries on different aspects of new and renewable energy technologies.
 - Solar
 - Hydrogen and fuel cell
 - Biogas
 - SHP
- Human Resource Development and Training Programme
- Information and Publicity

Annexure referred to in reply to parts (a) & (b) of Lok Sabha Un-starred Question No. 1725 for 28/11/2019 regarding 'Capacity Addition of New and Renewable Energy Sources'

**Source-wise and State-wise installed capacity of Grid Interactive Renewable Power
(As on 31.10.2019)**

S. No.	STATES / Uts	Small Hydro Power	Wind Power	Bio Power	Solar Power	Total
(MW)						
1	Andhra Pradesh	162.11	4092.45	500.34	3316.82	8071.72
2	Arunachal Pradesh	131.105			5.61	136.72
3	Assam	34.11			41.23	75.34
4	Bihar	70.70		121.20	149.35	341.25
5	Chhattisgarh	76.00		230.50	231.35	537.85
6	Goa	0.05			4.78	4.83
7	Gujarat	62.35	7203.77	77.30	2687.57	10030.99
8	Haryana	73.50		205.66	247.52	526.68
9	Himachal Pradesh	906.51		7.20	29.63	943.34
10	Jammu & Kashmir	180.03			19.13	199.16
11	Jharkhand	4.05		4.30	38.40	46.75
12	Karnataka	1256.73	4753.40	1827.80	6497.42	14335.35
13	Kerala	222.02	62.50	0.72	141.39	426.63
14	Madhya Pradesh	95.91	2519.890	120.75	2116.08	4852.63
15	Maharashtra	379.575	4794.13	2528.69	1661.33	9363.73
16	Manipur	5.45			4.30	9.75
17	Meghalaya	32.53		13.80	0.12	46.45
18	Mizoram	36.47			1.42	37.89
19	Nagaland	30.67			1.00	31.67
20	Odisha	64.625		59.22	397.28	521.13
21	Punjab	173.55		327.85	947.10	1448.50
22	Rajasthan	23.85	4299.72	121.30	4737.63	9182.50
23	Sikkim	52.11			0.07	52.18
24	Tamil Nadu	123.05	9231.76	1003.95	3097.97	13456.73
25	Telangana	90.87	128.10	177.60	3620.75	4017.32
26	Tripura	16.01			9.41	25.42
27	Uttar Pradesh	25.10		2115.51	1045.10	3185.71
28	Uttarakhand	214.320		130.50	314.99	659.81
29	West Bengal	98.50		319.92	108.49	526.91
30	Andaman & Nicobar	5.25			12.19	17.44
31	Chandigarh				36.99	36.99
32	Dadar & Nagar Haveli				5.46	5.46
33	Daman & Diu				16.02	16.02
34	Delhi			52.00	148.41	200.41
35	Lakshwadeep				0.75	0.75
36	Pondicherry				3.20	3.20
37	Others		4.30			4.30
	Total (MW)	4647.107	37090.020	9946.11	31696.26	83379.50

**Annexure referred to in reply to parts (a) & (b) of Lok Sabha Un-starred Question No. 1725 for 28/11/2019
regarding 'Capacity Addition of New and Renewable Energy Sources'**

Statewise details of Decentralised/Off-Grid Renewable Energy Systems/Devices as on 31.10.2019									
S.No.	STATES / UT	Biomass Gasifier	Waste to Energy	Solar Photovoltaic (SPV) Systems					SPV Pumps
				SLS	HLS	SL	PP		
		(MW)	(MW)				(kWp)	(Nos)	
1	Andhra Pradesh	22.91	25.00	8992	22972	77803	109767	3816	34045
2	Arunachal Pradesh			5008	35065	18551	58624	963	22
3	Assam	2.93		9554	46879	625290	681723	1605	45
4	Bihar	5.93	1.00	33609	12303	1590069	1635981	6770	2107
5	Chhatisgarh	1.21	0.33	2042	42232	3311	47585	31250	61970
6	Goa			707	393	1093	2193	33	15
7	Gujarat	20.08	18.95	2004	9253	31603	42860	13577	11522
8	Haryana	4.46	4.96	34625	56727	93853	185205	2321	1293
9	Himachal Pradesh		1.00	78000	22592	33909	134501	1906	6
10	Jammu & Kashmir	0.20		14156	144316	51224	209696	8130	39
11	Jharkhand	0.50		12148	9450	790366	811964	3770	4290
12	Karnataka	6.30	13.66	2694	52638	7781	63113	7754	6343
13	Kerala		0.23	1735	41912	54367	98014	15825	818
14	Madhya Pradesh	9.86	2.50	11496	7920	529101	548517	3654	17813
15	Maharashtra	7.15	30.92	10420	3497	239297	253214	3858	9337
16	Manipur			11205	24583	9058	44846	1581	40
17	Meghalaya	0.25		5800	14874	40750	61424	2004	19
18	Mizoram			5325	12060	10512	27897	2956	37
19	Nagaland			6235	1045	6766	14046	1506	3
20	Orissa	0.27		16361	5274	99843	121478	568	9551
21	Punjab		7.40	42758	8626	17495	68879	2066	3857
22	Rajasthan	2.63	3.91	7114	187968	225851	420933	30349	48175
23	Sikkim			504	15059	23300	38863	850	0
24	Tamil Nadu	14.86	15.96	39419	291229	16818	347466	12753	5459
25	Telangana		3.50	1220	0	0	1220	7450	424
26	Tripura			1199	32723	64282	98204	867	151
27	Uttar Pradesh	34.65	50.23	263817	235909	1782109	2281835	10638	20546
28	Uttarakhand	2.15	8.57	23879	91595	163386	278860	3145	26
29	West Bengal	29.82	1.17	8726	145332	17662	171720	1730	653
30	Andaman & Nicobar			390	468	6296	7154	167	5
31	Chandigarh			898	275	1675	2848	730	12
32	Dadar & Nagar Haveli			0	0	0	0	0	0
33	Daman & Diu			0	0	0	0	0	0
34	Delhi			301	0	4807	5108	1269	90
35	Lakshwadeep			2465	600	5289	8354	2190	0
36	Puducherry			417	25	1637	2079	121	21
37	Others*			9150	140273	125797	275220	23885	4621
	Total	166.17	189.29	674373	1716067	6770951	9161391	212054	243355
SLS = Street Lighting System; HLS=Home Lighting System;			SL= Solar Lanterns; MW=Mega Watt; kWp=kilowatt peak; PP = Power plants;						

