GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
STARRED QUESTION NO.320
TO BE ANSWERED ON 23.03.2017

REPLACING OLD POWER PLANTS

***320. SHRI HUKUM SINGH:**

Will the Minister of POWER
be pleased to state:

(a) the details of thermal power stations, which have undergone Renovation and Modernisation (R&M) in the recent past and those undergoing the same;

(b) the benefits accrued as a result thereof;

(c) whether the Government is not inclined to incur any more expenditure on the renovation of power plants older than 25 years, especially NTPC power units and if so, the details thereof;

(d) whether the Government had directed NTPC to replace 11,000 MW worth of plant capacity that is older than 25 years and if so, the details thereof; and

(e) whether the Government has urged the power companies to replace old plants with new ones equipped with modern technologies and if so, the details thereof and action taken thereon by the companies so far, company-wise?

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, COAL, NEW & RENEWABLE ENERGY AND MINES

(SHRI PIYUSH GOYAL)

(a) to (e) : A Statement is laid on the Table of the House.

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STATEMENT

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (e) OF STARRED QUESTION NO.320 TO BE ANSWERED IN THE LOK SABHA ON 23.03.2017 REGARDING REPLACING OLD POWER PLANTS.

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(a) : **The details of thermal power units which have undergone Life Extension (LE) and Renovation and Modernization (R&M) during the 12th Plan period are enclosed as Annex-IA and Annex-IB respectively, while details of thermal generating units undergoing R&M/LE is enclosed as Annex-II.**

(b) : **The R&M programme of thermal generating units is carried out to improve their performance in terms of output, reliability, availability, reduction in maintenance requirements and environmental emission, ease of maintenance and minimizing inefficiencies.**

Life Extension (LE) programme of thermal generating units envisages generally restoring rated capacity of the units with 15 to 20 years' of extension of life over and above its designed economic life.

(c) : **R&M/LE works are carried out by the concerned State and Central power utilities including NTPC Ltd. depending on their requirement and techno-economic feasibilities.**

(d) : **No, Madam. However, NTPC Limited has identified some units which are more than 25 years old for replacement with new supercritical units of higher capacity based on techno-economic feasibility.**

(e) : **Central Electricity Authority (CEA) in consultation with power utilities identified old thermal power plants of aggregate capacity 5228 MW, which could be replaced with new power plants equipped with modern technologies totaling 10180 MW. The details of such power plants and action taken by companies is given in Annex-III.**

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ANNEX-IA

ANNEX REFERRED TO IN PART (a) OF THE STATEMENT LAID IN REPLY TO STARRED QUESTION NO. 320 TO BE ANSWERED IN THE LOK SABHA ON 23.03.2017 REGARDING REPLACING OLD POWER PLANTS.

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Details of Thermal Power Units where the Life Extension (LE) works have been completed during the 12th Plan period.

Sl. No.	Name of the TPS	Unit No.	Capacity MW	Utility	State/Central Sector	Date of Synchronisation after LE Works
1.	Bathinda	3	110	PSPCL	State Sector	05.08.2012
2.	Kawas	GT-1A	106	NTPC	Central Sector	21.01.2013
3.	Parichha	2	110	UPRVUNL	State Sector	05.05.2013
4.	Muzafarpur	1	110	KBUNL	Joint venture of BSPGCL & NTPC	05.07.2013
5.	Kawas	GT-1B	106	NTPC	Central Sector	28.08. 2013
6.	Gandhar	GT – 3	131	NTPC	Central Sector	29.09. 2013
7.	Kawas	GT-2B	106	NTPC	Central Sector	05.03.2014
8.	Bathinda	4	110	PSPCL	State Sector	10.07. 2014
9.	Muzafarpur	2	110	KBUNL	Joint venture of BSPGCL & NTPC	30.09.2014
10.	Auraiya	GT-1	111.19	NTPC	Central Sector	22.06. 2014
11.	Gandhar	GT-1	131	NTPC	Central Sector	06.07.2014
12.	Kawas	GT-2A	106	NTPC	Central Sector	22.08.2014
13.	Auraiya	GT-2	111.19	NTPC	Central Sector	28.10.2014
14.	Auraiya	GT-3	111.19	NTPC	Central Sector	25.12.2014
15.	Auraiya	GT-4	111.19	NTPC	Central Sector	02.03.2014
16.	Harduaganj	7	110	UPRVUNL	State Sector	01.05. 2015
17.	Bandel	5	210	WBPDCL	State Sector	21.09.2015
18.	Gandhar	GT-2	131	NTPC	Central Sector	15.04.2015
19.	Obra	10	200	UPRVUNL	State Sector	08.04.2016
20.	Barauni	7	110	BSPGCL	State Sector	03.08.2016
21.	Obra	11	200	UPRVUNL	State Sector	31.12.2016

