

GOVERNMENT OF INDIA
MINISTRY OF POWER

RAJYA SABHA
UNSTARRED QUESTION NO.2699
TO BE ANSWERED ON 17.03.2020

STATUS OF POWER GENERATION IN THE COUNTRY

2699. DR. SASMIT PATRA:

Will the Minister of **POWER**
be pleased to state:

- (a) the details of power generation in India during last five years, State-wise and year-wise; and
- (b) the numbers of new projects that are undergoing/to be commissioned in power generation in India, the details thereof?

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW & RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT & ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) : Details of state-wise power generation from conventional fuel sources (thermal, hydro & nuclear) of 25 MW and above in the country during the last five years & the current year (Up to February, 2020) **are given at Annexure-I.** Details of State-wise Renewable Energy generation during the last five years & the current year (Up to January 2020) **are given at Annexure-II.**

(b) : The number of new power projects which are at various stages of construction in the country, includes 62 thermal power projects with total capacity of 39031.15 MW, 38 hydroelectric projects aggregating to 12973.5 MW capacity and 06 nuclear power plants totalling to 7000 MW capacity. Details of thermal, hydro and nuclear power projects **are given at Annexure-III, Annexure-IV and Annexure-V respectively.** Further, Govt. of India have set a target of 1,75,000 MW installed capacity from renewable sources by the end of 2021-22 against which a capacity of 86,759 MW has been installed and 33,720 MW is under installation.

ANNEXURE-I

ANNEXURE REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 2699 TO BE ANSWERED IN THE RAJYA SABHA ON 17.03.2020.

Details of State-wise power generation from Conventional fuel sources (Thermal, Hydro & Nuclear) of 25 MW and above in the country during the last five years & current year (Up to Feb.2020)

State	Monitored Capacity as on 29.02.2020 MW	Generation(inMU)					2019-20 (upto-Feb. 20)*
		2014-15	2015-16	2016-17	2017-18	2018-19	
DELHI	2208.4	8722.83	6206.1	6253.26	7048.7	7136.04	5624.27
HARYANA	5971.59	28748.61	22247.14	18890.44	26605.97	25435.43	16560.57
HIMACHAL PRADESH	9809.02	33573.52	38586.58	37049.74	38783	35908.55	39123.6
JAMMU AND KASHMIR**	3624	14485.02	15136.15	15377.69	14937.56	16541.58	17036.71
PUNJAB	6776.3	23306.29	23662.7	26866.42	29452.35	30699.66	25365.77
RAJASTHAN	11774.13	54185.92	53947.35	51792.17	51643.61	56978.26	52172.95
UTTAR PRADESH	24843.74	111901.74	111329.53	120142.11	128542.28	122772.4	115609.8
UTTARAKHAND	4206.35	11439.22	12765.92	14250.54	15606.6	14995.36	15581.76
CHHATTISGARH	23248	79710.57	89513.29	105686.18	110041.76	115714.33	107573.83
GOA	48	12.61	0	0	0	0	0
GUJARAT	26213.41	105538.54	104917.26	99748.61	96519.87	96591.35	99086.3
MADHYA PRADESH	22725	74822.34	95361.99	98239.84	111173.47	121677.77	111764.23
MAHARASHTRA	32620.08	107699.34	117622.94	118451.85	124468.3	137023.78	120632.43
ANDHRA PRADESH	18135.344	46532.53	59463.73	66080.06	62961.57	63143.82	58281.51
KARNATAKA	14029.4	50163.29	47553.25	43766.67	44668.81	49756.96	39774.59
KERALA	2550.04	8034.17	6653.34	4130.61	5248.02	7325.09	5019.02
PUDUCHERRY	32.5	102.14	227.59	246.84	226.45	229.88	233.16
TAMIL NADU	19007.081	71418.41	76406.83	84581.68	82386.3	83778.51	75784.38
TELANGANA	9588.1	39614.86	35635.06	42559.33	48804.2	49963.03	48045.62
ANDAMAN NICOBAR	40.048	153.76	182.85	215.56	258.79	120.73	85.03
BIHAR	6390	18272.27	20827.01	24514.85	28440.03	32170.52	32276.83
JHARKHAND	4800	23219.46	26268.41	25970.09	27624.58	26981.63	24189.79
ORISSA	11942.25	51332.44	57221.8	55841.18	46512.83	46824.37	43329.51
SIKKIM	2169	3345.29	3551.92	4330.4	8887.99	9022.07	10714.58
WEST BENGAL	15586.2	66695.55	64641.81	74516.5	74705.22	76952.06	68631.29
ARUNACHAL PRADESH	815	1109.48	1280.25	1249.01	1416.74	1399.02	1698.16
ASSAM	1719.205	4387.7	4697.17	6178.47	6232.89	7224.98	7479.25
MANIPUR	141	372.44	536.64	741.07	837.74	602.61	343.86
MEGHALAYA	322	775.29	860.94	719.6	1140.26	929.53	985.7
MIZORAM	60				78.37	168.44	169.9
NAGALAND	75	165.15	163.14	258.94	274.39	231.47	176.39
TRIPURA	1132.1	3824.44	5109.38	5873.89	5999.27	6630.85	5722.67
Bhutan (IMP)	0	5007.74	5244.21	5617.34	4778.33	4406.62	5711.99
Grand Total	282602.288	1048672.96	1107822.28	1160140.94	1206306.25	1249336.7	1154785.45