**Annexure referred to in reply to part (e) of Lok Sabha Un-starred Question No. 1725 for 28/11/2019
regarding 'Capacity Addition of New and Renewable Energy Sources'**

Source-wise and State-wise achievements made under Grid Renewable Energy capacity during the 12th plan period (01.04.2012 to 31.03.2017)							
(in MW)							
S.No.	State/UT	Solar Power	Wind Power	Small Hydro Power	Bio-mass	Waste to Energy	Total Installed Renewable Energy Capacity
1	Andhra Pradesh	1966.23	3373.3	12.2	38.51	18.41	5408.65
2	Arunachal Pradesh	0.24	0	25.375	0	0	25.615
3	Assam	11.78	0	3	0	0	14.78
4	Bihar	108.52	0	6.4	97.5	0	212.42
5	Chhattisgarh	124.86	0	55.75	-21.9	0	158.71
6	Goa	0.71	0	0	0	0	0.71
7	Gujarat	654.22	2374.34	1	44.8	1.11	3075.47
8	Haryana	76.6	0	3.4	83.45	0	163.45
9	Himachal Pradesh	0.73	0	304.155	0	0	304.885
10	Jammu & Kashmir	1.36	0	27.5	0	0	28.86
11	Jharkhand	19.27	0	0	3.1	0	22.37
12	Karnataka	1019.91	1817.9	343.208	1010.82	0	4191.838
13	Kerala	73.65	16.4	63.35	0	0	153.4
14	Madhya Pradesh	848.53	2121.4	0	84.5	0	3054.43
15	Maharashtra	412.35	2038.03	64.845	1461.3	7	3983.525
16	Manipur	0.03	0	0	0	0	0.03
17	Meghalaya	0.01	0	0	0	0	0.01
18	Mizoram	0.1	0	5	0	0	5.1
19	Nagaland	0.5	0	2	0	0	2.5
20	Orissa	67.42	0	0.325	35.68	0	103.425
21	Punjab	792.53	0	16.4	95.95	1.2	906.08
22	Rajasthan	1633.48	2211.07	0	36	0	3880.55
23	Sikkim	0	0	0	0	0	0
24	Tamil Nadu	1689.78	873.88	0	352.8	2.4	2918.86
25	Telangana	1181.18	100.8	11.95	158.1	0	1452.03
26	Tripura	5.09	0	0	0	0	5.09
27	Uttar Pradesh	316.89	0	0	1293.9	8.19	1618.98
28	Uttarakhand	230.3	0	38.5	68	0	336.8
29	West Bengal	24.06	0	0.1	286.5	0	310.66
30	Andaman & Nicobar	6.55	0	0	0	0	6.55
31	Chandigarh	17.33	0	0	0	0	17.33
32	Dadar & Nagar Haveli	2.97	0	0	0	0	2.97
33	Daman & Diu	10.46	0	0	0	0	10.46
34	Delhi	49.24	0	0	0	12	61.24
35	Lakshwadeep	0	0	0	0	0	0
36	Pondicherry	0.05	0	0	0	0	0.05
37	Others	0.82	4.3	0	0	0	5.12
	Total	11347.75	14931.42	984.458	5129.01	50.31	32442.95