Sub-Total (State) - 10 Units 1380 MW
Sub-Total (Central) - 11 Units 1261.76 MW
Total (LE) - 21 Units 2641.76 MW

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ANNEX-IB

ANNEX REFERRED TO IN PART (a) OF THE STATEMENT LAID IN REPLY TO STARRED QUESTION NO. 320 TO BE ANSWERED IN THE LOK SABHA ON 23.03.2017 REGARDING REPLACING OLD POWER PLANTS.

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Details of Thermal Power Units where the R&M Works have been Completed during the 12th Plan period.

As on 31.12.2016

Sl. No.	Name of the TPS	Unit No.	Capacity MW	Utility	State/Central Sector	Date of completion of R&M works
1.	DPL	6	110	WBPDCL	State Sector	07.05.2012
2.	Patratu	10	110	JSEB	State Sector	24.05.2012
3.	Anpara'A	1	210	UPRVUNL	State Sector	21.03.2013
4.	Anpara'A	2	210	UPRVUNL	State Sector	21.03.2013
5.	Anpara'A	3	210	UPRVUNL	State Sector	21.03.2013
6.	Tanda	2	110	NTPC	Central Sector	15.09.2012
7.	Kathalguri	GT-3	33.5	NTPC	Central Sector	31.03.2014
8.	Kathalguri	GT-4	33.5	NTPC	Central Sector	31.03.2014
9.	Kathalguri	GT-5	33.5	NTPC	Central Sector	31.03.2014
10.	Simhadri	1	500	NTPC	Central	31.03.2016
11.	Simhadri	2	500	NTPC	Central	31.03.2016

Sub -total (State) - 5 Units 850 MW

Sub-total (Central) - 6 Units 1210.5 MW

Total (R&M) - 11 Units 2060.50 MW

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ANNEX-II

ANNEX REFERRED TO IN PART (a) OF THE STATEMENT LAID IN REPLY TO STARRED QUESTION NO. 320 TO BE ANSWERED IN THE LOK SABHA ON 23.03.2017 REGARDING REPLACING OLD POWER PLANTS.

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Thermal Power Units undergoing R&M / LE

STATE SECTOR (LE Works)

S.N.	State	Name of Station	Unit No.	Year of Comm.	Cap. (MW)
1	U.P.	Obra	12	1981	200
2	Maharashtra	Koradi	6	1982	210
3	Bihar	Barauni	6	1983	110
Sub Total State Sector (L&E)			3		520

STATE SECTOR (R&M Programme)

S.N.	State	Name of Station	Unit No.	Year of Comm.	Cap. (MW)
1	U.P.	Obra	7	1974	100
2	Gujarat	Ukai	4	1979	200
3	Rajasthan	Kota	1	1983	110
4	Rajasthan	Kota	2	1983	110
5	Jharkhand	Patratu	9	1984	110
Sub Total State Sector (R&M)			5		630
Total State sector (LE+R&M)			8		1150

Central Sector (R&M)

