

Overdrawal of power from Northern Grid

2555. DR. T. SUBBARAMI REDDY: Will the Minister of POWER be pleased to state:

(a) whether the Central power distribution companies will no longer find it easy to overdraw from Northern Grid to make up their shortfall;

(b) whether the Central Electricity Regulatory Commission (CERC) taking cognizance of grid indiscipline displayed by the discoms last year, has decided to bring down the operating grid frequency from 50.3-49.2 Hz to 50.2-49.5 Hz;

(c) whether CERC will be more stringent with the norms this year; and

(d) if so, to what extent this measure has helped?

THE MINISTER OF STATE IN THE MINISTRY OF POWER (SHRI BHARATSINH SOLANKI): (a) to (d) In February 2010, CERC had put up draft Indian Electricity Grid Code Regulations 2010 for consultation. These draft regulations propose to tighten the permissible frequency band from 49.2-50.3 Hz to 49.5-50.2 Hz in view of the anticipated additional generating capacity coming up in the future and utilization of hourly surplus power through power exchanges. These regulations also seek demand management by the user/State Load Dispatch Centre/State Transmission Utility concerned so as to ensure that no overdrawal from the grid takes place when frequency falls below 49.5 Hz. The final regulations are to be issued by CERC. These regulations are expected to improve frequency profile leading to more secure operation of the grid.

Transmission losses

2556. SHRI G.N. RATANPURI: Will the Minister of POWER be pleased to state:

(a) the ratio of transmission loss in different States;

(b) the reasons for loss of energy during transmission;

(c) the quantum of power lost due to substandard conductors and insulators;

(d) the power lost in Jammu and Kashmir due to lack of insulators and proper transmission system; and

(e) whether Government intends to cover entire State under RGGVY and revamp the power transmission and distribution system to prevent huge transmission losses?

THE MINISTER OF STATE IN THE MINISTRY OF POWER (SHRI BHARATSINH SOLANKI) : (a)

Transmission & Distribution losses as measure of grid losses were replaced with Aggregate Technical & Commercial losses for better clarity. States/UT-wise Aggregate Technical & Commercial (AT&C) losses for the year 2005-06, 2006-07 and 2007-08 as contained in the 6th 'Report on Performance of State Power Utilities' published by Power Finance Corporation are given in the Statement (See below). The AT&C losses have reduced from 33.02% in 2005-06 to 30.59% in 2006-07 and further to 29.24% in 2007-08.

(b) and (c) Energy losses occur in the process of supplying electricity to consumers due to technical and commercial reasons. Loss of energy during transmission is mainly attributed to inherent resistivity of the transmission lines. The technical losses are due to energy dissipated in the conductors and equipments used for transmission, transformation, sub-transmission and distribution of power. These losses would depend on the pattern of energy use, intensity of load demand, load density, and capability and configuration of the transmission and distribution system that vary for various system elements. These technical losses are inherent in a system and can be reduced to a certain level.

The technical losses can be further sub grouped depending upon the stage of power transformation and transmission system as Transmission losses (400 kV/220 kV/132 kV/66 KV), Sub-transmission losses (33 kV/11 kV) and Distribution losses 11kV/0.4 kV). Pilferage by hooking and bypassing meters etc., defective meters and errors in meter reading and in estimating un-metered supply of energy cause the commercial losses.

(d) Regarding power lost in Jammu and Kashmir State due to lack of insulators and proper transmission system, no specific information is available. However, in Jammu & Kashmir State, the AT&C losses were 63.24% in 2005-06, 64.68% in 2006-07 & 71.92% in year 2007-08 respectively.

(e) Under Rajiv Gandhi Grameen Vidyutikaran Yojana 14 projects covering entire State of Jammu & Kashmir covering 283 un-electrified villages, intensive electrification of 6050 electrified villages and release of 136730 BPL connections with an outlay of Rs. 635.93 crore have been sanctioned. All the projects have been awarded by the respective Implementing agencies and the works are under various stages of implementation.

To revamp the power transmission and distribution system in the country, Government of India has launched Restructured Accelerated Power Development and Reform Programme (R-APDRP)

with the objective of reducing AT&C losses to 15%. The total outlay of the scheme is Rs. 51,577 crores.

