1	2	3	4
Meghalaya	1146	319	189
Mizoram	224	77	88
Nagaland	357	106	31
Tripura	578	215	169

* April to October, 2011

As on 31.10.2011

T&D losses

742. SHRI N.K. SINGH:

SHRIMATI SHOBHANA BHARTIA:

Will the Minister of POWER be pleased to state:

(a) the Transmission and Distribution (T & D) losses for the power sector during the last three years; and

(b) the steps being taken to reduce T&D losses to improve the viability of power companies?

THE MINISTER OF STATE IN THE MINISTRY OF POWER (SHRI K.C. VENUGOPAL): (a) Transmission & Distribution (T&D) losses as measure of grid losses were replaced with Aggregate Technical & Commercial (AT&C) losses for better clarity. States/ UT wise Aggregate Technical & Commercial (AT&C) losses for the year 2007-08, 2008-09 and 2009-10 as contained in the 'Report on Performance of State Power Utilities' published by Power Finance Corporation (PFC) are given in Statement-I (*See* below).

(b) With the aim to reduce the AT&C losses up to 15% in the country and improvement in power distribution sector, Government of India has launched the Restructured-Accelerated Power Development and Reforms Programme (R-APDRP) during 11th Plan period. The focus of R-APDRP is on actual demonstrable performance by utilities in terms of sustained AT&C loss reduction. Projects under the scheme are being taken up in two parts. The activities to be covered under each part are as follows:

Part - A: Preparation of Base-line data for the project area covering Consumer Indexing, GIS Mapping, Metering of Distribution Transformers and Feeders, and Automatic Data Logging for all Distribution Transformers and Feeders and SCADA/ DMS system for big cities only. It will also

include adoption of IT applications for meter reading, billing and collection, energy accounting and auditing, redressal of consumer grievances, establishment of IT enabled consumer service centres etc.

Part - B: Renovation, modernization and strengthening of 11kV level Substations, Transformers/Transformer Centers, Re-conductoring of lines at 11kV level and below, Load Bifurcation, Load Balancing, HVDS, installation of capacitor banks and mobile service centers etc. In exceptional cases, where sub-transmission system is weak, strengthening at 33 kV or 66 kV levels may also be considered.

The present status of the R-APDRP scheme is given below:

- Part-A (IT) projects worth Rs.5196.50Cr covering almost all the eligible towns (1402 No.) in 29 States/UTs have already been sanctioned and an amount of Rs.1530 crores have been disbursed by PFC till date.
- Part-A (SCADA) projects worth Rs.1385.87Cr covering all the eligible towns (60 Nos.) in 13 States have been sanctioned and Rs.250 crores have been disbursed by PFC till date.
- 1100 towns are eligible for Part-B projects. So far 1039 Part-B projects worth Rs.23658.18 Cr in 19 States have been sanctioned and Rs.2781 crores have been disbursed by PFC till date.

The State/UTs-wise details of projects sanctioned and sanctioned project cost under Part-A & Part-B of R-APDRP are given in Statement-II and III *(See* below) respectively.

Statement-I

States/UT-wise Aggregate Technical & Commercial (AT&C) losses
for the year 2007-08, 2008-09 and 2009-10

Region	State	Utility	2007-08	2008-09	2009-10
1	2	3	4	5	6
Eastern	Bihar	BSEB	47.38	34.37	43.92
	Bihar Total		**47.38**	**34.37**	**43.92**
	Jharkhand	JSEB	23.34	54.01	10.43
	Jharkhand Total		**23.34**	**54.01**	**10.43**

1	2	3	4	5	6
	Orissa	CESCO	46.05	46.84	40.00
		NESCO	34.58	38.90	36.70
		SESCO	48.15	50.59	51.00
		WESCO	41.20	37.55	37.58
	Orissa Total		**41.68**	**42.20**	**39.71**
	Sikkim	Sikkim PD	51.32	46.81	51.35
	Sikkim Total		**51.32**	**46.81**	**51.35**
	West Bengal	WBSEDCL	23.24	25.81	33.24
	West Bengal Total		**23.24**	**25.81**	**33.24**
Eastern Total			**33.11**	**36.62**	**33.92**
North Eastern	Arunachal Pradesh	Arunachal PD	61.59	60.15	52.93
	Arunachal Pradesh Total	**61.59**	**60.15**	**52.93**	
	Assam	CAEDCL	42.96	39.36	
		LAEDCL	28.71	29.23	
		UAEDCL	36.02	31.42	
		APDCL			29.03
	Assam Total		**35.18**	**32.68**	**29.03**
	Manipur	Manipur PD	79.67	81.32	48.09
	Manipur Total		**79.67**	**81.32**	**48.09**
	Meghalaya	MeSEB	39.45	43.37	48.77
	Meghalaya Total		**39.45**	**43.37**	**48.77**
	Mizoram	Mizoram PD	28.43	41.08	38.99
	Mizoram Total		**28.43**	**41.08**	**38.99**

