

**GOVERNMENT OF INDIA
MINISTRY OF POWER
LOK SABHA
UNSTARRED QUESTION NO.1089
ANSWERED ON 08.02.2024**

CONTRIBUTION OF PRIVATE SECTORS IN POWER GENERATION

†1089. SHRI GUMAN SINGH DAMOR:

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

- (a) the details of total requirement of electricity and the quantum of electricity being supplied compared to it;**
- (b) the details of the efforts being made to increase power generation;**
- (c) the details of the contribution of private sectors in power generation along with the rate at which the power generated from private sector is being purchased;**
- (d) the details of the efforts being made to increase the private sector investment in power generation; and**
- (e) whether there is any plan to provide 24x7 three-phase power for agriculture sector and if so, the target date to provide 24 hours electricity to the farmers?**

A N S W E R

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

(a) : There is adequate availability of power in the country. We have addressed the critical issue of power deficiency by adding 196558 MW of generation capacity since April 2014 transforming our country from power deficiency to power sufficiency. We have increased the generation capacity by 72.3% from 248554 MW in March 2014 to 428299 MW in December 2023. The gap between Energy Requirement and Energy Supplied has come down from 4.2% in 2013-14 to 0.3% in 2023-24. Even this gap between Energy Requirement and Energy Supplied is generally on account of constraints in the State transmission/distribution network and financial constraints of DISCOMs etc.

The details of all India Energy Requirement and Energy Supplied during the last three years and the current year i.e. 2023-24 (upto December 2023) are given at Annexure-I.

(b) : We have taken following steps to meet the increased demand for power in the country:

(i) In order to ensure an uninterrupted power supply for the nation's growth, the anticipated capacity addition between 2023-32 is given below:

(a) 26380 MW of Thermal Capacity is under construction, 11960 MW has been bid out and 19050 MW under clearances. The total anticipated Thermal capacity addition by 2031-32 will be 93380 MW.

(b) 18033.5 MW of Hydro Capacity (including stalled projects) is under construction and the total anticipated Hydro capacity addition by 2031-2032 is likely to be 42014 MW.

(c) 8000 MW of Nuclear Capacity is under construction and the total anticipated Nuclear capacity addition by 2031-2032 will be 12200 MW.

(d) 103660 MW of Renewable Energy Capacity is also currently under construction and the anticipated RE capacity addition by 2031-32 will be 322000 MW.

Thus, total 156073.5 MW of Capacity is under construction and the total anticipated capacity addition by 2031-2032 will be 469594 MW.

(ii) India has committed to augment its non fossil fuel based installed electricity generation capacity to over 500000 MW by 2030. Transmission plan for integration 500000 MW RE capacity by 2030 is being implemented in a phased manner commensurate with RE capacity addition. At present about 180800 MW of non fossil fuel generation capacity is already integrated.

(iii) Setting up of Ultra Mega Renewable Energy Parks to provide land and transmission to RE developers for installation of RE projects at large scale.

(iv) Govt have constructed Green Energy Corridors and put in place 13 Renewable Energy Management Centres. Presently Renewable Energy Capacity is 180800 MW and 103660 MW is under installation.

(v) We have made the Power Sector viable. The AT&C losses have come down from 25.72% in 2014-15 to 15.40% in 2022-23. Since implementation of LPS Rules, legacy dues of Gencos have come down from Rs. 1,39,947 crore as on 03.06.2022 to Rs. 49,451 crore as on 31.01.2024. Further, Discoms are making payments for current overdues on time

(c) & (d) : As on 31.12.2023, total installed capacity in the country is 428299 MW out of which the contribution of private sector is approximately 219691 MW. The rate, at which power generated from private sector is being purchased, is given at Annexure-II.

