

### Cost of electricity

4106. SHRI MANGALA KISAN: Will the Minister of POWER be pleased to state:

- (a) what is the average cost of electricity per unit paid by consumers since 2006 to date;
- (b) the loss in rupees due to poor transmission and distribution per annum and the reasons therefor;
- (c) whether losses are due to outdated networks; if so, the corrective steps Government proposes to take;
- (d) the gap between average cost of supply and average tariff during 2008-09 and 2009-10; and
- (e) the expenditure in distribution and the commercial losses without subsidy as per the mid-term review (MTR)?

THE MINISTER OF STATE IN THE MINISTRY OF POWER (SHRI BHARATSINH SOLANKI): (a) to (e) The average cost of supply of electricity in the State during 2005-06 to 2008-09 as available with Forum of Regulators is given in Statement-I (See below).

PFC publishes the 'Report on Performance of State Power Utilities'. The Report covers State Power Utilities (SEBs/ unbundled utilities/ Power Departments) and private distribution Companies created as a result of reform measures (DISCOMs in Delhi & Orissa) in all the States, NCT of Delhi as well as Union Territory of Puducherry. The Report is compiled on the basis of data given in the annual accounts (audited / provisional) of SEBs/ unbundled utilities and Annual Resource Plans submitted by State Power Departments and utilities not preparing annual accounts, to the Planning Commission and additional information received from the utilities.

As per the 6<sup>th</sup> Report on the performance of the State Power Utilities for the years 2005-06 to 2007-08 compiled and published by Power Finance Corporation, the overall commercial losses of the utilities for the years 2005-06 to 2007-08 are as under:

Year	Commercial Losses without Subsidy	Commercial Losses with Subsidy
	(Rs in Crores)	(Rs in Crores)
2005-06	20869	8071
2006-07	27101	13452
2007-08	31862	12462

Source : PFC

The total losses are not only due to outdated networks, losses are inclusive of commercial losses also due to theft & pilferage and inefficiency in collection and billing. Government of India has launched Restructured Accelerated Power Development and Reforms Programme (R-APDRP) in July 2008 as a central sector scheme for XI Plan aimed at turnaround of power distribution sector. 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 with 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 350 MU 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 & up-gradation projects. The focus for Part-B shall be loss reduction on sustainable basis. 25% loan is provided under Part-B projects and up to 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 to 27 States/UT (Andhra Pradesh, Assam, Bihar, Chhattisgarh, Goa, Gujarat, Haryana, Himachal Pradesh, J&K, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Puducherry, Punjab, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttarakhand, Uttar Pradesh and West Bengal).

239 projects worth Rs. 3059.28 Cr have been approved to seven States (Andhra Pradesh, Gujarat, Karnataka, Madhya Pradesh, Punjab, Rajasthan and Tamil Nadu) under Part-B.

Based on the above report,

- The details of Average Cost of Supply, Average Revenue (without subsidy) on Input energy basis and Gap for the utilities selling directly to consumers for the years 2006-07 and 2007-08 are given in Statement – II (See below).
- Utility wise details of total income without subsidy, expenditure and profit/ loss without subsidy for the years 2006-07 and 2007-08 for utilities selling directly to consumers are given in Statement –III (See below).

As per the MTR of 10<sup>th</sup> Plan by the Planning Commission, the loss on sale of Electricity for the period 2004-05 is Rs. 27729 crores based on revised estimates for 20 major States except Delhi & Orissa.

*Statement – I*

*Average Cost of electricity supply in States (Rs./Kwh)*

State	FY06	FY07	FY08	FY09
Andhra Pradesh	2.76	2.57	2.67	*
Assam	4.36	4.42	4.42	4.41
Bihar	*	5.00	*	4.62
Chhattisgarh	3.45	3.2	2.98	*
Delhi	4.05	4.18	4.99	4.7
Gujarat	3.73	3.71	3.74	3.8
Haryana	3.48	3.86	4.07	4.14
Himachal Pradesh	2.92	2.54	3.13	3.18
Jharkhand	*	3.3	*	*
Jammu & Kashmir	*	*	4.89	5.30
Karnataka	*	3.2	3.31	3.69
Kerala	3.15	2.98	2.91	3.29
Madhya Pradesh	*	3.49	3.6	3.65
Maharashtra (MSEDCL)	*	3.52	3.75	3.81
Meghalaya	*	*	1.99	1.79
Orissa	2.71	2.94	2.95	2.79
Punjab	3.05	3.28	3.2	3.3
Rajasthan	4.16	3.52	3.92	4.71
Tamil Nadu	*	*	*	*
Tripura	*	3.05	*	*
Uttar Pradesh	*	3.66	3.9	4.06
Uttarakhand	2.35	3.1	3.08	3.09
West Bengal	3.27	3.19	3.2	3.35

\*Tariff Order not issued by the SERCS.

