

**JAMMU AND KASHMIR STATE ELECTRICITY REGULATORY COMMISSION**



**Tariff Order**  
on  
Annual Revenue Requirement  
for  
Financial Year 2007-08  
and  
Determination of Distribution Tariffs  
for  
Power Development Department, Govt of J&K

Jammu  
March, 2007

**JAMMU AND KASHMIR STATE ELECTRICITY REGULATORY COMMISSION**

Petitions No. 7 & 8/ 2006

In the matter of: Petitions for approval of Annual Revenue Requirements (ARR) and determination of distribution tariff for the years 2006-07 and 2007-08

Petitioner: J&K Power Development Department,  
Government of Jammu & Kashmir, Janipur, Jammu

Present: Shri K. B. Pillai, Chairperson

**ORDER**

*(Passed this 28<sup>th</sup> day of March, 2007)*

The Commission has deliberated on the above petitions and also the subsequent filings by the Petitioner in the course of the above proceedings. The Petitioner had submitted the ARR and Tariff petitions for 2006-07 and 2007-08 on November 14, 2006 and November 30, 2006 respectively. On scrutiny, the Commission observed discrepancies between values of certain elements for 2006-07 in the two petitions. In view of the same and considering the significant delay in submitting the petition for 2006-07, the Commission has determined tariffs only for 2007-08. The Petitioner had earlier been authorized to charge tariff at the existing rates till July 31, 2006. This authorization is extended till March 31, 2007.

In exercise of powers vested under the Jammu & Kashmir State Electricity Regulatory Commission Act, 2000 (Act VIII of 2000), the Commission hereby passes this Order today, March 28, 2007. The revised tariff schedules shall be applicable from April 1, 2007 till March 31, 2008.

Considering the interests of consumers as well as the utility, the Commission expects the Petitioner to submit its petition for approval of ARR and determination of distribution tariff for 2008-09 by November 30, 2007.

Order signed and issued accordingly

K. B. Pillai  
Chairperson

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## **A1: INTRODUCTION**

- 1.1 The Power Development Department, Government of Jammu & Kashmir (hereinafter referred to as the Petitioner) has filed petitions before the Jammu & Kashmir State Electricity Regulatory Commission (the Commission) for approval of its Annual Revenue Requirement (ARR) and determination of tariffs for 2006-07 and 2007-08 under sub-regulation 4, of the J&K State Electricity Regulatory Commission (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2005 and J&K State Electricity Regulatory Commission (Conduct of Business) Regulations, 2005 framed by the Commission.
- 1.2 The Power Development Department (PDD), Government of J&K is a deemed licensee under Section 6A of the J&K Electricity Act, Smvt 1997 for supplying electrical energy in the State of Jammu and Kashmir.

### **Regulatory Regime**

- 1.3 The Jammu & Kashmir State Electricity Regulatory Commission Act, 2000 (Act VIII of 2000) (hereinafter referred to as the SERC Act) came into force on May 1, 2002 and the State Electricity Regulatory Commission was established by the Government of Jammu & Kashmir through a notification in the Government Gazette dated July 1, 2002 as per the SERC Act. The Commission was activated with the appointment of the Chairperson on June 23, 2004.
- 1.4 The Commission is guided by the SERC Act and other provided legislations in its approach to regulation of the electricity sector. The SERC Act mandates the Commission to take measures conducive to the development and management of electricity industry in the State in an efficient, economic and competitive manner.

### **Functions of the Commission**

- 1.5 The Commission has been assigned the following mandatory functions under Section 8(1) of the SERC Act.
- (a) To determine the tariff for electricity, wholesale, bulk, grid or retail, as the case may be, in the manner provided in Section 17;
  - (b) To determine the tariff payable for use of the transmission facilities in the manner provided in Section 17;
  - (c) To regulate power purchase and procurement process of the transmission utilities and distribution utilities including the price at which the power shall be procured from the generating stations or from other sources for transmission, sale, distribution and supply in the State;

- (d) To promote competition, efficiency and economy in the activities of the electricity industry to achieve the objects and purposes of this Act.
- 1.6 The Commission is guided by the principles contained in the Section 17 of the SERC Act, amended by the J&K SERC (Amendment) Act 2007 (Act VIII of 2007) during the determination of tariff. The principles are:
- (a) Notwithstanding anything contained in any other law, the tariff for intrastate transmission of electricity and the tariff for supply of electricity, grid, wholesale, bulk or retail, as the case may be, in a State (hereinafter referred to as the “tariff”), shall be subject to the provisions of this Act and the tariff shall be determined by the Commission of that State in accordance with the provisions of this Act.
- (b) The Commission shall determine by regulations the terms and conditions for the fixation of tariff, and in doing so, shall be guided by the following, namely:
- (i) The principles and their applications provided in Sections 41, 52 and 53 of the Jammu & Kashmir Electricity (Supply) Act, 1971 and the Sixth Schedule thereto;
- (ii) In the case of the Board or its successor entities, the principles under Section 56 of the Jammu & Kashmir Electricity (Supply) Act, 1971;
- (iii) That the tariff progressively reflects the cost of supply of electricity at an adequate and improving level of efficiency;
- (iv) The factors which would encourage efficiency, economical use of the resources, good performance, optimum investments, and other matters which the Commission considers appropriate for the purpose of this Act;
- (v) The interests of the consumer are safeguarded and at the same time the consumers pay for the use of electricity in a reasonable manner based on the average cost of supply of energy;
- (vi) The electricity generation, transmission, distribution and supply are conducted on commercial principles;

Note: The Jammu & Kashmir Electricity (Supply) Act, 1971 referred to in sub-clauses (ii) and (iii) above stands repealed vide Jammu & Kashmir Electricity (Supply) (Repeal) Act, 2004 (Act III of 2004) w.e.f. January 5, 2004.

- (c) If the Government requires the grant of any subsidy to any consumer or class of consumers in the tariff determined by the Commission under this Section, the Government shall pay the amount to compensate the person affected by the grant of subsidy in the manner the Commission may direct as a condition for the

licensee or any person concerned to implement the subsidy provided for by the Government.

- (d) The Commission, while determining the tariff under this Act, shall not show undue preference to any consumer of electricity, but may differentiate according to consumer's load factor, power factor, total consumption of energy during any period or the time at which the supply is required or the geographical position of any area, the nature of supply and the purpose for which the supply is required.
- (e) The holder of each license and other persons including the Board or its successor body authorized to transmit, sell, distribute or supply electricity wholesale, bulk or retail, in the State shall observe the methodologies and procedures specified by the Commission from time to time in calculating the expected revenue from charges which he is permitted to recover and in determining tariffs to collect those revenues.

### **Regulations and Guidelines issued by the Commission**

- 1.7 In accordance with the powers conferred to the Commission as per Section 36(1) of the SERC Act, it has made regulations required for developing an institutional and legal framework for regulating the electricity sector in the State of Jammu & Kashmir:

#### **Conduct of Business Regulations, 2005 (April 05, 2005)**

- 1.8 These Regulations, issued as per the notification No.1/JKSERC/2005 in the Government Gazette, define the legal and administrative framework within which the Commission shall conduct its work and proceedings.

#### **Terms and Conditions for Determination of Distribution Tariff Regulations, 2005 (April 12, 2005)**

- 1.9 In accordance with the powers conferred to the Commission as per Section 8(1) (a) of the SERC Act, these Regulations, issued as per the notification No.2/JKSERC/2005 in the Government Gazette, contain the schedule and procedure to be followed by the State distribution utility for calculating its Annual Revenue Requirement and the expected revenue from charges at the current and proposed tariffs.

#### **Appointment of Consultants Regulations, 2005 (May 26, 2005)**

- 1.10 These Regulations, issued as per the notification No.3/JKSERC/2005 in the Government Gazette, specify the procedure to be followed by the Commission for the appointment of consultants and the remuneration payable to them.

**Power Purchase and Procurement Regulations, 2005 (June 21, 2005)**

- 1.11 In accordance with the powers conferred to the Commission as per Section 8(1) (c) of the SERC Act, these Regulations, issued as per the notification No.4/JKSERC/2005 in the Government Gazette, specify the framework for preparing the short-term and long-term power procurement plan, and the manner and submission of such plans by the parties concerned, for the approval of the Commission.

**Terms and Conditions for Determination of Hydro-Generation Tariff Regulations, 2005 (September 23, 2005)**

- 1.12 These Regulations, issued as per the notification No.5/JKSERC/2005 in the Government Gazette, contain the procedure to be followed by any utility for filing an application of determination of tariffs of hydro-generating stations located in the State of Jammu & Kashmir.

**Open Access in Intra-state Transmission and Distribution Regulations, 2006 (January 25, 2006)**

- 1.13 These Regulations, issued as per the notification No.6/JKSERC/2005 in the Government Gazette, specify the eligibility norms and procedures to be followed by consumers for obtaining open access in transmission and distribution. These Regulations also specify the applicable charges and surcharges applicable for open access consumers, and the schedule of implementation of Open Access in the State.

**Distribution Performance Standards Regulations, 2006 (June 19, 2006)**

- 1.14 These Regulations, issued as per the notification No.7/JKSERC/2006 in the Government Gazette, contain the overall and guaranteed standards of performance to be maintained by any entity engaged in the distribution of electricity in the State. These include the minimum standard of service with reference to new connections, quality of supply, continuity and reliability of services, etc.
- 1.15 The Commission had also issued a Discussion Paper on Tariffs in October, 2006 which discusses the objectives of tariff setting, tariff principles, methodologies, and key issues involved in determining the retail electricity tariff in Jammu & Kashmir. The paper also reviews the functions, role and mandate of the Commission in tariff determination.

**State Advisory Committee**

- 1.16 In pursuance of Section 13 of the SERC Act, the Commission constituted a State Advisory Committee, with members selected to represent the interests of industry, commerce, labour, agriculture, academic and research bodies and non-governmental organisations in the energy sector. The Committee was constituted with effect from 1st June 2006 to advise the Commission on the following issues:

- (a) Major questions of policy;
- (b) Matters relating to quality, continuity and extent of service provided by the utilities/ licensees and compliance by them with the conditions and requirements of service to be provided;
- (c) Protection of consumer interests;
- (d) Energy supply and overall standards of performance by utilities/licensees.
- (e) Norms and standards for efficient use of electricity by the consumers which in the opinion of the Advisory Committee are economic and ought to be achieved by the Licensees.

### **Status of Power Sector in Jammu & Kashmir**

1.17 The historical details on the demand-supply scenario in the State of Jammu & Kashmir, as per the records of the Central Electricity Authority are shown in Table 1.1.

**Table 1.1: Demand-Supply Position in J&K**

	2002-03	2003-04	2004-05	2005-06
Peak Demand (MW)	1,250	1,268	1,316	1,600
Peak Met (MW)	1,060	1,218	1,166	1,225
Peak Deficit (MW)	190	50	150	375
Peak Deficit (%)	15.2%	3.9%	11.4%	23.4%
Energy requirement (MU)	7,243	7,105	8,138	9,268
Energy available for sale (MU)	6,327	6,780	7,387	7,672
Energy deficit (MU)	916	325	751	1,596
Energy deficit (%)	12.6%	4.6%	9.2%	17.2%

1.18 According to the data in the Annual Report of NREB for the year 2005-06, the demand-supply positions for the State of Jammu & Kashmir are as given in Table 1.2.

**Table 1.2: Demand-Supply Position in J&K**

	Availability	Requirement	Shortage	% Shortage
Average Energy (MU/ day)	21.00	29.52	8.52	28.86
Peak Demand (MU)	1,216	1,600	384	24.00

- 1.19 The Petitioner, viz. Power Development Department (PDD), Government of Jammu & Kashmir is the sole transmission and distribution utility in the State, and is a deemed licensee under Section 6A of the Jammu and Kashmir Electricity Act, Smvt 1997. Initially, it was the sole entity handling generation, transmission and distribution of electricity in the State.
- 1.20 The Jammu & Kashmir State Power Development Corporation (SPDC) was later established in 1989 to handle the generation function in the State.
- 1.21 The total energy available in 2004-05 and 2005-06 in the State of Jammu & Kashmir was approximately 7306.4 MU and 7918.9 MU respectively, as shown in Table 1.3.

**Table 1.3: Energy Availability in J&K (MU)**

Source	2004-05	2005-06
State Generation (SPDC)	730.4	866.6
State Generation (PDD)	15.2	14.9
Share from Central Generating Stations	6,560.7	7,037.4
<b>Total</b>	<b>7,306.4</b>	<b>7,918.9</b>

- 1.22 The total availability of electricity in the State is much lower than the total demand, thereby leading to regular load shedding and poor availability of electricity to the consumers

### **Prevailing Tariffs**

- 1.23 The tariffs presently applicable in the State are based on the State Government notification of November 11, 1998, which contained three different tariff schedules, to be introduced in phases, for the years 1998-99, 1999-2000 and 2000-01. The existing tariffs are based on the Government Order number 92-PDDof 1999, dated March 15, 1999 and have been applicable from April 1, 1999. The third phase of tariff revision was not implemented.

### **Government Support**

- 1.24 In a submission made by the Petitioner to the Commission on February 28, 2006, it had been stated that the existing tariff was in vogue since April 1, 1999 and the Power Development Department, being a government department fully owned and controlled by the State Government, the gap between revenue expenditure and revenue receipts was being met by the State Government fully. In view of the above, there was no attempt on the part of the Petitioner to revise the tariff.

- 1.25 The Jammu & Kashmir Government has signed a tripartite memorandum of understanding (MoU) with the Ministry of Finance and the Planning Commission, Government of India in August 2006, to obtain grant worth Rs 3900 Crores over three financial years (2006-07, 2007-08 and 2008-09). This reform grant has been linked to performance based benchmarks such as reduction in T&D losses, increase in revenue realisations, etc. It has also been linked to the filing of the Annual Revenue Requirement before the SERC and the subsequent issue of tariff orders.

### **ARR and Tariff Filing**

#### **Procedural History**

- 1.26 The Commission started functioning on June 23, 2004 and issued the distribution tariff regulations in April 2005. It issued formats for filing the ARR and tariff petition, on May 06, 2005 to enable the utility to submit its ARR and tariff petition at the earliest. It subsequently issued guidelines for revenue and tariff filing on September 14, 2005 detailing the procedure of filing the petition.
- 1.27 The utility filed an application on January 20, 2006 seeking approval of the Commission to continue the existing tariff, till the tariffs for the year 2006-07 would be approved and notified by the Commission.
- 1.28 The Commission passed an interim order on February 7, 2006 providing extension till February 28, 2006 for filing of the ARR and tariff petition for 2006-07.
- 1.29 The Petitioner submitted another letter on February 28, 2006 expressing its inability to file the petition, pleading difficulties in managing data compilation and filling the formats prescribed by the Commission. It requested the Commission for further continuation of existing tariffs. The Development Commissioner, PDD; being the head of the utility; appeared before the Commission on April 25, 2006 and submitted clarifications on the application filed with the Commission.
- 1.30 The Commission vide order dated June 21, 2006, permitted the utility to continue operating the existing tariffs till July 31, 2006. The Utility did not submit its ARR and tariff petition and repeatedly requested for further continuation of the existing tariffs in its applications on July 31, August 28 and September 29, 2006.

#### **Submission of ARR and Tariff Petition**

- 1.31 The Petitioner took more than two years after the issue of the Regulations and submitted, to the Commission, the petition for Approval of its Annual Revenue Requirement and determination of tariff for 2006-07 on November 14, 2006.

- 1.32 During the scrutiny of the ARR and tariff petition for 2006-07 filed by the utility, the Commission noticed several gaps and inconsistencies in the petition. Considering the long time taken by the utility to file the petitions, the Commission has taken a serious view on the request for waiver of supply of information due to lack of availability of data. The Commission directed the utility to submit suitable clarifications and further information through a letter on November 24, 2006.
- 1.33 The Petitioner did not submit any clarifications to the Commission in response to the above letter, and instead submitted the ARR and tariff petition for 2007-08 on November 30, 2006. The Commission decided to have direct interactions with the Petitioner to convey its views and obtain clarifications/ information from the utility.

**Interactions with the Petitioner and Other Stakeholders**

- 1.34 The Commission had detailed interactions with the utility and the J&K State Power Development Corporation (SPDC) on December 20-21, 2006 to discuss various aspects of the ARR and tariff petitions. The Commission directed the Petitioner to submit information vide letter dated December 22, 2006.
- 1.35 The Petitioner submitted certain information/ clarifications regarding energy sales and loss levels, metering schedule, month-wise power availability, investment plans and loan repayment schedule to the Commission on January 09, 2007.
- 1.36 The Commission after scrutiny admitted the petitions submitted by the utility for approval of ARR and determination of tariffs for the years 2006-07 and 2007-08 on December 21, 2006. On January 16, 2007, it directed the Petitioner to issue a Public Notice and invite comments/ objections/ suggestions from consumers on the petitions. However, the Petitioner sought time upto February 9, 2007 for issuing the Public Notice.
- 1.37 The Commission convened the first meeting of the State Advisory Committee on February 20, 2007 in Jammu to discuss the ARR and Tariff petitions.
- 1.38 Representatives of the Petitioner explained the salient features of the petitions, including major items of expenditure and revenue to the members of the Committee. The members of the Committee commented on the Petitions and gave various suggestions, which have been considered in this Order.

**Inviting Responses on the Petitions**

- 1.39 The Public Notice was issued by the Petitioner, inviting objections/suggestions on the ARR and Tariff petitions filed with the Commission. This notice appeared in the following leading newspapers:

Newspaper	Date
Srinagar Times, Srinagar	February 11, 2007

Newspaper	Date
Greater Kashmir, Srinagar	February 11, 2007
Daily Excelsior, Jammu	February 12, 2007
The Kashmir Times, Jammu	February 12, 2007
Daily Aftab, Srinagar	February 14, 2007

- 1.40 Copies of the petitions were made available for purchase by the consumers and public from the utility's offices in Jammu, Srinagar and Leh. The last date for submitting the comments/objections on ARR and tariff petition was March 5, 2007.
- 1.41 The Public Notice advised respondents to submit (in person or by post or by fax) all copies of their objections written either in English, Hindi or Urdu to the Commission with a copy to the Petitioner. It was specifically stated in the Public Notice that if any objector wanted to be heard in person and had substantive suggestions / objections he could attend the public hearings.

### **Public Participation**

- 1.42 The Commission received nineteen (19) written objections/ suggestions regarding the tariff petitions expressing concern over the proposed increase in tariff charges, the working of the utility, T&D losses, minimum charges and a number of other issues related to tariffs.
- 1.43 The Commission held public hearings in Jammu and Srinagar on 13th and 15th February, 2007 respectively, scheduled with prior intimation to and appointment with the various respondents. The public hearings enabled the utility to present its case for the ARR and tariff petitions and to respond to the objections raised by various respondents. All the objections have been considered and dealt with in the relevant chapter in this order.
- 1.44 As authorised by Section 15 of the SERC Act, the Commission had authorised the following persons to represent the interests of the consumers before its proceedings:
- (a) Sh. Jigmet Namgyal
  - (b) Sh. N. A. Qazi
  - (c) Sh. Vikramjit Gaur

**A2: SUMMARY OF ARR AND TARIFF PETITIONS**

2.1 This Section contains a summary of the ARR and Tariff Petitions submitted by the utility for the years 2006-07 and 2007-08. For reason given in Section 2.15, the Commission has only considered the ARR for the financial year 2007-08 and shall determine tariffs for 2007-08.

**Sales Projections**

2.2 The Petitioner has projected total energy sales of 4,482.5 MU and 4,949.8 MU for the years 2006-07 and 2007-08 respectively.

2.3 Details regarding the number of consumers, connected load and energy sales for various categories are as shown in Table 2.1.

**Table 2.1: Number of Consumers, Connected Load and Energy Sales**

Consumer Category	2006-07			2007-08		
	No. of consumers	Connected Load (MW)	Energy Sales (MU)	No. of consumers	Connected Load (MW)	Energy Sales (MU)
Domestic	1,049,446	545.6	1911.0	1,101,918	572.9	2,110.3
Commercial	146,409	117.7	259.6	153,729	123.5	286.6
Industrial	24,914	333.5	833.6	26,160	350.1	920.6
Irrigation / Agriculture	11,610	79.0	156.1	12,191	82.9	172.4
Public lighting	198	16.6	46.5	208	18.5	51.4
P.H.E.	1407	67.3	263.7	1,477	70.7	291.2
State/ Central Dept.	10,427	66.7	247.2	10,948	70.0	273.0
Bulk/ Army	708	86.3	668.1	743	90.6	737.7
SMVDT and Temp. Supply	230	16.7	96.5	242	17.6	106.6
<b>Total</b>	<b>1,245,349</b>	<b>1,329.3</b>	<b>4,482.5</b>	<b>1,307,616</b>	<b>1,396.8</b>	<b>4,949.8</b>

**Transmission and Distribution (T&D) Loss**

2.4 The Petitioner has submitted the T&D loss levels to be 47% for 2005-06, which are projected to be reduced to 45% in 2006-07 and 43% in 2007-08.

## Energy Balance

2.5 The energy balance and T&D loss levels proposed by the Petitioner for the years 2006-07 and 2007-08 are provided in Table 2.2.

**Table 2.2: Energy Balance (Values in MU)**

S No.	Particulars	2004-05 (Actual)	2005-06 (Actual)	2006-07 (Proj)	2007-08 (Proj)
1	Purchase of Power (MU)	7,306	7,919	8,150	8,684
2	Sale of Power (MU)	3,856	4,198	4,483	4,950
3	Energy Loss (MU)	3,450	3,721	3,667	3,734
4	Energy Loss (%)	47.2%	47.0%	45.0%	43.0%

## Annual Revenue Requirement

2.6 The Petitioner has estimated its Annual Revenue Requirement for the years 2006-07 and 2007-08 to be Rs. 2045 Cr. and Rs. 2200 Cr respectively. The details of the ARR are provided in Table 2.3.

**Table 2.3: Summary of Annual Revenue Requirement (Values in Rs Cr)**

S No.	Particulars	2006-07 (Proj)	2007-08 (Proj)
1	Power Purchase Costs	1,700.0	1,834.0
2	Operations and Maintenance Expenses	53.5	56.5
3	Employee Expenses	201.0	215.0
3	Depreciation	69.0	76.0
4	Interest and Finance Charges	21.5	18.5
5	Rate of Return	-	-
<b>6</b>	<b>Total Annual Revenue Requirement</b>	<b>2,045.0</b>	<b>2,200.0</b>
7	Revenues	456.5	713.1
8	Revenue Gap	1,588.5	1,486.9
9	Financial Assistance, expected from Govt of India	1,300.0	1,300.0
<b>10</b>	<b>Net Revenue Gap</b>	<b>288.5</b>	<b>186.9</b>

2.7 The average Cost of Supply (CoS) of energy projected by the utility is Rs. 4.56 /unit for 2006-07 and Rs. 4.42 /unit for 2007-08 respectively.

**Existing and Proposed Tariffs**

2.8 The details on the existing tariffs and the tariffs for 2006-07 and 2007-08 as projected by utility in its ARR and tariff petition are as provided in Table 2.4.