Generation is a de-licensed activity as per the Electricity Act, 2003. The details of the efforts being made by the Government to increase investment in power generation including the private sector are as under:

(i) 100% FDI in the power sector in India is permitted for generation from all sources (except atomic energy)

(ii) Waiver of Inter State Transmission System (ISTS) charges for inter-state sale of solar and wind power for projects to be commissioned by 30th June 2025,

(iii) Declaration of trajectory for Renewable Purchase Obligation (RPO) up to the year 2029-30;

(iv) Setting up of Ultra Mega Renewable Energy Parks to provide land and transmission to RE developers for installation of RE projects at large scale;

(v) Laying of new transmission lines and creating new sub-station capacity under the Green Energy Corridor Scheme for evacuation of renewable power;

- (vi) Setting up of Project Development Cell for attracting and facilitating investments;**
- (vii) Notification of Promoting Renewable Energy through Green Energy Open Access Rules 2022;**
- (viii) Notification of prescribed trajectory for RE power bids to be issued by Renewable Energy Implementation Agencies from FY 2023-24 to FY 2027-28. Under the trajectory, 50 GW/annum of RE bids to be issued;**
- (ix) Tariff rationalization measures for bringing down hydro power tariff;**
- (x) Budgetary Support to Cost of Enabling Infrastructure, i.e. roads/bridges for Hydro project including pump storage project.**
- (xi) Guidelines to promote development of Pumped Storage Projects issued on 10.04.2023.**

(e) : The Indian power sector has come a long way in past decade transforming from a power deficit to a power sufficient nation. Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) scheme was implemented to achieve the objective of separation of agriculture and non-agriculture feeders, strengthening and augmentation of sub-transmission & distribution infrastructure in rural areas and metering in rural areas. With an investment of 1.17 lakh crores, 18374 villages have been electrified. Besides this, 2927 new substations have been added, upgradation of 3965 existing sub stations has been carried out, 6,92,200 Distribution Transformers have been installed, Feeder separation of 1,13,938 Circuit Kilometer (CKm) has been done and 8.5 Lakh Circuit Kilometer (CKm) of HT and LT lines have been added/changed. As a result of these measures, the availability of power in rural areas has increased from 12 hours in 2015 to 20.6 hours in 2023.

Further, under the ongoing Revamped Distribution Sector Scheme (RDSS), agricultural feeder segregation is an important component as part of Distribution Infrastructure works. Segregated feeders dedicated for supply of power for agricultural consumption will be solarised under PM-KUSUM for supply of cheaper power thereby benefitting the DISCOMs and State Governments with reduced burden of subsidy. This shall further facilitate a reliable power supply to the agriculture consumers.

ANNEXURE-I**ANNEXURE REFERRED IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 1089 ANSWERED IN THE LOK SABHA ON 08.02.2024**

The details of all India Energy Requirement and Energy Supplied during the last three years and the current year i.e. 2023-24 (upto December 2023) :

Years	Energy			
	Energy Requirement	Energy Supplied	Energy not Supplied	
	(MU)	(MU)	(MU)	(%)
2020-21	12,75,534	12,70,663	4,871	0.4
2021-22	13,79,812	13,74,024	5,787	0.4
2022-23	15,13,497	15,05,914	7,583	0.5
2022-23 (upto December, 2022)	11,39,280	11,33,197	6,084	0.5
2023-24 (upto December, 2023*)	12,24,291	12,21,152	3,139	0.3

***Provisional**

ANNEXURE REFERRED IN REPLY TO PARTS (c) & (d) OF UNSTARRED QUESTION NO. 1089 ANSWERED IN THE LOK SABHA ON 08.02.2024

The details of rate at which power generated from private sector is being purchased