** Including Ladakh

* PROVISIONAL BASED ON ACTUAL-CUM-ASSESSMENT

Note: 1. Gross Generation from conventional sources (Thermal, Hydro and Nuclear) stations of 25 MW and above only.
2. Figures given above indicate gross generation of all power stations (Central, State & Private Sector) located geographically in the respective State/UT.

ANNEXURE REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 2699 TO BE ANSWERED IN THE RAJYA SABHA ON 17.03.2020.

Details of State-wise Renewable Energy generation during the last five years & current year (up to January 2020)

Renewable Energy Generation Year Wise state wise							(All figures in MU)	
Sl. No.	State/Utility	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 (Upto January 2020)	
1	Chandigarh	2.23	3.40	13.16	7.87	13.51	10.22	
2	Delhi	116.63	128.97	144.73	241.09	287.65	362.64	
3	Haryana	470.69	1343.15	449.54	560.70	662.36	606.45	
4	HP	1685.08	1921.77	2015.58	1903.05	2287.93	1907.04	
5	J & K	313.23	304.79	326.12	324.37	312.20	389.79	
6	Ladakh						0.00	
7	Punjab	1159.29	1474.20	2149.49	2343.87	2445.21	2232.83	
8	Rajasthan	5596.57	6600.24	7973.85	9484.23	11863.41	11684.91	
9	Uttar Pradesh	3075.02	3201.49	3638.26	4606.29	5694.80	3703.21	
10	Uttarakhand .	664.38	703.42	999.19	1184.50	1104.97	993.97	
11	NTPC Dadri/FBD/Unchahar/Singrauli/Bhadla*	22.90	42.41	74.90	480.99			
12	Oil India Ltd (Rajasthan) *	126.93	193.67	227.20	251.25			
13	Chhattisgarh	1066.29	1202.42	1446.22	1069.21	945.09	880.14	
14	NTPC Rajgarh/Raojmal/Mandsaur *	62.94	81.00	82.21	381.99			
15	Gujarat	7222.27	8003.73	9497.99	11759.63	13976.86	14850.83	
16	Madhya Pradesh	1427.51	2910.42	5268.67	6292.90	8246.45	6845.08	
17	Maharashtra	10283.93	10756.58	11292.70	12036.98	14974.91	11743.66	
18	Dadra and Nagar Haveli	0.03	0.50	1.31	5.23	5.76	4.93	
19	Daman & Diu	0.15	4.25	14.43	18.53	18.94	17.60	
20	Goa						0.54	
21	Oil India Ltd (Madhya Pradesh & Gujrat) *	0.00	2013.04	3187.85	6354.11			
22	Andhra Pradesh	2711.06	1093.57	2507.34	4438.65	14550.51	11890.19	
23	Telangana	802.86	5825.85	7846.60	11847.28	7045.98	5468.76	
24	Karnataka	9694.90	5314.53	3599.62	6152.15	21657.53	21382.97	
25	Kerala	629.64	567.33	490.13	675.87	770.33	701.02	
26	NTPC Ramagundam/Anantapuram *	15.62	16.02	350.53	426.37			
27	Tamil Nadu	11902.39	9331.47	15153.87	16179.86	16898.48	17603.61	
28	Lakshadweep	46.09	1.02	1.59	1.79	1.12	0.53	
29	Punducherry	0.00	0.00	0.34	1.17	2.58	3.41	
30	Andaman & Nicobar	0.47	18.72	20.03	19.65	30.42	14.99	
31	Bihar	209.13	165.11	292.53	309.06	488.14	263.45	
32	Jharkhand	8.32	19.77	38.47	19.47	19.14	13.52	
33	Odisha	329.82	434.45	507.71	517.56	653.44	663.04	
34	Sikkim	20.88	41.93	35.78	30.54	28.10	57.88	
35	West Bengal	1553.63	1608.15	1569.77	1590.54	1486.16	1222.61	
36	DVC	146.86	118.26	14.09	9.54	2.63	1.60	
37	NTPC Andaman/ Talcher *	18.79	18.91	20.00	20.43			
38	Arunachal Pradesh	51.94	18.44	27.43	0.70	1.75	1.80	
39	Assam	64.52	90.94	14.15	24.49	52.69	54.26	
40	Manipur	0.00	0.00	0.01	0.15	1.88	3.57	
41	Meghalaya	66.94	65.96	59.10	70.56	50.51	56.01	
42	Mizoram	34.86	27.62	49.62	54.67	40.09	43.75	
43	Nagaland	84.14	88.73	92.73	91.00	87.46	69.61	
44	Tripura	29.37	18.47	46.47	44.48	50.12	22.23	
45	NEEPCO *	0.98	6.15	6.89	6.71			
	Total	61719.25	65780.85	81548.21	101839.48	126759.09	115772.65	

