

Power

9.4 Electricity generation by power utilities during 2006-07 was targeted to go up by 6.7 per cent to 663.0 billion KWh. The growth of such power generation during April-December 2006 was 7.5 per cent (Table 9.2) as compared to 4.8 per cent in the corresponding period last year. But, while thermal generation exhibited substantial acceleration in growth during the first three quarters of 2006-07, growth in hydro and nuclear generation slowed down.

9.5 During April-December 2006, the plant load factor (PLF), an important measure of efficiency, has been higher for Central Sector Plants compared to those of State Electricity Boards (SEBs) (Table 9.3). Average PLF of private plants was higher than that of the public sector. During April-December, while PLF of SEBs increased from 64.8 per cent to 68 per cent between 2005 and 2006, the increase masked substantial variation across States with PLF for the eastern and the north-eastern states significantly lower.

Table 9.2 : Trends in the power sector (utilities only)

	2004-05	2005-06	April-December		Change over previous year@	
			2005	2006	2005	2006*
			(Billion KWh)		(per cent)	
1. Power generation**	587.4	617.5	458.8	493.1	4.8	7.5
(i) Hydro-electric	84.5	101.3	80.61	91.77	19.1	13.8
(ii) Thermal	486.1	497.2	363.3	385.3	1.5	6.1
(iii) Nuclear	16.8	17.2	13.2	13.61	7.3	3.0
Memorandum item: Plant load factor (PLF), in per cent	74.8	73.6	71.5	74.2	-2.2	3.8
* Provisional; @ April-December						
** Excludes generation from captive and non-conventional power plants and Thermal Power Plants below 20 MW units and Hydro power plants below 2 MW.						

	2001-02	2002-03	2003-04	2004-05	2004	April-December	
						2005	2006
I. State Electricity Boards	67.0	68.7	68.4	69.6	67.1	64.8	68.0
II. Central Sector	74.3	77.1	78.7	81.7	82.1	79.8	80.8
III. Private Sector	74.7	78.9	80.5	85.1	85.4	86.7	88.1
REGIONS							
Northern	75.1	75.4	76.3	77.1	76.8	75.0	78.3
Western	74.1	75.8	75.1	78.6	76.2	74.5	74.2
Southern	82.4	86.4	83.4	84.1	78.2	75.2	80.3
Eastern	48.7	52.1	56.9	60.4	64.6	62.4	66.1
North-Eastern	16.7	14.8	14.0	15.0	16.1	16.2	16.4
All-India	69.9	72.2	72.7	74.8	73.6	71.5	74.2

9.6 With the rate of return of SEBs deteriorating to -27.4 per cent in 2006-07 (RE) from -24.8 per cent in 2005-06 (Table 9.4), resources forgone through such poor returns continued to be very large. In 2006-07, while the direct transfers from State Governments

to SEBs was Rs.13,870 crore, an uncovered subsidy of Rs.21,201 crore remained, indicating the large reform potential for improving not only the electricity sector itself but also the fiscal position of the States.

	1991-92	2005-06 Provisional	2006-07 (RE)	2007-08 Plan projection
A. Gross subsidy involved				
(i) On account of sale of electricity to				
(a) Agriculture	5,938	24,472	27,333	27,089
(b) Domestic	1,310	10,839	13,014	11,841
(c) Inter-State Sales	201	1,087	-216	612
Total	7449	36,398	40,131	39,542
(ii) Subventions received from State Govts.	2,045	11,613	13,870	12,457
(iii) Net subsidy	5,404	24,784	26,261	27,085
(iv) Surplus generated by sale to other sectors	2,173	6,059	5,061	8,816
(v) Uncovered subsidy	3,231	18,725	21,201	18,269
B. Commercial Losses				
(i) Commercial Losses (excluding subsidy)@	4,117	21,110	26,150	21,391
(ii) Commercial Losses (including subsidy)	NA	9,496	12,280	8,933
C. Rate of Return (ROR %) #	-12.70	-24.84	-27.43	-18.59
D. Revenue Mobilisation				
Additional Revenue Mobilisation from achieving				
(a) 3% ROR	4,959	24,350	29,225	25,193
(b) From introducing 50 paise per unit from Agriculture/Irrigation	2,176	1,100	1,643	1,287
RE: Revised Estimates, AP: Annual Plan Projections, # for losses without subsidy. Note:- (i) The information regarding commercial losses in case of Orissa and Delhi pertains to GRIDCO of Orissa and Transmission Company of Delhi only.(ii) Information in case of Punjab, Tamilnadu, Himachal Pradesh, Bihar, Jharkhand Chattisgarh and Madhya Pradesh is relating to there State Electricity Boards. In case of other states, the information pertains to transmission and distribution utilities formed after the reform and restructuring of the sector.				
Source : Planning Commission.				