**Statement -II**  
*ACS, Average Revenue (without subsidy), Gap (Rs./kwh)*  
*For Utilities Selling directly to Consumers*  
 2006-07

Region	State	Utility	2006-07			2007-08		
			ACS	Avg. Revenue (without subsidy)	Gap (without subsidy)	ACS	Avg. Revenue (without subsidy)	Gap (without subsidy)
1	2	3	4	5	6	7	8	9
Eastern	Bihar	BSEB	3.61	1.70	1.92	3.88	2.00	1.88
	Jharkhand	JSEB	3.35	2.53	0.82	3.99	2.33	1.66
	Orissa	OESCO	2.05	1.79	0.26	1.99	1.83	0.16
		NESCO	1.86	1.90	(0.04)	1.97	2.04	(0.08)
		SESCO	2.08	1.66	0.42	1.75	1.67	0.08
		WESCO	1.93	2.00	(0.07)	2.17	2.08	0.09
	Sikkim	Sikkim PD	2.11	1.27	0.85	2.10	1.31	0.79
	West Bengal	WBSEB	4.60	2.73	1.87			
		WBSEDCL				2.84	2.89	(0.05)
	Eastern Total		3.49	2.28	1.21	2.88	2.37	0.51

1	2	3	4	5	6	7	8	9
North Eastern	Assam	Assam PD	2.56	1.25	1.31	2.76	1.56	1.20
		QAEDCL	3.27	2.96	0.31	4.35	3.77	0.58
		LAEDCL	3.27	3.21	0.06	4.66	4.55	0.10
		UAEDCL	3.51	3.29	0.22	4.20	4.07	0.12
	Manipur	Manipur PD	4.19	0.74	3.45	3.43	0.96	2.47
	Meghalaya	MeSEB	2.90	2.00	0.90	2.41	2.21	0.20
	Mizoram	Mizoram PD	3.87	1.51	2.36	3.30	2.19	1.10
	Nagaland	Nagaland PD	4.42	1.55	2.87	3.62	1.87	1.75
	Tripura	Tripura PD	2.52	2.34	0.18	2.51	2.27	0.24
North Eastern	Total		3.20	2.38	0.82	3.50	2.91	0.59
North	Delhi	BSES Rajdhani	3.04	2.90	0.13	3.56	3.13	0.44
		BSES Yamuna	2.62	2.59	0.03	3.29	3.22	0.07
		NDPL	2.89	3.20	(0.31)	3.09	3.58	(0.50)
	Haryana	DHBVNL	2.74	2.14	0.60	3.32	2.44	0.89
		UHBVNL	2.82	1.77	1.05	3.30	1.79	1.50
	Himachal Pradesh	HPSEB	3.19	3.05	0.16	3.31	3.27	0.04
	Jammu & Kashmir	J&K PDD	2.27	0.72	1.54	2.56	0.97	1.58