* From 2018-19, CPSUs RE generation is included in RE generation data of respective states in which these plants are physically located.

ANNEXURE REFERRED TO IN REPLY TO PART (b) OF UNSTARRED QUESTION NO. 2699 TO BE ANSWERED IN THE RAJYA SABHA ON 17.03.2020.

Details of under construction thermal power projects

Sl. No.	Project Name / Implementing Agency	Unit No	Capacity (MW)
	CENTRAL SECTOR		
1	Barh STPP-I /NTPC	U-1	660
2	Barh STPP-I /NTPC	U-2	660
3	Barh STPP-I /NTPC	U-3	660
4	Nabi Nagar TPP / JV of NTPC & Rly.	U-4	250
5	New Nabi Nagar TPP /JV of NTPC & BSPGCL	U-2	660
6	New Nabi Nagar TPP /JV of NTPC & BSPGCL	U-3	660
7	North Karanpura TPP/ NTPC	U-1	660
8	North Karanpura TPP/ NTPC	U-2	660
9	North Karanpura TPP/ NTPC	U-3	660
10	Gadarwara TPP/ NTPC	U-2	800
11	Khargone TPP/ NTPC	U-2	660
12	Darlipalli STPP/ NTPC	U-2	800
13	Neyveli New TPP/ NLC	U-2	500
14	Telangana Ph-I/NTPC	U-1	800
15	Telangana Ph-I/NTPC	U-2	800
16	Lara STPP / NTPC	U-2	800
17	Meja STPP/ JV of NTPC & UPRVUNL	U-2	660
18	Tanda TPP St-II/ NTPC	U-6	660
19	Ghatampur TPP/ NLC JV	U-1	660
20	Ghatampur TPP/ NLC JV	U-2	660
21	Ghatampur TPP/ NLC JV	U-3	660
22	Barsingsar TPP ext/NLC	U-1	250
23	Bithnok TPP /NLC	U-1	250
24	Patratu STPP / JV of NTPC & Jharkhand BidyutVitran Nigam Ltd.	U-1	800
25	Patratu STPP / JV of NTPC & Jharkhand BidyutVitran Nigam Ltd.	U-2	800
26	Patratu STPP / JV of NTPC & Jharkhand BidyutVitran Nigam Ltd.	U-3	800
27	Rourkela PP-II Expansion/NTPC-Sail Power Co Ltd	U-1	250
28	Khurja SCTPP	U-1	660
29	Khurja SCTPP	U-2	660
30	Buxar TPP	U-1	660
31	Buxar TPP	U-2	660
	TOTAL (CENTRAL SECTOR)		19780
	STATE SECTOR		
1	Namrup CCGT / APGCL / BHEL	ST	36.15
2	Dr N T Rao TPS St-V/APGENCO	U-1	800
3	Sri Damodaram TPS St-II/APGENCO	U-1	800
4	Suratgarh TPS/ RRVUNL	U-7	660
5	Suratgarh TPS/ RRVUNL	U-8	660

