TARIFF ORDER FOR FY08

Himachal Pradesh Electricity Regulatory Commission

April, 2007

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A1: BACKGROUND

1.1 The Himachal Pradesh State Electricity Board (hereinafter referred to as HPSEB or the Board) is a deemed licensee under the first proviso to Section 14 of the Electricity Act, 2003 for transmission, distribution, trading and supply of electricity in the State of Himachal Pradesh.

1.2 The Board has filed applications to the Himachal Pradesh Electricity Regulatory Commission (the Commission) for approval of its Annual Revenue Requirement (ARR) and determination of Distribution and Retail Supply Tariff as well as Generation, Transmission and Bulk Supply Tariffs for FY08 under Sections 62, 64 and 86 of the Electricity Act, 2003 (hereinafter referred to as the Act), read with the Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2004 and Himachal Pradesh Electricity Regulatory Commission (Guidelines and Formats for Tariff Filing) Regulations, 2005 framed by the Commission.

1.3 The licensee is required to observe the methodologies and procedures specified by the Commission in calculating the expected revenue from charges (viz. Annual Revenue Requirement) and in designing tariffs. The calculations relate to each of the licensed business for the ensuing financial year regarding

(a) Its expected aggregate revenue from charges under its currently approved tariff; and

(b) Its expected revenue gap (if any) and a general explanation on how it proposes to deal with the revenue gap and the application for tariffs for the ensuing financial year.

1.4 This Order relates to the approval of the Annual Revenue Requirement (ARR) and the determination of Distribution and Retail Supply Tariffs as well as Generation, Transmission and Bulk Supply Tariffs for FY08. The Commission has reviewed the operational and financial performance of the Board for FY07. The Commission has finalised this order based on the review and analysis of the past records, information submissions, necessary clarifications submitted by the licensees and views expressed by stakeholders.

Functions of the Commission

1.5 The Himachal Pradesh Electricity Regulatory Commission was established and incorporated by the Government of Himachal Pradesh through a notification dated December 30, 2000, under Section 17 of the repealed Electricity Regulatory Commissions Act, 1998 (14 of 1998), and now covered under the first proviso to Section 82 of the Electricity Act, 2003, with its headquarters located at Shimla.

1.6 The Act (and other provided legislation) guides the Commission's approach to regulation. The Act mandates the Commission to take measures conducive to the development and management of the electricity industry in an efficient, economic and competitive manner.

1.7 The Commission derives its powers under Section 86 of the Electricity Act, 2003 (36 of 2003) which came into force with effect from 10 June 2003. The Act repealed the Indian Electricity Act, 1910, the Electricity (Supply) Act, 1948 and the Electricity Regulatory Commissions Act, 1998.

1.8 As part of the tariff related provisions of the Act, the State Electricity Regulatory Commission (SERC) has to be guided by the Electricity Act, the National Electricity Policy (NEP) and the National Tariff Policy (NTP).

1.9 The functions assigned to the Commission under the Act are as follows:

(1) "The State Commission shall discharge the following functions, namely: -

(a) Determine the tariff for generation, supply, transmission and wheeling of electricity, wholesale, bulk or retail, as the case may be, within the State: Provided that where open access has been permitted to a category of consumers under section 42, the State Commission shall determine only the wheeling charges and surcharge thereon, if any, for the said category of consumers;

(b) Regulate electricity purchase and procurement process of distribution licensees including the price at which electricity shall be procured from the generating companies or licensees or from other sources through agreements for purchase of power for distribution and supply within the State;

(c) Facilitate intra-state transmission and wheeling of electricity;

(d) Issue licences to persons seeking to act as transmission licensees, distribution licensees and electricity traders with respect to their operations within the State;

(e) Promote cogeneration and generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person, and also specify, for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution licensee;

(f) Adjudicate upon the disputes between the licensees and generating companies and to refer any dispute for arbitration;

(g) Levy fee for the purposes of this Act;

(h) Specify State Grid Code consistent with the Grid Code specified under clause (h) of sub-section (1) of section 79;

(i) Specify or enforce standards with respect to quality, continuity and reliability of service by licensees;

(j) Fix the trading margin in the intra-State trading of electricity, if considered, necessary;

(k) Discharge such other functions as may be assigned to it under this Act.

(2) The State Commission shall advise the State Government on all or any of the following matters, namely: -

(a) Promotion of competition, efficiency and economy in activities of the electricity industry;

(b) Promotion of investment in electricity industry;

(c) Reorganisation and restructuring of electricity industry in the State;

(d) Matters concerning generation, transmission, distribution and trading of electricity or any other matter referred to the State Commission by that Government."