Sl. No.	Name of Utility/Power Station	Installed Capacity (MW)	UTILITY	Energy Source - Coal/ Gas/ Naptha/ LSHS/ Diesel/ Hydro	Rate of Sale of Power as approved by CERC/SERC (Paise/Kwh)
1	CHUZACHEN HEP	110	GATI INFRA. PVT. LTD.	HYDRO-HYDRO	384
2	SHRINAGAR HEP	330	ALAKNANDA HPCL	HYDRO-HYDRO	659
3	JAYPEE VISHNUPRAYAG HEP	400	JP POWER VENTURES LTD	HYDRO-HYDRO	118
4	MALANA HEP	86	MALANA PCL	HYDRO-HYDRO	467
5	MALANA STAGE- II HPS	100	EVEREST PPL	HYDRO-HYDRO	390
6	KARCHAM WANGTOO HEP	1045	JSW HYDRO ENERGY LTD.	HYDRO-HYDRO	287
7	BASPA II HEP	300	JSW HYDRO ENERGY LTD.	HYDRO-HYDRO	219
8	ALLAIN DUHANGAN HEP	192	AD HYDRO POWER LTD.	HYDRO-HYDRO	463
9	BHIRA	300	TATA POWER COM. LTD.	HYDRO-HYDRO	152
10	BHIVPURI	75	TATA POWER COM. LTD.	HYDRO-HYDRO	385
11	KHOPOLI	72	TATA POWER COM. LTD.	HYDRO-HYDRO	649
12	BHANDARDARA HEP PHASE II	34	DODSON LINDBLOM HYDRO	HYDRO-HYDRO	252
13	ULLUNKAL	7	KSEB	HYDRO-HYDRO	244
14	IRUTTUKKANAM	5	KSEB	HYDRO-HYDRO	282
15	KARIKKAYAM	15	KSEB	HYDRO-HYDRO	416
16	MEENVALLOM	3	KSEB	HYDRO-HYDRO	488
17	PATHANKAYAM	8	KSEB	HYDRO-HYDRO	349
18	CHANJU I HEP	36	IA HYDRO ENERGY PVT LTD	HYDRO-HYDRO	384
19	BUDHIL HEP	70	BUDHIL	HYDRO-HYDRO	347
20	MAHATMA GANDHI TPP JHAJJAR POWER LIMITED	1320	CLP INDIA PVT. LTD.(JHAJJAR POWER LTD)	THERMAL-COAL	451
21	GAMA INFRAPROP 225 MW GAS BASED CCPP	214	GAMA INFRAPROP PVT.	THERMAL-GAS RLNG	603
22	JP BINA TPP	500	JP POWER VENTURES LTD	THERMAL-COAL	504
23	JNSTPP(JAYPEE NIGRIE) SUPER THERMAL POWER PLANT	1320	JP POWER VENTURES LTD	THERMAL-COAL	239
24	ANUPPUR THERMAL POWER STATION	1200	MB POWER	THERMAL-COAL	429
25	ESSAR POWER MP LTD (Mahan Energy Ltd.) adani plant	1200	ESSAR POWER MP LTD	THERMAL-COAL	229
26	JHABHUA POWER LTD	600	JHABHUA POWER LTD	THERMAL-COAL	490
27	JSW ENERGY (BARMER) LTD/RAJ WESTPOWER LTD. RAJASTHAN	1080	JSW ENERGY LTD.	THERMAL-LIG	420
28	RAJPURA TPS	1400	NABHA POWER LTD.(PSPCL)	THERMAL-COAL	438
29	TALWANDI SABO POWER LTD.	1980	TALWANDI SABO POWER LTD.	THERMAL-COAL	473