6	Bhadradri TPP / TSGENCO	U-1	270
7	Bhadradri TPP / TSGENCO	U-2	270
8	Bhadradri TPP / TSGENCO	U-3	270
9	Bhadradri TPP / TSGENCO	U-4	270
10	Ennore exp. SCTPP(Lanco) / TANGEDCO	U-1	660
11	Ennore SCTPP / TANGEDCO	U-1	660
12	Ennore SCTPP / TANGEDCO	U-2	660
13	North Chennai TPP St-III/TANGEDCO	U-1	800
14	Uppur SCTPP/TANGEDCO	U-1	800
15	Uppur SCTPP/TANGEDCO	U-2	800
16	Harduaganj Exp.-II TPP / UPRVUNL	U-1	660
17	Yelahanka CCPP / KPCL	GT+ST	370
18	Jawaharpur STPP/ UPRVUNL	U-1	660
19	Jawaharpur STPP/ UPRVUNL	U-2	660
20	Obra-C STPP/ UPRVUNL	U-1	660
21	Obra-C STPP/ UPRVUNL	U-2	660
22	Yadadri TPS/TSGENCO/BHEL	U-1	800
23	Yadadri TPS/TSGENCO/BHEL	U-2	800
24	Yadadri TPS/TSGENCO/BHEL	U-3	800
25	Yadadri TPS/TSGENCO/BHEL	U-4	800
26	Yadadri TPS/TSGENCO/BHEL	U-5	800
27	Panki TPS Extn./ UPRVUNL	U-1	660
28	Udangudi STPP Stage I/ TANGEDCO	U-1	660
29	Udangudi STPP Stage I/ TANGEDCO	U-2	660
30	Bhusawal TPS/MAHAGENCO	U-6	660
	TOTAL (STATE SECTOR)		18726.15
	PRIVATE SECTOR		
1	Tuticorin TPP St-IV / SEPC	U-1	525
	TOTAL (PRIVATE SECTOR)		525
	GRAND TOTAL		39031.15

ANNEXURE REFERRED TO IN REPLY TO PART (b) OF UNSTARRED QUESTION NO. 2699 TO BE ANSWERED IN THE RAJYA SABHA ON 17.03.2020.

List of under construction Hydro projects (above 25 MW) – Sector wise

(As on 29.02.2020)