9.7 Coal continued to remain the mainstay of the power sector, with 54.2 per cent (69,199 MW) of total installed power generation capacity in the country of 1,27,673 (MW) as of December, 2006 in coal-fired thermal units. With around 67 per cent of total power generation coming from coal-fired power stations, power sector is the major consumer of coal in the country absorbing around 78 per cent of the country's total coal production.

9.8 In the past, coal has been imported for blending by the power stations to maintain the environmental stipulations regarding use of coal of less than 34 per cent ash content, and also occasionally supplementing supplies from indigenous sources (Table 9.5). During the current year and the last, coal continued to be imported to bridge the gap between anticipated demand and domestic availability.

9.9 Out of the total 1,27,673 MW installed generating capacity in the country on October 31, 2006, 13,582 MW (about 10.64 per cent) is based on gas or liquid fuel (excluding diesel).

Year	Quantity (MT)
2001-02	3.56
2002-03	3.07
2003-04	3.37
2004-05	4.53
2005-06	10.44 *
2006-07	7.4 #

* Out of total import of about 11.22 MT.
Provisional.

The supply of gas to power stations of total 10,999 MW capacity which use gas as the primary fuel remained inadequate (Table 9.6) with supply of gas not keeping pace with the demand for gas in power sector. Even the commitments of gas allocations made earlier to power stations are not being fulfilled.

9.10 Though the gas based power stations have provision for the use of alternate fuels, such as naphtha and HSD, the prevailing high costs of such fuels prevented their utilization and resulted in generation loss.

Capacity addition programme

9.11 The Tenth Plan capacity addition target of 41,110 MW was scaled down to 36,956 MW at the time of the Mid-Term Appraisal (Tables 9.7 and 9.8). The likely achievement is expected to be around 23,250 MW, which is 57 per cent of the original target and 63 per cent of the target in the Mid-Term Appraisal. By type of ownership, the anticipated shortfall (73 per cent) is the highest in the private sector, while by type of plant, it is the highest (43 per cent) in hydro plants.

9.12 While there are shortfalls vis-à-vis the targets, these shortfalls are lower than in the earlier Plans. In the Ninth Plan, achievement was less than 50 per cent of the target. The capacity addition in the Ninth Plan was only 19,015 MW against the target of 40,245 MW.

9.13 The process of revival of the Dabhol Power Project, closed since June, 2001, was

Years	Required*	Gas in MMSCMD		Shortfall	Estimated Generation loss in BU
		Supplied			
(1)	(2)	(3)	(4)=(2)-(3)		
2000-01	44.54	24.40	20.14	33.0	
2001-02	46.31	24.33	21.98	36.1	
2002-03	48.26	25.12	23.14	38.0	
2003-04	49.25	25.62	23.63	38.9	
2004-05	49.73	30.70	19.03	31.2	
2005-06	53.38	35.37	18.01	23.88	
April-October 2006	53.45	34.28	19.17	18.43	

*Generation loss calculated by considering the demand-supply gap of gas at 90 per cent PLF, Gross Calorific Value of gas = 9000 Kcal/SCM, Station Heat Rate = 2000 Kcal/KW hr. and no generation made using liquid fuels.
Note: MMSCMD – million metric standard cubic meter per day; BU- Billion Units