30	KHAMBERKHERA	90	BAJAJ ENERGY PVT. LTD.	THERMAL-COAL	574
31	BARKHERA	90	BAJAJ ENERGY PVT. LTD.	THERMAL-COAL	571
32	MAQSOODAPUR	90	BAJAJ ENERGY PVT. LTD.	THERMAL-COAL	562
33	UTRAULA	90	BAJAJ ENERGY PVT. LTD.	THERMAL-COAL	556
34	KUNDARKHI	90	BAJAJ ENERGY PVT. LTD.	THERMAL-COAL	540
35	LALITPUR PGCL	1980	LALITPUR PGCL	THERMAL-COAL	529
36	GOINDWAL TPP(GVK)	540	GVK POWER (GOINDWAL SAHIB) LTD	THERMAL-COAL	632
37	ADANI POWER, MUNDRA	1320	ADANI POWER LTD.	THERMAL-COAL	483
38	ADANI POWER, MUNDRA	1320	ADANI POWER LTD.	THERMAL-COAL	
39	ADANI POWER, MUNDRA	1980	ADANI POWER LTD.	THERMAL-COAL	
40	Raipur Energen Limited	1370	ADANI POWER LTD.	THERMAL-COAL	160
41	ADANI POWER MAHARA. LTDunit 1 to 5	3300	ADANI POWER LTD.	THERMAL-COAL	470
42	ADANI DAHANU	500	AEML	THERMAL-COAL	490
43	AMRAVATI TPP	1350	RATTANINDIA POWER LTD.	THERMAL-COAL	322
44	ADANI POWER RAJASTHAN LTD (1200 MW PPA RAJASTHAN DISCOM)	1320	ADANI POWER LTD.	THERMAL-COAL	444
45	VEDANTA LTD. (P. P. -I)	30	VEDANTA LTD. (EARLIER-SESA STERELITE LTD/GOA ENERGY LTD)	THERMAL-GAS/WHR	240
46	VEDANTA LTD. (P. P. -II)	30	VEDANTA LTD. (EARLIER-SESA STERELITE LTD)	THERMAL-GAS/WHR	240
47	145 MW POWER PLANT (STATION- I)	145	GUJARAT INDUSTRIES PCL	THERMAL-GAS	712
48	SURAT LIG. P P (SLPP STATION -I)	250	GUJARAT INDUSTRIES PCL	THERMAL-LIG	275
49	SURAT LIG. P P (SLPP STATION -II)	250	GUJARAT INDUSTRIES PCL	THERMAL-LIG	297
50	LANCO AMARKANTAK TPP PATHADIH, U-I	300	LANCO AMARKAN. POWER LTD.	THERMAL-COAL	325
51	LANCO AMARKANTAK TPP PATHADIH, U-II	300	LANCO AMARKAN. POWER LTD.	THERMAL-COAL	467
52	JINDAL POWER LTD. STPPS-I	1000	JINDAL POWER LTD., TAMNAR	THERMAL-COAL	469
53	JINDAL POWER LTD. STPPS-II	2400	JINDAL POWER LTD., TAMNAR	THERMAL-COAL	445
54	TROMBAY UNIT 5	500	TATA POWER COM. LTD.	THERMAL-COAL	517
55	TROMBAY UNIT 7	180	TATA POWER COM. LTD.	THERMAL-GAS	448
56	TROMBAY UNIT 8	250	TATA POWER COM. LTD.	THERMAL-COAL	546
57	MUNDRA UMPP	4150	TATA POWER COM. LTD.	THERMAL-COAL	265
58	KARUPPUR VILLAGE TANJORE	120	LANCO TANJORE PCL	THERMAL-GAS	407
59	SBU 1 JSW ENERGY LTD. VIJAYANAGAR	260	JSW ENERGY LTD.	THERMAL-IMP COAL & GAS	627
60	SBU 2 JSW ENERGY LTD. VIJAYANAGAR	600	JSW ENERGY LTD.	THERMAL-IMP COAL	662
61	SBU 3 JSW ENERGY LTD. U-I, Ratnagiri	1200	JSW ENERGY LTD.	THERMAL-IMP COAL	226
62	LANCO KPL MODULE 1	368	LANCO KONDAPALLI POWER LTD.	THERMAL-GAS/N	235
63	HINDUJA NATIONAL PCL	1040	HINDUJA NATIONAL PCL	THERMAL-COAL	447
64	RAIGARH ENERGY GENERATION LTD	600	ADANI POWER LTD.	THERMAL-COAL	160