Sl. No.	Name of Project / Installed Capacity	Unit No.	State/District Implementing Agency	River/Basin	Capacity (MW)
Central Sector					
1	PakalDul 4x250= 1000 MW	U-1 to U-4	Jammu & Kashmir /Kishtwar/ CVPPL (Joint Venture of NHPC, JKSPDC & PTC)	Marusadar/ Chenab / Indus	1000
2	Kiru 4x156=624 MW	U-1 to U-4	Jammu & Kashmir /Kishtwar/ CVPPL (Joint Venture of NHPC, JKSPDC & PTC)	Chenab / Indus	624
3	Parbati St. II 4x200= 800 MW	U-1 to U-4	Himachal Pradesh/Kullu/ NHPC	Parbati/Beas/Indus	800
4	Subansiri Lower 8x250= 2000 MW	U-1 to U-8	Arunachal Pradesh/L. Subansiri, Dhemaji/NHPC	Subansiri/ Brahmaputra	2000
5	Teesta- VI 4x125= 500 MW	U-1 to U-4	Sikkim/South Sikkim/ LANCO / NHPC	Teesta/ Brahmaputra	500
6	TapovanVishnugad 4x130=520 MW	U-1 to U-4	Uttarakhand /Chamoli/ NTPC	Dhauliganga / Alaknanada& /Ganga	520
7	Rammam III 3x40=120 MW	U-1 to U-3	West Bengal/Darjeeling/ NTPC Ltd.	Rammam/ Rangit/Teesta Brahmaputra	120
8	LataTapovan 3x57= 171 MW	U-1 to U-3	Uttarakhand/Chamoli/ NTPC	Dhauliganga /Alaknanada& Ganga	171
9	Tehri PSS 4x250= 1000 MW	U-1 to U-4	Uttarakhand/TehriGarhwal/ THDC	Bhilangna/Bhagirathi/ Ganga	1000
10	VishnugadPipalkoti 4x111= 444 MW	U-1 to U-4	Uttarakhand/Chamoli/ THDC	Alaknanada/ Ganga	444
11	Kameng 4x150= 600 MW (2 units taken in operation)	U-3 to U-4	Arunachal Pradesh/West Kameng/ NEEPCO	Bichom&Tenga / Kameng/Brahmaputra	300
12	Naitwar Mori 2x30=60 MW	U-1 to U-2	Uttarakhand/Uttarkashi/ SJVNL	Tons/Yamuna/Ganga	60
13	Ratle # 4x205+1x30= 850 MW	U-1 to U-5	Jammu & Kashmir/Kishtwar/ Ratle Hydro Electric Project Pvt. Ltd. / NHPC	Chenab/ Indus	850
			Sub- total (Central):		8389
State Sector					
14	Parnai 3x12.5= 37.5 MW	U-1 to U-3	J&K/Poonch/ JKSPDC	Jhelum/ Indus	37.5
15	Lower Kalnai 2x24= 48 MW	U-1 to U-2	J&K/Kishtwar/ JKSPDC	Chenab/ Indus	48
16	Shahpurkandi 3x33+3x33+1x8= 206 MW	U-1 to U-7	Punjab/Gurdaspur/ Irr. Deptt. & PSPCL	Ravi/ Indus	206
17	Uhl-III 3x33.33= 100 MW	U-1 to U-3	Himachal Pradesh/Mandi/ Beas Valley Power Corp. Ltd. (BVPC)	Uhl/Beas/ Indus	100
18	SawraKuddu 3x37= 111 MW	U-1 to U-3	Himachal Pradesh/Shimla/ HPPCL	Pabbar/Tons/ Yamuna/Ganga	111
19	ShongtongKarcham 3x150= 450 MW	U-1 to U-3	Himachal Pradesh/Kinnaur/ HPPCL	Satluj/ Indus	450
20	Vyasi 2X60=120 MW	U- 1 & U- 2	Uttarakhand/Dehradun/ UJVNL	Yamuna/ Ganga	120