**Table 9.7 : Tenth Plan targets and achievements in power sector
(by ownership)**

(in MW)

	Target		Additional Capacity : Status		
	Original	Mid-Term Appraisal	Commissioned	Under execution	Overall anticipated
Central	22832	19817*	11115	2610	13725
State	11157	12240	5460	2135	7595
Private	7121	4899	1931	0	1931
Total	41110	36956	18505	4745	23250

* Including 2520 MW nuclear projects under construction

Table 9.8 : Tenth Plan targets and achievements in power sector (by type)

(in MW)

	Target		Additional Capacity : Status		
	Original	Mid-Term Appraisal	Commissioned	Under execution	Overall anticipated
Thermal	25417	23261	10129	3535	13664
Hydro	14393	11125	7196	990	8186
Nuclear	1300	2570	1180	220	1400
Total	41110	36956	18505	4745	23250

initiated in 2005. A joint venture company by the name of Ratnagiri Gas and Power Private Limited (RGPPL), with shareholding of National Thermal Power Corporation (NTPC), Gas Authority of India Limited (GAIL), Indian Financial Institutions (IFIs) and Maharashtra State Electricity Board (MSEB) has been constituted to restart the power plant and complete the construction of Phase II and the associated LNG terminal. The Project's assets have been taken over by RGPPL with the approval of Maharashtra High Court. Block-II (740MW) of Dabhol Power Project has already been commissioned on May 15, 2006. Balance capacity of the project is expected to be commissioned by March, 2007.

9.14 Power plants using super-critical technology have a higher thermal efficiency of about 40 per cent compared to 38.6 per cent of sub-critical units of 500 MW units or less. At present all the operating thermal power units are sub-critical units. Six super-critical units of 660 MW of NTPC Ltd., at Sipat (3x660) and Barh (3x660) are at an advanced stage of construction, and the first super-critical unit

is expected to be commissioned during 2009-2010. In the Eleventh Plan, NTPC and some state utilities have plans to go for adoption of 800 MW units. NTPC has already drawn up plans to induct 800 MW units at Darlipalli, Lara and Gajmara. At the same time, Government has also invited tenders to set up Ultra Mega Power Projects in other parts of the country with large size units with an option of 800 MW.

9.15 Government is encouraging the use of hydel and wind energy sources which do not rely on fossil fuels and avoid carbon emissions. India has an estimated unutilized hydro-power potential of more than 1,50,000 MW. A study by the Central Electricity Authority (CEA) has identified 399 potential hydel projects with an aggregate capacity of 1,07,000 MW. Preparation of pre-feasibility reports (PFRs) of 162 schemes with aggregate installed capacity of 49,930 MW has already been completed by CEA. As a follow up of preparation of PFRs, action has been initiated for preparation of Detailed Project Reports (DPRs) in respect of 77 low-tariff schemes (with first year tariff being below

Rs.2.50/ KWh) by CPSUs/SPSUs/SEBs/ Independent Power Producers (IPPs).

Ultra-Mega Power Projects (UMPPs)

9.16 The Ministry of Power, Government of India has launched an initiative for development of coal-based Ultra-Mega Power Projects (UMPPs) in India, each with a capacity of 4,000 MW or above. These projects will be awarded to developers on the basis of tariff-based competitive bidding. To facilitate tie-ups of inputs and clearances, project-specific shell companies have been set up as wholly owned subsidiaries of the Power Finance Corporation (PFC) Ltd. These companies will undertake preliminary studies and obtain necessary clearances including water, land, fuel, power selling tie-up etc. prior to award of the project to the successful bidder.

