

**GOVERNMENT OF INDIA
POWER
LOK SABHA**

UNSTARRED QUESTION NO:1000
ANSWERED ON:07.12.2004
RENOVATION AND MODERNISATION OF POWER PLANTS
Reddy Shri Karunakara G.

Will the Minister of POWER be pleased to state:

- (a) whether the Government proposes to renovate/modernize the existing power plants/stations in the country;
- (b) if so, the details of power projects/plants proposed to be modernized during the 10th Five Year Plan, State-wise; and
- (c) the extent to which power generation capacity of each project/plant is likely to be increased after modernization along with the expenditure involved?

Answer

THE MINISTER OF POWER (SHRI P.M. SAYEED)

(a) : Yes, Sir.

(b) & (c) : During the 10th Plan, 106 thermal units have been identified for Life Extension (LE) works with a total capacity of about 10413 MW at an estimated cost of Rs.9200 crores. After implementation of scheme, the economical operating life of the units is expected to increase from 10413 MW to 10747 MW besides overall improvement in the performance of these units. Also, 57 thermal units have been identified for Renovation & Modernization (R&M) works at an estimated cost of Rs.978 crores to sustain their performance. Besides, 62 existing Hydro Power Stations have been identified for implementation of Renovation, Modernization & Upgrading and LE during the 10th Plan to accrue a benefit of power of 1516.31 MW at an estimated cost of Rs.2227 crores.

The State-wise details of power projects/plants to be modernized during the 10th Five Year Plan including increase in power generation capacity and expenditure involved thereon are annexed.

ANNEXE

ANNEXE REFERRED TO IN REPLY TO PARTS (b) & (c) OF UNSTARRED QUESTION NO. 1000 TO BE ANSWERED IN THE LOK SABHA ON 7.12.2003.

THERMAL UNITS IDENTIFIED FOR LIFE EXTENSION DURING 10TH PLAN

Sl. No.	Name of Station/ Units	Present capacity (MW)	Maximum capacity (MW)	Additional capacity (MW)	Estimated power output after LEP generation (MW)	Estimated Cost (Rs. in crores)
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DELHI						
1.	Badarpur units 1-5	705	705	720	15	420
HARYANA						
2.	Panipat units 1,3&4	330	300	330	30	260
3.	Faridabad units 1-3	165	159	180	21	150
PUNJAB						
4.	Bhatinda units 1-4	440	400	440	40	520
UTTAR PRADESH						
5.	Obra units 1-13	1482	1335	1550	210	1400

6.	Panki units 3-4	210	190	220	30	120
7.	Harduagunj units- 1,3,4,5&7	325	235	340	105	285
MAHARASHTRA						
8.	Nasik units 1-2	280	250	280	30	280
9.	Paras unit-2	58	58	62.5	4.5	60
10.	Bhusawal unit-1	58	58	62.5	4.5	60
11.	Koradi units 1-4	460	440	480	40	480
12.	Parli units 1-2	60	60	60	0	60
CHHATISGARH						
13.	Korba(East) units 1,4,5& 6	320	280	340	60	240
MADHYA PRADESH						
14.	Satpura units 1-5	310.25	300	310.25	10.25	350
15.	Amarkantak units 1-4	290	240	300	60	200
GUJARAT						
16.	Gandhinagar units 1-2	240	200	240	40	240
17.	Dhuvaran units 1-6	534	422	534	112	220
18.	Ukai units 1-2	240	210	240	30	240
TAMIL NADU						
19.	Ennore unit 1-2	120	100	120	20	100
20.	Tuticorin unit 1-3	630	630	630	0	300
ANDHRA PRADESH						
21.	Vijayawada units 1-2	420	420	420	0	300
22.	Kothagude m units 6-8	325	300	360	60	320
WEST BENGAL						
23.	Santaldih units 1-3	360	260	360	100	400
24.	Bandel units 1-4	320	260	330	70	340
25.	Durgapur- DVC unit-3	140	110	140	30	165
JHARKHAND						
26.	Chandrapura-DVC units 1-6	750	570	780	210	780
27.	Bokaro units 1-3	135	0	172.5	172.5	50