Sl. No.	Utility	Name of Station	Unit No.	Year of Comm.	Cap.(MW)
1	NTPC	Singrauli STPS	6	1986	500
2	NTPC	Singrauli STPS	7	1987	500
3	NTPC	Korba STPS	4	1987	500
4	NTPC	Korba STPS	5	1988	500
5	NTPC	Korba STPS	6	1988	500
6	NTPC	Ramagundam STPS	4	1988	500
7	NTPC	Ramagundam STPS	5	1989	500
8	NTPC	Ramagundam STPS	6	1989	500
9	NTPC	Farakka Stage-I	4	1992	500
10	NTPC	Farakka Stage-II	5	1994	500
11	NTPC	Unchahar	1	1988	210
12	NTPC	Unchahar	2	1989	210
13	NTPC	Unchahar	3	1999	210
14	NTPC	Unchahar	4	1999	210
15	NTPC	Vindhyachal	1	1987	210
16	NTPC	Vindhyachal	2	1988	210
17	NTPC	Vindhyachal	3	1989	210
18	NTPC	Vindhyachal	4	1989	210
19	NTPC	Vindhyachal	5	1990	210
20	NTPC	Vindhyachal	6	1991	210
21	NTPC	Vindhyachal	7	1999	500
22	NTPC	Vindhyachal	8	2000	500
23	NTPC	Talchar STPS	1	1995	500
24	NTPC	Talchar STPS	2	1996	500
25	NTPC	Dadri	1	1991	210
26	NTPC	Dadri	2	1992	210
27	NTPC	Dadri	3	1993	210
28	NTPC	Dadri	4	1994	210
29	NTPC	Rihand STPS Ph III	1	1988	500
30	NTPC	Rihand STPS Ph III	2	1989	500
31	NTPC	Kahalgaon	1	1992	210
32	NTPC	Kahalgaon	2	1994	210
33	NTPC	Kahalgaon	3	1995	210
34	NTPC	Kahalgaon	4	1996	210
35	NTPC	Dadri GT	GT-1	1991	131
36	NTPC	Dadri GT	GT-2	1991	131
37	NTPC	Dadri GT	GT-3	1991	131
38	NTPC	Dadri GT	GT-4	1991	131
Sub total C.S. (R&M)			38		12304

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ANNEX-III

ANNEX REFERRED TO IN PART (e) OF THE STATEMENT LAID IN REPLY TO STARRED QUESTION NO. 320 TO BE ANSWERED IN THE LOK SABHA ON 23.03.2017 REGARDING REPLACING OLD POWER PLANTS.

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Details of new thermal power plants proposed to be set up as replacement of old subcritical units

(A) STATE SECTOR PROJECTS :

State	Name of Plant Retired / proposed for Retirement	Name of the Developer	Capacity of Plant Retired / proposed for Retirement (MW)	Capacity of new proposed plant (MW)	Action taken by the Developer
Haryana	Panipat TPS	HPGCL	440	800	TOR for Environment Clearance (EC) for 800 MW unit obtained.
U.P.	Harduaganj TPS	UPRVUNL	290	660	Order for 660 MW unit placed in September 2015.
U.P.	Panki TPS	UPRVUNL	210	660	EC yet to be obtained. NIT for 660 MW unit floated.
U.P.	Obra TPS	UPRVUNL	438	2x660	Proposal is under consideration.
M.P.	Amarkantak TPS	MPPGCL	280	660	Proposal is under consideration.
M.P.	Satpura TPS	MPPGCL	312.5	660	Proposal is under consideration.
Maharashtra	Nasik TPP	MAHAGENCO	250	660	Land available, Water & Fuel tied up, PPA agreement is available. Process for aviation and MoEF clearance is in progress.
Maharashtra	Bhusawal Unit 2 &Paras Unit 2	MAHAGENCO	62.5 62.5	660	EC for 660 MW unit-6 (Bhusawal) obtained in Nov. 2012. The ICB tender on EPC basis was invited and the Bid evaluation report is submitted to Competent Authority for approval.
Gujarat	Ukai TPS	GSECL	240	660	Setting up of super critical units is in proposal stage.
Telangana	Kothagudem TPS Stage I to IV &Ramagundem' B TPS	TSPGCL	782.5	800	TSGENCO has taken up the works for replacement unit. EC obtained. Order placed. Zero date commenced on 01/01/15.
Tamil Nadu	Ennore TPS	TANGEDCO	450	660	TANGEDCO has proposed for replacement unit. TOR obtained.
West Bengal	DPL TPS	DPL	280	660	Setting up of super critical units is in proposal stage.
Sub Total (A)			4098	8200	

(B) CENTRAL SECTOR PROJECTS :

State	Name of Plant Retired / proposed for Retirement	Name of the Developer	Capacity of Plant Retired / proposed for Retirement (MW)	Capacity of new proposed plant (MW)	Action taken by the Developer
West Bengal	DVC Durgapur	DVC	350	660	Setting up of super critical units is in proposal stage.
Jharkhand	DVC Chandrapura	DVC	780	2x660	Setting up of super critical units is in proposal stage.
Sub Total (B)			1130	1980	
TOTAL (A+B)			5228	10180	

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