**Table 2.4: Existing and Projected Tariffs**

S. No	Consumer Category	Existing Tariff		Proposed Tariff for 2006-07 and 2007- 08		
		Particulars	Rate	Particulars	Rate	
1	Domestic	Energy Charges	(Rs / unit)	Energy Rate	(Rs / unit)	
(a)		First 50 Units	0.85	First 30 Units	0.90	
		51 to 200 Units	1.15	31 to 100 Units	1.15	
		201 to 400 Units	1.45	101 to 200 Units	1.40	
		Above 400 Units	2.00	Above 200 Units	2.10	
		Minimum Charges	(Rs / unit)	Minimum Charges	(Rs / unit)	
		Upto 1/4 kW	19.67	Upto ¼ kW	25.00	
		Above 1/4 kW upto 1/2 kW	36.07	Above 1/4 kW upto 1/2 kW	40.00	
		Above 1/2 kW upto 3/4 kW		Above 1/2 kW upto 3/4 kW	60.00	
		Above 3/4 kW upto 1 kW	57.38	Above 3/4 kW upto 1 kW	70.00	
		Above 1 kW		Above 1 kW upto 2 kW	200.00	
		Rs./kW/month	98.00	Above 2 kW		
				Add Rs./kW/month	100.00	
			Flat Rate (Unmetered)	(Rs / month)	Flat Rate (Unmetered)	(Rs / month)
		Upto 250 Watt	40.98	Upto ¼ kW	45.00	
		Above 1/4 kW upto 350 Watt	81.97	Above 1/4 kW upto 1/2 kW	120.00	
		Above 350 Watt upto 1/2 kW	114.75	Above 1/2 kW upto 3/4 kW	190.00	
		Above 1/2 kW upto 3/4 kW	184.43	Above 3/4 kW upto 1.0 kW	320.00	
		Above 3/4 kW upto 1.0 kW	319.67	Above 1.0 kW and upto 2.0 kW	635.00	

**TARIFF ORDER FOR 2007-08**

		Existing Tariff		Proposed Tariff for 2006-07 and 2007- 08	
S. No	Consumer Category	Particulars	Rate	Particulars	Rate
		Above 1.0 kW and upto 1.5 kW	409.84	Above 2.0 kW	Additional Rs. 275 for every 1/2 kW or part thereof
		Above 1.5 kW and upto 2.0 kW	635.00		
		Above 2.0 kW	Additional Rs. 260 for every 1/2 kW or part thereof		
1 (b)	Jhugi/ Jhaupri Below Poverty Line	Rs. 10 per point of 100 Watt, subject to minimum of Rs. 22 / month			
2.	Non-domestic	Energy Charges	(Rs/ unit)	Energy Charges	(Rs / unit / month)
		Upto 1/4 kW		Single Phase	
		First 200 units	1.60	First 100 Units	1.70
		Above 200 units	2.20	101 to 200 Units	1.80
		Subject to a minimum of Rs.34.43 / month		Above 200 u/m	2.50
		Above 1/4 kW		Three Phase	
		For all units	2.55	For all units	2.90
		Subject to a minimum of Rs. 16 for every 100 W			
				Minimum Charges	(Rs / month)
				Upto 1/4 kW	45.00
				Above 1/4 kW	Rs. 45 for every additional 1/4 kW or part thereof
		Flat Rate (Unmetered)		Flat Rate (Unmetered)	
		30 units for every 100 Watts or part thereof p.m. on the basis of tariff of applicable category		Upto 1/4 kW	140.00

**TARIFF ORDER FOR 2007-08**

		Existing Tariff		Proposed Tariff for 2006-07 and 2007- 08	
S. No	Consumer Category	Particulars	Rate	Particulars	Rate
				Above 1/4 kW upto 1/2 kW	350.00
				Above 1/2 kW upto 1 kW	700.00
				Above 1 kW upto 5 kW	*
				Above 5 kW	**
3.	State / Central Govt. Depts				
		Upto 1/4 kW		* Rs. 900 /kw or part thereof for every kW above 1 kW but less than 5 kW	
		First 200 units	1.60	** Rs. 900 /kw or part thereof for every kW above 5 kW	
		Above 200 units	2.20		
		Subject to a minimum of Rs 42 per month			
		Above 1/4 kW			
		For all units	2.55		
		Subject to a minimum of Rs 16 per month for every 100 Watts			
		Flat Rate (Unmetered)			
		30 units for every 100 Watts or part thereof p.m. on the basis of tariff of applicable category			
4.	Bulk Commercial				
		For Commercial Loads above 10 kW supply			
		Energy charges	2.55		
		Subject to a minimum of Rs 16 per			

**TARIFF ORDER FOR 2007-08**

		Existing Tariff		Proposed Tariff for 2006-07 and 2007- 08	
S. No	Consumer Category	Particulars	Rate	Particulars	Rate
		month for every 100 Watts			
5.	Agriculture / Irrigation	Energy Charges	(Rs / unit)	Energy Charges	(Rs / unit)
		Upto 20 HP	0.33	Upto 20 HP	0.50
		Above 20 HP	2.55	Above 20 HP	3.30
		Minimum Charges		Minimum Charges	
		Subject to a minimum of Rs 16 per month for every 100 Watts		Upto 20 HP	Rs. 250 / HP / annum
				Above 20 HP	Rs. 900 / HP / annum
				Provisional monthly billing will be done subj. to annual adjustment	
		Unmetered Charges		Unmetered Charges	
		30 units for every 100 Watts or part thereof p.m. on the basis of tariff of applicable category		Upto 20 HP	110.00
				Above 20 HP	750.00
6.	Public Lighting	Energy Charges		Energy Charges	
		For all Units	2.55	For all Units	3.30
		Minimum Charge		Minimum Charge	
				Rs. / kW or any part thereof	200.00
		Unmetered Charge		Unmetered Charge	
				Rs. / kW or any part thereof	760.00
7.	Public Water Works	Metered Supply		LT (upto 250 HP)	
		Energy Charges		Energy Charges	(Rs / unit)
		For all Units	2.55	For all Units	3.30
		Minimum Charges		Minimum Charges (Rs / HP)	
		Subject to a minimum of Rs 16 per		Rs. / HP or part	200.00

**TARIFF ORDER FOR 2007-08**

		Existing Tariff		Proposed Tariff for 2006-07 and 2007- 08	
S. No	Consumer Category	Particulars	Rate	Particulars	Rate
		month for every 100 Watts		thereof per month	
		Unmetered Charges		Unmetered Charges	
		30 units for every 100 Watts or part thereof p.m. for 8 hrs supply,		Rs. / HP or part thereof / m	575.00
		1.5 times of the above rate for 8 to 12 hrs supply			
		2 times the above rate for more than 12 hrs supply			
				HT Supply	
				11 kV Supply (> 250 HP and < 1 MVA)	
				Demand Charge	160.00 (Rs/ HP / month)
				Energy Charge	2.35(Rs / unit)
				33 kV Supply (Above 1 MVA)	
				Demand Charge	155.00 (Rs/ HP / month)
				Energy Charge	2.30(Rs / unit)
8.	Industry	Metered Supply		LT Supply	
		Energy Charges		Energy Charges	(Rs / unit)
		For all units	1.35	Upto 20 HP	1.50
				Above 20 HP upto 100 HP	2.00
				Above 100 HP upto 250 HP	2.50
		Minimum Charges		Minimum Charges	(Rs/HP / month)
		Upto 20 HP	Rs 50/kW/m	Upto 20 HP	60
		Above 20 HP upto 100 HP	Rs115/kW/m	Above 20 HP upto 100 HP	90
		Above 100 HP	Rs160/kW/m	Above 100 HP	120
		Flat Rate (Unmetered)		Flat Rate (Unmetered)	(Rs/HP / month)

**TARIFF ORDER FOR 2007-08**

		Existing Tariff		Proposed Tariff for 2006-07 and 2007- 08	
S. No	Consumer Category	Particulars	Rate	Particulars	Rate
		8 hrs shift	4 times Min. charges	8 hrs shift	300.00
		12 hrs shift	6 times Min. charges	12 hrs shift	450.00
		Above 12 hrs shift	8 times Min. charges	Above 12 hrs shift	600.00
				HT Supply	
				11 kV Supply (250 HP upto 1 MVA)	
				Demand Charge	105.00 (Rs/kVA / month)
				Energy Charge	1.75 (Rs/ unit)
				33 kV Supply (Above 1 MVA)	
				Demand Charge	105.00 (Rs/kVA / month)
				Energy Charge	1.70 (Rs/ unit)
		Arc / Induction furnace		Power Intensive Industries	
		Metered Supply		11 kV Supply (Above 250 HP upto 1 MVA)	
		Energy Charges	1.35	Demand Charge	140.00 (Rs/kVA / month)
				Energy Charge	2.00 (Rs/ unit)
		Minimum consumption guarantee	Rs160/kW/m		
				33 kV Supply (Above 1 MVA)	
				Demand Charge	155.00 (Rs/kVA / month)
				Energy Charge	2.30 (Rs/ unit)
9.	General Bulk	90% of the Consumption under Bulk Commercial has been classified under this category		11 kV Supply (Above 250 HP upto 1 MVA)	

		Existing Tariff		Proposed Tariff for 2006-07 and 2007- 08	
S. No	Consumer Category	Particulars	Rate	Particulars	Rate
				Demand Charge	145.00 (Rs/kVA / month)
				Energy Charge	2.35 (Rs/ unit)
				33 kV Supply (Above 1 MVA)	
				Demand Charge	140.00 (Rs/kVA / month)
				Energy Charge	2.30 (Rs/ unit)
10	SMVDT and Temp Connections	Marriage / Illumination		1.5 times the rate of the corresponding Category	
		Metered Supply			
		For all units	2.20		
		Subject to a minimum of Rs. 22.00 / kW or part thereof			
		Flat Rate			
		Rs. 1.40 per lamp of 40 Watts / day subject to minimum charges of Rs. 82 per service per day			

### **Information Gaps in the Petitions**

- 2.9 The Commission analysed the petitions submitted for 2006-07 and 2007-08 and found several information inadequacies in both of them. The Commission issued a letter to the Petitioner on November 24, 2006 detailing the various gaps in the petition and asking for clarifications.
- 2.10 Despite repeated reminders, the Petitioner has submitted partial information and has so far not submitted complete details to the Commission.

### **Data Insufficiency**

- 2.11 The Commission noted that the Petitioner had not filled information in most of the formats specified for tariff filing.
- 2.12 The petition does not contain the segregation of costs between the transmission and distribution businesses.

- 2.13 The petition also does not contain details on the basis of the assumptions used for slab-wise consumption, number of consumers, connected load, etc. The Petitioner has also not submitted basis for calculations of T&D loss in the previous years, as well as in the ensuing year.

**Commission's Observations**

- 2.14 Considering the time taken by the Petitioner to submit its ARR and tariff petitions, the Commission has taken a serious view of the data insufficiencies in the petitions. The Commission has admitted this incomplete petition, since it was the first filing by the Petitioner, and expects the latter to improve the quality and content of its future petitions.
- 2.15 The utility has submitted the ARR and Tariff petitions for 2006-07 and 2007-08 on November 14, 2006 and November 30, 2006 respectively. On scrutiny, the Commission observed discrepancies between values of certain elements for 2006-07 in the two petitions. In view of the same and considering the significant delay in submitting the petition for 2006-07, the Commission has determined tariffs only for 2007-08.

**A3: OBJECTIONS AND ISSUES RAISED DURING THE PUBLIC HEARING PROCESS**

- 3.1 The Commission directed the utility to make available copies of their ARR and Tariff proposals for 2006-07 and 2007-08 to the general public, and invited comments/objections from them.
- 3.2 The petitions evoked response from several consumers, and public hearings were held in Jammu and Srinagar on March 13, 2007 and March 15, 2007 respectively, wherein respondents put forth their comments and objections before the Utility
- 3.3 The respondents were given an opportunity to be heard in person during the public hearings. In view of the fact that the process of public participation in the tariff setting process is new in the State, the Commission also allowed persons who attended the Public Hearings, but had not submitted written responses of the petition, to put forward their views regarding the ARR and tariff petition submitted by the Petitioner.
- 3.4 The Commission had invited the three people, nominated to represent the interests of consumers to present their views regarding the petitions and the replies by the Petitioner during the Public Hearings.
- 3.5 The following objectors filed written objections to the ARR and tariff petitions and the issues raised along with the replies given to the objections by Petitioner are discussed in contextual sections that follow.
- (a) Bari Brahmana Industries Association, Jammu
  - (b) Bharatiya Janata Party, Jammu
  - (c) Sh. M. K. Bhaduri, GM, Berger Paints India Pvt. Ltd, Samba
  - (d) Sh. P. K. Agarwal, Factory Manager, Berger Paints India Pvt. Ltd, Samba
  - (e) President, Association of Small Scale Industries, Gangyal
  - (f) Birpur Small Scale Industries Association, Jammu
  - (g) Managing Director, Annapurna Laminators Pvt. Limited, Jammu
  - (h) Welfare Committee Hyder Colony, Srinagar
  - (i) Sh. Manzoor Ahmad, R/O Mirakbad Shalimar
  - (j) Sh. Govind Ram Sharma, President, Jammu Welfare Front

- (k) Apna Vihar Residents Welfare Association, Jammu
  - (l) President, Consumer Protection Society, Jammu
  - (m) Action Committee (Development charges)
  - (n) Small Scale Industries Association, Digiyaana, Jammu
  - (o) Vishwa Hindu Parishad, Jammu
  - (p) Chamber of Commerce and Industry, Jammu Tawi
  - (q) Dr. S. H. Bhat, Bandipora
  - (r) Chenab Textile Mills, Kathua
  - (s) Sh. Vikramjit Gaur, Member J&K State Consumer Protection Council
- 3.6 In addition, Sh. Sofi Yousuf, President Bharatiya Janata Party, Kashmir appeared before the Commission during the public hearing process to express his views and represent the citizens of Kashmir
- 3.7 The public hearing process has been used as an important means to understand the problems and concerns of consumers. The Commission encouraged transparent and participative approach in the hearings, which were used to obtain necessary inputs required for tariff determination.
- 3.8 The Commission received requests from various consumers for an extension to the deadline of submitting comments on the petitions. Some consumers also requested for another public hearing to give a chance to more consumers to express their views and participate in the tariff setting process.
- 3.9 The Commission believes that sufficient time was provided to consumers after publication of the summary of the petitions to submit their responses. It rejected the requests for extension of time for filing responses and decided not to hold any more public hearings for the petitions for 2006-07 and 2007-08. It however, agreed to consider any more comments/ objections/ suggestions, which would be submitted in writing to it, within the next few days of the public hearing. The Bari Brahmana Industries Association, Jammu, and the Association of Small Scale Industries, Gangyal submitted rejoinders to the Commission.
- 3.10 All comments/ suggestions/ objections received, the rejoinders filed and the responses submitted by the Petitioner have been considered by the Commission during the preparation of this tariff order.

3.11 These comments/ suggestions/ objections have been categorised into various groups, based on their nature, as detailed below. The major objections, the responses of the Petitioner and the views of the Commission have been summarized below:

### **Incompleteness of Petition and Insufficiency of Data**

- 3.12 Several respondents expressed severe discontent regarding the lack of adequate information in the petitions submitted to the Commission by the Petitioner.
- 3.13 Sh. Vikram Gaur submitted that the Petitioner has calculated its sales and revenues on the basis of assumptions, and not on the basis of actual sales. He suggested the Petitioner to conduct an Energy Audit in order to obtain reliable values
- 3.14 BBIA submitted that the Petitioner is required to give all details, information and particulars with supporting documents to justify the expenses claimed and revenues projected. It observed that the Petitioner has not submitted most of the details and left several formats unfilled in the petitions. It requested the Commission to approve the petitions only after obtaining all relevant details from the Petitioner, and applying appropriate prudence checks.

### **Petitioner's Response**

3.15 The Petitioner submitted that it submitted maximum information possible, based on the records available with it, and considering the Regulations specified by the Commission.

### **Commission's Observations**

3.16 The Commission received the ARR and tariff petitions, and after preliminary scrutiny prepared a list of deficiencies in the same. The Petitioner has subsequently furnished additional information to the Commission, which has been considered during preparation of this Tariff Order.

### **Variance in values submitted in the Petition and the Budget Document**

3.17 Respondents have objected against the differences in values for certain parameters, like power purchase costs, revenues, etc

### **Petitioner's Response**

- 3.18 The Petitioner submitted that figures mentioned in the petition and the budget documents are not at a variance.
- 3.19 The total power purchase from CPSUs as per the petition is 7784 MU, which when aggregated with the local generation is around 7800 MU, which is the value indicated in the budget document.

- 3.20 The total power purchase cost indicated in the budget does not include the actual liability of Rs. 124 Crores, but includes the liability of Rs 72 crores, negotiated between the government and the J&K State Power Development Corporation.

**Commission's Observations**

- 3.21 The petition is accompanied with a signed affidavit from the Petitioner. Therefore, the Commission shall consider the petitions, assuming that they contain correct values, which have been considered for calculation of the ARR.

**High Tariff Increase**

- 3.22 Several respondents and certain members of the State Advisory Committee have opposed the proposed increase in tariffs and requested the Commission to reject the petition. The arguments for opposing the increase in tariffs are:
- 3.23 Respondents objected that the Petitioner has very high T&D losses, and a reduction in the same will lead to substantial savings, and there would therefore, be no need to increase the tariffs.
- 3.24 It will become uneconomical for industries to operate in Jammu & Kashmir and they might be forced to close down as industry is already passing through a phase of recession due to broader economic downturn.
- 3.25 High electricity tariffs would discourage new entrepreneurs to set up industries, thereby impeding the industrial growth in the state.

**Petitioner's Response**

- 3.26 The tariffs applicable to various consumer categories in the State had been determined in 1998 and have been applicable from March 1, 1999 to date. The Cost of Supply of each unit of electricity has increase substantially over this time and hence an increase in tariffs is inevitable to maintain the financial viability of the State.
- 3.27 Tariffs in Jammu & Kashmir are much lower compared to the prevailing tariffs in the adjoining states like Haryana, Punjab, Rajasthan and Delhi.

**Commission's Observations**

- 3.28 The Commission concurs with the views expressed by the Petitioner and is conscious of the increase in the Cost of Supply of electricity from 1999 to 2007. It is also guided by Clause 17 (b) (vi) of the SERC Act, wherein the tariffs are to be determined, based on commercial principles.

### **Metering Level**

- 3.29 Several respondents in their responses to the petitions have expressed their displeasure at the large number of unregistered consumer and the low levels of metering in the State.
- 3.30 Suggestions were received to outsource the process of meter installation to increase the rate of metering in the State.

### **Petitioner's Response**

- 3.31 The Petitioner agreed to the presence of illegal consumers, and stated its commitment to identify and regularise all connections at the earliest.
- 3.32 It submitted that it has already started both feeder and consumer metering, and is committed to achieve 100% metering of feeders by March 31, 2007 and 100% consumer metering in cities of Jammu and Srinagar by August 31, 2007.

### **Commission's Observations**

- 3.33 The Commission has observed the low levels of metering in the State and expects the Petitioner to install meters and improve the level of metering in the State. The Commission has issued directives to this effect in this Tariff Order.
- 3.34 The Commission also directs the Petitioner to refrain strictly from providing any new connection without installation of a proper meter.

### **Transmission and Distribution Losses**

- 3.35 Several respondents expressed their views against the high T&D loss levels in the State and lack of efforts on the part of the Petitioner to reduce losses.
- 3.36 Annapurna Laminators Pvt Ltd in its submission has stated that the T&D loss level in the State was 41% in 1997-98. The Petitioner was expected to increase its efficiency and have a lower loss level than the levels proposed in the petition for 2006-07 and 2007-08.
- 3.37 Welfare Committee disagreed with the proposed increase in tariffs due to the inefficiencies of the Petitioner to reduce its T&D losses. It objected against the proposal of passing on the cost of inefficiencies of the Petitioner to the consumers through the tariff increase.
- 3.38 The Petitioner should undertake a loss study after feeder metering to identify the areas with high levels of T&D loss.
- 3.39 Reduction of T&D loss should be at a higher rate instead of the 2% reduction proposed by the Petitioner.

- 3.40 Sh. Vikram Gaur stated that the T&D loss level in the State is in the range of 70%, and not in the range specified by the Petitioner.
- 3.41 Industrial consumers have objected against the burden of higher T&D losses being passed into their tariffs, considering the low loss levels at the higher voltage levels at which most of the industries receive their supply.

**Petitioner's Response**

- 3.42 The T&D loss in the State is estimated to be 47% in 2005-05 which is expected to be reduced to 43% in 2007-08. The Petitioner submits that these loss levels are estimates and a realistic value of the loss level shall be available only after increased level of metering. It also submitted that it had not absorbed the high loss levels in the proposed tariff, thereby maintaining a revenue gap in its ARR.
- 3.43 The Petitioner has appointed M/s S. R. Batliboi & Associates as independent auditors to assess the status of the transmission and distribution system in the State.

**Commission's Observations**

- 3.44 The Commission observes that existing level of T&D losses in the State are significantly higher than in most other States. It believes that there is a lot of scope for reduction of these losses, and has thereby approved a loss level for 2007-08 which has to be achieved by the Petitioner.
- 3.45 The Commission has not set a loss trajectory as the existing loss levels are based on several assumptions, and might be modified based on any Energy Audits or Loss Studies conducted by the Petitioner. A suitable loss reduction trajectory would be specified after evaluating the realistic loss levels in the State.

**Power Purchase Costs**

- 3.46 The State President, Bhartiya Janta Party (BJP) and the Bari Brahmana Industries Association (BBIA), among others, in their submissions have challenged the power purchase costs of Rs 1834 crores projected for 2007-08, considering the following:
- 3.47 Lack of any supporting details for the units or costs related to power purchase, even though it is the most significant component of the ARR.
- (a) Cost of own generation for the hydro-electric generating stations owned by the J&K SPDC have been specified as Rs. 1.40 per unit, which is very high considering the age of the stations.
  - (b) No clarification on the 12% free power available to the State from Central Power Sector generating stations at Salal and Uri.

- (c) Commissioning of the 390 MW Dulahasti project and completion of the 450 MW Baglihar project in 2007-08.
- (d) Unscheduled Interchange charges should not be included in the power purchase costs, as the State faces several power curtailments.
- (e) No details on adoption of merit-order for scheduling of power purchase by the Petitioner.
- (f) In absence of source wise details on quantity and cost of purchased units, it is not possible to assess if the Petitioner has followed Merit Order Dispatch principles to minimize power purchase costs.