21	Koyna Left Bank PSS 2x40= 80 MW	U-1 to U-2	Maharashtra/Satara/ WRD, Gov. of Mah.	Koyna/Krishna/ EFR	80
22	Polavaram 12x80= 960 MW	U-1 to U-12	Andhra Pradesh/East & West Godavari/ APGENCO/ Irr. Deptt., A.P.	Godavari/ EFR	960
23	Pallivasal 2x30= 60 MW	U-1 to U-2	Kerala/Idukki/ KSEB	Mudirapuzha/ Periyar/BayporePeriyar/ WFR	60
24	Thottiyar 1x30 + 1x10= 40 MW	U-1 to U-2	Kerala/Idukki/ KSEB	Thottiyar/Periyar/ / BayporePeriyar/ WFR	40
25	Kundah Pumped Storage (Phase-I, Phase-II & Phase-III) 4x125= 500 MW	U-1to4	Tamil Nadu/Nilgiris/ TANGEDCO	Kundah/Bhavani/ Cauvery/ EFR	500
			Sub- total (State):		2712.5
	Private Sector				
26	Sorang 2x50= 100 MW	U-1 & U-2	Himachal Pradesh/Kinnaur/ Himachal Sorang Power	Sorang/Satluj/ Indus	100
27	Tangnu Romai- I 2x22= 44 MW	U-1 to U-2	Himachal Pradesh/Shimla/ TanguRomai Power Generation	Pabbar/Tons/Yamuna /Ganga	44
28	Bajoli Holi 3x60= 180 MW	U-1 to U-3	Himachal Pradesh/Chamba/ GMR Bajoli Holi Hydro Power Pvt. Ltd.	Ravi/ Indus	180
29	Tidong-I 2x50= 100 MW	U-1 to U-2	Himachal Pradesh/Kinnaur/ M/s Statkraft India Pvt. Ltd.	Tidong/Satluj/ Indus	100
30	PhataByung 2x38= 76 MW	U-1 to U-2	Uttarakhand/Rudraprayag M/s Lanco	Mandakini/Alaknanda Ganga	76
31	SingoliBhatwari 3x33= 99 MW	U-1 to U-3	Uttarakhand/ Rudraprayag/ L&T Uttaranchal Hydro power Limited	Mandakini/Alaknanda Ganga	99
32	Maheshwar ## 10x40= 400 MW	U-1 to U-10	Madhya Pradesh/Khargone& Khandwa/ SMHPCL	Narmada/ CIRS	400
33	Rangit-IV 3x40= 120 MW	U-1 to U-3	Sikkim/West Sikkim/ Jal Power corp. Ltd.	Rangit/ Teesta/ Brahmaputra	120
34	Bhasmey 2x25.5= 51 MW	U-1 to U-2	Sikkim/East Sikkim/ Gati Infrastructure	Rangpo/ Teesta/ Brahmaputra	51
35	Rangit-II 2x33= 66 MW	U-1 to U-2	Sikkim/West Sikkim/ Sikkim Hydro Power Ltd.	Greater Rangit/ Teesta/ Brahmaputra	66
36	Rongnichu 2x48= 96 MW	U-1 to U-2	Sikkim/East Sikkim/ Madhya Bharat Power Corporation Ltd.	Rongnichu/ Teesta/ Brahmaputra	96
37	Panan 4x75= 300 MW	U-1 to U-4	Sikkim/North Sikkim/ Himgiri Hydro Energy Pvt. Ltd.	Rangyongchu/ Teesta/ Brahmaputra	300
38	Kutehr 3x80= 240 MW	U-1 to U-3	Himachal Pradesh/Chamba/ JSW Energy (Kutehr) Ltd.	Ravi/ Indus	240
			Sub- total (Private):		1872
	Total (C.S. +S.S.+P.S.)				12973.5

Govt. of J&K, PDD have terminated PPA on 09.02.2017 and directed JKSPDC to take over the project. MoU between NHPC (51% share) & JKSPDC (49% share) signed for implementation of project in JV mode on 03.02.2019.

PFC as lead lender have acquired majority equity i.e. 51% in the SMHPCL w.e.f. 1st June, 2016. Matter Sub-judice.

ANNEXURE-V**ANNEXURE REFERRED TO IN REPLY TO PART (b) OF UNSTARRED QUESTION NO. 2699 TO BE ANSWERED IN THE RAJYA SABHA ON 17.03.2020.**

List of under construction nuclear power plants

SI. No.	Project Name	State	Agency	Capacity
1	Kakrapar Atomic Power Plant	Gujarat	NPCIL	1400
2	Rajasthan Atomic Power Station	Rajasthan	NPCIL	1400
3	PFBR (Kalpakkam)	Tamil Nadu	BHAVINI	500
4	Kudankulam Nuclear Power Project (U3&4)	Tamil Nadu	NPCIL	2000
5	GHAVP(U1)	Haryana	NPCIL	700
6	Kudankulam Nuclear Power Project (U5)	Tamil Nadu	NPCIL	1000
GRAND TOTAL				7000