Regulations framed under the Electricity Act 2003

1.10 HPERC has specified the terms and conditions for the determination of tariff, and in doing so, that has been guided by Section 61 of the Electricity Act 2003. The Tariff Regulations clearly outlines that the Act and the National Electricity Policy and National Tariff Policy would provide the guiding principles for setting tariffs.

Regulatory Experience

Tariff Orders

1.11 The Commission issued its first Tariff Order for FY02 on 29 October 2001. In this Tariff Order, directions were issued to the Board on issues concerning improvement of performance and availability of information with the intention to improve the overall efficiency and database of the utility.

1.12 The Board did not submit the ARR and Tariff Filings for FY03 and FY04 despite the Commission's request to submit the same. In subsequent years, FY05, FY06 and FY07, the Board submitted its ARR and Tariff Filings and Commission issued the respective Tariff Orders on 2 July 2004, 29 June 2005 and 3 July 2006.

1.13 Some of the salient features of the previous Tariff Orders are as follows:

(a) Introduction of two part kVAh based tariff for all for all consumer categories except domestic category having connected load of 20 kW and above.

(b) Rationalization of the Peak Load Exemption Charge (PLEC) and the Peak Load Violation Charge (PLVC).

(c) Introduction of a night time concessional tariff for select consumer categories to flatten the load curve.

(d) Adoption of a Cost to Serve Model to determine tariffs in the FY05 Tariff Order to rationalise the tariffs across various consumer categories.

(e) Reduction of energy charges of HT and EHT consumers in Large Industrial Power Supply category to reduce cross subsidy in the Tariff Order of the FY 07.

(f) Introduction of high voltage rebate and low voltage surcharge to encourage high voltage Distribution, a step towards - reduction of T & D loss.

(g) Issued directions to the Board to conduct various studies and take various activities for improving its operations.

Regulations & Guidelines

1.14 The Commission has issued 22 regulations and all these regulations are available on HPERC website www.hperc.org.in. The Commission has issued the following regulations after the issuance of the Tariff Order for FY07:

(a) Himachal Pradesh Electricity Regulatory Commission (Charges for Transmission, Wheeling and Intervening Facilities and Fees and Charges to be collected by the State Load Despatch Centre) Regulations, 2006 –notified on 14 September 2006. In this regulation, periodicity for determination of transmission/wheeling charges has been defined and it is also stated that tariff determination will be based on bidding process. These regulations are applicable to persons engaged in the business of transmission or wheeling of electricity, in the State of Himachal Pradesh, and are also applied to the licensees engaged in intra-State transmission of electricity and generating companies that are connected to the State Grid and monitored/serviced by the State Load Despatch Centre in the State of Himachal Pradesh.

(b) Himachal Pradesh Electricity Regulatory Commission (Cross Subsidy Surcharge, Additional Surcharge and Phasing of Cross Subsidy), Regulations 2006 –notified on 21 August 2006. These regulations specify the methodology for calculation of cross subsidy surcharge, it's phasing out till year 2011, manner and utilisation of payment of cross subsidy surcharge and also incorporates provision with respect to additional surcharge.

Advice given by the Commission to GoHP

1.15 The Commission has given its statutory advice to the GoHP under Section 86(2) of the EA 2003.

(a) First advisory on July 30, 2004 was on ‘Physical verification of assets’;

(b) Second advisory on April 6, 2005 was on the ‘Reorganization and restructuring of the electricity industry’; and

(c) In the chapter “Directions and Advisories” of the Tariff Order for FY07 some of the advisories include the need to specify an agency to look into the safety aspects of the IPP projects, reassess the present mechanism of allotment of hydel projects in the state, requirement of equity infusion in the Board for cleaning the balance sheet, setting up special courts, delegating the power to the Board officials for dealing with theft of power, framing of rules under section 180 of the Electricity Act, 2003 .

For Restructuring of HPSEB

Capacity Building for Regulatory Process

1.16 The capacity within Board to undertake some of the initiatives highlighted in the NEP and NTP remains a concern for the Commission. The existing Regulatory Affairs Unit (RAU) needs to be strengthened in terms of staffing and inculcating adequate skill set. This unit has been acting as a transit point for forwarding information from various departments to the Commission instead of sanitising, analysing and presenting the information and improving the information.

1.17 In terms of necessary IT tools, there is hardly any office space or IT systems like management information system/decision-making tools to assist the officers in analysing information.