**Petitioner's Response**

- 3.48 The Petitioner submitted its responses to the comments related to the power purchase costs and justified the expenses claimed by it for the same.
- 3.49 Cost of power purchase from Central Generation Stations (CGS) is determined based on the tariffs determined by the CERC. The sources of power generation have been decided based on the capacity allocated to the State by the Central Government. Details of actual power dispatches are available with the Northern Region Load Dispatch Centre (NRLDC), which are used to generate the bills for power purchase.
- 3.50 Generation costs from the State owned generation stations of J&K SPDC are based on the pre-determined rates as per the existing Power Purchase Agreements.
- 3.51 The State has a demand of approximately 8600 MU while the availability from the Central Generating Stations is only about 7000 MU.
- 3.52 Generation from State owned stations has wide seasonal variations based on the water availability. On account of the same, the Petitioner has to resort to short term purchases, grid overdrawl and UI purchases to meet its demand requirements, thereby increasing costs.
- 3.53 The Petitioner entered into a banking arrangement with Punjab for about 200 MU, which helped reduction of power purchase costs in 2006-07.

**Commission's Observations**

- 3.54 The Commission expresses its displeasure at the lack of complete details related to the power purchase costs incurred by the Petitioner. The Petitioner is expected to file proper details for the same in its next petition, for approval of power purchase costs.

3.55 The Commission has approved the power purchase costs of the utility after detailed examination of the expenses proposed and the merit order procurement principle. The Commission has disallowed the procurement plan from costlier stations. Further, it has proposed that the Petitioner should be consistent in efficient scheduling and dispatch based on variable costs of power procurement. The methodology adopted for calculation of the approved power purchase costs has been detailed in the relevant chapter in this order.

### **Employee Expenses**

3.56 BBIA commented on the lack of details for the steep increase in employee expenses projected for the year 2007-08. The Petitioner has more than 30,000 employees which is very high, compares to electricity utilities in other States.

3.57 Respondents have submitted that the employee costs are borne out of the State Government budget, and shall not be included in ARR and passed to tariffs.

3.58 Sh. Vikram Gour referred to the lack of skilled manpower with the Petitioner, and the requirement of refresher courses and training programs to enhance the skills of its staff.

### **Petitioner's Response**

3.59 The Petitioner in its response denied the claim of respondents of having high employee expenses. It stated that the State cannot be compared with most other States in the country due to its unique geographical terrain. It submitted comparative figures of its employee costs vis-à-vis Himachal Pradesh State Electricity Board, which are as follows;

(a) HPSEB has approximately 28,000 employees which is comparable to the employee strength of PDD.

(b) Number of employees/ consumers: HPSEB has 16 employees per 1000 consumers, while PDD has 18.29 employees for every 1000 consumers.

(c) Number of employees per unit sales: HPSEB has 5 employees for each MU of energy sold, while the corresponding value for PDD is lower than 3 employees per MU sold.

3.60 It also submitted the number of its employees has increased significantly during the last three years due to the commissioning of many new projects, which caused transfer of employee costs from plan funds to non-plan funds as per the relevant Government Orders.

3.61 The Petitioner in its responses has mentioned that employee expenses are a part of its Annual Revenue Requirement, irrespective of the fact that it is currently being met from the budget provisions of the Government. The increase has been projected on the basis of the increases in allowances of employees.

- 3.62 The Petitioner strongly objected to the comments related to lack of training for its staff. It specified details of certain capacity building programs conducted for its staff, to enable them work in state-of-the-art technology.

**Commission's Observations**

- 3.63 The Commission has approved the proposed employee expenses for 2007-08, as it is comparable to the costs incurred by HPSEB, which caters to a similar geographical area as the State of Jammu & Kashmir.
- 3.64 The Commission considers training and retraining of all categories of employees essential for its efficient functioning. The utility should equip its employees with latest management and technical developments.
- 3.65 Hence, it notices urgency in the utility undertaking a detailed manpower and organisation study, which would be useful to develop suitable training and capacity building programs for optimised utilisation of its staff.

**Recovery from Government Departments**

- 3.66 BBIA in its submission has commented on the huge arrears due to be collected by the Petitioner from various Government Departments. In absence of any information submitted by the Petitioner, the total arrears can be considered to be about Rs. 1200 Crores, based on newspaper reports on the same.
- 3.67 A number of consumers expressed their concern over to the failure of the utility to recover over-dues from offices and departments of the State and Central Governments.
- 3.68 It was observed that the Petitioner should calculate the collection efficiency without considering the dues of the Government undertakings.

**Petitioner's Response**

- 3.69 The Petitioner submitted that it has started efforts to recover these dues and the Government has been approached for liquidation of these arrears. It also submitted that the non-recovery of these dues is not causing any burden on the consumers and the recovery would only improve its collection efficiency.

**Commission's Observations**

- 3.70 The Commission concurs to the objections raised with respect to overdue recovery from Government departments and undertakings. It should be ensured that any projected inefficiency in the matter of collection shall not be passed on to the consumers in the current tariff order.

- 3.71 The Commission directs the Petitioner to submit details of the existing dues from Government consumers to the Commission by May 31, 2007.
- 3.72 The Petitioner, being a Government department, shall ensure payment of bills by other Government departments and undertakings. It should have a collection efficiency of 100% from sale to such consumers, and the Commission shall not provide any concessions for dues from sale to Government departments and undertakings in calculation of revenue gap.

### **Region-wise Details**

- 3.73 Several respondents in their submissions suggested the submission of data related to sales, revenues realised, metering levels, T&D loss, etc. for various regions in the State, which could be used for calculation of separate tariffs.
- 3.74 The Association of Small Scale Industries and the State President BJP, in their comments submitted in response to the petition, cited the differences between different regions of the State and requested the Commission to consider the actual sales, loss levels and revenues in each of the regions in the State, take suitable actions to ensure development of all regions of the State.
- 3.75 They also submitted to the Commission details on disparity in infrastructural improvement in different regions and requested the Commission to ensure proper development of the entire State.
- 3.76 The Birpur Small Scale Industries Association requested the Commission to consider region-wise details on supply, sale and realisations, in order to identify the T&D loss levels in the State.

### **Petitioner's Response**

- 3.77 The Petitioner submits that its ARR is applicable for providing services to the entire State, and cannot be considered on a regional basis.
- 3.78 It however specified values for sales, revenues, etc from each region of the State, during the public hearing held in Jammu, and re-iterated its commitment to provide equal service levels to all citizens of the State, without any discrimination on the basis of geography.

### **Commission's Observations**

- 3.79 The Commission has considered comments from the respondents and directed the Petitioner to submit details on the existing situation of power availability, sales, revenue realisations, loss levels, etc in different regions in the State. The Commission shall monitor the improvement in each of the parameters in various regions, and shall expect the Petitioner to provide same quality of service to all citizens of the State.

## **Tariff Related Issues**

### **Reduction of Slabs**

- 3.80 The Commission received comments from public requesting modifications in the number of slabs in domestic and industrial consumer categories, as detailed below:
- 3.81 The Chamber of Commerce & Industry has recommended for removal of slabs within any category, to prevent multiple connections within the same premises, each of which consume the minimum level of consumption.
- 3.82 The Jammu Welfare Front, Action Committee and the Consumer Protection Society in their respective submissions have suggested categorisation of domestic consumers in three slabs instead of the proposed four slabs.
- 3.83 Welfare Committee has requested the Commission to maintain the existing slabs, instead of the slabs proposed by the Petitioner.
- 3.84 Certain industrial consumers submitted that the industrial consumers should be categorised into two slabs: lower than 1MVA and greater than 1MVA.

### **Petitioner's Response**

- 3.85 The Petitioner has designed the slabs for domestic consumers, so as to provide a slab for lifeline (Below Poverty Line) consumers, in accordance with the National Tariff Policy. The other three slabs have been created with a view to reduce the tariff shock for consumers consuming lower generation of electricity. The number of slabs shall be reduced in the future.

### **Commission's Observations**

- 3.86 The Commission has considered the comments from consumers and determined the slabs for various consumer categories so that the tariffs for each slab reflect the cost of supply in a progressive manner and marginal consumers are protected.

### **Two-part Tariffs**

- 3.87 Respondents from Berger Paints in their submissions have appreciated the proposed introduction of two-part tariffs, but expressed their concern and requested clarifications on the following issues:
- (a) Proposed hike in demand charges for industrial consumers.
  - (b) Proposed methodology for moving from the existing system of sanctioned load (HP) to contract demand (kVA).

- (c) Calculation of load factor during interrupted supply.
- (d) Introduction of Time of Day tariff.

**Petitioner's Response**

- 3.88 The Petitioner has proposed a two-part tariff structure for HT industrial consumers, considering the recommendations of the National Tariff Policy. It also intends to replace the current minimum charges by fixed/ demand charges for LT consumers in the future.
- 3.89 It shall install bi-vector/ tri-vector meters for HT consumers and existing arrangements shall be modified to include the revised contract demand. It specified that the concept of sanctioned load/ connected load shall be only for LT consumers where contract demand is not the basis.
- 3.90 The Petitioner submitted that there is no requirement for introduction of Time of Day tariffs in the State as there is no requirement of shifting load from peak to off-peak hours.

**Commission's Observations**

- 3.91 The tariffs in the State have not been increased for the last nine years, causing significant loss to the Petitioner. In view of the increasing costs, the Commission believes that it is prudent to determine a tariff to increase the financial viability of the utility.
- 3.92 The Commission shall use a suitable power factor for each component to convert the sanctioned load in HP into kVA. It agrees with the concern regarding the calculation of load factor during interrupted supply and directs the Petitioner to submit its proposal for the same by April 30, 2007.
- 3.93 The Commission has decided to introduce the Time of Day tariff and levy different tariffs for peak and non-peak hours from the next tariff period, and has given certain directives to the Petitioner regarding the same.

**Minimum Charges**

- 3.94 Various respondents requested for the removal of fixed charges and minimum charges. Some respondents have questioned the need for levying minimum charges for metered consumers and submitted that consumers with no energy consumption should not be penalised by levying the minimum charges.
- 3.95 Jammu Welfare Front in its submission has proposed for abolition of minimum charge for domestic consumers, as the tariffs proposed is significantly higher than the existing tariffs.
- 3.96 The Consumer Protection Society, Action Committee and Welfare Committee have suggested the reduction of minimum charges proposed by the Petitioner

**Petitioner's Response**

- 3.97 The Petitioner stated that it has to incur capital expenditure for providing electricity to any consumer. It has proposed introduction of minimum charges to allow for recovery of some returns on the investment made for power supply.
- 3.98 It also submitted that the proposed minimum charges for domestic consumers were structured to cover average consumption for just above 2 hours, based on observed consumption norms. It requested the Commission to approve the monthly minimum charges to domestic consumers for the recovery of its fixed costs.

**Commission's Observations**

- 3.99 The Commission believes that the concept of minimum charges is a disincentive for energy conservation as consumers. It has removed the minimum charges from HT industry, HT general purpose bulk supply and HT water works categories and replaced the same by demand charges. It has also rationalised the minimum charges for LT domestic consumers, and intends to completely remove the same in future tariffs.

**Meter Rental**

- 3.100 The Consumer Protection Society has objected to the meter rentals proposed by the Petitioner in its tariff proposal.

**Petitioner's Response**

- 3.101 The Petitioner in its response has justified the levy of meter rental. It stated that the rental was designed to recover the costs incurred in installation and maintenance of the meters, and no such charge would be levied to consumers who would arrange their own meters.

**Commission's Observations**

- 3.102 The Commission observes that the metering program undertaken by the Petitioner is financed through the grants received under the APDRP program. Hence, it cannot levy meter rental for recovery of costs not incurred by it. However, future expense on mass replacement of meters can be part of the capital expenditure plan of the Petitioner.

**Connected Load v/s Contract Demand**

- 3.103 Respondents from Berger Paints and some other industries expressed their concern over the use of Sanctioned Load and Connected Load, and requested the Commission to clarify the definitions of Connected Load, Contract Demand and Sanctioned Load.
- 3.104 Some of the respondents objected to the use of Connected Load to charge industrial consumers with standby equipment, which are not used regularly.

**Petitioner's Response**

- 3.105 The Petitioner submitted to the Commission about its methodology for determination of connected load and contract demand. It also stated that any consumer with complaints related to calculation of his load can request the utility to re-evaluate the same.

**Commission's Observations**

- 3.106 The Commission has noted the concern of consumers regarding the use of various terms, which can create confusion. It has therefore, defined the terms applicable for tariff determination in this order. The Petitioner is expected to strictly use these terms in future.

**Electricity Duty**

- 3.107 Several objectors requested the Commission to reduce or abolish the Electricity Duty (ED) charged to consumers in the State. Some suggestions were also submitted for merging the electricity duty with the energy charges.
- 3.108 Sh. Vikramjit Gour also submitted that the Petitioner was calculating ED for all consumers, irrespective of actual energy consumption. He submitted that ED shall not be charged on the minimum charges, as that does not reflect the actual energy consumed by the consumer.

**Petitioner's Response**

- 3.109 The Petitioner submitted in its responses to the various comments received, that the Electricity Duty levied on consumers is based on rules specified by the State Government.

**Commission's Observations**

- 3.110 The Commission states that the Electricity Duty is a tax and is levied by the Petitioner in accordance with the Electricity Duty Act, 1963 specified by the State Government. It directed the respondents to present their request to the concerned authorities, as levy of Electricity Duty was beyond the purview of the Commission.

**Quality of Supply**

- 3.111 Several comments have been received highlighting the low availability of power, regular curtailments and poor quality of service by the utility. Respondents also drew the Commission's attention to the high level of transformer failure rate, primarily in the Jammu region due to overloading of the transformers

**Petitioner's Response**

- 3.112 The Petitioner is making all efforts to ensure quality and un-interrupted power supply. It is constrained by the availability of power for sale to consumers in the State. It has provided uninterrupted supply to feeders which have been 100% metered, and is committed to increase availability to consumers in areas which are fully metered.

**Commission's Observations**

- 3.113 The Commission takes a serious note of the unsatisfactory quality of supply in the State and agrees that an improvement in the same is essential to provide better service to consumers. It also observes that the increase in tariffs should be matched with suitable improvements in the service provided to consumers.
- 3.114 The Commission shall monitor the performance of the Petitioner against the guaranteed standards of performance and directs the Petitioner to submit month-wise details of various performance parameters specified in the Distribution Performance Standards Regulations, 2006.

**A4: REVIEW OF SALES PROJECTIONS**

- 4.1 The Petitioner has submitted estimated sales to the different consumer categories for 2006-07 and 2007-08, which it has projected as to be 4,482.5 MU and 4,949.8 MU respectively.
- 4.2 The Petitioner has also projected the number of consumers, sales and connected load based on past trends. It has submitted category-wise details on actual sales, number of consumers and connected load for the years 2003-04 to 2005-06 and projections for 2006-07 and 2007-08. The projections for 2006-07 and 2007-08 are as given in Table 4.1.

**Table 4.1: Number of Consumers, Connected Load and Energy Sales**

Consumer Category	2006-07			2007-08		
	No. of consumers	Connected Load (MW)	Energy Sales (MU)	No. of consumers	Connected Load (MW)	Energy Sales (MU)
Domestic	1,049,446	545.6	1911.0	1,101,918	572.9	2,110.3
Commercial	146,409	117.7	259.6	153,729	123.5	286.6
Industrial	24,914	333.5	833.6	26,160	350.1	920.6
Irrigation / Agriculture	11,610	79.0	156.1	12,191	82.9	172.4
Public lighting	198	16.6	46.5	208	18.5	51.4
P.H.E.	1407	67.3	263.7	1,477	70.7	291.2
State/ Central Dept.	10,427	66.7	247.2	10,948	70.0	273.0
Bulk/ Army	708	86.3	668.1	743	90.6	737.7
SMVDT and Temp. Supply	230	16.7	96.5	242	17.6	106.6
<b>Total</b>	<b>1,245,349</b>	<b>1,329.3</b>	<b>4,482.5</b>	<b>1,307,616</b>	<b>1,396.8</b>	<b>4,949.8</b>

**Consumer Category-wise Demand Forecast**

**Petitioner's Submission**

- 4.3 The category-wise break-up of energy sales, submitted by the Petitioner is shown in Table 4.2.

**Table 4.2: Consumer category-wise sales (MU)**

Consumer Category	FY 04	FY 05	FY 06	FY 07	FY 08	*CAGR
	Actual	Actual	Actual	Proj	Proj	FY06 - FY08
Domestic	1,413	1,620	1,790	1,911	2,110	8.58%
Non-Domestic / Commercial	203	222	243	260	287	8.58%
Industrial	718	734	781	834	921	8.58%
Irrigation / Agriculture	118	124	146	156	172	8.58%
Public lighting	41	40	44	47	51	8.58%
P.H.E.	226	238	247	264	291	8.58%
State/ Central Dept.	211	213	232	247	273	8.58%
Bulk/ Army	547	575	626	668	738	8.58%
SMVDT and Others	240	90	90	97	107	8.58%
Total	3,719	3,856	4,198	4,482	4,950	8.58%

\* CAGR: Compounded Annual Growth Rate

### Commission's Analysis

- 4.4 The Commission observes that the Utility has considered a uniform growth rate of 6.77% for projecting the sales for 2006-07, using the actual sales values for 2005-06. Similarly, it has assumed a further uniform increase of 10.42% in energy sales for all consumer categories, over the projected values for 2006-07 to obtain the sales forecast for 2006-07. It has therefore, projected a uniform CAGR of 8.58% for all consumer categories in the period 2005-06 to 2007-08.
- 4.5 The utility has also proposed a uniform growth of 5% in the number of consumers and connected load in 2007-08, over corresponding values in 2006-07.
- 4.6 The Commission has approved the sales to each category of consumers as detailed below:

### Domestic Supply

- 4.7 Analysis of the data submitted to the Commission indicates a CAGR of 3.6% in the number of consumers in the period 2003-04 to 2005-06, whereas the connected load during the same period shows a CAGR of 3.2%. The energy sales however showed a steep increase of 12.5% due to an increase in the specific consumption of domestic consumers.
- 4.8 The Petitioner has projected increase of 6.8% and 10.4% for energy sales in 2006-07 and 2007-08 over the previous year's values. It has submitted slab-wise consumption details for both metered and un-metered domestic customers, which has been used by the Commission to calculate the energy sales for 2006-07 and 2007-08.

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- 4.9 Based on the information submitted in the petitions, only 14.20% domestic consumers have been metered in the State in 2006-07. The Commission has taken a conservative view and calculated sales to domestic consumers assuming the same levels of metering for 2007-08.

**Table 4.3: Energy sales for metered domestic consumers**

Sub-category	No. of metered consumers	Average Units (Monthly)	Annual Energy Sales (MU)
Life Line Consumers	15,649	30	<b>5.6</b>
Low tariff consumers	78,247	80	<b>75.1</b>
Medium Tariff Consumers	46,948	150	<b>84.5</b>
Standard tariff	15,649	250	<b>47.0</b>
Total	156,494		212.2

**Table 4.4: Energy sales for un-metered domestic consumers**

Sub-category	No. of unmetered consumers	Average Load (kW)	Daily Load Factor	Annual Energy Sales (MU)
upto 1/4 kW	567,254	0.25	30%	<b>367.6</b>
Above 1/4 kW upto 1/2 kW	94,542	0.40	30%	<b>98.0</b>
Above 1/2 kW upto 3/4 kW	94,542	0.60	30%	<b>147.0</b>
Above 3/4 kW upto 1 kW	94,542	0.80	30%	<b>196.0</b>
above 1 kW upto 2 kW	56,725	1.50	30%	<b>220.6</b>
above 2 kW	37,817	3.00	30%	<b>294.1</b>
Total	945,424			1,323.3

- 4.10 The Commission observes the significant difference in the amount of projected for 2007-08, vis-à-vis the value obtained through calculations using the slab-wise consumption norms submitted by the Petitioner.

Particulars	Values
Number of consumers in 2007-08 (projected by the Petitioner)	<b>1,101,918</b>
Number of metered consumers in 2007-08	<b>156,494</b>
Number of un-metered consumer in 2007-08	<b>945,424</b>
Sales to metered domestic consumers - 2007-08 (MU)	<b>212.2</b>
Sales to un-metered domestic consumers – 2007-08 (MU)	<b>1,323.3</b>
Total Sales to domestic consumers – 2007-08(MU)	<b>1,535.5</b>

## TARIFF ORDER FOR 2007-08

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Sales for domestic consumers (projected by the Petitioner)	<b>2,110.3</b>
% Change w.r.t. domestic sales projected by the Petitioner	-27%

- 4.11 The Commission has calculated the energy sales for 2007-08 using the same consumption levels as above, considering three different scenarios w.r.t metering levels in the State. The obtained sales levels for domestic consumers in 2007-08 are shown in Table 4.5.

**Table 4.5: Energy sales (2007-08) for different levels of metering**

Particulars	Pessimistic	Current Level	Optimistic
Level of metering	10.0%	14.2%	<b>20.0%</b>
Sales to metered consumers	149.4	212.2	<b>298.8</b>
Sales to un-metered consumers	1388.1	1323.3	<b>1233.9</b>
Total Sales	1537.5	1535.5	1532.7

- 4.12 The Commission observes that there is a minor variation in amount of sales at 20% metering, and has revised the energy sales to domestic consumers considering 14.2% metering.
- 4.13 The Commission has calculated energy sales for 2006-07 using the same methodology as that for 2007-08, and approved the quantum of sales for 2006-07 and 2007-08 as shown below:

Sales to Domestic Consumers (MU)	2006-07	2007-08
Projected by the Petitioner	1911.0	2110.3
Approved by the Commission	1462.4	1535.5

### **SMVDT and Temporary Supply**

- 4.14 The sales in this category showed a decline from 2003-04 to 2004-05 and remained constant in 2005-06. In the absence of any trend, the Commission has projected increase in sales in this category to be at the overall annual growth rate of sales for all categories, observed for the period 2003-04 to 2005-06, which was 5.6%.
- 4.15 The amount of energy sales approved by the Commission for 2006-07 and 2007-08, considering an annual growth rate of 6.2% are as shown below:

Sales to SMVDT and Temp Supply (MU)	2006-07	2007-08
Projected by the Petitioner	96.5	106.6
Approved by the Commission	96.1	102.1

**Other Consumer Categories**

- 4.16 The Petitioner has projected the sales for all consumer categories using a constant growth rate of 6.8% in 2006-07 and 10.4% in 2007-08.
- 4.17 The Commission has approved the sales for other consumer categories, except those discussed above, by considering each category to show the same growth rate as observed for the period 2003-04 to 2005-06.
- 4.18 The overall energy sales of the Petitioner for 2006-07 and 2007-08 for these categories, considering their individual 2 yr CAGR (2003-04 to 2005-06), are as shown below.

Category	2 yr CAGR	2006-07	2007-08
Non-Domestic / Commercial	9.4%	266.0	291.0
Industrial	4.3%	814.1	848.9
Irrigation / Agriculture	11.3%	162.7	181.1
Public lighting	3.1%	44.9	46.4
P.H.E.	4.5%	258.0	269.5
State/ Central Dept.	4.7%	242.3	253.6
Bulk/ Army	6.9%	669.0	715.3

- 4.19 After detailed scrutiny of the consumer category-wise sales, the Commission has approved energy sales of 4243.4 MU for 2007-08. The category-wise details for the same are as shown in Table 4.6.