9.17 Nine sites have been identified by CEA in nine States for the proposed UMPPs. These include four pithead sites, one each in Chhattisgarh, Jharkhand, Madhya Pradesh and Orissa, and five coastal sites, one each in Andhra Pradesh, Gujarat, Karnataka, Maharashtra and Tamil Nadu. It is proposed to set up pithead projects as integrated proposals with corresponding captive coal mines. On the request of Ministry of Power, Ministry of Coal has already allocated captive coal mining block for Sasan UMPP in Madhya Pradesh and earmarked captive coal mining block for Orissa UMPP. For the coastal projects, imported coal shall be used. The projects are to be developed with a view to lower the cost of power to the consumers. These projects, adopting super-critical technology to reduce emissions, would be environment-friendly.

9.18 A time bound action plan for preparation of project report, tie-up of various inputs/clearances, appointment of consultants, preparation of RFQ/RFP have been prepared. Lanco Infrastructure has bagged the Sasan Project at Rs. 1.19 per unit whereas Tata Power has been awarded the Mundra project at Rs. 2.26 per unit. The encouraging results achieved in these two cases has shown the way forward for capacity addition with most competitive tariff. Developers for

Krishnapatnam UMPP (Andhra Pradesh) and Tilaiya (Jharkhand) UMPP are expected to be selected by April, 2007 and July 2007 respectively. Once the developers are selected, the ownership of the shell companies shall be transferred to the successful bidders. Development of merchant power plants is also on the anvil. (Box 9.1)

Power Transmission Network and National Grid

9.19 Formation of a strong national power grid has been recognized as a flagship endeavour to steer the development of the power system to cost-effective fulfillment of the objective of 'Electricity to All' at affordable prices. A strong all-India grid would enable exploitation of unevenly distributed generation resources in the country to their optimum potential.

9.20 The existing inter-regional transmission capacity of 11,450 MW connects Northern, Western, Eastern and North Eastern regions in a synchronous mode operating at the same frequency, and the Southern region asynchronously. This has enabled inter-regional energy exchanges of more than 12 billion kWh in a year, thus contributing to greater utilization of generation capacity and an improved power supply position. It is expected to achieve inter-regional capacity of 15,750 MW by the end of the Tenth Plan and 37,150 MW by the end of the Eleventh Plan. The plan also includes synchronous integration of Southern region with rest of the regions forming an all-India synchronous grid.

9.21 For encouraging competition in development of transmission projects, Ministry of Power has notified Tariff-Based Competitive Bidding Guidelines for Transmission Service under Section 63 of the Electricity Act, 2003. As per the provisions in these guidelines, an Empowered Committee under the chairmanship of Member, Central Electricity Regulatory Commission has been constituted with representatives from Ministry of Power, Planning Commission, CEA, Powergrid Corporation of India Ltd (PGCIL) and two experts from the power sector. This

Box 9.1 : Development of Merchant Power Plants

To facilitate the development of the electricity market, the Ministry of Power has issued the approach and guidelines on development of merchant power plants (MPPs). Unlike traditional utilities, MPPs compete for customers and absorb the full market risk. There is no guarantee regarding minimum off-take of their output. Typically the risk of a MPP is carried on the balance sheet of the promoter. MPPs can provide the additional generating reserves that India needs now and will need in the future. They are a modern, market-based answer – at least in part – to the energy challenges faced by the country. MPPs are a product of the restructuring of the electricity industry and they fill different niches in the market; some provide steady supplies to a power grid, while others fire up only when demand is at the highest and meet peak loads. Merchant power plants operating competitively help assure that power is produced with efficiency and supplied to locations where it is needed most. MPPs up to a capacity of 1,000 MW would be provided coal linkage, and captive coal blocks may also be provided to merchant power plants in the range of 500–1000 MW.

It would be essential that certain normative criteria are laid down for eligibility for coal blocks allotment, particularly to IPPs and merchant plans. These criteria could relate to net worth of the company, their internal resource generation and annual turn-over. The agencies being allotted the coal blocks may also be required to put in place bank guarantee of a reasonable amount which should be liable to be encashed if important milestones for development of coal mines are not achieved. The intermediate milestones may also include indicators concerning the development of power projects, such as award of Engineering Procurement and Construction (EPC) contracts, and commencement of construction. Success of this scheme would, to a great extent, depend on availability of reliable data and information for plant sites and other inputs in this capacity range so that developers then can take further appropriate action. An initiative to prepare such PFRs for various plant locations has been taken by the Ministry with CEA to provide the technical inputs for preparation of such reports and PFC, on the basis of advice of CEA, would engage various agencies to develop brief feasibility reports in a time-bound manner for about two dozen power plant locations with 500–1000 MW capacity. These reports may become available in 3-6 months time.