1	2	3	4	5	6
	Nagaland	Nagaland PD	49.09	44.12	46.15
	Nagaland Total		**49.09**	**44.12**	**46.15**
	Tripura	TSECL	30.25	31.91	29.16
	Tripura Total		**30.25**	**31.91**	**29.16**
North Eastern Total			**40.32**	**40.70**	**36.44**
Northern	Delhi	BSES Rajdhani	37.10	20.59	19.83
		BSES Yamuna	47.31	13.73	28.63
		NDPL	19.93	17.64	15.68
	Delhi Total		**34.58**	**17.92**	**20.78**
	Haryana	DHBVNL	31.78	32.60	28.11
		UHBVNL	34.22	34.00	29.91
	Haryana Total		**33.02**	**33.29**	**28.99**
	Himachal Pradesh	HPSEB	17.15	12.85	18.46
	Himachal Pradesh Total	**17.15**	**12.85**	**18.46**	
	Jammu & Kashmir	J&K PDD	71.92	69.05	70.44
	Jammu & Kashmir Total	**71.92**	**69.05**	**70.44**	
	Punjab	PSEB	19.10	18.51	17.73
	Punjab Total		**19.10**	**18.51**	**17.73**
	Rajasthan	AVVNL	35.71	. 31.28	33.04
		JDVVNL	33.13	30.19	31.51
		JVVNL	30.60	28.40	26.68
	Rajasthan Total		**33.02**	**29.83**	**30.07**
	Uttar Pradesh	DVVN	44.69	45.95	49.62

1	2	3	4	5	6
		KESCO	56.12	53.44	37.37
		MVVN	48.16	40.64	28.71
		Pash VVN	31.29	26.63	27.93
		Poorv VVN	51.91	49.75	54.46
	Uttar Pradesh Total		**43.09**	**40.12**	**39.65**
	Uttarakhand	Ut PCL	38.32	35.37	33.53
	Uttarakhand Total		**38.32**	**35.37**	**33.53**
Northern Total			**34.51**	**31.12**	**30.83**
Southern	Andhra Pradesh	APCPDCL	19.23	14.24	17.93
		APEPDCL	7.46	10.26	9.69
		APNPDCL	11.92	14.37	18.52
		APSPDCL	20.02	11.36	16.63
	Andhra Pradesh Total	**16.19**	**12.99**	**16.43**	
	Karnataka	BESCOM	26.60	19.17	21.10
		CHESCOM	37.65	25.33	28.21
		GESCOM	41.25	38.80	38.05
		HESCOM	40.70	33.90	28.51
		MESCOM	21.66	14.01	18.40
	Karnataka Total		**32.13**	**24.94**	**25.34**
	Kerala	KSEB	21.52	21.61	14.89
	Kerala Total		**21.52**	**21.61**	**14.89**
	Puducherry	Puducherry PD	18.69	18.47	19.35
	Puducherry Total		**18.69**	**18.47**	**19.35**

1	2	3	4	5	6
	Tamil Nadu	TNEB	16.19	14.39	20.15
	Tamil Nadu Total		**16.19**	**14.39**	**20.15**
Southern Total			**20.27**	**16.92**	**19.49**
Western	Chhattisgarh	CSEB	27.59	30.46	
		CSPDCL		38.29	37.98
	Chhattisgarh Total		**27.59**	**32.73**	**37.98**
	Goa	Goa PD	13.12	21.69	7.76
	Goa Total		**13.12**	**21.69**	**7.76**
	Gujarat	DGVCL	15.23	16.11	15.23
		MGVCL	17.17	14.98	15.27
		PGVCL	32.74	31.78	32.35
		UGVCL	17.23	16.31	18.89
	Gujarat Total		**22.81**	**22.04**	**22.81**
	Madhya Pradesh	MP Madhya Kshetra VVCL	54.43	50.24	42.26
		MP Paschim Kshetra WCL	40.72	36.38	36.16
		MP Purv Kshetra VVCL	42.58	55.84	46.11
	Madhya Pradesh Total	45.85	**46.61**	**41.03**	
	Maharashtra	MSEDCL	31.32	31.19	25.02
	Maharashtra Total		**31.32**	**31.19**	**25.02**
Western Total			**31.37**	**31.64**	**28.23**
Grand Total			**29.45**	**27.74**	**27.15**

(Source: PFC)

Statement-II

Details of projects sanctioned under Part-A or R-APDRP

(Figures in Rs. Cr.)