28	Patratu units 4-8	430	315	470	155	500
BIHAR						
29	Barauni units 4-5	100	0	100	100	200
ASSAM						
30	Chandrapur unit-1	30	0	30	30	30
31	Namrup unit-1	23	23	23	0	30
32	Bongaigaon units 1-2	120	0	120	120	100

THERMAL UNITS IDENTIFIED FOR R&M DURING 10TH PLAN

Sl.No. Name of Station Unit Capacity (MW) Estimated Cost
(Rs. in Crores)

RAJASTHAN				
1	Kota	1-5	850	60.97
PUNJAB				
2.	Ropar	1-6	1260	101.64
MAHARASHTRA				
3.	Nasik	3-5	630	48.47
4.	Koradi	5-7	630	54.35
5.	Chandrapur	1-6	1840	62.21
6.	Parli	3-5	630	31.12
7.	Khaperkheda	1-2	420	6.47
8.	Bhusawal	2-3	420	24.03
GUJARAT				
9.	Kutch Lignite	1-2	140	103.7
MADHYA PRADESH				
10.	Singrauli	1-7	2000	184.23
11.	Vindhyachal	1-6	1260	111.19
CHHATISGARH				
12.	Korba STPS	1-6	2100	109.26
ANDHRA PRADESH				
13.	Ramagundem	1-6	2100	80.28

Xth Plan-State wise List of Hydro R&M Schemes

Sl.No. Scheme/Agency Inst. Cap. (MW) Estimated Cost Benefits Category
(MW) (Rs. in Crs.) (MW)

Northern Region

Himachal Pradesh

1.	Bassi, HPSEB	4x15	28.60	66.00	RMU&LE
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Jammu & Kashmir

2.	Salal Ph.II, NHPC	3x115+3x115	87.28	69.00	R&M+Res.
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3.	Lower Jhelum J&KPDC	3x35	65.19	34.00	RM&U+Res.
4.	Chenani, J&KPDC	5x4.66	23.86	25.63	RMU&LE
5.	Ganderbal, J&KPDC	2x3+2x4.5	28.87	15.00	RM&LE
6.	Sumbal Sindh J&KPDC	2x11.3	16.372	3.00	RM&U
Punjab					
7.*	Shanan Ph.A, PSEB	4x15+1x50	11.35	-	R&M
8.*	Pong, BBMB	6x60	17.70	36.00	RM&U
9.	Bhakra LB, BBMB	1x108	97.60	126.00	RMU&LE
10.	Ganguwal,U-1, BBMB	1x29.25	51.28 (incl. IDC6.28)	27.99	RM&LE+Res.
11	Kotla, U-1, BBMB	1x29.25	51.28 (incl IDC 6.28)	28.94	RM&LE+Res.
12	Shanan, Ph.B, PSEB	-	35.95	60.00	RM&LE (15 MW units) + R&M (50 MW)
13	UBDC I&II, PSEB	3x15+3x15.45	7.89	45.00	RM&LE
14	Dehar, BBMB	6x165	11.00	-	R&M
15	Anandpur Sahib, PSEB	4x33.5	3.68	-	R&M
16	Mukerian St.I, PSEB	3x15	6.04	-	R&M
Rajasthan					
17	Jawahar Sagar, RRVUNL	3x33	88.66	-	R&M
18.	Rana Pratap Sagar, RRVUNL	4x43	87.50	-	R&M
Uttaranchal					
19.	Chibro, UJVNL	4x60	20.90	-	R&M
20.	Khodri, UJVNL	4x30	10.50	-	R&M
21.	Chilla, UJVNL	4x36	47.10	-	R&M
22.	Pathri, UJVNL	3x6.8	28.69	20.40	RM&LE
23.	Kulhal, UJVNL	3x10	21.62	-	R&M
24.	Ramganga, UJVNL	3x66	31.65	18.00	R&M+Res.
Southern Region					
Andhra Pradesh					
25.	Lower Sileru, APGENCO	4x115	8.75	-	R&M
26.	Nagarjuna Sagar, APGENCO	1x110+ 7x100.8	33.35	-	R&M