Committee has identified 14 transmission projects to be developed by the private sector through tariff -based competitive bidding. Rural Electrification Corporation (REC) and PFC have been entrusted the task of formulating Feasibility Report/DPR for these transmission lines and to invite bids under the supervision of the Empowered Committee.

Distribution reforms

9.22 Distribution reforms have been identified as the key area to infuse efficiency and commercial viability into the power sector. The 2002 privatization experience of Delhi has been encouraging so far (Box 9.2).

9.23 In February 2000, the Government of India introduced the Accelerated Power Development Programme (APDP), with the objective of initiating a financial turnaround in the performance of the state owned power sector, which was subsequently rechristened as Accelerated Power Development and Reforms Program (APDRP). There are two components under APDRP: “investment component” and “incentive component”. While the investment

component focuses on specific projects for up-gradation of sub-transmission and distribution network, the latter envisages incentivising State Governments up to 50 per cent of the actual total loss reduction by SEBs/ Utilities, as a grant. So far, an incentive amount of Rs 1,575 crore has been released to eight states.

Rural electricity initiatives under Rajiv Gandhi Grameen Vidyutikaran Yojna (RGGVY)

9.24 This scheme of Rural Electricity Infrastructure and Household Electrification was introduced in April, 2005 for achieving the NCMP objective of providing access to electricity to all rural households over a period of four years. At present, only 44 per cent of the rural households have access to electricity. REC is the nodal agency for the programme. The services of CPSUs have been offered to the State for assisting them in the execution of rural electrification projects as per their willingness and requirement. The management of rural distribution has been envisaged through franchisees to non-governmental organizations (NGOs), users’

Box 9.2 : Privatisation of the Power Sector in Delhi

The power sector in Delhi was unbundled in July, 2002 with the erstwhile Delhi Vidyut Board (DVB) being unbundled into one holding company, one generation company, one transmission company and three distribution companies. Each distribution company had 51 per cent equity participation from the private sector, with the remaining equity came from the Government of [full please] NCT of Delhi. The privatization was undertaken on the basis of bids in terms of reduction in aggregate technical and commercial (AT&C) losses. Each distribution company had to reduce the AT&C loss levels by at least 17 per cent over the five year period 2002-07. The AT&C loss levels at the beginning of the privatization process, the targets set for each year and the actual performance – in per cent – are as follows :-

Opening levels			2002-03	2003-04	2004-05	2005-06
BSES Yamuna Power Ltd.	57.2	Target	56.45	54.7	50.7	45.05
		Achievement	61.89	54.29	50.12	43.89
BSES Rajdhani Power Ltd.	48.1	Target	47.55	45.0	42.7	36.70
		Achievement	47.40	45.06	40.64	35.53
North Delhi Power Ltd.	48.1	Target	47.60	43.35	40.85	35.35
		Achievement	47.79	44.86	33.79	26.52

Besides other benefits, the actual AT&C level for each distribution company has been better than the respective target. The Cabinet on December 18, 2006 has approved an amendment to Electricity Act 2003 making power theft a cognizable offence.

associations, cooperatives or individual entrepreneurs. Panchayat institutions would be associated with the management.