**Table 4.6: Proposed and Approved Sales (MU) for 2007-08**

Category	Projected	Approved
Domestic	2110.3	1535.5
Non-Domestic / Commercial	286.6	291.0
Industrial	920.6	848.9
Irrigation / Agriculture	172.4	181.1
Public Lighting	51.4	46.4
P.H.E.	291.2	269.5
State/ Central Dept.	273.0	253.6
Bulk/ Army	737.7	715.3
SMVDT/ Temp Supply	106.6	102.1
Total	4949.8	4243.4

**T&D Losses and Energy Input**

**Petitioner’s Submission**

- 4.20 The Petitioner has submitted the T&D loss levels for 2004-05 and 2005-06 as 48% and 47% respectively. The reason for these high loss levels are the low levels of consumer metering in the State, and the system of billing consumers based on fixed minimum charges for different slabs of connected load.
- 4.21 The Petitioner has estimated the loss levels to reduce to 45% and 43% in 2006-07 and 2007-08 respectively, based on its plan for reduction of T&D losses and improved levels of metering in the State.
- 4.22 The Petitioner has made these projections based on its judgement and no supporting information has been provided to the Commission. It has submitted that the loss levels have been calculated on the basis of estimated values, and are liable to change after increased levels of metering.

**Commission’s Analysis**

- 4.23 The Commission believes that accurate estimation of T&D loss level is a critical step to set the starting point for efficiency improvements in the State. The T&D loss level is also important for determination of the power purchase requirements of the utility.
- 4.24 The Commission has calculated the T&D loss levels of the utility, based on the approved energy sales. Considering the projected quantum of power purchase submitted by the Petitioner for 2006-07, the T&D loss level for 2006-07 is found to be 50.7%.

**Table 4-7: Transmission and Distribution Loss in 2006-07**

Particulars	Energy Sales (MU)	Power Purchase (MU)	T&D Loss (%)
Projected by the Petitioner	4483	8150	45.0%
Approved by Commission	4016	8150	50.7%

- 4.25 The Commission has considered the recommendations of the Abraham Committee report in determining the target T&D loss level of the Petitioner for 2007-08. The utility is expected to reduce its losses by 4% in 2007-08, leading to the target loss level of 46.7% for the ensuing year. The same has been used for computation of the power purchase requirements and the power purchase costs of the Petitioner for 2007-08.
- 4.26 The Commission has also determined the Aggregate Technical & Commercial (AT&C) losses of the utility for 2006-07, based on its T&D loss level and collection efficiency. The AT&C loss levels of the Petitioner have been detailed in the Table below.

**Table 4-8: AT&C loss levels**

Particulars	2006-07	2007-08
T&D Loss (%)	50.7	46.7
Collection Efficiency (%)	75.0	77.0
AT& C Loss (%)	63.1	59.0

- 4.27 The Commission directs the utility to segregate losses into technical loss and commercial loss; specify a trajectory for reduction of losses, both technical and commercial, and develop a detailed action plan for achieving the loss reduction.

**A5: REVIEW OF POWER PURCHASE AND ENERGY BALANCE**

- 5.1 In accordance with the Regulation 22 of the J&K SERC (Power Purchase and Procurement) Regulations 2005, the utility was directed to file its long term power procurement plan for the year 2006-07 by October 31, 2005.
- 5.2 The Commission has undertaken a comprehensive evaluation of the power availability in the State vis-à-vis the demand and approved the power purchase expenses of the utility.
- 5.3 The Petitioner had not submitted any calculations for the power purchase costs estimated for 2006-07 and 2007-08 in its petitions. The Commission directed the Petitioner to submit relevant information supporting the projected values of the power purchase costs. The Petitioner has submitted plant-wise projections for quantum and costs of power purchase for the years 2006-07 and 2007-08.
- 5.4 It has considered the availability from the Central Generating Stations, using the share allocations determined by the Central Government.

**Energy Availability**

**Self Generation**

- 5.5 The Petitioner has diesel generation units with a total installed capacity of 14.60 MW, primarily used to provide electricity to the parts of the Ladakh region and such other areas, which are not connected to the State grid. It also has the Stakna hydro-electric station with an installed capacity of 4 MW.
- 5.6 The utility has projected annual generation of 12.5 MU from the Diesel generating stations and 5 MU from the Stakna hydro-electric station in 2007-08.

**Energy Availability from J&K State Power Development Corporation**

- 5.7 The generation stations in the State are owned by the J&K State Power Development Corporation (SPDC), Government of Jammu & Kashmir, which was established in 1989. The total installed capacity of hydro-electric plants of SPDC is approximately 300 MW, which is supplemented by two gas turbine stations having a capacity of 175 MW.
- 5.8 The Petitioner had not submitted any details on the energy availability from the SPDC owned generating stations for 2006-07 and 2007-08. The Commission directed the utility to submit details for calculation of the power purchase costs in a letter on November 24, 2006.
- 5.9 The Petitioner subsequently submitted details on the power purchase from various plants in the State. The Commission analysed the various submissions and found several discrepancies. It has therefore, considered quantum of power purchase from State owned plants, based on the resource plan prepared by the utility for 2007-08.

## TARIFF ORDER FOR 2007-08

5.10 The Resource Plan for 2007-08, submitted by the Petitioner to the State Government contains details on actual units received from various plants owned by SPDC in 2004-05 and 2005-06, and projections for 2006-07 and 2007-08, which is shown in Table 5.1 Table 1.1 below.

**Table 5.1: Energy Availability from State-owned Stations (MU)**

Station	2004-05	2005-06	2006-07	2007-08
<b>Thermal Plants</b>				
Pampore Gas Turbine I	7.5	5.3	3.1	3.1
Gas Turbine II	16.3	19.0	3.1	3.1
<b>Sub-total (A)</b>	<b>23.8</b>	<b>24.4</b>	<b>6.3</b>	<b>6.3</b>
<b>Hydel</b>				
L.J.H.P	427.6	543.9	534.3	534.3
U.S.H.P - I	71.2	89.8	90.0	90.0
U.S.H.P - II	106.8	152.1	177.0	177.0
Ganderbal	26.1	31.4	28.0	28.0
Chenani - I	71.4	0.0	15.0	15.0
Chenani - II	5.8	0.0	3.0	3.0
Chenani – III	13.1	16.4	13.0	13.0
Sewa III	9.4	12.1	12.0	12.0
Karnah	4.1	2.2	2.0	2.0
Sumoor		0.1	0.1	0.1
Bazgo		0.3	0.4	0.4
Hunder	0.8	0.6	0.6	0.6
Iqbal Bridge	7.4	7.9	8.0	8.0
Sanjak	0.0	0.0	2.0	2.0
Baderwah	0.0	0.8	5.0	5.0
Pahalgam	0.0	5.4	6.0	6.0
Haftal	0.0	0.0	2.0	2.0
Marpachoo	0.0	0.0	1.5	1.5
Igo Merchelong	0.0	5.4	10.0	10.0
Matchili	0.0	0.0	0.5	0.5
<b>Sub-total (A)</b>	<b>752.1</b>	<b>872.5</b>	<b>915.3</b>	<b>910.3</b>
<b>Total (A + B)</b>	<b>775.9</b>	<b>896.8</b>	<b>921.6</b>	<b>916.6</b>
Power requirement for Baglihar	27.6	28.0	25.0	25.0
<b>Energy Availability</b>	<b>748.3</b>	<b>868.8</b>	<b>896.6</b>	<b>891.6</b>

**Energy Availability from NTPC stations**

- 5.11 The Petitioner had submitted estimated power purchase for 2006-07 and 2007-08 from NTPC owned stations.
- 5.12 The Commission estimated the energy availability in J&K from NTPC stations using the total generation from each station and the share allocation for the State. The total generation for each plant has been calculated using the installed capacity, plant load factor and auxiliary consumption.
- 5.13 The Commission has considered the installed capacity and PLF for various plants based on the annual reports of NREB for the period 2002-03 to 2005-06.
- 5.14 The Plant Load Factor (PLF) of Unchahar-I, Unchahar-II, Unchahar-III, Rihand-I, Rihand-II and Singrauli plants has been taken as per the submissions from the Petitioner.
- 5.15 The PLF for the Anta, Auriya and Dadri gas and liquid fuel plants has been calculated by the division of PLF between the two types of fuel, on the basis of the PSEB petition to CERC on the issue.
- 5.16 The auxiliary consumption has been considered on the basis of submissions made by the Petitioner.
- 5.17 The total generation (in MU), estimated from various NTPC stations in 2007-08 is shown in Table 5.2 below:

**Table 5.2: Total generation from NTPC Stations**

Station	Installed Capacity (MW)	Plant Load Factor (%)	Auxiliary Cons (%)	Total Generation (MU)
Anta(G)	419	62.9%	3.70%	2,223
Anta(L)	419	12.7%	0.12%	465
Auraiya(G)	663	56.3%	4.28%	3,131
Auraiya(L)	663	16.3%	0.20%	945
Dadri(G)	830	56.2%	0.46%	4,069
Dadri(L)	840	16.6%	4.55%	1,164
Unchahar-I	420	99.3%	1.80%	3,588
Unchahar-II	420	91.2%	4.14%	3,216
Unchahar-III	210	87.9%	9.00%	1,471
Rihand-1 STPS	1,000	87.8%	7.43%	7,117

Station	Installed Capacity (MW)	Plant Load Factor (%)	Auxiliary Cons (%)	Total Generation (MU)
Rihand-2 STPS	1,000	96.9%	13.12%	7,374
Singrauli STPS	2,000	82.9%	3.54%	14,006
Farakka	1,600	81.6%	3.50%	11,033
Kahalgaon	840	89.1%	6.65%	6,118
Talcher	460	87.4%	2.14%	3,445
<b>Total</b>	<b>11,784</b>			<b>69,366</b>

5.18 The energy availability in the State is determined on the basis of the latest share allocations by the Northern Region Power Committee on February 16, 2007, details of which are as shown in Table 5.3.

**Table 5.3: Energy Availability to the State from NTPC Stations**

Station	Firm Allocation (%)	Non-firm Allocation (%)	Energy Availability (MU)
Anta(G)	6.92%	3.76%	237.4
Anta(L)	6.92%	3.76%	49.7
Auraiya(G)	6.64%	2.60%	289.3
Auraiya(L)	6.64%	2.60%	87.4
Dadri(G)	6.75%	1.76%	346.3
Dadri(L)	0.00%	0.00%	0.0
Unchahar-I	3.33%	1.19%	162.2
Unchahar-II	7.14%	3.75%	350.2
Unchahar-III	6.19%	0%	91.1
Rihand-1 STPS	7.00%	3.73%	763.6
Rihand-2 STPS	9.40%	3.75%	969.6
Singrauli STPS	0.00%	3.75%	525.2
Farakka	0.65%	0.00%	71.7
Kahalgaon	4.34%	0.00%	265.5
Talcher	0.52%	0.00%	17.9
<b>Total</b>			<b>4,227.3</b>

**Energy Availability from NHPC stations**

- 5.19 The energy generation from NHPC stations has been projected based on their annual availability and the share allocation of the State from each plant.
- 5.20 The annual availability for various plants in 2007-08 has been estimated on the basis of actual availability in the previous years. Details of projected energy availability in 2007-08 are as shown in Table 5.4.

**Table 5.4: Energy Availability to the State from NHPC Stations**

Station	Annual Availability (MU)	Firm Allocation (%)	Energy Availability (MU)
Salal	3,051	22.39%	683.2
Salal (free power)	3,051	12.00%	366.1
Tanakpur	448	7.68%	34.4
Chamera-I	1,645	3.90%	64.1
Chamera-II	1,482	6.33%	93.8
Uri	2,556	21.96%	561.4
Uri (free power)	2,556	12.0%	306.8
Dhauliganga	1,121	6.07%	68.0
<b>Total</b>	<b>11,784</b>		<b>2,663.4</b>

**Energy Availability from other sources**

- 5.21 For the Tehri-I, Nathpa Jhakri and Tala hydro electric plants, the energy available to the State has been projected on the basis of its design energy and the share allocations decided by NRPC.
- 5.22 The energy availability from the Narora Atomic Power Plant (NAPP) and the RAPP-B stations has been estimated on the basis of the submissions made by the utility.
- 5.23 Details of energy availability in the State in 2007-08 from these sources are as shows in Table 5.5 below.

**Table 5.5: Energy Availability to the State from Other Sources**

Station	Energy Availability (MU)
Tehri-I	47.1
Tala HEP	12.5

Station	Energy Availability (MU)
Nathpa Jhakri	426.0
NAPP	84.7
RAPP-B	200.3
<b>Total</b>	<b>770.6</b>

**Banking**

5.24 During the public hearings, the Petitioner stated details of its banking arrangement with the Punjab State Electricity Board. The utility would bank 200 MU with PSEB during the summer months and recover the same during the winter when generation levels from the hydro-electric stations reduce significantly.

**Cost of Power Purchase****Self Generation**

5.25 The energy available from the generation plants of the Petitioner does not constitute power purchase. However, the Commission has decided to separately consider the fuel costs incurred for generation.

5.26 The Petitioner has submitted no details regarding the expenses pertaining to the fuel requirements for these plants. The Commission has used the values submitted for fuel cost in the Resource Plan for 2007-08, prepared by the Petitioner.

5.27 No costs have been considered for the Stakna hydro-electric station as the costs are covered under the Operations and Maintenance costs of the Petitioner.

**Table 5.6: Fuel costs for Self-generation**

Generation (MU)	Fuel cost (Rs/ unit)	Total Fuel Cost (Rs Crores)
12.50	16	20.0

**Cost of Power from State-owned Stations**

5.28 The Petitioner had signed Power Purchase Agreements with the J&K State Power Development Corporation (SPDC) detailing the costs applicable to various stations in the State. The Commission had directed the SPDC to submit its ARR for determination of generation tariffs of its stations. However, the SPDC has not submitted any petition with the Commission despite repeated reminders.

- 5.29 The Power Development Corporation and the Power Development Department signed a PPA in April 2000 for the then existing generation stations, and assigned a tariff of Rs 0.76/ unit with a provision for annual escalation of 5%.
- 5.30 Another PPA was signed in December 2000 for relatively new generation stations, like USHP-II, for which the tariffs was assigned to be Rs 1.24/unit.
- 5.31 The majority of energy sources in the State are hydro-electric stations which were commissioned several years ago. The Commission believes that tariffs from hydro-electric power stations are bound to reduce with time, and any annual escalation is unwarranted. Hence, it has decided to determine the power purchase costs from the State owned hydro-electric generating stations without any escalation in tariffs from the values specified in the PPA.
- 5.32 The Commission expects SPDC to file its petition for determination of generation tariffs, which shall be applicable to its plants in the future.
- 5.33 The gas turbine stations in the State have very high generation costs, but are operated during periods when the transmission links to the State are hampered due to natural factors.

**Cost of Power from NTPC Stations**

- 5.34 The Petitioner has submitted variable costs of power purchase from various NTPC stations for 2006-07. In view of the non-submission of further information, the Commission has considered the same variable cost for 2007-08 for calculation of power purchase costs from NTPC stations.
- 5.35 The fixed charges corresponding to the NTPC stations have been calculated on the basis of the annual fixed costs approved by the CERC in the tariff orders for various plants. The variable and fixed costs from NTPC stations for 2007-08 are as shown in Table 5.7.

**Table 5.7: Variable Cost and Annual Fixed Charges for NTPC Stations**

Station	Variable Cost (Rs/Unit)	Annual Fixed Charges (Rs Cr)
Anta(G)	1.64	5.33
Anta(L)	6.44	5.33
Auraiya(G)	1.71	7.61
Auraiya(L)	6.30	7.61
Dadri(G)	1.66	12.72
Dadri(L)	6.84	-
Unchahar-I	0.73	4.67
Unchahar-II	1.30	12.66

Station	Variable Cost (Rs/Unit)	Annual Fixed Charges (Rs Cr)
Unchahar-III	1.29	7.55
Rihand-1 STPS	0.95	23.59
Rihand-2 STPS	0.97	40.27
Singrauli STPS	1.30	-
Farakka	1.22	3.33
Kahalgaon	1.36	13.53
Talcher	0.92	2.08

**Cost of Power from NHPC Stations**

5.36 The Petitioner has submitted the variable costs of various NHPC stations for 2006-07. The Commission has considered the

5.37 In view of the non-submission of any further information, the Commission has considered the same variable cost for 2007-08 for calculation of power purchase costs from NTPC stations.

**Table 5.8: Variable Cost and Annual Fixed Charges for NHPC Stations**

Station	Variable Cost (Rs/Unit)	Annual Fixed Charges (Rs Cr)
Salal	0.63	173.3
Tanakpur	0.81	45.8
Chamera-I	0.81	190.0
Chamera-II	0.81	-
Uri	0.81	309.2
Dhauliganga	0.81	180.6

**Cost of Power from other Stations**

5.38 The Commission has considered the variable costs for other stations, as shown in Table 5.9, based on the submissions of the Petitioner or as per CERC orders or bilateral agreements.

**Table 5.9: Variable Cost from Other Stations**

Station	Variable Cost (Rs/Unit)
Tehri-I	3.50

Tala HEP	1.84
Nathpa Jhakri	2.35
NAPP	1.86
RAPP-B	2.69

### Energy Balance and Power Purchase Costs

- 5.39 The Commission has calculated the energy requirement of the Petitioner based on the approved energy sales and the T&D losses for 2007-08.
- 5.40 The stations owned by SPDC have low generation costs. Hence, this energy shall be sourced first to meet the requirements of the State. The energy balance of the Petitioner for 2007-08 is shown in Table 5.10.

**Table 5.10: Energy Balance of Power Development Department**

Particulars	2007-08
Energy Sales (MU)	4,243.3
Transmission and Distribution Losses (%)	46.7%
Energy Requirement (MU)	7,966.6
Self-generation (MU)	17.5
<b>Power Purchase Requirement ((MU)</b>	<b>7,949.1</b>
Energy Available from SPDC (MU)	891.6
Purchase from CGS (MU)	7,057.6

- 5.41 Details of the energy received and the costs incurred from power purchased from State owned stations are shown in Table 5.11 below.

**Table 5.11: Power Purchase Costs from State owned generating stations**

Particulars	Quantum (MU)	Tariff (Rs/Unit)	PP Cost (Rs Cr)
Old hydro-electric stations	681.3	0.76	51.8
New hydro-electric stations	229.0	1.24	28.4
Gas turbine stations	6.2	16.00	10.0
Energy requirement for Baglihar	(25)		
<b>Total</b>	<b>891.6</b>		<b>90.2</b>

- 5.42 The Commission has approved the power purchase costs of the Petitioner, from Central Generating Stations, by considering the principle of the merit order dispatch, wherein the cheapest power shall be made available at all times.

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- 5.43 The Commission has prepared a “plant-wise dispatch schedule” based on the variable cost of power, as detailed above. The merit order has been considered to dispatch the cheapest power till the total demand of the State is met.
- 5.44 Table 5.12 shows the quantum of energy and related costs for power purchased from Central Generation Stations.

**Table 5.12: Power Purchase Costs from Central Generating Stations**

	Quantum (MU)	Variable Cost (Rs/Unit)	Variable Cost (Rs Cr)	Annual Fixed Charges (Rs Cr)
Salal	683.2	0.633	43.24	38.80
Salal (free power)	366.1	0.633	23.18	20.80
Unchahar-I	162.2	0.733	11.89	4.67
Tanakpur	34.4	0.814	2.80	3.52
Chamera-1	64.1	0.814	5.22	7.41
Chamera-2	93.8	0.814	7.64	21.11
Uri	561.4	0.814	45.70	67.89
Uri (free power)	306.8	0.814	24.97	37.10
Dhauliganga	68.0	0.814	5.54	10.96
Talcher	17.9	0.923	1.65	2.08
Rihand-1 STPS	763.6	0.955	72.90	23.59
Rihand-2 STPS	969.6	0.969	93.96	40.27
Farakka	71.7	1.224	8.78	3.33
Unchahar-III	91.1	1.294	11.78	7.55
Unchahar-II	350.2	1.304	45.68	12.66
Singrauli STPS	525.2	1.304	68.50	0.00
Kahalgaon	265.5	1.356	36.02	13.53
Anta(G)	237.4	1.638	38.88	5.33
Dadri(G)	346.3	1.662	57.56	12.72
Auraiya(G)	289.3	1.705	49.34	7.61
Tala	12.5	1.840	2.30	0.00
NAPS	84.7	1.862	15.77	0.00
NJHPS	426.0	2.350	100.11	99.04
RAPP	200.3	2.689	53.86	0.00

	Quantum (MU)	Variable Cost (Rs/Unit)	Variable Cost (Rs Cr)	Annual Fixed Charges (Rs Cr)
Tehri -I	47.1	3.500	16.49	0.00
Auriya (L)	18.9	6.303	11.90	7.61
<b>Total</b>	<b>7,057.6</b>		<b>855.65</b>	<b>447.57</b>

- 5.45 The lack of monthly data restricts the Commission to consider the seasonal variations due to variation in generation profile for various sources. Therefore, any variations in the power purchase costs on account of actual expenses incurred by the Petitioner shall be considered and trued-up by the Commission in the subsequent tariff orders.
- 5.46 The Commission notes that the utility has to resort to short term purchases from the Unscheduled Interchange (UI) Pool in order to bridge the demand-supply gap caused by seasonal variations in the generation pattern. The details of UI charges payable by the Petitioner in the last few years are as shown in

**Table 5.13: UI Charges payable (Rs Crores)**

	2002-03	2003-04	2004-05	2005-06	2006-07
UI Payable	46.71	171.12	308.46	298.22	234.36
UI Receivable	12.77	15.35	25.50	110.53	112.86
Net UI Payable	33.94	155.78	282.97	187.69	121.50

- 5.47 Considering the lack of month-wise details on energy demand and availability in the State, the Commission shall consider UI charges for 2007-08, on the basis of average UI charges payable from 2002-03 to 2006-07, which is Rs. 156.37 Crores.
- 5.48 The details for the quantum and approved power purchase costs of the Petitioner for 2007-08 are as follows:

Particulars	Quantum (MU)	PP Cost (Rs Cr)
J&K PDC owned Stations	891.6	90.2
Central Generating Stations	7,057.6	1,295.6
Wheeling Charges @12%		155.5
UI Charges		156.4
<b>Total</b>	<b>7,947</b>	<b>1,697.6</b>

- 5.49 The average cost of one unit of energy for the utility, based on the approved power purchase quantum and cost for 2007-08 is Rs 2.14/unit.

**A6: REVIEW OF COSTS**

- 6.1 This chapter contains the details regarding the various costs which comprise the Annual Revenue Requirement of the Petitioner, and the approach followed by the Commission to approve the same.
- 6.2 For reasons described in Chapter 3, the Commission has decided to approve the costs incurred by the Petitioner and determine the tariffs only for 2007-08, and not for 2006-07.

**Establishment Expenses****Petitioner's Submission**

- 6.3 The Petitioner has submitted its establishment expenses to be as follows:

(Values in Rs Cr)	2004-05	2005-06	2006-07	2007-08
Establishment Expenses	155.59	162.20	201.00	215.00

- 6.4 The Petitioner in its response to the comments received from the public stated that the increase in employee expenses is due to the recent increase in the number of employees due to the commissioning of many new projects.
- 6.5 It also submitted comparison of its employee expenses with that of HPSEB vis-à-vis its own expenses, details of which have been provided in the section on public heating.