65	UDUPI POWER COR. LTD.(karnatak Discom-1080 MW)	1200	ADANI POWER LTD.	THERMAL-COAL	612
66	SPECTRUM POWER GENERATION LTD. (GODAVARI GAS POWER COMBINED CYCLE POWER PLANT)	208	SPECTRUM PG LTD.	THERMAL-GAS/N	1723
67	TAQA NEYVELI POWER COM. PVT. LTD.	250	TAQA NEYVELI	THERMAL-LIG	513
68	IL&FS TN P COM. LTD. U1	600	IL&FS TAMILNADU POWER COMPANY LTD	THERMAL-COAL	499
69	IL&FS TN P COM. LTD. U 2	600	IL&FS TAMILNADU POWER COMPANY LTD	THERMAL-COAL	436
70	BUDGE BUDGE	750	CESC LIMITED	THERMAL-COAL	307
71	SOUTHERN GENERATING STATION	135	CESC LIMITED	THERMAL-COAL	422
72	HALDIA ENERGY	600	HALDIA ENERGY LTD.	THERMAL-COAL	526
73	DISHERGARH POWER STATION	12	INDIA POWER CORPN.	THERMAL-COAL	531
74	KAMALANGA TPS	1050	GMR KAMALANGA ENERGY LTD.	THERMAL-COAL	337
75	ADHUNIK POWER U-1	270	ADHUNIK POWER	THERMAL-COAL	405
76	ADHUNIK POWER U-2	270	ADHUNIK POWER	THERMAL-COAL	
77	JHARSUGUDA ,VEDANTA LTD U1,3,4	1800	VEDANTA LTD.	THERMAL-COAL	370
78	JHARSUGUDA ,VEDANTA LTD 1215 MW TPP CAPTIVE	1215	VEDANTA LTD.	THERMAL-COAL	370
79	Lanigarh,VEDANTA LTD 90 MW COGENERATION TPP CAPTIVE	90	VEDANTA LTD.	THERMAL-COAL	370
80	JHARSUGUDA ,VEDANTA LTD U2	600	VEDANTA LTD.	THERMAL-COAL	251
81	JOJOBERA UNIT 1	68	TATA POWER COM. LTD.	THERMAL-COAL	596
82	JOJOBERA UNIT 2	120	TATA POWER COM. LTD.	THERMAL-COAL	359
83	JOJOBERA UNIT 3	120	TATA POWER COM. LTD.	THERMAL-COAL	379
84	JOJOBERA UNIT 4	120	TATA POWER COM. LTD.	THERMAL-COAL	443
85	JOJOBERA UNIT 5	120	TATA POWER COM. LTD.	THERMAL-COAL	152
86	JOJOBERA PH 6	120	TATA POWER COM. LTD.	THERMAL-WHR	67
87	MAITHON UNIT 1 & 2	1050	TATA POWER COM. LTD.	THERMAL-COAL	408
88	KALINGANAGAR-IEL U1	68	TATA POWER COM. LTD.	THERMAL WASTE GAS	168
89	KALINGANAGAR-IEL U2	68	TATA POWER COM. LTD.	THERMAL WASTE GAS	168
90	PPGCL	1980	TATA POWER COM. LTD.	THERMAL-COAL	339
91	SKS POWER GENERATION CHHATTISGARH LTD(SPGCL)	1200	SKS POWER GENERATION CHHATTISGARH LTD(SPGCL)	THERMAL COAL	324
92	RKMPPL UCCHPINDA THERMAL POWER PROJECT(360x4)	1440	RKM POWERGEN PVT LTD	THERMAL-COAL	421
93	DHARIWAL INFRASTRUCTURE LTD	300	DIL	THERMAL-COAL	407
94	DHARIWAL INFRASTRUCTURE LTD	300	DIL	THERMAL-COAL	428
95	SASAN POWER	3960	SASAN POWER LTD	THERMAL-COAL	153
96	Maruti Clean Coal and Power Limited,Bandhakar, The-Palli	300	Maruti Clean Coal and Power Limited	THERMAL-COAL	344
97	Anpara C TPS	1200	LANCO anpara	THERMAL-COAL	274