9.25 Progress of implementation of RGGVY until February 9, 2007 was as follows:

- 28,241 villages have been electrified and 5,04,141 connections to BPL households have been released.
- 27 states and their utilities have signed Memorandum of Agreement agreeing to the conditionalities for implementation of the programme as envisaged under RGGVY.
- So far 317 projects for 316 districts have been sanctioned for 27 states at the cost of Rs.11,514.22 crore covering 69,534 un-electrified villages and 1.08 crore BPL households and 1,65,124 electrified villages have been covered for intensive electrification.
- Tenders have been issued for 273 projects covering 272 districts, 69,239 un-electrified villages and 92,02,889 BPL households.
- Contracts have been placed for 200 projects covering 175 districts to

electrify 61,012 un-electrified villages and 71,06,387 households.

- Four CPSUs — Power Grid Corporation (India) Ltd. (PGCIL), National Thermal Power Corporation (NTPC), National Hydro-electric Power Corporation (NHPC), Damodar Valley Corporation (DVC) — are working in 134 districts of Assam, Bihar, Chattishgarh, Gujarat, Jammu & Kashmir, Jharkhand, Madhya Pradesh, Orissa, Rajasthan, Tripura, Uttar Pradesh, and West Bengal.

Policy Initiatives

Rural electrification policy

9.26 On August 23, 2006, Government notified Rural Electrification Policy under section 4 & 5 of the Electricity Act, 2003. The policy aims at provision of access to electricity to all households by year 2009, quality and reliable power supply at reasonable rates, and minimum lifeline consumption of 1 unit per household per day as a merit good by year 2012.

Tariff policy

9.27 There exists considerable variation in the average tariff rate of electricity supply to

Table 9.9 : State-Wise average rate of electricity for domestic and industrial consumers*(As on July, 2006)*

Sl. No.	Name of Utility	Tariff effective from	Domestic 4 KW Total (P/K Wh)	Large industries 500 KW 40% LF (at 11 KV) Total (P/K Wh)
1.	Andhra Pradesh	01.04.2006	396.63	415.08
2.	Assam	01.04.2005	388.60	408.79
3.	Bihar	01.06.2001	237.18	244.34
4.	Chandigarh	01.08.2005	304.00	367.55
5.	Chattisgarh	01.07.2005	277.09	528.84
6.	Delhi (BSES/NDPL)	15.07.2005	346.50	580.96
	Delhi (NDMC)		252.25	-
7.	Goa	01.04.2002	170.75	362.44
8.	Gujarat (URBAN)	25.06.2004	516.46	501.82
	Gujarat (Ahmedabad Electrical Company Ltd.)	01.08.2002	433.39	449.52
9.	Haryana	15.08.2004	379.25	419.00
10.	Himachal Pradesh	08.07.2006	242.25	342.57
11.	Jharkhand	01.04.2005	183.00	442.93
12.	Karnataka – (Bangalore Metro Area)	10.10.2005	418.29	491.69
	Karnataka – (Other local bodies)		413.04	487.46
13.	Kerala	01.04.2004	398.89	421.28
14.	Madhya Pradesh – (continuous supply area)	01.04.2006	423.60	530.67
	Madhya Pradesh – (non-continuous supply area)		411.73	
15.	Maharashtra	01.12.2003	367.94	435.53
	Maharashtra – Mumbai – (TATA's)	01.06.2004	338.05	477.81
16.	Manipur	03.09.2002	299.70	341.16
17.	Mizoram	25.07.2005	195.00	107.02
	Mizoram – District headquarters		247.50	
18.	Meghalaya	01.10.2004	246.25	265.52
19.	Orissa	01.04.2006	247.00	401.94
20.	Pondicherry	16.04.2002	113.75	331.90
21.	Punjab	01.04.2006	374.15	413.20
22.	Rajasthan	01.04.2005	396.88	475.25
23.	Tamil Nadu	01.02.2006	216.25	494.41
24.	Uttaranchal	01.04.2006	215.00	298.89
25.	Uttar Pradesh	01.12.2004	339.75	466.38
26.	West Bengal	01.04.2005	299.35	498.72
	West Bengal – Kolkata – CESC	01.04.2005	460.28	485.13
	West Bengal – DVC	01.09.2000		345.10

Average rate includes tariff and duty/taxes.