Punjab	PSEB	2.85	2.01	0.84	3.05	2.01	1.03	
	AVVNL	2.74	2.04	0.69	3.20	2.08	1.12	
Rajasthan	JDVNL	2.70	2.11	0.59	3.11	2.06	1.05	
	JVVNL	2.67	2.32	0.35	3.21	2.38	0.83	
Uttar Pradesh	DVNL	2.81	1.64	1.17	2.81	1.67	1.14	
	MVVNL	2.97	1.73	1.23	3.08	1.69	1.40	
	Pash VNL	2.75	1.93	0.82	2.90	2.01	0.89	
	Poorv VNL	2.94	1.86	1.08	3.31	1.69	1.62	
	KESCO	2.85	2.13	0.73	3.19	2.42	0.77	
Uttarakhand	Ut PCL	2.10	1.58	0.52	2.04	1.72	0.31	
Northern Total		2.78	2.05	0.73	2.75	0.93		
Southern	Andhra Pradesh	APCPDCL	2.35	2.15	0.20	2.81	2.40	0.42
		APPPDCL	2.63	2.64	(0.01)	2.91	2.95	(0.04)
	Karnataka	APNPDCL	2.62	1.66	0.96	2.91	1.75	1.16
		APPDPCL	2.61	2.15	0.45	3.00	2.50	0.49
		BESCOM	2.88	2.75	0.13	3.15	3.05	0.11
		GESCOM	2.20	1.54	0.67	2.66	1.86	0.81
		HESCOM	2.39	1.51	0.88	2.63	1.69	0.94
		MESCOM	3.02	2.56	0.46	3.14	2.73	0.42
	Tamil Nadu	CHESCOM	2.44	1.81	0.63	2.50	1.99	0.51

1	2	3	4	5	6	7	8	9
	Kerala	KSEB	2.74	2.88	(0.14)	3.00	3.13	(0.13)
	Puducherry	Puducherry PD	1.92	2.03	(0.11)	2.11	2.19	(0.08)
	Tamil Nadu	TNEB	2.83	2.42	0.42	3.25	2.48	0.77
	Southern Total	2.66	2.33	0.34	3.02	2.51	0.51	
	Western	Chhattisgarh	2.02	2.34	(0.33)	2.20	2.49	(0.30)
		Goa PD	1.96	2.40	(0.44)	2.09	2.54	(0.44)
	Gujarat	DGVCL	3.50	3.44	0.06	3.53	3.45	0.08
		MGVCL	3.31	3.21	0.10	3.38	3.29	0.09
		PGVCL	2.35	2.08	0.27	2.55	2.30	0.25
		UGVCL	2.47	1.99	0.48	2.58	2.14	0.44
	Madhya Pradesh	WVCL	2.50	1.91	0.59	2.45	1.84	0.62
		MP Madhya Kshetra						
		MP Paschim Kshetra	2.27	1.98	0.29	2.66	1.99	0.67
		WVCL						
		MP Puri Kshetra	2.78	2.34	0.43	2.76	2.08	0.68
		WVCL						
	Maharashtra	MSEDCL	2.64	2.62	0.02	2.66	2.67	(0.02)
	Western Total	2.58	2.45	0.13	2.66	2.50	0.15	
	Grand Total		2.76	2.27	0.48	2.93	2.39	0.54

Average Cost of Supply (Rs./kwh) = Total expenditure/Total Input Energy (kwh)

Average Revenue (without subsidy) = (Revenue from Sale of Power excluding subsidy + Other Income)/Total Input Energy (kwh)

Gap = ACS - Average Revenue.

**Statement – III**

*Profitability for utilities selling directly to the consumers*

Region	State	Utility	2006-07			2007-08		
			Total Income – excluding subsidy	Total Expenditure	Profit without subsidy	Total Income – excluding subsidy	Total Expenditure	Profit without subsidy
1	2	3	4	5	6	7	8	9
Eastern	Bihar	BSEB	1,392	2,967	(1,575)	1,592	3,088	(1,495)
	Jharkhand	JSEB	1,754	2,323	(569)	1,729	2,964	(1,235)
	Orissa	OESCO	827	950	(122)	954	1,036	(82)
		NESCO	760	746	14	952	916	36
		SESCO	302	380	(78)	331	347	(16)
		WESCO	935	901	34	1,121	1,169	(49)
	Sikkim	Sikkim PD	39	66	(26)	49	79	(30)
	West Bengal	WBSEB	5,816	9,794	(3,980)	6,066	5,956	108
		WBSEDCL						
Eastern Total		11,825	18,125	(6,303)	12,795	15,555	(2,763)	
North	Arunachal Pradesh	Arunachal PD	80	164	(84)	107	190	(83)