**Commission's Observations**

- 6.6 The Commission has approved the proposed employee expenses for 2007-08, as it is comparable to the costs incurred by HPSEB, which caters to a similar geographical area as the State of Jammu & Kashmir.
- 6.7 The Commission recommends a detailed manpower and organisation study of the utility which would be useful to develop suitable training and capacity building programs for optimised utilisation of the staff.

**Operations and Maintenance Expenses****Petitioner's Submission**

- 6.8 The Petitioner has submitted its Operations and Maintenance expenses to be as follows:

(Values in Rs Crores)	2006-07	2007-08
Operations and Maintenance Expenses	53.50	56.50

**Commission's Observations**

- 6.9 The Commission has observed the significant increase in projected values for Operations and Maintenance expenses of the Petitioner in 2006-07 and 2007-08. The O&M expenses of the Petitioner has increased at a CAGR of 11.4% from 2003-04 to 2005-06.
- 6.10 Considering the expected efficiency improvements with time, the Commission has decided to approve the O&M expenses for 2007-08 after considering annual inflationary increase of 6% in 2006-07 and 2007-08.
- 6.11 The fuel costs pertaining to the generation from DG stations of the Petitioner have been considered separately, and have been approved as detailed in Table 5.6.
- 6.12 Therefore, the Operations and Maintenance expenses approved by the Commission for 2007-08 is Rs. 36.61 Crores.

**Depreciation****Petitioner's Submission**

- 6.13 The depreciation expenses for the Utility, as submitted by the Petitioner are as follows:

(Values in Rs Crores)	2006-07	2007-08
Depreciation	69.00	76.00

**Commission's Observations**

- 6.14 The Petitioner did not submit any details of its fixed assets or the approach adopted for calculation of depreciation in its tariff petitions. The Commission has considered the assets values submitted in its resource plan for 2007-08, for calculation of depreciation.

(Values in Rs Crores)	2006-07			2007-08	
	Opening Balance	Additions	Closing Balance	Additions	Closing Balance
CWIP	475.3	241.2	716.5	635.2	1,351.7
Completed Works	1,905.0	60.3	1,965.3	158.8	2,124.1
	<b>2,380.3</b>	<b>301.5</b>	<b>2,681.8</b>	<b>794.0</b>	<b>3,475.8</b>

- 6.15 In the absence of further details on the assets of the utility, the Commission has decided to provide for depreciation at an average rate. The depreciation rate, based on a useful life of 25 years and a residual value of 10% shall be 3.60%.

(Values in Rs Crores)	2006-07	2007-08
Gross Fixed Assets (Opening Bal)	1,905	1,965
Gross Fixed Assets (Closing Bal)	1,965	2,124
Depreciation Rate	3.60%	3.60%
<b>Depreciation</b>	<b>69.7</b>	<b>73.6</b>

- 6.16 The approved depreciation for the Petitioner in 2006-07 and 2007-08 shall be Rs 69.7 Crores and Rs 73.6 Crores respectively.

## **Interest and Finance Charges**

### **Petitioner's Submission**

- 6.17 The Utility has submitted interest costs for 2006-07 and 2007-08 to be Rs. 21.50 Cr and Rs. 18.50 Cr respectively, with details as given below:

	2006-07	2007-08
Interest on market loans	8.05	7.49
Interest on LIC loans	0.71	0.56
Interest on REC loans	12.70	10.40
<b>Total interest</b>	<b>21.50</b>	<b>18.50</b>

### **Commission's Observations**

- 6.18 The Commission analysed various components of debt taken by the utility to verify the interest charges submitted in the petition.
- 6.19 On analysis of the ARR petitions, the Commission noted the lack of any supporting evidence for loan repayments, and directed the Utility to submit details of its loan repayment. The Utility subsequently submitted details regarding receipts, principal and interest repayments, based on actual values for the period 2003-04 to 2005-06.
- 6.20 Due to lack of any information on the interest rate on loans from each source, the Commission has calculated the applicable interest rates from 2003-04 to 2005-06 using the opening balance, closing balance and amount of payable interest.
- 6.21 The Commission calculated interest rates for 2006-07 and 2007-08 as the average of the interest rates obtained in the previous three years, based on actual repayments. The interest rates applicable for Market Borrowings, loans from LIC and loans from REC, calculated by the Commission are 11.98%, 14.61% and 11.45% respectively.

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6.22 The calculations for applicable interest costs of the utility for the years 2006-07 and 2007-08 are shown in the Table 6.1.

**Table 6.1: Analysis of Interest Expenses**

S. No.	Source	Opening Balance	Receipts	Repayment	Closing Balance	Rate of Interest	Interest Payable
<b>2003-04</b>							
1	Market Borrowings	79.64	-	10.48	69.16	12.65%	9.41
2	Loans from LIC	9.19	-	1.37	7.82	14.23%	1.21
3	Loans from REC	151.30	27.32	24.32	154.30	12.34%	18.85
<b>4</b>	<b>Total</b>	<b>240.13</b>	<b>27.32</b>	<b>36.17</b>	<b>231.28</b>		<b>29.47</b>
<b>2004-05</b>							
1	Market Borrowings	69.16	-	-	69.16	11.64%	8.05
2	Loans from LIC	7.82	-	1.36	6.46	14.71%	1.05
3	Loans from REC	154.30	34.29	56.21	132.38	11.39%	16.32
<b>4</b>	<b>Total</b>	<b>231.28</b>	<b>34.29</b>	<b>57.57</b>	<b>208.00</b>		<b>25.42</b>
<b>2005-06</b>							
1	Market Borrowings	69.16	-	-	69.16	11.64%	8.05
2	Loans from LIC	6.46	-	1.25	5.21	14.91%	0.87
3	Loans from REC	132.38	39.91	45.71	126.58	10.62%	13.75
<b>4</b>	<b>Total</b>	<b>208.00</b>	<b>39.91</b>	<b>46.96</b>	<b>200.95</b>		<b>22.67</b>
<b>2006-07</b>							
1	Market Borrowings	69.16	-	4.50	64.66	11.98%	8.01
2	Loans from LIC	5.21	-	1.12	4.09	14.61%	0.68

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S. No.	Source	Opening Balance	Receipts	Repayment	Closing Balance	Rate of Interest	Interest Payable
3	Loans from REC	126.58	25.00	49.00	102.58	11.45%	13.12
4	<b>Total</b>	<b>200.95</b>	<b>25.00</b>	<b>54.62</b>	<b>171.33</b>		<b>21.81</b>
<b>2007-08</b>							
1	Market Borrowings	64.66	-	0.95	63.71	11.98%	7.69
2	Loans from LIC	4.09	-	0.98	3.11	14.61%	0.53
3	Loans from REC	102.58	10.00	45.00	67.58	11.45%	9.74
4	<b>Total</b>	<b>171.33</b>	<b>10.00</b>	<b>46.93</b>	<b>134.40</b>		<b>17.95</b>

6.23 The Commission approves interest expenses of Rs 21.81 Crores and Rs 17.95 Crores for 2006-07 and 2007-08 respectively.

### Interest on Working Capital

#### Petitioner's Submission

6.24 The Utility has not submitted any requirements for interest on working capital for the years 2006-07 and 2007-08.

#### Commission's Observations

6.25 The Commission has calculated the interest on working capital based on the norms specified in the Terms and Conditions for Determination of Distribution Tariff Regulations, 2005.

Table 6.2: Interest on Working Capital for 2007-08

Particulars (Value in Rs Crores)	2007-08
O&M expenses for one month	20.97
Collection Inefficiency	39.94
Receivables for one month	85.64
<b>Net Working Capital</b>	<b>146.55</b>
Interest Rate (%)	10.25%
<b>Interest on Working Capital</b>	<b>15.02</b>

## Annual Revenue Requirement

6.26 The Petitioner has submitted Annual Revenue Requirement of Rs. 2200 Crores for 2007-08, as detailed in its petition submitted to the Commission. The ARR of the utility for 2007-08, approved by the Commission, based on various components is also given in Table 6.3.

**Table 6.3: Annual Revenue Requirement for 2007-08**

S. No	Particulars	2007-08	
		Proposed	Approved
1	Fuel Costs for self-generation	0.0	20.0
2	Power Purchase Costs	1,834.0	1,697.6
3	Establishment Expenses	215.0	215.0
4	Operations and Maintenance Expenses	56.5	36.6
5	Depreciation	76.0	73.6
6	Interest and Finance Costs	18.5	18.0
7	Interest on Working Capital	0.0	15.0
<b>8</b>	<b>Gross Expenditure</b>	<b>2,200.0</b>	<b>2,075.8</b>
9	Less: Interest Capitalised	0.0	0.6
<b>10</b>	<b>Net Expenditure</b>	<b>2,200.0</b>	<b>2,075.3</b>
11	Less: Non-tariff Income	2.0	2.0
<b>12</b>	<b>Annual Revenue Requirement</b>	<b>2,198.0</b>	<b>2,073.3</b>
13	Revenues (at proposed tariffs)	713.1	802.4
<b>14</b>	<b>Revenue Gap</b>	<b>1,484.9</b>	<b>1270.9</b>

6.27 Based on the approved value for energy sales and the ARR of the Petitioner, the average Cost of Supply (CoS) of the Petitioner in 2007-08 is Rs 4.89/ unit.

**A7: REVENUE PROJECTIONS**

**Revenue from Sale of Power within State**

7.1 Revenues from sale of power within the State have been calculated based on approved sales, existing tariffs and tariffs approved by the Commission. Revenue from each category has been computed, considering the projected sales and approved tariffs for different slabs within the category.

7.2 The revenues from sale of power within the State in 2007-08 are shown in Table 7.1.

**Table 7.1: Revenues from sale of power in 2007-08**

Category	Approved Sales (MU)	Revenues at Existing Tariff (Rs. crores)	Revenues at Approved Tariff (Rs. crores)
Domestic	1,535.5	103.6	232.2
Non-Domestic / Commercial	291.0	45.8	73.1
Industrial	848.9	114.6	181.9
Irrigation / Agriculture	181.1	30.6	41.0
Public lighting	46.4	11.8	16.1
P.H.E.	269.5	68.7	92.6
State/ Central Dept.	253.6	64.6	124.0
Bulk/ Army	715.3	182.4	256.2
Temporary/ Others	102.1	7.3	25.1
<b>Total All Categories</b>	<b>4,243.4</b>	<b>629.5</b>	<b>1,042.1</b>

7.3 The revenue from sales in 2007-08, based on approved sales and approved tariffs, using the new categorization of consumers is shown in Table 7.2 below. The table also contains values for the average tariffs

**Table 7.2: Revenues and Average Tariffs (Based on new categorisation) in 2007-08**

Category	Sales (MU)	Revenues (Rs. Cr.)	Average Tariff (Rs/ unit)
Domestic	1,535.5	232.2	<b>1.51</b>
Non-Domestic / Commercial	362.5	93.8	<b>2.59</b>
Irrigation / Agriculture	181.1	41.0	<b>2.26</b>
State/ Central Dept.	253.6	124.0	<b>4.89</b>
Public Lighting	46.4	16.1	<b>3.47</b>

Category	Sales (MU)	Revenues (Rs. Cr.)	Average Tariff (Rs/ unit)
LT Industrial	721.6	144.3	<b>2.00</b>
HT Industrial	89.1	24.2	<b>2.72</b>
HT Industrial For Power Intensive Industries	38.2	13.3	<b>3.49</b>
LT Public Water Works	161.7	53.4	<b>3.30</b>
HT Public Water Works	107.8	39.2	<b>3.64</b>
General Purpose Bulk Supply	643.8	235.5	<b>3.66</b>
Temporary/ Others	102.1	25.1	<b>2.46</b>
<b>Total All Categories</b>	<b>4,243.3</b>	<b>1,042.1</b>	<b>2.46</b>

7.4 The amount of subsidy for various consumer categories, considering the Average Cost of Supply (Rs 4.89/ unit) and the average tariffs applicable to the category, based on the approved tariffs is shown in the Table 7.3 below.

**Table 7.3: Category-wise subsidy in 2007-08**

Category	Avg CoS (Rs/ unit)	Avg Tariff (Rs/ unit)	Subsidy (Rs/ unit)	Subsidy (%)
Domestic	4.89	1.51	3.38	<b>69.1%</b>
Non-Domestic / Commercial	4.89	2.59	2.30	<b>47.0%</b>
Irrigation / Agriculture	4.89	2.26	2.63	<b>53.7%</b>
State/ Central Dept.	4.89	4.89	0.00	<b>0.00%</b>
Public Lighting	4.89	3.47	1.42	<b>29.0%</b>
LT Industrial	4.89	2.00	2.89	<b>59.1%</b>
HT Industrial	4.89	2.72	2.17	<b>44.3%</b>
HT Industrial For Power Intensive Industries	4.89	3.49	1.40	<b>28.6%</b>
LT Public Water Works	4.89	3.30	1.59	<b>32.5%</b>
HT Public Water Works	4.89	3.64	1.25	<b>25.5%</b>
General Purpose Bulk Supply	4.89	3.66	1.23	<b>25.1%</b>
Temporary	4.89	2.46	2.43	<b>49.7%</b>
<b>Total All Categories</b>	<b>4.89</b>	<b>2.46</b>	<b>2.43</b>	<b>49.7%</b>

7.5 The Petitioner has submitted its Collection Efficiency in 2005-06 as 65%, which it projected to increase to 75% in 2006-07. It assumed the same collection efficiency for 2007-08. The Commission notes that the improvement in collection efficiency should continue and has set a target Collection Efficiency for 2007-08 to be 77%.

7.6 The revenue realization of the Petitioner in 2007-08, based on the approved sales and tariffs and the target Collection Efficiency is shown in Table 7.4.

**Table 7.4: Revenue Realisation in 2007-08**

Particulars (2007- 08)	
Revenues at approved tariffs (Rs Crores)	<b>1042.1</b>
Target Collection Efficiency	<b>77%</b>
Revenue Realized (Rs Crores)	. 802.4

### **Non-Tariff Income**

7.7 The Petitioner has submitted its non-tariff income for the period 2003-04 to 2005-06 and projected values for 2006-07, which is shown in

**Table 7.5: Non-Tariff Income**

(Values in Rs Crores)	2003-04	2004-05	2005-06	2006-07	2007-08
<b>Non-Tariff Income</b>	<b>0.85</b>	<b>2.55</b>	<b>0.54</b>	<b>1.00</b>	<b>2.00</b>

7.8 In absence of any details of the non-tariff income, the Commission has approved the projected value of non-tariff income for 2007-08, since it is within the range of values for the past three years.

7.9 The Petitioner is expected to furnish details of various items of its non-tariff income, such as recovery from theft, interest on staff loans/advances, delayed payment charges, etc. to ensure transparency and proper analysis of the same by the Commission.

**A8: TARIFF PHILOSOPHY**

- 8.1 The Commission is mandated to work within the framework of the SERC Act, which requires it to be guided by the following aspects during the fixation of tariff:
- (a) That the tariff progressively reflects the cost of supply of electricity at an adequate and improving level of efficiency;
  - (b) The factors which would encourage efficiency, economical use of resources, good performance and optimum investments;
  - (c) The interests of the consumers are safeguarded and at the same time, the consumers pay for the use of electricity in a reasonable manner based on the average cost of supply;
  - (d) The electricity generation, transmission, distribution and supply are conducted on commercial principles.
- 8.2 The Commission has issued the ‘Terms and Conditions for determination of Distribution Tariff Regulations, 2005 which laid the principles to be followed during the tariff setting process.
- 8.3 It has deliberated on the adoption of rate-of-return approach against the performance based regulations for tariff setting in ‘Discussion Paper on Tariff Determination’ issued by the Commission in October 2006. This paper, among other things, discusses the objectives of tariff setting, tariff principles, methodologies, and key issues involved in determining the retail electricity tariff the state of Jammu & Kashmir.

**Cost to Serve**

- 8.4 The structure of the existing tariffs is not based on the actual principle of Cost of Supply. The Petitioner has used the Cost to Serve approach for determination of the proposed tariff. It has proposed a gradual movement towards the actual cost to serve in order to avoid severe tariff shocks.
- 8.5 The cost based tariff provides a direct indication, to consumers, of the costs incurred in making the demanded supply available. In the future, the Commission intends to shift to a tariff structure based on the applicable cost to serve each category of consumer and the voltage at which the electricity is supplied. At present, the Commission is constrained by the lack of data, and shall determine tariffs for various categories based on the average cost of supply.
- 8.6 In future, the Commission can also consider the applicability of marginal cost based tariff to reflect the true economic cost imposed on the systems. However, it would require detailed marginal cost studies for determination of tariffs on this basis.

- 8.7 The existing tariffs for various categories of consumers are much lower than the average Cost of Supply. In this Tariff Order, the Commission has raised the tariff for connections to State Government, Central Government and Defence installations to the level of the average cost of supply. The tariffs for other categories shall be raised to the level of the cost to serve gradually.
- 8.8 Government departments were receiving energy at subsidized rates and the effect of this subsidy was being borne by the utility. As these departments will now be charged at the Cost of Supply, the subsidy, if any to be given to these departments will have to be borne by the respective departments, relieving the utility of this extra burden.

### **Rate of return vs. Performance based regulation**

#### **Rate-of-return tariff setting**

- 8.9 The rate-of-return tariff setting is based on the determination of revenue requirement, which includes the permissible expenditure, an asset base on which the entity will be allowed to earn the return, and an appropriate rate of return. This method is also sometimes known as the cost-plus approach or the cost of service regulation.
- 8.10 The main advantage of this approach is the steady returns available to the entity, which can be important to offset the various risks involved in the generation, transmission or distribution of electricity. This method is simple and can be easily applied to provide stable tariffs till the next regulatory review. The rate of return approach is also useful to fulfill non-economic goals like providing subsidized tariff to some consumer categories.
- 8.11 A major disadvantage of this approach is the lack of any incentive to the entity to increase efficiency of operations and/or minimize costs, as the return permitted for an entity is fixed and any efficiency gains resulting from better performance are passed on to the consumers. In addition, the rate of return approach promotes the tendency to over-invest as the value of asset determines the available returns to the entity, while the associated financing costs are passed through to consumers.
- 8.12 Hence, adoption of this methodology involves extensive regulatory review at regular intervals to ensure that the interests of the consumer are protected, and undue profits are not generated.

#### **Performance based tariff setting**

- 8.13 The performance-based regulation focuses on outputs and performance of the utility and not on the actual costs incurred for achieving the same.
- 8.14 Under this approach, the revenue requirement is determined on the basis of the efficiency norms set by the Commission, and not on the basis of actual costs incurred. The expenditure and rate of return are linked to performance targets set by the Commission to measure efficiency gains.

- 8.15 The performance based regulation replaces the control aspect of regulation with a system of incentives and penalties. It weakens the link between the costs incurred by the utility and the tariffs charged, by employing external measures of cost. It provides incentives to the utilities to reduce costs and improve efficiency. The performance based regulation also eliminates the tendency of utilities under the cost plus regulation to be more capital intensive.
- 8.16 The Commission has adopted the cost-plus approach for determination of tariffs in this order. It shall shift to the performance based regulation approach in future, and will not approve any cost resulting from non achievement of approved performance targets, such as T&D loss, collection efficiency, etc. except those caused by force majeure events.

### **Rationalization of Tariff Structure**

- 8.17 The Commission shall modify the existing consumer categorisation by suitable mergers/splits of existing categories or sub-categories to develop a simple tariff structure. The Petitioner, in its petitions, has proposed certain changes in the current tariff structure; the Commission has analysed the proposals and detailed the methodology adopted for the tariff design of each consumer category in the relevant sections of this Order.

### **Time-of-Day Tariff**

- 8.18 The load curve of the State shows a peak in demand during the evening, which is met through power purchases from high cost sources such as gas/ diesel/ naphtha based generation plants, traders, the Unscheduled Interchange (UI) pool, etc. which are generally more expensive as compared to the base load stations.
- 8.19 This increase in the power purchase costs, leads to a higher cost of supply during the peak load hours. The Petitioner has recognized the relevance of time differentiated tariff for peak and lean hours, as an instrument for demand side management. The Commission agrees that the adoption of the time of day tariff shall provide signals to consumers and help the utility in maintaining a better system profile.
- 8.20 Consumers should pay higher than normal for usage during peak hours and lower for consumption during lean hours, when the unit cost of power purchase is low. The Time-of-Day tariff shall be introduced from the next tariff period, after collection and analysis of relevant consumption data of various categories.

### **Single Part v/s Two Part Tariff**

- 8.21 The Petitioner has proposed a single part tariff structure, including the provision of minimum charges for metered domestic, non-domestic and other consumer categories. The Commission believes that billing through means of minimum charges discourages energy conservation and discourages the Petitioner to improve its metering and billing systems.

- 8.22 The Commission shall adopt a two-part tariff structure, comprising of a fixed component (Rupees per kW or per consumer) and a variable component (Rupees per kWh). Two-part tariffs have replaced single part tariffs in most parts of the country, primarily due to the following reasons:
- (a) The utility can recover its fixed expenses (on fixed charges on power purchase, employee cost, interest etc.) incurred even when the consumer is not consuming electricity.
  - (b) Consumers are charged for each unit of electricity consumed, thereby providing a direct incentive to save electricity.
  - (c) The utility is encouraged to improve its metering and billing systems, as the removal of minimum charges ensures recovery only on billed amounts.
  - (d) The consumer is encouraged to declare his connected load correctly.
- 8.23 The Commission has decided to introduce two part tariff for all metered categories of consumers in the future. The fixed charges shall be introduced for HT and Bulk consumers in the form of demand charges.

### **kVAh Tariff**

- 8.24 Electric power has two components – the working component (kWh) and the magnetizing component (kVARh), which combine to form the apparent power (kVAh). The active power is equal to the apparent power in the system when the power factor is unity (1). The power factor of the system is governed by the load characteristic and the system configuration, with the former being the dominant player. Usually system design incorporates steps to enhance power factor through installation of capacitor banks, transposing of transmission lines, etc.
- 8.25 It is essential to encourage consumers to use power efficiently and have a power factor close to 1. This can be achieved either through power factor based incentives and penalties or by billing consumers on the apparent power consumed (kVAh) instead of the real power consumed (kWh).
- 8.26 The Commission believes that kVAh based tariff is a better approach due to the reasons of greater transparency, reduced likelihood of occurrence of errors and reduced administrative burden on the utility.
- 8.27 The Commission has decided to introduce kVAh tariffs in the first phase for all consumers at 11 kV and above. All consumers having a connected load above 5kW shall be charged using kVAh tariffs after suitable tri-vector meters are installed by the Petitioner.

**A9: TARIFF DESIGN**

**Domestic Supply**

**Applicability**

9.1 The Commission has fixed the applicability of the domestic tariff for supplies pertaining to domestic premises, religious institutions, group housing societies, orphanages, old-age and infirm homes, charitable institutions providing services free of cost or on nominal charges, post offices at residences of villagers and residential premises of professionals like advocates, doctors, artists, weavers, stitching and embroidery workers occupying not more than 20% of built up area for commercial purposes.