Sl. No.	State	No of Projects Sanctioned	Sanctioned Project Cost
1	2	3	4
Non-special Category States			
1	Andhra Pradesh	113	388.81
2	Bihar	71	194.60
3	Chandigarh	01	33.34
4	Chhattisgarh	20	122.45
5	Goa	4	110.74
6	Gujarat	84	230.72
7	Haryana	36	165.63
8	Jharkhand	30	160.61
9	Karnataka	98	391.14
10	Kerala	43	214.40
11	Madhya Pradesh	83	228.89
12	Maharashtra	130	324.42
13	Puducherry	4	27.53
14	Punjab	47	272.85
15	Rajasthan	87	315.93
16	Tamil Nadu	110	417.00
17	Uttar Pradesh	169	650.68
18	West Bengal	62	164.37
	SUB-TOTAL	1192	4414.11

1	2	3	4
19	Arunachal Pradesh	10	37.68
20	Assam	67	173.78
21	Himachal Pradesh	14	96.41
22	J&K	30	151.99
23	Manipur	13	31.55
24	Meghalaya	9	33.99
25	Mizoram	9	35.12
26	Nagaland	9	34.58
27	Sikkim	2	26.30
28	Tripura	16	35.18
29	Uttarakhand	31	125.82
	SUB-TOTAL	210	782.40
	TOTAL	1402	5196.50

Details of SCADA Projects sanctioned under Part-A of R-APDRP

(Figures in Rs. Cr.)

Sl. No.	State	No of Projects Sanctioned	Sanctioned Project Cost
1	2	3	4
1	Andhra Pradesh	5	116.81
2	Assam	1	21.82
3	Bihar	1	23.21
4	Gujarat	6	138.51
5	Jammu & Kashmir	2	52.89
6	Kerala	3	83.15
7	Madhya Pradesh	5	102.94
8	Maharashtra	8	161.62
9	Punjab	3	52.36

1	2	3	4
10	Rajasthan	5	150.90
11	Tamil Nadu	7	182.17
12	Uttar Pradesh	11	266.55
13	West Bengal	3	32.94
	Total	60	1385.87

Statement-III

Details of projects sanctioned under Part-B of R-APDRP

Sl. No.	Utility / State	No of projects (Towns / project area) Nos.	Sanctioned Project Cost Rs. Cr.
1	2	3	4
1	Andhra Pradesh	42	1056.59
2	Assam	56	391.41
3	Bihar	1	506.14
4	Chhattisgarh	16	216.56
5	Gujarat	63	993.78
6	Haryana	29	673.58
7	Himachal Pradesh	14	322.18
8	Jammu & Kashmir	30	1665.27
9	Karnataka	88	948.99
10	Kerala	42	872.17
11	Madhya Pradesh	82	1977.64
12	Maharashtra	122	3284.20
13	Punjab	42	1509.73
14	Rajasthan	82	1540.47
15	Sikkim	2	68.46
16	Tamil Nadu	87	3279.56

1	2	3	4
17	Uttar Pradesh	161	3283.59
18	Uttarakhand	30	392.63
19	West Bengal	50	675.23
	TOTAL	1039	23658.18

Decline in power generation from Hydro Power Projects

743. SHRIMATI SHOBHANA BHARTIA:
SHRI N.K. SINGH:

Will the Minister of POWER be pleased to state:

(a) whether a decrease in water level of dams in the country is adversely affecting power generation;

(b) if so, the details of decline in power generation from different hydro power projects during each of the last three years and the current year, State-wise; and

(c) the steps taken by Government in this regard?

THE MINISTER OF STATE IN THE MINISTRY OF POWER (SHRI K.C. VENUGOPAL) : (a) and (b) Water level of dams is an important factor in hydro power generation. However, due to good monsoon this year, the reservoir level of most of the reservoirs in the country are higher than the previous year. During April to October, 2011, against the target generation of 74049.18 GWh from Hydro Stations (above 25 MW), 92020.89 GWh has been generated which is 124.27% of the target. The State-wise and Scheme-wise details of actual hydro generation *vis-a-vis* target is given in Statement-I *(See* below). The details of generation from Hydro Stations (above 25 MW) *vis-a-vis* target are given in Statement-II *(See* below). Whereas the generation has been less than the targets by 4.35% and 9.90% during 2008-09 and 2009-10 respectively, it was higher than the targets by 3.06% during 2010-11.

(c) Hydro power generation at reservoir based plants mainly depends on the natural factors such as availability of water from rainfall in the catchment area, snow melting during pre-monsoon period and water levels in the reservoir existing at the beginning of the year as well as irrigation requirements/releases. The enhancement in performance of hydro generating units is achieved through renovation, modernisation and up-rating of old units whose capacity declines with age.