Note : The average rates of electricity supply is computed by the CEA on the basis of tariff notifications and various electricity duties/taxes and fuel cost adjustment charges levied on it. The average rates have been computed assuming the same level of energy for various categories of consumers in different States/Union Territories.

Source : Central Electricity Authority.

domestic and industrial consumers (Table 9.9). Under the provisions of the Electricity Act 2003, Central Government has notified the tariff policy, evolved in consultation with the State governments, CERC and various stakeholders. To promote competition, the policy provides that all future requirements of power should be procured competitively, except in the case of one-time expansion of

existing projects, or where a state-controlled publicly owned company has been identified as the developer. A transition period of five years has been indicated for achieving the goal of developing generation and transmission projects in the public sector also through competitive bidding only. The policy lays down a timeframe for rationalization of electricity tariffs and mandates reduction of the cross

subsidies to within a band of $\pm 20\%$ by the end of year 2010-11. The policy clearly states that provision of free electricity is not desirable, as it encourages wasteful consumption of electricity and, in most of the cases, depletion of the water table. To facilitate choice of supply to the consumers through open-access in distribution, the policy provides unambiguous methodology for calculating cross-subsidy surcharge and its time bound reduction. It also lays down the mechanism for arranging back-up supply for such consumers.

9.28 The overall-weighted rate of electricity tariff has gone up by a cumulative 13.4 per cent between January 25, 2003 and January 20, 2007 (Table 9.10). The differential increases among the various categories reveal a healthy trend of reduction in cross-subsidies.

New Hydro-Policy

9.29 Section 63 of the Electricity Act provides for development of projects on the basis of competitive bidding for tariff. Sections 61 and 62 allow such projects developed on the basis of tariff to be fixed by the Regulator on the basis of capital cost and norms. In fact, the Electricity Tariff Policy notified in January 2006 also allows a special dispensation for project development by State and Central PSUs on the basis of capital cost and norm-based tariff to be determined by the Regulatory Commission. This dispensation,

allowed for PSUs, is now proposed to be made available for the same period of 5 years to promote hydro-power development even through the private sector route. The State would be required to follow a transparent process for selection of the developer.

9.30 This arrangement would have several advantages. While the initiative for allocation of the project would remain with the State Government (subject to the requirement of transparency in the allocation), the scrutiny of the regulator and the CEA would ensure that the project is being designed and built in the most optimal and economic manner, and that the interest of the consumers is adequately protected. From the point of view of the developer, this procedure would reduce numerous risks associated with the construction and operation and maintenance (O&M) of hydro projects

Guidelines for procurement of electricity

9.31 In compliance with section 63 of the Electricity Act, 2003, the Central Government on January 19, 2005 had notified guidelines for procurement of power by Distribution Licensees through competitive bidding. On March 31, 2006, Central Government has also issued the standard bid document containing request for qualification (RFQ), request for proposal (RFP) and model power purchase agreement (PPA) for long term procurement of power from projects having specified site and location.

Table 9.10 : Electricity tariffs

Effective Date rate	Over-all weighted use	For domestic use	For commercial use	For agricultural use	For industry traction	For railway
Wholesale Price Index (1993-94=100)						
25-Jan-03	241.0	241.9	254.6	261.6	220.5	240.8
24-Jan-04	250.8	255.9	264.7	268.7	230.9	246.4
22-Jan-05	254.8	254.3	251.2	274.7	238.0	248.8
21-Jan-06	261.8	254.1	255.0	291.8	239.9	248.6
20-Jan-07	274.7	263.8	259.9	315.7	246.0	251.8
Rate of increase of electricity tariffs (year-on-year per cent)						
24-Jan-04	4.07	5.79	3.97	2.71	4.72	2.33
22-Jan-05	1.59	-0.63	-5.10	2.23	3.07	0.97
21-Jan-06	2.75	-0.08	1.51	6.22	0.80	-0.08
20-Jan-07	4.93	3.82	1.92	8.19	2.54	1.29
Cumulative increase since January 23, 2003	13.98	9.05	2.08	20.68	11.56	4.57