**Character of Services**

- (a) Alternating current (A.C.) 50 Hz, 230 Volts, for Single-phase upto a load of 5 kW
- (b) A.C, 50 Hz, three phase, 400 volts for load above 5 kW upto 100 kW (115 kVA)

**Table 9.1: Existing and proposed tariffs for Domestic Consumers**

Existing Tariff		Proposed Tariff	
Particulars	Rate (Rs.)	Particulars	Rate (Rs.)
Energy Charges for Metered Connection (Rs. Per kWh)			
First 50 Units	0.85	upto 30 u/m	<b>0.90</b>
Next 150 Units	1.15	31-100 u/m	<b>1.15</b>
201 to 400 Units	1.45	101-200 u/m	<b>1.40</b>
Above 400 Units	2.00	> 200 u/m	<b>2.10</b>
Minimum Charges (Rs./Month)			
upto 1/4 kW	19.67	upto 1/4 Kw	<b>25.00</b>
above 1/4 kW upto 1/2 kW	36.07	above 1/4 kW upto 1/2 kW	<b>40.00</b>
above 1/2 kW upto 3/4 kW		above 1/2 kW upto 3/4 kW	<b>60.00</b>
above 3/4 kW upto 1 kW	57.38	above 3/4 kW upto 1 kW	<b>70.00</b>
above 1 kW		above 1 kW upto 2 kW	<b>200.00</b>
Rs. / kW / month	98.00	above 2 kW	
		Add. Rs. / kW / p.m.	<b>100.00</b>
Flat Rate (Un-metered) (Rs./ Month)			
Slabs		Slabs	
upto 1/4 kW	40.98	upto 1/4 kW	<b>45.00</b>

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Existing Tariff		Proposed Tariff	
upto 350 Watts	81.97	above 1/4 kW upto 1/2 kW	<b>120.00</b>
upto 1/2 kW	114.75	above 1/2 kW upto 3/4 kW	<b>190.00</b>
upto 3/4 kW	184.43	above 3/4 kW upto 1 kW	<b>320.00</b>
upto 1 kW	319.67	above 1 kW upto 2 kW	<b>635.00</b>
upto 1.5 kW	409.84	above 2 kW	<b>Additional Rs. 275 for every 1/2 kW or part thereof</b>
upto 2 kW	635.00		
above 2 kW	Additional Rs. 260 for every 1/2 kW or part thereof		
Jhugi/ Jhaupri			
Below Poverty Line			
Rs. 10 per point of 100 Watt / month			
<b>subject to minimum of Rs. 22 / month</b>			

- 9.2 Considering the current Average Cost of Supply (ACS) and the fact that tariffs have not been revised since March, 2000, the Commission believes that the tariff increase for domestic consumers is reasonable.
- 9.3 The Petitioner has proposed changes in the slabs and minimum charges for metered domestic and slabs for the un-metered flat rate domestic consumers.
- 9.4 The Commission has accepted the proposed changes in the slabs. However, the Commission has revised the tariff for lower slabs of the Flat rate domestic consumers commensurate with the charges for the ¾ kW to 1 kW slab. The Commission has also rationalized the minimum charges in line with the new definition of connected load for domestic category.
- (a) In the existing tariff, the calculation of Monthly Minimum Charges requires a domestic consumer to voluntarily declare his summer and winter demands in a devised format. The utility calculates the summer and winter connected load after applying a diversity factor of 0.5 for load upto 2 kW and 0.4 for load above 2 kW.

(b) The Commission believes that the existing definition of connected load for domestic category is complicated and is difficult to understand. Therefore, it has simplified this definition, as provided in the relevant section on definitions.

9.5 The Commission believes that all domestic consumers having a connected load above 100 kW (115 kVA) should be billed under the General Purpose Bulk supply category. Thus, the maximum load permitted in domestic supply has been limited to 100 kW (115 kVA).

9.6 The tariffs for domestic consumers approved by the Commission are as shown below:

**Table 9.2: Approved tariffs for Domestic Consumers**

Particulars	Approved Tariff
Energy Charges for Metered Connection (Rs. / kWh)	
upto 30 u/m	<b>0.90</b>
31-100 u/m	<b>1.15</b>
101-200 u/m	<b>1.40</b>
> 200 u/m	<b>2.10</b>
Minimum Charges (Rs. / month)	
upto 1/4 kW	<b>15.00</b>
above 1/4 kW upto 1/2 kW	<b>25.00</b>
above 1/2 kW upto 1 kW	<b>40.00</b>
Above 1 kW for every 250 W, or part thereof	<b>10.00</b>
Flat Rate (Rs. / month)	
upto 1/4 kW	<b>50.00</b>
above 1/4 kW upto 1/2 kW	<b>160.00</b>
above 1/2 kW upto 3/4 kW	<b>240.00</b>
above 3/4 kW upto 1 kW	<b>320.00</b>
above 1 kW upto 2 kW	<b>635.00</b>
<b>above 2 kW</b>	<b>Rs.635 + Rs. 275 for every 1/2 kW or part thereof</b>

9.7 Group housing societies can avail single point power supply. The energy bill of a housing society shall be divided by the number of houses in it, to determine the consumption in each house.

If there are 10 houses in a society the consumption shall be charged in the following manner: The first 300 (30\*10) units would be charged at Rs 0.90/unit; the next 700 (70\*10) units at Rs 1.15/unit; next 1000 (100\*10) units at Rs 1.40/unit and the remaining units at Rs 2.10/unit.

## **Non-Domestic/ Commercial Supply**

### **Applicability**

- 9.8 This tariff category shall be applicable to the following: shops, showrooms, business houses, offices, educational/ technical institutions, clubs, meeting halls, places of public entertainment, hotels, cinemas, hospitals, dispensaries, clinics, nursing homes, X-ray units, diagnostic centers, pathological labs, fisheries, aqua-culture, sericulture, dairy, hatcheries, printing presses, milk chilling centers, poultry farms, cattle breeding farms, nurseries, plantations, mushroom growing, carpenters and furniture makers, juice centers, hoardings and advertisement services, typing institutes, internet cafes, STD/ISD PCO's, FAX/ photocopy shops, tailoring shops, photo studios and colour labs, laundries, cycle shops, compressors for filling air, restaurants, eating establishments, guest houses, marriage gardens, welding transformer and lathe machines for repair works and services, book binders, petrol pumps and service stations, lifts and other appliances in shopping centers and offices, tourist house boats, and similar other establishments.
- 9.9 In addition, any connection not covered under the other categories shall be billed under this category. However, this would exclude connections pertaining to State/ Central Government or Defence services, which have been included in a separate category.

### **Character of Services**

- (a) AC, 50 Hz, 230 Volts, Single-phase upto a load of 5 kW.
- (b) AC, 50 Hz, three phase, 400 volts supply for load above 5 kW upto 100 kW (115 kVA).

**Table 9.3: Existing and Proposed tariff for Non-Domestic/ Commercial Category**

Existing Tariff		Proposed Tariff	
Particulars	Rate	Particulars	Rate (Rs.)
<b>Metered Non-Domestic Category</b>			
Slabs		Slab of Units	
Energy Charges (Rs./kWh)		Energy Charges (Rs./kWh)	
upto 1/4 kW		Single Phase	
First 200 units	1.60	upto 100 u/m	1.70

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Existing Tariff		Proposed Tariff	
Above 200 units	2.20	101 to 200 u/m	1.80
subj. to min charges (Rs.)	34.43	above 200 u/m	2.50
		Three Phase	
		for all units	2.90
above 1/4 kW			
For all units	2.55		
subj. to min charges	Rs. 16 for every 100 W		
		<b>Minimum Charges (Rs. Per Month)</b>	
		upto 1/4 kW	45.00
		Above 1/4 kW	Rs. 45 for every additional 1/4 kW or part thereof
<b>Flat Rate (Un-metered) (Rs./Month)</b>			
30 units for every 100 Watts or part thereof p.m.		upto 1/4 kW	140.00
on the basis of tariff of applicable category		above 1/4 kW upto 1/2 kW	350.00
		above 1/2 kW upto 1 kW	700.00
		above 1 kW upto 5 kW	*
		above 5 kW	**
		* Rs. 900 /kw or part thereof for every kW above 1 kW but less than 5 kW	
		** Rs. 900 /kw or part thereof for every kW above 5 kW	

9.10 The Petitioner had proposed the merger of the consumer categories for State/ Central Government departments and the Bulk commercial consumers with the Commercial/ Non-Domestic category. The Commission has decided to maintain the State/ Central Government department as a separate consumer category. It has decided to shift all commercial connections, currently under the Bulk category, and having Connected Load lower than 100 kW to Non-Domestic/ Commercial consumer category.

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- 9.11 The Commission believes that all non-domestic consumers with Connected Load greater than 100 kW (115 kVA) should be billed under the General Purpose Bulk Supply category. It has decided to limit the maximum load permitted for non-domestic supply connection at 100 kW (115 kVA).
- 9.12 The tariff structure for the non-domestic/ commercial consumers, as approved by the Commission is as shown below:

**Table 9.4: Approved Tariff for Non-Domestic/ Commercial Category**

Particulars	Approved Tariff
<b>Metered Non-Domestic Tariff</b>	
Slab of Units	
<b>Energy Charges (Rs./kWh)</b>	
Single Phase	
upto 100 u/m	1.70
101 to 200 u/m	1.80
above 200 u/m	2.50
Three Phase	
For all units	2.90
<b>Minimum Charges (Rs. /month)</b>	
upto 1/4 kW	45.00
Above 1/4 kW	Rs. 45 for every 1/4 kW or part thereof
<b>Flat Rate Charges (Rs. / month)</b>	
upto 1/4 kW	140.00
above 1/4 kW upto 1/2 kW	350.00
above 1/2 kW upto 1 kW	700.00
above 1 kW upto 5 kW *	
above 5 kW **	
* Rs. 900 /kW or part thereof for every kW above 1 kW but less than 5 kW	
** Rs. 900 /kW or part thereof for every kW above 5 kW	

## State/ Central Government Departments

### Applicability

- 9.13 The Commission has fixed the applicability of the State/ Central Government department category to connections taken by Departments of the State and the Central Governments, defence and para-military forces, excluding public sector enterprises/ undertakings.

This shall not include connections taken for agricultural purposes, water pumping and street lighting by the State Government Departments for which tariffs provided in the appropriate tariff schedules shall apply.

### Character of Services

- (a) AC, 50 Hz, 230 Volts; Single-phase upto a load of 5 kW
- (b) AC, 50 Hz, three phase; 400 volts supply for load above 5 kW upto 100 kW (115 kVA)
- (c) AC, 50 Hz, three phase; 11 kV supply for load upto 1 MVA
- (d) AC, 50 Hz, three phase; 33 kV and above supply for load above 1 MVA

**Table 9.5: Existing and proposed tariff for State/ Central State Government Category**

Existing Tariff		Proposed Tariff
Particulars	Rs.	Same as the tariffs for Non-Domestic Category
<b>Below 1/4 kW</b>		
First 200 units	1.60	
Above 200 units	2.20	
subj. to min charges	42.00	
<b>Above ¼ kW</b>		
For all units	2.55	
subj. to min charges	Rs. 16 for every 100 Watts	
<b>Flat Rate (Un-metered)</b>		
30 units for every 100 Watts or part thereof p.m.		
on the basis of tariff of applicable category		
<b>Bulk Commercial</b>		

Existing Tariff		Proposed Tariff
For Commercial Loads above 10 kW supply*		
Energy charges	2.55	
subj. to min charges	Rs. 16 for every 100 Watts	
*Applicable only to Defence Forces / Govt. Departments		

9.14 The Petitioner has proposed merger of the State/ Central Government consumer category with the Non-Domestic/ Commercial consumer category. The Commission rejected the proposal and has decided to maintain a separate category for State/ Central Government, which can be billed at the average Cost of Supply.

9.15 The tariff for State/ Central Government Departments category is as shown in the table below.

**Table 9.6: Approved Tariff for State/ Central Government Departments**

Particulars	Approved Tariff
<b>Energy Charges (Rs./ kWh)</b>	Rs. 4.89 (Average CoS)
11 kV Supply	2.5% rebate on energy charges
33 kV and above Supply	5.0% rebate on energy charges
<b>Minimum Charges (Rs./ month)</b>	
Upto 1/4 kW	45.00
Above 1/4 kW	Rs. 45 for every additional 1/4 kW or part thereof

## **Agricultural Supply**

### **Applicability**

9.16 The Commission has fixed applicability of the agricultural tariff to agricultural loads and lift irrigation connections including threshers and de-watering pumps used for bona-fide agricultural purposes.

### **Character of Services**

- (a) AC, 50 Hz, 230 Volts, Single-phase upto a load of 5 kW (6 kVA)
- (b) AC, 50 Hz, three phase, 400 volts supply for load upto 100 kW (115 kVA)

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**Table 9.7: Existing and Proposed Tariff for Agricultural Category**

Existing Tariff		Proposed Tariffs	
Particulars	Rate (Rs.)	Particulars	Rate (Rs.)
Energy Charges (Rs. Per Unit)			
0 to 20 HP	0.33	0 to 20 HP	0.50
above 20 HP	2.55	above 20 HP	3.30
Minimum Charges (Rs./ Month)			
subj. to min charges	Rs. 16 for every 100 Watts	Rs. 250 / HP / annum upto 20 HP and	
		Rs. 900 / HP / annum above 20 HP	
		Provisional monthly billing will be done	
		subj. to annual adjustment	
Flat Rate (Un-Metered Charges)			
30 units for every 100 Watts or part thereof p.m.		0 to 20 HP	110.00
On the basis of tariff of applicable category		above 20 HP	750.00

- 9.17 The revenues from the approved sales to agricultural consumers, based on proposed tariffs are Rs.40.98 crores in 2007-08, compared to Rs.30.61 crores on existing tariffs.
- 9.18 The Petitioner had submitted the average tariff to be Rs 0.38/ unit, which led to revenues of Rs.6.9 crores. The Commission recalculated the average existing tariff for this category, which was found to be Rs.1.69/ unit. The increase in average tariff for agricultural consumers for the proposed tariff is found to be 34%.
- 9.19 The Commission believes that all agricultural connections with Connected Load above 100 kW (115 kVA) should be billed under the General Purpose Bulk supply category. Therefore, the maximum connected load for an agricultural connection has been fixed at 100 kW (115 kVA).
- 9.20 The tariff schedule for agricultural consumers, approved by the Commission is shown below:

**Table 9.8: Approved Tariff for Agriculture Category**

Particulars		Approved Tariff
<b>Energy Charges (Rs. / kWh)</b>		
0 to 20 HP		0.50
Above 20 HP		3.30
<b>Minimum Charges (Rs./ HP/ Annum)</b>		
0 - 20 HP		250
Above 20 HP		900
Provisional monthly billing will be done subj. to annual adjustment		
<b>Flat Rate Un-metered (Rs./ month)</b>		
0 to 20 HP		110.00
Above 20 HP		750.00

## Public Street Lighting

### Applicability

9.21 The tariffs for this category will be applicable to public street lighting established and maintained by Corporations, Municipalities, Town Area/ Notified Area Committees, other local bodies and agencies authorized by the State Government to establish and maintain public street lighting.

### Character of Services

- (a) AC, 50 Hz, 230 Volts, Single-phase upto a load of 5 kW.
- (b) AC, 50 Hz, three phase, 400 volts supply for load above 5 kW

**Table 9.9: Existing and Proposed Tariff for Public Street Lighting**

Existing Tariff		Proposed Tariff	
Particulars	Rate	Particulars	Rate
Metered Supply			
<b>Energy Charges</b>		<b>Energy Charge</b>	
Rs./kWh	2.55	For all Units (Rs./ kWh)	3.30
		<b>Minimum Charge</b>	
		Rs. / kW/ month or any	200.00

Existing Tariff		Proposed Tariff	
		part thereof	
		<b>Un-metered Charge</b>	
		Rs. / kW/ month or any part thereof	760.00

- 9.22 The revenues from public street lighting at the approved sales at the proposed tariff are Rs. 16.08 crores, compared to Rs. 11.81 crores at existing tariffs.
- 9.23 The average tariff at proposed rates is Rs.3.47/ unit against Rs. 2.55/ unit at existing rates. The average tariff is higher than the proposed rate for metered connections since the majority of consumption in this category has been billed at flat rate. The average increase in tariffs is approximately 36%, which has been found feasible by the Commission.
- 9.24 The Commission has approved the tariff proposed by the Petitioner. It has removed the proposed upper limit of 210 kW (250 kVA) of Connected Load for public street lighting, as proposed by the Petitioner. Therefore, all street lighting connections can now be billed under this category.
- 9.25 The tariff structure approved for Public Street Lighting consumers, approved by the Commission is shown below:

**Table 9.10: Approved Tariffs for Public Street Lighting**

Particulars	Approved Tariff
<b>Energy Charge</b>	
Rs./ kWh	3.30
<b>Minimum Charge</b>	
Rs./ kW/ month or any part thereof	200.00
<b>Un-metered Charge</b>	
Rs./ kW/ month or any part thereof	760.00

**LT Public Water Works**

**Applicability**

9.26 The tariffs for this consumer category shall apply to water works and sewerages/ drainage installations established and maintained by Corporations, Municipalities, Town Area/ Notified Area Committees, other local bodies and Government agencies authorized by the State Government to establish and maintain public water works/ sewerage installations.

**Character of Services**

- (a) AC, 50 Hz, 230 Volts, Single-phase upto a load of 5 kW (6 kVA)
- (b) AC, 50 Hz, three phase, 400 volts supply for load upto 100 kW

**Table 9.11: Existing and proposed tariffs for LT Public Water Works**

Existing Tariff		Proposed Tariff	
Particulars	Rate (Rs.)	Particulars	Rate
Metered Supply		LT (upto 100 HP)	
Energy Charges		Energy Charge	
For all Units	2.55	For all Units (Rs/ kWh)	3.30
Minimum Charges		Minimum Charges	
subj. to min charges	Rs. 16 for every 100 Watts	Rs. / HP or part thereof / m	200.00
Un-metered Charges		Un-metered Charge	
30 units for every 100 Watts or part thereof p.m.		Rs. / HP or part thereof / m	575.00
For 8 hrs supply, 1.5 times of the above rate for			
8 to 12 hrs supply and 2 times the above rate for			
more than 12 hrs supply			

## TARIFF ORDER FOR 2007-08

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- 9.27 The revenues from total Public Water Works (LT and HT) for 2007-08 at approved sales for proposed tariffs is Rs 88.10 crores, compared to Rs. 68.65 crores at existing tariffs. The average tariff at proposed tariffs is Rs. 3.27/ unit compared to Rs 2.55/ unit at existing tariffs, thereby showing an increase of 28%.
- 9.28 The tariff structure, approved by the Commission for Public Water Works, applicable for 2007-08 is shown in the table below:

**Table 9.12: Approved Tariff for LT Public Water Works**

Particulars	Approved Tariff
LT (upto 100 kW)	
<b>Energy Charge</b>	
For all Units (Rs./ kWh)	3.30
<b>Minimum Charges</b>	
Rs. / HP or part thereof / month	200
<b>Un-metered Charge</b>	
Rs. / HP or part thereof / month	575

### HT Public Water Works

#### Applicability

- 9.29 The tariffs for this consumer category shall apply to water works and sewerages/ drainage installations established and maintained by Corporations, Municipalities, Town Area/ Notified Area Committees, other local bodies and Government agencies authorized by the State Government to establish and maintain public water works/ sewerage installations.

#### Character of Services

- (a) AC, 50 Hz, three phase; 11 kV supply for load above 100 HP upto 1 MVA.
- (b) AC, 50 Hz, three phase; 33 kV and above supply for load above 1 MVA

**Table 9.13: Proposed Tariffs for HT Public Water Works**

Particulars	Rate (Rs.)
<b>11 kV Supply</b>	
Above 250 HP and less than 1 MVA	
Demand Charge	160
Energy Charge (Rs/unit)	2.35

Particulars	Rate (Rs.)
<b>33 kV Supply</b>	
above 1 MVA	
Demand Charge	155
Energy Charge (Rs/unit)	2.30
<b>Flat Rate (Un-Metered)</b>	
Rs. / HP /m or part thereof	675

9.30 The Commission has approved levy of demand charges for HT Public Water Works connections in accordance with the proposal submitted by the Petitioner. It has not approved minimum charges for HT Public Water Works. It has approved energy charges on per kVAh basis.

9.31 The tariff structure approved by the Commission for HT Public Water Works is shown in the table below:

**Table 9.14: Approved Tariff for HT Public Water Works**

Particulars	Approved Tariff
<b>11 kV Supply</b>	
Demand Charge (Rs./ kVA/ Month) ^*	160
Energy Charge (Rs./ kVAh) ^	2.35
^ For Connections above 100 HP supplied on LT, Additional 5% Surcharge on Demand and Energy Charges at 11 KV tariff shall be chargeable	
<b>33 kV and above Supply</b>	
Demand Charge (Rs./ kVA/ Month) *	155
Energy Charge (Rs./ kVAh)	2.30
<b>Flat Rate (Un-metered)</b>	
Rs. / HP /m or part thereof	675
* Or part thereof on Billing Demand	

9.32 The billing demand for any month shall be taken to be the higher of the actual maximum recorded demand or 75% of the Contract Demand.

## LT Industrial Supply

### Applicability

9.33 The Commission has decided that LT industrial supply is applicable to all units registered with the Industries department, Government of J&K, and covered under the Factories Act. The list of entities covered include: flour mills, hullers, power looms, rice mills, dal mills, oil mills, ice factories, cold storage plants, masala grinders, other industrial installations and workshops with manufacturing facilities, where raw material is converted to finished goods. This shall mean and include all energy consumed in factory, offices, stores, canteen, compound lighting, etc. and the consumption for residential use therein.

### Character of Services

- (a) AC, 50 Hz, 230 Volts, single-phase upto a load of 5 kW.
- (b) AC, 50 Hz, three phase, 400 volts supply for load upto 100 kW

**Table 9.15: Existing and proposed tariff for LT Industrial Supply**

Existing Tariff		Proposed Tariff	
Particulars	Rate (Rs.)	Particulars	Rate (Rs.)
Metered Supply		LT Supply	
Energy Charge		Energy Charge	
for all units	1.35	upto 20 HP	1.50
		above 20 HP upto 100 HP	2.00
		above 100 HP upto 250 HP	2.50
Minimum Charges		Minimum Charges (Rs./ HP or Part thereof)	
upto 20 HP	Rs. 50 / kW / m	upto 20 HP	60
Between 20 and 100 HP	Rs. 115 / kW /m	Between 20 and 100 HP	90
Above 100 HP	Rs.1 60 / kW / m	Above 100 HP	120
Flat Rate (Un-metered)		Un-metered Flat Charges	
8 hrs shift	4 times Min. charges	8 hrs shift	300.00

Existing Tariff		Proposed Tariff	
12 hrs shift	6 times Min. charges	12 hrs shift	450.00
above 12 hrs shift	8 times Min. charges	above 12 hrs shift	600.00

9.34 The revenue from industrial consumers, (including HT) from approved sales at proposed tariffs is Rs.165.37 crores, against Rs. 114.60 crores. at existing tariffs. The Commission has noted that the average tariff at the proposed tariff is Rs. 1.95/ unit compared to Rs.1.35/ unit at existing tariff, showing an increase of 44%.