1	2	3	4	5	6	7	8	9
Assam	CAEDCL	273	301	(29)	407	469	(62)	
	LAEDCL	447	456	(9)	660	675	(15)	
	UAEDCL	338	361	(23)	485	499	(15)	
Manipur	Manipur PD	37	209	(172)	62	221	(159)	
Meghalaya	MESEB	264	382	(118)	351	382	(31)	
Mizoram	Mizoram PD	46	117	(72)	83	125	(42)	
Nagaland	Nagaland PD	51	146	(94)	81	156	(75)	
Tripura	Tripura PD	256	276	(20)	255	281	(27)	
North Eastern	Total	1,792	2,413	(621)	2,489	2,998	(509)	
Northern	Delhi	BSES Rajdhani	2,647	2,770	27	3,204	3,662	(449)
		BSES Yamuna	1,370	1,386	48	2,422	2,476	(56)
		NDPL	1,916	1,727	189	2,500	2,152	282
Haryana		DHBVNL	2,492	3,191	(700)	3,040	4,144	(1,104)
		UHBVNL	2,098	3,349	(1,252)	2,315	4,256	(1,942)
Himachal Pradesh		HPSEB	1,962	2,056	(94)	2,352	2,378	(26)
Jammu & Kashmir		J&K PDD	595	1,866	(1,270)	851	2,236	(1,386)

	Punjab	PSEB	7,286	10,331	(3,060)	8,234	12,468	(4,238)	
	Rajasthan	AVVNL	2,184	2,926	(742)	2,501	3,851	(1,352)	
		JDVNL	2,009	2,573	(566)	2,229	3,365	(1,137)	
		JVVNL	2,839	3,272	(434)	3,294	4,439	(1,147)	
	Uttar Pradesh	DVN	1,745	2,998	(1,253)	1,965	3,305	(1,340)	
		MVVN	1,439	2,465	(1,026)	1,467	2,683	(1,217)	
		Pesh VN	2,918	4,149	(1,231)	3,347	4,837	(1,490)	
		Poorv VN	2,014	3,186	(1,172)	1,902	3,725	(1,824)	
		KESCO	537	720	(183)	637	839	(203)	
	Uttarakhand	Ut PCL	920	1,222	(302)	1,205	1,425	(220)	
Northern Total			36,971	50,188	(13,014)	62,230	(18,844)	(1,097)	
	Southern	Andhra Pradesh	APCPDCL	5,199	5,685	(488)	6,297	7,391	(1,097)
		APEPDCL	2,314	2,307	5	2,731	2,690	36	
		APNPDCL	1,444	2,276	(833)	1,609	2,680	(1,072)	
		APSPDCL	2,666	3,214	(559)	3,171	3,796	(625)	
	Karnataka	BESCOM	5,086	5,328	(248)	5,693	5,902	(211)	
		GESCOM	834	1,196	(370)	1,024	1,470	(464)	
		HESCOM	1,094	1,731	(630)	1,198	1,881	(670)	
		MESCOM	742	874	(135)	791	911	(121)	

1	2	3	4	5	6	7	8	9
		CHESSCOM	808	1,088	(284)	879	1,104	(233)
	Kerala	KSEB	4,558	4,341	217	5,227	5,010	217
	Puducherry	Puducherry PD	509	482	27	572	552	21
	Tamil Nadu	TNEB	14,775	17,324	(2,549)	15,959	20,914	(4,955)
	Southern Total		40,021	(5,847)	45,152	54,280	(9,175)	
	Western							
	Chhattisgarh	CSEB	3,136	2,697	437	3,970	3,497	473
	Goa	Goa PD	682	557	125	796	657	139
	Gujarat	DGVCL	3,279	3,334	(53)	3,426	3,505	(79)
		MGVCL	1,799	1,858	(59)	2,020	2,074	(55)
		PGVCL	3,541	3,994	(457)	4,235	4,699	(465)
		UGVCL	2,380	2,955	(575)	2,784	3,360	(577)
	Madhya Pradesh	Madhya Kshetra WVCL	2,059	2,698	(640)	2,176	2,907	(731)
		MP Paschim, WVCL Kshetra	2,513	2,881	(368)	2,703	3,618	(915)
		MP Puri Kshetra, WVCL	2,123	2,515	(393)	2,174	2,884	(711)
	Maharashtra	MSEDCL	19,751	19,881	(134)	20,999	20,878	117
	WESTERN TOTAL		41,264	43,371	(2,138)	45,285	48,079	(2,804)
	GRAND TOTAL		131,873	(27,923)	149,184	183,142	(34,095)	