The scheme comprises of two parts-Part-A & Part-B. Part-A of the scheme being dedicated to establishment of IT enabled system for achieving reliable & verifiable baseline data system in all towns population greater than 30,000 as per 2001 census (10,000 for Special Category States) Installation of SCADA/DMS for towns with population greater than 4 lakhs & annual input energy greater than 350MU is also envisaged under Part-A. 100% loan is provided under R-APDRP for Part-A projects & shall be converted to grant on completion and verification of same by Third Party Independent Evaluating agencies (TPIEA) appointed by MOP/PFC. MOP, GOI has earmarked Rs. 10,000 Crores for R-APDRP Part-A. Part-B deals with regular Sub Transmission & Distribution system strengthening & upgradation projects. The focus for Part-B shall be loss reduction on sustainable basis. 25% loan is provided under Part-B projects and upto 50% of scheme cost is convertible to grant depending on extent of maintaining AT&C loss level at 15% level for five years. For special category states, 90% loan is provided by GOI for Part-B projects and entire GOI loan shall be converted to grant in five tranches depending on extent of maintaining AT&C loss level at 15% level for five years. It is expected that on successful completion of the scheme, the AT&C losses will be reduced to the extent of 15% in the project areas.

Under Part-A of R-APDRP, cumulatively 1387 projects at the cost of Rs. 5130.70 crore have been approved for 27 states in the country including 30 projects at the cost of Rs. 134.49 crore sanctioned for Jammu & Kashmir State.

Under Part-B of R-APDRP, 239 projects worth Rs. 3059.28 Cr. Have been approved for seven states.

Statement

State wise AT&C Loss (%)

Sl. No.	State	2005-06	2006-07	2007-08
1	2	3	4	5
1	Andhra Pradesh	16.68	17.88	16.19
2	Arunachal Pradesh	69.02	57.96	61.59
3	Assam	35.24	36.64	34.18

1	2	3	4	5
4	Bihar	83.74	43.99	44.45
5	Chhattisgarh	38.76	29.26	32.18
6	Delhi	40.32	34.32	37.96
7	Goa	12.38	16.89	13.12
8	Gujarat	26.72	23.60	22.81
9	Himachal Pradesh	17.05	13.47	17.15
10	Haryana	42.83	25.60	32.29
11	J&K	63.24	64.68	71.92
12	Jharkhand	52.13	54.41	58.17
13	Karnataka	38.04	32.76	32.13
14	Kerala	23.61	23.34	21.52
15	Madhya Pradesh	44.44	45.67	46.78
16	Maharashtra	33.15	34.59	31.32
17	Manipur		Data not available	
18	Meghalaya	37.95	39.08	39.45
19	Mizoram	22.28	55.90	17.91
20	Nagaland	50.64	52.66	49.11
21	Orissa	44.07	39.90	41.38
22	Pondicherry	17.48	17.45	18.69
23	Punjab	23.31	22.54	19.10
24	Rajasthan	42.19	35.74	32.87
25	Sikkim	44.83	61.43	51.32
26	Tamil Nadu	17.09	16.21	15.70
27	Tripura	32.31	29.19	30.16
28	Uttar Pradesh	43.89	44.25	34.99

1	2	3	4	5
29	Uttarakhand	27.98	35.54	38.32
30	West Bengal	28.33	30.66	22.70
	GRAND TOTAL	33.02	30.59	29.24

Source: PFC

Power deficit

2557. SHRI B.K. HARIPRASAD: Will the Minister of POWER be pleased to state:

(a) whether the current deficit adds upto a gap of at least 67 billion units that works out to 10 percent of energy shortage and during peak hours of demand shortage is over 16,000 MW or peaking power shortfall of 15 percent;

(b) whether the annual revenue loss in distribution has been reckoned at Rs. 20,000 crores;

(c) whether the Economic Survey last year resorted to expunging details of distribution losses of State power utilities and also figures on rates of return, commercial losses of SEBs etc.; and

(d) if so, whether Government would mandate quarterly publication of accounts of SEBs?

THE MINISTER OF STATE IN THE MINISTRY OF POWER (SHRI BHARATSINH SOLANKI) : (a) The energy deficit and peak deficit in the country during the year 2009-10 was 83.8 billion units, (10.1%) and 15,748 MW (13.3%) respectively.

(b) According to the PFC Report on the Performance of the State Power Utilities, the aggregate losses of Power Utilities for the year 2007-08, were Rs. 31,862 crores (without subsidy) and the aggregate book losses on accrual basis were Rs. 12,462 crores.

(c) and (d) Distribution losses of State Power Utilities, rates of return, commercial losses of SEBs, etc., do not figure in the Economic Survey for the last year i.e. 2009-10. The survey, however, includes Restructured Accelerated Power Development and Reforms Programme, which is aimed at reduction of Aggregate Transmission & Commercial (AT&C) losses of Power Utilities.