9.35 The LT industrial tariff structure , approved by the Commission is shown in the table below:

**Table 9.16: Approved tariffs for LT Industrial Supply**

Particulars	Approved Tariff
Energy Charges (Rs./kWh)	2.00
Minimum Charges (Rs./ HP or Part thereof)	90
Un-metered Flat Charges (Rs./ HP/ Month)	
8 hrs shift	300
8 - 12 hrs shift	450
above 12 hrs shift	600

## **HT Industrial Supply**

### **Applicability**

9.36 The Commission has fixed the applicability of the HT industrial tariff to all industries for power, lights, fans, coolers, etc. having a Contract Demand above 100 kW, which shall mean and include all energy consumed in factory, offices, stores, canteen, compound lighting, etc. and residential use therein, excluding power intensive industries.

### **Character of Services**

- (a) AC, 3 phase; 50 Hz on 11 KV above 100 kW upto 1 MVA
- (b) AC, 3 phase; 50 Hz, 33 KV and above for load of 1 MVA and above

**Table 9.17: Proposed tariff for HT Industrial Supply**

Existing Tariff	Proposed Tariff	
As given in LT industrial supply in Table 9.15	Particulars	Rate (Rs.)
	HT Supply	
	11 kV Supply	
	Above 250 HP upto 1 MVA	
	Demand Charge	105
	Energy Charge	1.75
	33 kV Supply	
	above 1 MVA	
	Demand Charge	105
	Energy Charge	1.70

9.37 The Petitioner has proposed the introduction of a separate tariff category for HT Industrial consumers, which shall be billed using two part tariffs.

9.38 The Commission shall introduce Time-of-Day tariff in the HT Industrial category, with the aim to shift HT Industrial loads from peak hours to off-peak hours. It has introduced the levy of energy charges on the kVAh basis.

9.39 The approved tariff structure for HT industrial consumers is shown in the table below.

**Table 9.18: Approved Tariff for HT Industrial Supply**

Particulars	Approved Tariff
<b>11 kV Supply</b>	
Demand Charge (Rs./ kVA/ Month) *^	105.00
Energy Charge (Rs./ kVAh) *	1.75
* For Connections above 100 HP supplied on LT, Additional 5% Surcharge on Demand & Energy Charges at 11 KV tariff shall be chargeable	
<b>33 kV and above supply</b>	
Demand Charge (Rs./ kVA/ month) ^	105.00
Energy Charge (Rs./ kVAh)	1.70
^ Or part thereof on Billing Demand	

9.40 The billing demand for any month shall be taken to be the higher of the actual maximum recorded demand or 75% of the Contract Demand.

## **HT Industrial Supply for Power Intensive Industries**

### **Applicability**

9.41 The Commission has fixed the applicability of HT Industrial Supply for Power Intensive Industries, as per the classification of the Department of Industries and Commerce, Government of J&K and covered under the Factories Act. This shall mean and include all energy consumed in factory, offices, stores, canteen, compound lighting, etc. and the consumption for residential use therein.

### **Character of Services**

- (a) AC, 3 phase; 50 Hz, 11 KV upto 1 MVA
- (b) AC, 3 phase; 50 Hz, 33 KV and above for load of 1 MVA and above

**Table 9.19: Existing and Proposed Tariff for HT Industrial Supply**

Existing Tariff		Proposed Tariff	
Particulars	Rate (Rs.)	Particulars	Rate (Rs.)
Arc / Induction furnace		Power Intensive Industries	
Metered Supply		11 kV Supply	
Energy Charges	1.35	> 250 HP upto 1 MVA	
		Demand Charge	140.00
Minimum consumption guarantee		Energy Charge	2.00
	Rs. 160 / Kw / m		
		33 kV Supply	
		above 1 MVA	
		Demand Charge	135.00
		Energy Charge	1.95

9.42 The Petitioner has proposed introduction of two part tariff for power intensive industries in the form of Demand charges and Energy Charges.

9.43 The Commission has approved introduction of two part tariff for the Power Intensive industries. It has also approved energy charges on kVAh basis.

9.44 The approved tariff for the power intensive industries is as shown in the table below:

**Table 9.20: Approved Tariff for HT Industrial Supply for Power Intensive Industries**

Particulars	Approved Tariff
<b>11 kV Supply</b>	
Demand Charge (Rs./ kVA/ Month) *	140
Energy Charge (Rs./ kVAh)	2.00
<b>33 kV and above Supply</b>	
Demand Charge (Rs./ kVA/ Month) *	135
Energy Charge (Rs./ kVAh)	1.95
* Or part thereof on Billing Demand	

9.45 The billing demand for any month shall be taken to be the higher of the actual maximum recorded demand or 75% of the Contract Demand.

## **General Purpose Bulk Supply**

### **Applicability**

9.46 This category contains all non-industrial consumers having mixed type of load greater than 100 kW (115 kVA). This includes domestic consumers, offices, educational/ technical institutions, religious institutions, residential colonies, commercial establishments and other similar loads.

9.47 All connections having load of 100 kW or above and not covered in any other categories shall be billed under tariffs applicable to this category. However, any such connections belonging to State/ Central Governments, Defence and Para-military forces shall not be considered in this category.

### **Character of Services**

- (a) AC, 3 phase; 50 Hz on 11 KV upto 1 MVA.
- (b) AC, 3 phase; 50 Hz on 33 KV and above .for load of 1 MVA and above

**Table 9.21: Proposed Tariff for General Purpose Bulk Supply**

Particulars	Rate (Rs.)
<b>11 kV Supply</b>	
Above 250 HP upto 1 MVA	
Demand Charge (Rs./ kVA/ month)	145.00
Energy Charge (Rs./ kVAh)	2.35
<b>33 kV Supply</b>	
above 1 MVA	
Demand Charge (Rs./ kVA/ month)	140.00
Energy Charge (Rs./ kVAh)	2.30

- 9.48 The Petitioner had proposed introduction of this new category for billing various types of non-industrial consumers above 250 HP. The Commission has expanded the scope of this category by including all non-industrial connections having a Connected Load of greater than 100 kW (115 kVA).
- 9.49 The Commission has approved the following tariff structure for General Purpose Bulk Supply category of consumers:

**Table 9.22: Approved Tariff for General Purpose Bulk Supply**

Particulars	Approved Tariff
<b>11 kV Supply</b>	
Demand Charge (Rs./ kVA/ Month) *	145.00
Energy Charge (Rs./ kVAh)	2.35
* For Connections above 100 kW supplied on LT, Additional 5% Surcharge on Demand and Energy Charges at 11 KV tariff shall be chargeable	
<b>33 kV and above Supply</b>	
Demand Charge (Rs./ kVA/ Month) *	140.00
Energy Charge (Rs./ kVAh)	2.30
* Or part thereof on Billing Demand	

- 9.50 The billing demand for any month shall be taken to be the higher of the actual maximum recorded demand or 75% of the Contract Demand.

**LT and HT Temporary Connections**

**Applicability**

- 9.51 The Commission has fixed the applicability of this category to all loads of temporary nature, such as exhibitions, touring talkies, circuses, fairs, marriages, temporary agricultural loads, temporary supply for construction including civil works by Government departments and other similar purposes.
- 9.52 The Petitioner has proposed tariffs for temporary connections to be 1.5 times the applicable rates (on fixed/demand and energy charges) of the respective category.
- 9.53 The Commission has approved the tariff for temporary connections at 1.5 times the applicable rates (on fixed/ demand and energy charges) as proposed by the Petitioner.
- 9.54 The temporary LT supply shall be given, only if there is available capacity in the distribution transformers. The service line for such a connection has to be laid by the consumer at his own cost.
- 9.55 The network lines and transformers required for a temporary HT connection shall be laid at the cost of the consumer. The utility shall issue orders related to the sanctioning authorities and period of applicability of LT and HT temporary Connections.

**A10: DIRECTIVES**

- 10.1 The Commission believes that the Petitioner needs to achieve significant improvement in its operational and financial performance and strive towards providing quality supply and service to its customers. It has also noticed the absence of several effective processes, systems and organizational capacity within the Petitioner.
- 10.2 The Commission is issuing the following directives to the Petitioner with the objective of initiating certain activities for increasing its efficiency and improving the quality of supply and service to the consumers.
- 10.3 The Commission would require the Petitioner to submit monthly reports on the progress made in implementation of these directives. These directives are grouped under the following heads.

**Directives Related to Technical Infrastructure****Metering Plan**

- 10.4 The Petitioner has reported 48% metering at feeder level and 17% metering at consumer level. The Commission believes that the level of metering is very low and needs to be improved at each of the three levels, viz. feeder level, distribution transformer level and consumer level. The Petitioner is directed to formulate a detailed metering plan and submit the same to the Commission by September 30, 2007.
- 10.5 The Petitioner shall conduct a comprehensive assessment of its metering requirements before developing the metering plan. In addition to installation of new meters, the Petitioner needs to replace all stuck/ defective meters. The metering plan should also contain details on the regular replacement of all meters which have completed their useful life. A sample format for assessing metering requirement is shown in Table 10.1.

**Table 10.1: Sample format for assessing metering requirements**

Particulars	No. of Metering Points	No. of Metered Points	No. of Defective Meters	No. of Meters Required	Target for metering	Date for 100%
Feeder Metering						
220 kV Feeders						
132 kV Feeders						
66 kV Feeders						
33 kV Feeders						
11 kV Feeders						
Distribution Transformers						

Consumers					
Domestic					
Non-domestic / Commercial					
Industrial					
Agricultural					
Public Lighting					
P.H.E					
State / Central Deptt.					
Bulk / Defence					
Others					
Total					

- 10.6 The metering plan should be developed in such a way that installation is not carried out in a scattered manner but feeder wise so as to know the impact of such a measure. The plan shall contain details for each circle / wing in the State.
- 10.7 The Petitioner is also directed not to release any new connection without ensuring appropriate metering to any category of consumer from the date of issue of this order.
- 10.8 It has submitted 100% metering in industrial, PHE, State/ Central department consumers and bulk/ defence connections. The targets for achieving complete metering across other consumer categories for existing un-metered connections, as decided by the Commission, are as shown in Table 10.2.

**Table 10.2: Timelines for Consumer Metering**

Category	No. of un-metered consumers	Level of Metering	Target date for 100% metering
Domestic	891,450	14%	December 31, 2009
Commercial	118,333	18%	December 31, 2009
Agricultural	8,395	30%	December 31, 2009
Public Lighting	184	5%	December 31, 2009
Total	1,018,363	17%	December 31, 2009

- 10.9 The Petitioner shall notify the exact specifications of the meters to be installed at various levels. It shall consider the following recommendations while determining the specifications and type of meters to be installed for various consumer categories:

**Domestic and Commercial LT connections:**

- (a) The Petitioner shall install single phase electronic meters, capable of recording the maximum demand and other energy parameters required for bill generation, such as energy consumed in kWh, kVAh, power factor, etc. This will enable the Petitioner to have an effective monitoring system for dealing with customers having a higher connected load than declared load.
- (b) Meters for domestic consumers shall be installed in sealed PVC boxes to reduce chances of tampering.
- (c) Service lines to domestic/ commercial consumers in theft prone areas or high loss clusters should be made using armored cable/ through conduit.

**HT industrial/ Bulk consumers:**

- (a) The Petitioner is directed to replace all old and defective meters with modern electronic meters of approved specification and make having provisions to record Time of the Day consumption data, tamper event log, etc.
- (b) It shall also replace all old metering equipment having external CT/ PT arrangement with state of the art metering cubicles which can be sealed to make them less theft prone.

10.10 The Petitioner shall also submit to the Commission, its investment requirements mentioning the time frame and the tentative source of funding by September 30, 2007. The Commission shall approve the investment plan, and any additional expenditure not approved by the Commission shall not be allowed in future tariffs.

10.11 HT dual metering system should be introduced for HT industrial consumers availing supply from feeders reporting abnormal loss levels.

**Related to Processes**

**Energy Audit**

10.12 As per the petitions submitted to the Commission, about 48% of 11 kV feeders are metered and metering for the remaining feeders is expected to be completed by March 31, 2007. The Commission believes that all meters should be read regularly and the readings should be used to measure the quantity of energy supplied to individual division. The Petitioner is directed to maintain metering data of all incoming and outgoing feeders at all 66/ 33 kV substations, which can be useful for conducting energy audit(s).

10.13 The Petitioner is directed to carry out energy audit of all industrial feeders and submit the report to the Commission on a quarterly basis, starting by October 15, 2007.

10.14 The Petitioner shall prepare monthly circle/ division wise T&D loss reports after completion of feeder metering, which is targeted to be completed in March 2007. It shall create responsibility centers for energy audit, and appropriately reward/ penalize centers based on the actual results in curbing theft, reduction of technical losses, etc.

**Revenue Cycle Management:**

10.15 The Petitioner shall review all its revenue generation and revenue management to identify areas of improvement. It shall submit a report to the Commission with a detailed review of the processes listed below. A sample list of the issues to be studied in each process is also outlined below.

- (a) New Connections and Connections Management
  - (i) Average time taken for issue of a new connection, for various consumer categories
  - (ii) Interface points available to consumers
  - (iii) Forms and documents made available/ required
  - (iv) Distinction between consumer categories, if any
  - (v) Infrastructure requirements/ used
  - (vi) Manpower requirements, training and development aspects, etc.
- (b) Meter Management
  - (i) Development of technical specifications for meters and sealing arrangement for each consumer category/ load requirement
  - (ii) Assessment of meter requirements for consumers, energy audit, etc.
  - (iii) Tendering process, award of order, delivery schedules
  - (iv) Storage of meters and seals received – at the utility's stores, delivery at site, etc.
  - (v) Extent of outsourcing in meter installation and other field activities
  - (vi) Updation of meter change details for billing purpose
  - (vii) Handling/ disposal of old/ defective meters

- (viii) Time taken for installation of meters in cases of new connection requests, burnt meters, defective meters, old meters, load enhancement, load reduction, etc.
  - (ix) Infrastructure deployed for metering activities
  - (x) Manpower requirement, training and development aspects, etc.
- (c) Meter Reading
- (i) Method/ technology (IT Systems and tools) deployed for capturing meter readings for different consumer categories
  - (ii) Extent of outsourcing of field/ data handling activities
  - (iii) Meter reading schedules/ cycles for different consumer categories
  - (iv) Handling/ updation of meter reading books
  - (v) Audit of meters, provision to check meter readings
  - (vi) Time taken for meter readings in terms of consumer categories/ geographical distribution, rural and urban areas, etc.
  - (vii) Infrastructure deployed for meter reading activities
  - (viii) Manpower requirement, training and development aspects, etc.
- (d) Revenue Billing Process
- (i) Methodology for bill generation for various consumer categories, extent of usage of IT systems, etc.
  - (ii) Extent of outsourcing of bill generation related activities
  - (iii) Extent of centralization/ decentralization and level of bill generation process for various consumer categories: division level, circle level or company level.
  - (iv) Setting due dates for making payment
  - (v) Quality check of bills before despatching to consumers
  - (vi) Time taken from receipt of meter reading to generation of bills
  - (vii) Infrastructure deployed for bill generation and bill dispatch activities

- (viii) Manpower requirement, training and development aspects, etc.
- (e) Collection Management
  - (i) Available avenues/ gateways to customers for making payments
  - (ii) Strategy for different consumer categories/ rural and urban areas etc.
  - (iii) Time taken for updation of payment details in the billing database / ledger
  - (iv) Handling of dishonoured cheques
  - (v) Infrastructure deployed for collection activities
  - (vi) Manpower requirement, training and development aspects, etc.
- (f) Revenue Recovery
  - (i) System for follow-up on unpaid bills for various consumer categories
  - (ii) System and extent of issuance of disconnection notices to defaulters
  - (iii) Extent of disconnection of supply on non-receipt of payment after expiry of disconnection notice deadline
  - (iv) Extent of outsourcing of disconnection/ recovery process for field/ back office activities
  - (v) Time taken for updation of billing database to prevent generation of average/ provisional bills for disconnected cases
  - (vi) Time taken for recovery process for various consumer categories
  - (vii) Infrastructure deployed for collection activities
  - (viii) Manpower requirement, training and development aspects, etc.
- (g) Revenue Discipline Process (Enforcement)
  - (i) System for routine surveillance, data base analysis, sample field checks, etc.
  - (ii) Usage of energy audit reports

- (iii) Enforcement activities, Deployment of dedicated teams for conducting raids etc.
  - (iv) Avenues and action on feedback from field staff and public
  - (v) Tracking of cases of disconnected meters, removed meters and removed service line
  - (vi) Outsourcing of revenue discipline field/ office activities
  - (vii) Time taken for booking and recovery from theft cases
  - (viii) Infrastructure deployed for revenue discipline activities
  - (ix) Manpower requirement, training and development aspects, etc.
- (h) Customer Care
- (i) Complaint management process for commercial and supply related issues
  - (ii) Providing avenues to customers for lodging and following-up on lodged complaints
  - (iii) System for tracking, aggregation, escalation of complaints
  - (iv) Level of monitoring of complaints for various consumer categories - circle, division, etc.
  - (v) Extent of outsourcing in the complaint management process
  - (vi) Category-wise details on the time taken for resolution of different kinds of complaints, such as: billing related, metering related, payment related, no supply, burnt meter, etc.
  - (vii) Infrastructure deployed for revenue discipline activities
  - (viii) Manpower requirement, training and development aspects, etc.

10.16 The Petitioner's report shall also identify scope of improvement and contain specific plans for achieving the same for each of the processes described above. The report shall be submitted to the Commission by November 30, 2007.

## **Other Directives**

### **Segregation of Costs between Transmission and Distribution**

- 10.17 The Commission directs the Petitioner to prepare an allocation statement for segregating its costs between the transmission and distribution functions. The allocation statement shall be used to file for separate tariffs for transmission and distribution in the next ARR petition.
- 10.18 It is also directed to segregate its assets between transmission and distribution functions and maintain separate Fixed Asset Registers (FAR) for each function. All assets of 132 kV class and above shall be taken as transmission assets.

### **Database Management and Management Information System**

- 10.19 The Commission has observed several glaring gaps and discrepancies in the data submitted by the Petitioner in its ARR and tariff petitions. The Petitioner shall develop a suitable Management Information System (MIS) which will enable it to provide consistent and detailed information. It shall also develop a computerized database management system (DBMS) to handle all data, related to its operations.
- 10.20 It shall also develop data/ information requirement formats for capturing data across consumer categories and across circles/ divisions for the purpose of monitoring and review. It shall subsequently identify Key Performance Indicators (KPIs) which will help in tracking its performance/ progress against set goals and objectives.
- 10.21 For handling voluminous data across circles/ divisions on a month to month basis it is essential to have an IT based system for storing and retrieving data as and when required.
- 10.22 The Petitioner is directed to submit the Terms of Reference for the selection of experts for development/ improvement of its MIS and DBMS to the Commission, for its review and approval, by June 30, 2007.

### **Time of Day Tariffs**

- 10.23 The Commission intends to introduce the Time-of-Day tariffs in the State from the next tariff period. The Petitioner is directed to make operational the time-of-day feature of tri-vector meter installed for all HT connections. It shall also analyse the consumption and declare the morning and evening peak periods
- 10.24 The Petitioner shall complete the activation of the time-of-day feature by June 30, 2007 and notify the Commission of the same. It shall submit consumption details of peak and off-peak periods for all HT consumers on a monthly basis from July 31, 2007.

**Sales Forecasting**

10.25 The Commission has observed a significant difference in the amount of sales projected by the Petitioner and as obtained through calculations using the consumption norms submitted in its petitions. The Petitioner is directed to submit sub-category/ slab-wise details regarding the number of consumers, connected load and energy consumption in its subsequent ARR and tariff petitions, The Commission also directs it to detail the methodology used for projecting energy sales.

**Region-wise Details**

10.26 The Petitioner shall submit details on the power availability, energy sales, level of metering, revenue realisations and loss levels in different regions in the State, by 15 July, 2007. The Commission shall monitor the improvement in each parameter and issue further directives to the Petitioner, based on the actual performance.

**Monitoring of Progress against Directives**

10.27 The Petitioner shall submit quarterly progress reports detailing the progress achieved with respect to each of the directives given by the Commission. The first progress report shall be submitted by July 15<sup>th</sup>, 2007 and subsequent reports for the next three quarters shall be submitted by the 15<sup>th</sup> of each month following the quarter.

10.28 The Commission shall hold quarterly review meetings with the Petitioner to discuss the progress against all the directives issued.

## **A11: TERMS AND CONDITIONS OF TARIFF/ DEFINITIONS**

- 11.1 The Commission received several comments regarding the quality of supply and the number of definitions used by the Petitioner in its agreements for providing power supply to consumers.
- 11.2 The Commission has decided to specify the terms and conditions to be adhered to, during determination of tariffs. It has also defined the terms applicable for tariff determination, to remove the confusion due to use of multiple definitions. The Commission directs the Petitioner to strictly follow these definitions for all future purposes.

### **Terms and Conditions of Tariff**

- 11.3 The utility shall provide single phase LT connections upto a load of 5 kW, beyond which all connections shall be three phase in nature.

#### **Points of Supply**

- 11.4 The tariff will be applicable to one point supply unless otherwise specified in the agreement between the Petitioner and the consumer.

#### **Minimum Agreement Period**

- 11.5 The minimum period for which the Petitioner shall provide a permanent connection for power supply to a consumer shall be two years. Any consumer applying for permanent disconnection of the supply before the expiry of two years, shall pay to the utility, guaranteed charges/ minimum charges/ demand charges for unexpired period of the agreement. However this condition of paying minimum charges can be relaxed for domestic and agriculture consumers.

#### **Security Deposit**

- 11.6 All consumers shall deposit a security amount with the Petitioner, based on their assessed charges for two months, prior to getting a connection. No security deposit is required for Central and State Govt. offices, provided there is no default in payment of monthly bills for more than three months. The security deposit shall be refunded to the consumer on surrender of the connection subject to adjustment of any outstanding dues.

#### **Late payment surcharge**

- 11.7 The Petitioner shall levy a late payment surcharge of 1.5% per month on the unpaid (beyond due date) principal amount of energy charges, demand charges and/or minimum charges as may be the case.

**Excess/ Unauthorised Load**

- 11.8 Any consumer found to have a Connected Load greater than the sanctioned Connected Load or Contract Demand shall be levied minimum/ demand charges for the excess load at 1.5 times the normal rate. The energy charges for consumption proportionate to the excess demand shall also be billed at 1.5 times the normal rate.
- 11.9 For LT consumers extra billing shall be done for previous six months and will be continued till the excess Connected Load is removed or regularised.
- 11.10 Connection to such defaulting consumers shall be disconnected immediately, which will be reconnected only after the unauthorized load is removed and a test report is submitted to the Petitioner. It can also be reconnected after the excess load is regularised by revising the completion of revised agreement, submission of test report and payment of prescribed charges. The Petitioner shall allow the regularization of excess load based on the conditions of the distribution system. In absence of suitable conditions, the consumer shall be required to disconnect the excess load within fifteen days.

