GOVERNMENT OF INDIA
POWER
LOK SABHA

UNSTARRED QUESTION NO:5297
ANSWERED ON:29.04.2005
HYDRO POWER GENERATION
Singh Smt. Pratibha

Will the Minister of POWER be pleased to state:

(a) whether the Government has assessed the hydro power potential in the country;

(b) if so, the details thereof, state-wise;

(c) whether any target for hydro power generation has been fixed under the Tenth Plan;

(d) if so, the details of the projects to be undertaken for this purpose;

(e) the details of Central, State and private participation in these projects; and

(f) the steps taken by the Government to exploit the potential of hydro power projects in the country?

Answer

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

(a) & (b) : The re-assessment studies of hydro-electric potential of the country, completed by Central Electricity Authority in 1987, have placed the economically exploitable hydro power potential at 84,044 MW at 60% load factor. When fully developed, it would result into an aggregate installed capacity of about 1,48,701 MW. A total of 845 hydro-electric schemes have been identified in various basins. Status of state-wise hydro-electric potential in the country in terms of installed capacity is given in Annexure-I.

(c) to (e) : A target of capacity addition of 14,393 MW has been planned through hydro power generation during Tenth plan of which a 8,742 MW of hydro power is planned through Central Sector, 4,481 MW through State Sector and 1,170 MW through Private Sector. The details of the projects undertaken for this purpose are given in Annexure-II.

(f) : The Central Electricity Authority (CEA) had conducted Ranking Studies in 2001-02 in which 399 schemes aggregating to an installed capacity of 1,06,910 MW were prioritized on the basis of weightage criteria of various aspects involved in the development of hydro schemes. Based on the Ranking Studies, 50,000 MW Hydroelectric Initiative was launched by Government of India during 2003-04 under which Pre-Feasibility Reports (PFRs) of 162 schemes located in 16 States have been prepared. Based on preliminary analysis, 78 schemes aggregating to an installed capacity 34,020 MW, whose first year tariff works out below Rs. 2.50 / KwH, have been identified for taking up detailed Survey & Investigation and preparation of Detailed Project Reports (DPRs). This exercise would provide a shelf of bankable DPRs for development of hydroelectric schemes which would yield benefits during 11th Plan period and beyond.

In addition to above, the Government has taken the following steps to exploit the untapped hydro potential:

(i) A Hydro Policy was announced by the Government in August, 1998 incorporating several steps and measures to facilitate accelerated development of hydro power. The Policy also encourages greater participation by private sector.

(ii) A number of Hydro Power Corporations in the Central Sector and Joint Ventures with State Governments have been created for development of hydro power;

(iii) The Government has also approved a Three-Stage Clearance procedure for expeditious execution of hydro electric projects in the Central Sector. Other procedural reforms have also been undertaken.

(iv) To meet the all India peak demand and energy requirement at the end of 11th Plan,

based on the demand projections as per 16th Electric Power Survey (EPS), advance action has been taken to identify hydroelectric schemes for inclusion for benefits in the 11th Plan period.

ANNEXURE-I

ANNEXURE REFERRED TO IN REPLY TO PARTS (a) & (b) OF UNSTARRED QUESTION NO.5297 TO BE ANSWERED IN THE LOK SABHA ON 29.04.2005.

STATUS OF HYDRO ELECTRIC POTENTIAL AS PER REASSESSMENT STUDIES

Sl. No.	Region/ State	Identified potential interms of installed capacity (MW)
NORTHERN		
	Jammu & Kashmir	14146
	Himachal Pradesh	18820
	Punjab	971
	Haryana	64
	Rajasthan	496
	Uttaranchal	18175
	Uttar Pradesh	723
	Sub Total (NR)	53395
WESTERN		
	M. P.& Chhattisgarh	4485
	Gujarat	619
	Maharashtra	3769
	Goa	55
	Sub total (WR)	8928
SOUTHERN		
	Andhra Pradesh	4424
	Karnataka	6602
	Kerala	3514
	Tamilnadu	1918
	Sub Total (SR)	16458
EASTERN		
	Jharkhand	753
	Bihar	70
	Orissa	2999
	West Bengal	2841
	Sikkim	4286
	Sub Total (ER)	10949
NORTH EASTERN		
	Meghalaya	2394
	Tripura	15
	Manipur	1784

	Assam	680
	Nagaland	1574
	Arunachal Pd	50328
	Mizoram	2196
	Sub Total (NER)	58971
	ALL INDIA	148701

ANNEXURE-II

ANNEXURE REFERRED TO IN REPLY TO PARTS (c) TO (e) OF UNSTARRED QUESTION NO.5297 TO BE ANSWERED IN THE LOK SABHA ON 29.04.2005.