27.	Upper Sileru, APGENCO	4x60	4.20	-	R&M
28.	Srisaillam RB, APGENCO	7x110	16.70	-	R&M
Karnataka					
29.	Nagjhari, U-1&3, KPCL	2x135	26.12	30.00	RM&U
30.	Supa PH, KPCL	2x50	2.64	-	R&M
31.	Mahatma Gandhi, VVNL	4x12+4x18	44.66	139.20	RMU&LE
32.	Munirabad, VVNL	2x9+1x10.3	3.64	28.30	RM&LE
33.	Mani Dam, KPCL	2x4.5	1.00	-	R&M
34.	Shivasamudram VVNL	6x3+4x6	68.38	42.00	RM&LE
35.	Bhadra, Ph.II, KPCL	1x2	3.30	2.00	RM&LE
36.	Varahi, KPCL	2x115	2.57	-	R&M
37.	Sharavathy, Ph.A, KPCL	10x103.5	5.22	-	R&M
Kerala					
38.	Pallivasal, KSEB	3x5+3x7.5	94.00	37.50	RM&LE
39.	Sengulam, KSEB	4x12	114.00	48.00	RM&LE
40.	Panniar, KSEB	2x15	62.00	30.00	RM&LE
41.	Neriamangalam KSEB	3x15	31.92	54.00	RMU&LE
Tamil Nadu					
42.	Mettur Dam, TNEB	4x10	27.37	50.00	RMU&LE
43.	Papanasam, TNEB	4x7	22.79	32.00	RMU&LE
44.	Pykara TNEB	3x6.65+1x11+2x14	26.06	58.95	RM&LE
45.	Sholayar-I, TNEB	2x35	40.68	84.00	RMU&LE
Eastern Region					
Jharkhand					
46.	Maithon, U-2, DVC	1x20	42.08	23.20	RMU&LE
47.	Panchet, U-1, DVC	1x40	44.96	46.00	RMU&LE
Orissa					
48.	Hirakud-I (Sw.yard), OHPC	-	9.85	-	R&M
49.	Hirakud-I, U-3&4, OHPC	2x24	126.13	64.00	RMU&LE
50.	Hirakud-II, OHPC	3x24	125.97	72.00	RM&LE

West Bengal

51	Jaldhaka St.I & II, WBSEB	3x9+2x4	53.67	27.00	RM&LE (St.I)+R&M (St.II)
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Western Region

Maharashtra

52	Bhira Tail * Race, MSEB	2x40	1.60	-	R&M
53	Tillari, * MSEB	1x60	4.50	8.20	RM&U
54	Koyna Gen. * Complex, MSEB	4x70+4x80 + 4x80	12.00	-	R&M
55	Koyna St.I & II, MSEB	-	88.00 (Incl.25.00 swyd)	-	R&M
56	Koyna St.III, MSEB	-	25.00	-	R&M
57	Vaitarna, MSEB	1x60	7.00	6.00	RM&U
58	Koyna Dam PH, MSEB	2x18	20.00	8.00	RM&U

North Eastern Region

Assam

59	Kopili, U-1&2,	2x50	36.01	-	R&M
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NEEPCO

Manipur

60	Loktak, NHPC	3x35	24.50	15.00	R&M+Res.
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Meghalaya

61#	Umium St.I MeSEB	4x9	81.88	36.00	RM&LE
62#	Khandong, NEEPCO	2x25	4.00	-	R&M

Total	9977.50	2227.062	1516.31		
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indicates scheme completed.

Abbreviations:

R&M - Renovation & Modernization;
 RM&U - Renovation, Modernization & Uprating,
 RM&LE - Renovation, Modernization & Life Extension
 RMU&LE - Renovation, Modernization, Uprating & Life Extension;
 R&M+Res.- Renovation & Modernization + Restoration;
 RM&LE+Res.- Renovation, Modernization & Life
 Extension + Restoration;