**Un-metered connections**

- 11.11 The Petitioner shall not provide any new connections without appropriate meter. The tariff for un-metered connections shall be applicable only to the existing un-metered connections, until they are metered.

**Electricity Duty**

- 11.12 The tariffs are exclusive of Electricity Duty (ED) or any other taxes levied by the Government. The ED and any other levy shall be charged extra and remitted to the Government separately, based on the actual payment from consumers.

**kVAh Billing**

- 11.13 All connections falling in categories with kVAh billing, but with old/ electromechanical meters installed shall be done on derived kVAh consumption, with an assumed power factor of 0.85, till such time appropriate tri-vector meters are installed.

**Power Factor Control**

- 11.14 All consumers having aggregate load greater than 5 kVA/ HP (except domestic and street lights and such consumers where kVAh tariff has been introduced), shall install capacitors of required kVA rating provided in Table 11.1.

**Table 11.1: Ratings of capacitors for induction motors**

S. No.	Rating of individual Induction motor.	kVAR rating of LT capacitors
1.	3 BHP and above up to 5 BHP	1
2.	Above 5 BHP to 7.5 BHP	2
3.	Above 7.5 BHP to 10 BHP	3
4.	Above 10 BHP to 15 BHP	4
5.	Above 15 BHP to 20 BHP	5
6.	Above 20 BHP to 30 BHP	6
7.	Above 30 BHP to 40 BHP	7
8.	Above 40 BHP to 50 BHP	8
9.	Above 50 BHP to 100 BHP	9
10.	Above 100 HP	As approved by the utility

11.15 All such consumers shall be levied a surcharge at 10% on the energy charge (metered or flat), till they have installed the required capacitors.

11.16 For LT industrial/ non-domestic connections having welding transformers with total capacity greater than 25% of the total Connected Load, an extra surcharge of Rs. 3/ kVA shall be levied until capacitors of required capacity are installed.

11.17 The Petitioner shall not release any new LT connections having aggregate load greater than 5 HP/ kVA (except domestic and street light) unless the capacitors of suitable rating are installed.

### **Irregular Power Supply**

11.18 In cases where the utility is unable to supply power to the entire area / locality fed by a particular substation for a continuous period of 15 days or more, no electricity charges will be payable by the affected consumers for the period power continuously remains off.

11.19 The areas where the power supply is less than 12 hours a day for a continuous period of thirty days, the minimum charges applicable for short period supply will be charged proportionately.

**Government Employees moving with Darbar**

- 11.20 Government employees moving between Jammu and Srinagar along with Darbar and occupying Government accommodation shall be granted electric connection for a period of six months. On expiry of six months, the department will disconnect the installation immediately and no charges will be levied for the period the installation remains disconnected. All such installations shall be deemed to be permanent connections for determination of tariff.

**Stopped / Defective meters**

- 11.21 If the meter of any LT/HT consumer is found stopped or defective, the billing for the period when the meter remained defective shall be done based on the average of three months prior to the month when the defect was discovered.
- 11.22 If the consumption for the previous three months is not available, provisional billing shall be done, which can be revised based on the average consumption for three months after replacement of the meter or based on the assessed consumption if subsequent three months consumption cannot be taken due to specific reasons.

**Charges for Dishonoured Cheques**

- 11.23 A consumer, whose cheque has been dishonoured once, shall have to make payments either in cash or demand draft.
- 11.24 The Petitioner shall charge an interest @ 2.5% per month on the unpaid amount from the due date of payment till the bill amount is entirely paid.

**Resale of Energy**

- 11.25 No consumers shall resell the energy purchased from the utility to any other person. Defaulters shall be subject to immediate disconnection of supply.

**Applicability of Tariff**

- 11.26 In case of any dispute between the utility and the consumers regarding the applicability of Tariff, the decision of the Commission shall be final.

**Contradiction to the Agreement**

- 11.27 All conditions prescribed here in shall be applicable to the consumers, notwithstanding, the provisions if any, in the agreement entered by the consumers with the licensee, being to the contrary.

## **Definitions**

### **Connected Load**

- 11.28 The Connected Load shall mean the sum of the rated capacities in kW/HP of all energy consuming apparatus including portable apparatus duly wired and connected to the power supply system in the consumer's premises. However, this shall not include the load of extension plug sockets, stand-by or spare energy consuming apparatus installed, through change over switch, which cannot be operated simultaneously and any other load exclusively meant for fire fighting purposes.
- 11.29 In case of domestic consumers load of geysers plus heaters or of air conditioners without heaters which ever is higher is to be considered.
- 11.30 Any equipment which is under installation and not connected electrically, equipment stored in warehouse/showrooms either as spare or for sale is not to be considered as part of the Connected Load.

### **Sanctioned Load**

- 11.31 Sanctioned Load: shall mean load for which the Petitioner has agreed to supply from time to time subject to the governing terms and conditions. The total Connected Load is required to be sanctioned by the competent authority.

### **Contract Demand**

- 11.32 Contract Demand shall mean the maximum demand for which the consumer has entered into an agreement with the utility.

### **Maximum Demand**

- 11.33 Maximum Demand for any month shall mean the highest average load measured in kilovolt amperes during any consecutive 30 minutes period of the month.

### **Demand Charges**

- 11.34 Demand Charges shall mean the amount chargeable based upon the billing demand as defined in the relevant tariff schedule.

### **Average Power Factor**

- 11.35 Average Power Factor: shall mean the average energy factor and shall be taken as the ratio of the kilo-watt-hours (kWh) to the kilo-volt-ampere hours (kVAh) supplied during any period.

**A12: TARIFF SCHEDULES****Schedule 1: Domestic Supply****Applicability**

12.1 This schedule shall apply to the following:

Residential premises, religious institutions, group housing societies, orphanages, old-age and infirm homes, charitable institutions providing services free of cost or on nominal charges, post offices at residences of villagers and residential premises of professionals like advocates, doctors, artists, weavers, stitching and embroidery workers occupying not more than 20% of built up area for commercial purposes.

**Character of Services**

- (a) Alternating current (AC) 50 Hz, 230 Volt, for Single-phase upto a load of 5 kW
- (b) AC 50 Hz, three phase, 400 Volt, for load above 5 kW upto 100 kW (115 kVA)

**Rate of Charge**

- (a) Metered Consumers

Particulars	Approved Tariff
<b>Energy Charges (Rs/kWh)</b>	
0-30 units/ month	0.90
31-100 units/ month	1.15
101-200 units/ month	1.40
Above 200 units /month	2.10
<b>Minimum Charges (Rs. /month)</b>	
0 - ¼ kW	15.00
¼ kW – ½ kW	25.00
½ kW – 1 kW	40.00
Above 1 kW for every ¼ kW, or part thereof	10.00

(b) Un-metered consumers

Particulars	Approved Tariff
<b>Flat Rate Charges (Rs. / month)</b>	
0 - ¼ kW	50.00
¼ kW – ½ kW	160.00
½ kW – ¾ kW	240.00
¾ kW – 1 kW	320.00
1 kW – 2 kW	635.00
Above 2kW	Rs.635 + Rs. 275 for every ½ kW or part thereof

**Note**

- 12.2 Group housing societies can avail single point power supply. The energy bill of a housing society shall be divided by the number of houses in it, to determine the consumption in each house.

If there are 10 houses in a society the consumption shall be charged in the following manner: The first 300 (30\*10) units would be charged at Rs 0.90/unit; the next 700 (70\*10) units at Rs 1.15/unit; next 1000 (100\*10) units at Rs 1.40/unit and the remaining units at Rs 2.10/unit.

**Schedule 2: Non-Domestic/ Commercial Supply****Applicability**

12.3 This schedule shall be applicable to the following:

Shops, showrooms, business houses, offices, educational/ technical institutions, clubs, meeting halls, places of public entertainment, hotels, cinemas, hospitals, dispensaries, clinics, nursing homes, X-ray units, diagnostic centers, pathological labs, fisheries, aquaculture, sericulture, dairy, hatcheries, printing presses, milk chilling centers, poultry farms, cattle breeding farms, nurseries, plantations, mushroom growing, carpenters and furniture makers, juice centers, hoardings and advertisement services, typing institutes, internet cafes, STD/ISD PCO's, FAX/ photocopy shops, tailoring shops, photo studios and colour labs, laundries, cycle shops, compressors for filling air, restaurants, eating establishments, guest houses, marriage gardens, welding transformer and lathe machines for repair works and services, book binders, petrol pumps and service stations, lifts and other appliances in shopping centers and offices, tourist house boats, and other similar establishments.

12.4 In addition, any connection not covered under the other categories shall be billed under this category. However, this would exclude connections pertaining to State/ Central Government or Defence services, which have been included in a separate category.

**Character of Services**

- (a) AC, 50 Hz, 230 Volts, Single-phase upto a load of 5 kW.
- (b) AC, 50 Hz, three phase, 400 volts supply for load above 5 kW upto 100 kW (115 kVA).

**Rate of Charge**

- (a) Metered Consumers

Particulars	Approved Tariff
<b>Energy Charges (Rs/kWh)</b>	
Single Phase	
0-100 units/ month	1.70
101-200 units/ month	1.80
Above 200 units /month	2.50
Three Phase	
For all units	2.90
<b>Minimum Charges (Rs. /month)</b>	

Particulars	Approved Tariff
0 - ¼ kW	45.00
Above ¼ kW	45.00 for every ¼ kW, or part thereof

(b) Un-metered Consumers

Particulars	Approved Tariff
<b>Flat Rate Charges</b>	
0 - ¼ kW	Rs 140 / month
¼ kW – ½ kW	Rs 350 / month
½ kW – 1 kW	Rs 700 / month
1 kW – 5 kW	Rs 900.00/kW or part thereof for every kW above 1 kW but less than 5 kW
Above 5 kW	Rs 900.00/kW or part thereof for every kW above 5 kW

**Schedule 3: State/ Central Government Departments****Applicability**

12.5 This schedule shall be applicable to the following:

Departments of the State and the Central Governments, defence and para-military forces, excluding public sector enterprises/ undertakings.

This shall not include connections taken for agricultural purposes, water pumping and street lighting by the State Government Departments for which tariffs provided in the appropriate tariff schedules shall apply.

**Character of Services**

- (a) AC, 50 Hz, 230 Volts; single-phase upto a load of 5 kW
- (b) AC, 50 Hz, three phase; 400 volts supply for load above 5 kW upto 100 kW (115 kVA)
- (c) AC, 50 Hz, three phase; 11 kV supply for load upto 1 MVA
- (d) AC, 50 Hz, three phase; 33 kV and above supply for load above 1 MVA

**Rate of Charge**

Particulars	Approved Tariff
<b>Energy Charges (Rs/kWh)</b>	Rs 4.89
11 kV supply	2.5 % rebate on energy charges
33 kV supply	5.0 % rebate on energy charges
<b>Minimum Charges (Rs. /month)</b>	
0 - ¼ kW	45.00
Above ¼ kW	45.00 for every ¼ kW, or part thereof

**Schedule 4: Agriculture****Applicability**

- 12.6 This schedule shall be applicable to all agricultural loads and lift irrigation connections including threshers and de-watering pumps used for bona-fide agricultural purposes.
- 12.7 This schedule shall not apply to connections for agricultural purpose, having connected load greater than 100 kW (115 kVA).

**Character of Services**

- (a) AC, 50 Hz, 230 Volts, Single-phase upto a load of 5 kW (6 kVA)
- (b) AC, 50 Hz, three phase, 400 volts supply for load upto 100 kW (115 kVA)

**Rate of Charge**

- (a) Metered Consumers

Particulars	Approved Tariff
<b>Energy Charges (Rs/kWh)</b>	
0-20 HP	0.50
Above 20 HP	3.30
<b>Minimum Charges (Rs. /annum)</b>	
0-20 HP	250
Above 20 HP	900

Provisional monthly billing will be done subj. to annual adjustment

- (b) Un-metered Consumers

Particulars	Approved Tariff
<b>Flat Rate Charges (Rs. / month)</b>	
0-20 HP	110
Above 20 HP	750

**Schedule 5: Public Street Lighting****Applicability**

- 12.8 This schedule is applicable to public street lighting established and maintained by Corporations, Municipalities, Town Area/ Notified Area Committees, other local bodies and agencies authorized by the State Government to establish and maintain public street lighting.

**Character of Services**

- (a) AC, 50 Hz, 230 Volts, Single-phase upto a load of 5 kW.
- (b) AC, 50 Hz, three phase, 400 volts supply for load above 5 kW

**Rate of Charge**

- (a) Metered Consumers

Particulars	Approved Tariff
<b>Energy Charges</b>	
Rs/kWh	3.30
<b>Minimum Charges</b>	
Rs./ kW/ month or any part thereof	200

- (b) Un-metered Consumers

Particulars	Approved Tariff
<b>Flat Rate Charges</b>	
Rs./ kW/ month or any part thereof	760

**Schedule 6: Public Water Works****Applicability**

- 12.9 This schedule shall be applicable to all water works and sewerages/ drainage installations established and maintained by Corporations, Municipalities, Town Area/ Notified Area Committees, other local bodies and Government agencies authorised by the State Government to establish and maintain public water works/ sewerage installations.

**Schedule 6.1: LT Public Water Works****Character of Services**

- (a) AC, 50 Hz, 230 Volts, Single-phase upto a load of 5 kW (6 kVA)
- (b) AC, 50 Hz, three phase, 400 volts supply for load upto 100 kW

**Rate of Charge**

- (a) Metered consumers

Particulars	Approved Tariff
<b>Energy Charges</b>	
Rs/kWh	3.30
<b>Minimum Charges</b>	
Rs./ kW/ month or any part thereof	200

- (b) Un-metered consumers

Particulars	Approved Tariff
<b>Flat Rate Charges</b>	
Rs./ kW/ month or any part thereof	575

**Schedule 6.2: HT Public Water Works****Character of Services**

- (a) AC, 50 Hz, three phase; 11 kV supply for load above 100 HP upto 1 MVA.
- (b) AC, 50 Hz, three phase; 33 kV and above supply for load above 1 MVA

**Rate of Charge**

(a) Metered consumers

Particulars	Approved Tariff
<b>Energy Charges</b>	Rs./ kVAh
11 kV Supply ^	2.35^
33 kV Supply	2.30
<b>Demand Charges</b>	Rs./ kVA/ Month
11 kV Supply ^*	160
33 kV Supply	155
^ For Connections above 100 HP supplied on LT, Additional 5% Surcharge on Demand and Energy Charges at 11 KV tariff shall be chargeable	
* Or part thereof on Billing Demand	

12.10 The billing demand for any month shall be taken to be the higher of the actual maximum recorded demand or 75% of the Contract Demand.

(a) Un-metered consumers

Particulars	Approved Tariff
<b>Flat Rate Charges</b>	
Rs./ HP/ month or any part thereof	675

**Schedule 7: LT and HT Industry****Schedule 7.1: LT Industry****Applicability**

12.11 This schedule shall be applicable to all units registered with the Industries Department, Government of J&K, and covered under the Factories Act.

This shall include: all industries for power, lights, fans, coolers, etc. having a Contract Demand above 100 kW, which shall mean and include all energy consumed in factory, offices, stores, canteen, compound lighting, etc. and residential use therein, excluding power intensive industries.

**Character of Services**

- (a) AC, 50 Hz, 230 Volts, single-phase upto a load of 5 kW.
- (b) AC, 50 Hz, three phase, 400 volts supply for load upto 100 kW

**Rate of Charge**

- (a) Metered Consumers

Particulars	Approved Tariff
<b>Energy Charges</b>	
(Rs/kWh)	2.00
<b>Minimum Charges</b>	
(Rs./ HP or Part thereof)	90

- (b) Un-metered Consumers

Particulars	Approved Tariff
<b>Flat Rate Charges</b>	Rs./ HP/ month or any part thereof
8 hrs shift	300
8 - 12 hrs shift	450
above 12 hrs shift	600

**Schedule 7.2: HT Industry****Applicability**

12.12 This schedule shall be applicable to all units registered with the Industries Department, Government of J&K, and covered under the Factories Act.

This shall include flour mills, hullers, power-looms, rice mills, dal mills, oil mills, ice factories, cold storage plants, masala grinders, other industrial installations and workshops with manufacturing facilities, where raw material is converted to finished goods.

**Character of Services**

- (a) AC, 3 phase; 50 Hz on 11 KV above 100 kW upto 1 MVA
- (b) AC, 3 phase; 50 Hz, 33 KV and above for load of 1 MVA and above

**Rate of Charge**

Particulars	Approved Tariff
<b>11 kV Supply</b>	
Demand Charge (Rs./ kVA/ Month) *^	105.00
Energy Charge (Rs./ kVAh) *	1.75
* For Connections above 100 HP supplied on LT, Additional 5% Surcharge on Demand and Energy Charges at 11 KV tariff shall be chargeable	
<b>33 kV and above supply</b>	
Demand Charge (Rs./ kVA/ month) ^	105.00
Energy Charge (Rs./ kVAh)	1.70
^ Or part thereof on Billing Demand	

12.13 The billing demand for any month shall be taken to be the higher of the actual maximum recorded demand or 75% of the Contract Demand.

**Schedule 7.3: HT Industry (Power Intensive Industries)****Applicability**

12.14 This schedule shall be applicable to power intensive industries, as per the classification of the Department of Industries and Commerce, Government of J&K and covered under the Factories Act. This shall mean and include all energy consumed in factory, offices, stores, canteen, compound lighting, etc. and the consumption for residential use therein.

**Character of Services**

- (a) AC, 3 phase; 50 Hz, 11 KV upto 1 MVA
- (b) AC, 3 phase; 50 Hz, 33 KV and above for load of 1 MVA and above

**Rate of Charge**

Particulars	Approved Tariff
<b>11 kV Supply</b>	
Demand Charge (Rs./ kVA/ Month) *	140
Energy Charge (Rs./ kVAh)	2.00
<b>33 kV and above Supply</b>	
Demand Charge (Rs./ kVA/ Month) *	135
Energy Charge (Rs./ kVAh)	1.95
* Or part thereof on Billing Demand	

12.15 The billing demand for any month shall be taken to be the higher of the actual maximum recorded demand or 75% of the Contract Demand.

**Schedule 8: General Purpose Bulk Supply****Applicability**

- 12.16 This schedule shall be applicable to all non-industrial consumers having mixed type of load greater than 100 kW (115 kVA). This includes domestic consumers, offices, educational / technical institutions, religious institutions, residential colonies, commercial establishments and other similar loads.
- 12.17 All connections having load of 100 kW or above and not covered in any other categories shall be billed under tariffs applicable to this category. However, any such connections belonging to State/ Central Governments, Defence and Para-military forces shall not be considered in this category.

**Character of Services**

- (a) AC, 3 phase; 50 Hz on 11 KV upto 1 MVA.
- (b) AC, 3 phase; 50 Hz on 33 KV and above .for load of 1 MVA and above

**Rate of Charge**

Particulars	Approved Tariff
<b>11 kV Supply</b>	
Demand Charge (Rs./ kVA/ Month) *	145.00
Energy Charge (Rs./ kVAh)	2.35
* For Connections above 100 kW supplied on LT, Additional 5% Surcharge on Demand and Energy Charges at 11 KV tariff shall be chargeable	
<b>33 kV and above Supply</b>	
Demand Charge (Rs./ kVA/ Month) *	140.00
Energy Charge (Rs./ kVAh)	2.30
* Or part thereof on Billing Demand	

- 12.18 The billing demand for any month shall be taken to be the higher of the actual maximum recorded demand or 75% of the Contract Demand.

## **Schedule 9: Temporary Connections**

### **Applicability**

- 12.19 This schedule shall be applicable to all temporary loads, such as exhibitions, touring talkies, circuses, fairs, marriages, temporary agricultural loads, temporary supply for construction including civil works by Government departments and other similar purposes.

### **Rate of Charge**

- 12.20 Tariff for temporary connections should be charged at 1.5 times the applicable rates (on fixed/ demand and energy charges) as specified in the respective schedules.

**A13: SCHEDULE OF MISCELLANEOUS CHARGES**

13.1 The schedule for levying miscellaneous charges for 2007-08, as approved by the Commission is provided in Table 13.1.

**Table 13.1: Schedule of Miscellaneous Charges**

S.No.	Particulars	Approved
1.	<b>For single phase and three phase connection up to 5 kW</b> a) Changing meter Board in same premises. b) Changing meter at consumer's request in same premises. c) Re-sealing PDD's cut out in consumer's premises.	Rs. 50/- Rs. 50/- Rs. 15/-
2.	<b>Re-sealing of meters, Maximum Demand indicators in consumer's premises</b> a) Single phase LT connection. b) Three phase LT Connection. c) H.T. connection.	Rs. 40/- Rs. 60/- Rs. 500/-
3.	<b>Meter testing charges at consumer's request.</b> a) Single phase LT meter b) 3 phase, 4w/3w meter, without C.T. meter c) 3 phase, 4w/3w meter, with C.T. meter d) L.T. C.T meter e) HT meters (along with metering equipment)	Rs. 50/- Rs. 75/- Rs. 250/- Rs. 100/- each Rs. 1,000/-
4.	<b>Special meter reading</b> a) L.T. connection b) H.T. connection	Rs. 20/- Rs.200/-
5.	Replacement of burnt meter. (If burnt due to consumer's fault)	Cost of meter + 15% Supervision Charges
6.	<b>Fuse off call charges – Replacement</b> a) PDD's cut out fuse b) L.T. Consumer's fuse	Rs. 15/- Rs. 15/-
7.	Replacement of missing meter card	Rs. 10/- per card
8.	Replacement of broken glass of meter	Rs. 30/- per glass
9.	<b>Reconnection/disconnection charge</b> LT Consumers HT Consumers	Rs. 25/- Rs. 150/-
10.	<b>Re-checking of installation on request of consumer</b>	

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S.No.	Particulars	Approved
	a) Single Phase b) Three Phase	Rs.75/- per installation Rs. 225/- per installation
11.	Re-rating of equipment	Rs.100/- per equipment
12.	<b>Supervision Charge for Service Connection (if Service line laid by consumer through licensed contractor)</b> a) Single Phase LT Connections b) Three Phase LT Connections c) Loop LT Connections	Rs. 175/- Rs. 350/- Rs. 80/-
13.	Parallel operation charge for availing grid support by CPP	Rs.16/- per kVA per month on the installed capacity of the CPP
14.	Shifting of connection	Actual cost of material + 15% Supervision Charge
15.	<b>Hiring of utility's plant and equipment</b> (i) For initial hire agreement period  (ii) For subsequent period of hire agreement (iii) For L.T. consumers (more than 100 HP) converting to H.T.	1% p.m. on current schedule of rates. Twice of (i) Same as in (i) and (ii) above
16.	<b>Transfer of name</b> L.T. H.T.	Rs. 100/- Rs. 500/-
17.	Booklet for HT/LT Tariff	Rs.20/-
18.	<b>Connection/ Disconnection Charges for Temporary Connections</b> a) LT Temporary Connection b) HT Temporary Connection	Rs. 100/- Rs. 500/-