10th Plan (2002-2007): Original Commissioning programme-
Hydro Capacity additions

ID No	Name of Project/ State	Rating Nox MW = MW	Target for capacity addition during 10th plan (MW) (2002- 07)
CENTRAL SECTOR (C.S.)			
	N.H.P.C.		
CS-1	Dhauliganga- I Uttaranchal.	4x70= 280 MW	280
CS-2	Chamera Stage-II Himachal Pradesh	3x100= 300 MW	300
CS-3	Dulhasti Jammu & Kashmir	3x130= 390 MW	390
CS-4	Teesta- V Sikkim	3x170= 510 MW	510
CS-5	Sewa-II Jammu & Kashmir	3x40= 120 MW	120
CS-6	Teesta Low dam-III West Bengal	4x33= 132 MW	132
CS-7	Teesta Low Dam-IV West Bengal	4x42= 168 MW	168
CS-8	Bav-II Maharashtra	37 MW	37
Sub Total N.H.P.C. (alone)			1937
Joint venture with M.P. state (N.H.D.C.)			
CS-9	Indira Sagar Madhya Pradesh	8x125= 1000 MW	1000
CS-10	Omkareshwar Madhya Pradesh	8x65= 520 MW	520
Joint venture with W.B. State			
CS-11	Purlia PSS West Bengal	4x225= 900 MW	900
Sub. Total NHPC including Joint Venture			4357
	N.J.P.C.		
CS-12	Nathpa Jhakri Himachal Pradesh (Joint Venture)	6x250=1500 MW	1500
CS-13	Rampur H.E. Project Himachal Pradesh (Joint Venture)	400 MW	400
	Sub Total N.J.P.C.		1900
	T.H.D.C.		
CS-14	Tehri St.I Uttaranchal	4x250= 1000 MW	1000
CS-15	Tehri St.2 PSS Uttaranchal	4x250= 1000 MW	1000
CS-16	Koteshwar Uttaranchal	4x100= 400 MW	400
	Sub Total THDC		2400
	N.E.E.P.C.O.		
CS-17	Kopili St- II Assam	1x25= 25 MW	25
CS-18	Tuirial, Mizoram	2x30= 60 MW	60

	Sub total NEEPCO.		85
	TOTAL- Central Sector		8742

ID No	Name of Project/ State	Rating Nox MW = MW	Target for capacity addition during 10th plan (MW) (2002- 07)
	STATE SECTOR (S.S.)		
	Northern Region (NR)		
SS-1	Larji, Himachal Pradesh	3x42= 126 MW	126
SS-2	Kashang-I Himachal Pradesh	2x33= 66 MW	66
SS-3	Baglihar Jammu & Kashmir	3x150= 450 MW	450
SS-4	Shahpurkandi Punjab	2x2x40 + 1x8=168 MW	168
SS-5	Maneri Bhali-II Uttaranchal	4x76= 304 MW	304
	Sub. Total State Sector (Northern Region)		1114
	Western Region (WR)		
SS-6	Sardar Sarovar, Guj/Mah/M.P., Gujarat	6x200 +5x50= 1450MW	1450
SS-7	Madhikheda Madhya Pradesh	2x20= 40 MW	40
SS-8	Bansagar Tons PH-II ,PH-III; Madhya Pradesh	2x15 3x20= 90 MW	15 20
SS-9	Bansagar Tons PH-IV, Madhya Pradesh	2x10= 20 MW	20
SS-10	Ghatghar PSS Maharashtra	2x125= 250 MW	250
	Sub. Total State Sector (Western Region)		1795
	Southern Region (SR)		
SS-11	Priyadarshini Jurala Andhra Pradesh	6x39.1= 235MW	78.2
SS-12	Srisailam LBPH Andhra Pradesh	6x150= 900 MW	450
SS-13	Almatti Dam Karnataka	1x15 +5x55= 290 MW	290
SS-14	Kuttiyadi Aug. Kerala	2x50=100 MW	100
SS-15	Pykara Ultimate Tamil Nadu	3x50= 150 MW	150
SS-16	Bhawani Kattalai Barrage I,II&III Tamil Nadu	3x2x15=90 MW	90
	Sub. Total State Sector (Southern Region)		1158.2
	Eastern Region (ER)		
SS-17	Balimela Ext Orissa	2x75= 150 MW	150
	Sub. Total (Eastern Region)		150
	North Eastern Region (NER)		

SS-18	Karbi Langpi (Lower Borpani) Assam	2x50= 100 MW		100
SS-19	Myntdu-Leishka St-I Meghalaya	2x42= 84 MW		84
SS-20	Bairabi Dam Mizoram	2x40= 80 MW		80
Sub Total (North Eastern Region)			264	
Total (State Sector)				4481.2
PRIVATE SECTOR (PS)				
PT-1	Baspa-II Himachal Pradesh	3x100= 300 MW		300
PT-2	Dhamwari Sunda Himachal Pradesh	2x35= 70 MW		70
PT-3	Vishnu Praayag Uttaranchal	4x100= 400 MW		400
PT-4	Maheshwar Madhya Pradesh	10x40= 400 MW		400
SUB TOTAL -Private Sector				1170
Total All India				14393.2