Information Issues

1.18 In the Tariff Order of FY02, the Commission had directed the Board to take urgent steps to build a credible and accurate information system with unbundled costs and expenditure between the three businesses of generation, transmission and distribution. Board has submitted information on segregated costs but the same is still based on normative assumptions.

1.19 It is also pertinent to note that the accounting principles adopted by the Board are archaic and needs a complete revamp with induction of qualified manpower and accounting systems.

1.20 Information on connected load, contract demand, etc. is not made available and arbitrary assumptions have been taken in the petition. Lack of such scientific information has impeded the progress of the Commission in analysing consumer categories and rationalising of slabs within the same. This data would be a critical input for the proposed MYT regime.

1.21 With regards to the employees, it has not managed to segregate the number of personnel in different departments nor has it segregated its costs. Board does not have Computerised Human Resources Database detailing basic information like the date of joining, qualifications, salary details, performance record, experience, etc. In absence of such information, development of training needs, calculation of terminal benefit, and identification of resources for appropriate jobs becomes difficult and hinders the manpower planning.

Technology Initiative

1.22 Commission sincerely hopes that HPSEB would implement the Computerised billing across various circles as promised in its various interactions. It would also request HPSEB to closely monitor the progress regarding the study involving physical verification and valuation of assets and working out their fair value, depreciated value and revenue potential with appropriate technology. The study must include mapping of consumers and the last service line including the size, length and location of service lines, installation of necessary hardware and software, and training of personnel. The objective of this study is to have the information on the assets, revenue potential, fair value and the depreciated value of these assets. The results of this study would form the basis of transfer of assets at the time of unbundling.

1.23 HPSEB needs to take lessons in implementing IT systems from states and private utilities, which have achieved significant success in the states of Delhi, Andhra Pradesh, Karnataka, etc.

Government Support to HPSEB

1.24 The State government has been providing subsidy to the Domestic and Agriculture category consumers. Due to this the Domestic Tariffs have remained unchanged in the state for the last 6 years.

Filing of ARR and tariff petition for FY08

Procedural Background

1.25 The Board filed the application for approval of the Annual Revenue Requirement (ARR) and the determination of Distribution and Retail Supply Tariffs as well as Generation, Transmission and Bulk Supply Tariffs for FY08, on 30 November 2006 with the Commission. Additional information /clarifications and details, based on the queries of the Commission and validation session, were submitted on 30 December 2006, 15 February 2007, 7 March 2007, 13 March 2007 and 15 March 2007.

1.26 PricewaterhouseCoopers were appointed Consultants to assist the Commission in the assessment of the ARR and determination of the relevant tariffs.

Admission Hearing

1.27 Before the acceptance of the Petition, the Commission directed the Board on 15 December 2006 to submit details regarding first set of deficiencies discovered during preliminary scrutiny of the ARR. The Commission held Admissibility Hearing for the admission of the Petition on 30 December 2006. The Board informed during the hearing that it had furnished all the required details sought after preliminary scrutiny by the Commission, and thereafter the petition was admitted.

Interaction with the Petitioner

1.28 Since the submission of the petition by the Board there have been a series of interactions between the Board and the Commission, both written and oral, wherein the Commission sought additional information/clarification and justifications on various issues, critical for the analysis of the petition.

1.29 The Commission conducted the technical validation session on the petition filed by the Board on 18 January 2007 during which the discrepancies and additional information requirement in the Petition were highlighted. On the same day an Interim Order was issued to the Board for furnishing additional information till 15 February 2007. In compliance to this Interim Order, Board submitted the required information on the due date.

1.30 Besides the technical validation session, the Commission regularly interacted with the Board officials for further information and clarifications, which the Board submitted on 7 March 2007, 13 March 2007 and 15 March 2007.

Public Hearings

1.31 The Commission issued an interim order to the Board, after admission hearing on 30 December 2006, for publishing a disclosure of the salient features of the petition for the information of all the stakeholders in the State. Accordingly the Board published the salient features of the petition in the following newspapers:

(a) The Tribune (Chandigarh edition) on 8 and 12 January 2007

(b) Amar Ujala (Chandigarh edition) on 8 and 12 January 2007

1.32 The Commission invited suggestions and objections from the public on the tariff petition filed by the Board in accordance with Section 64 (3) of the Act subsequent of the publication of the initial disclosure by the Board, The public notice inviting objections/suggestions was published on 10 January 2007 in the following newspapers:

(a) The Tribune (Chandigarh edition)

(b) Amar Ujala (Chandigarh edition)

1.33 The interested parties/stakeholders were asked to file their objections and suggestions on the petition by 31 January 2007. The Commission received request from few parties for extending the date for filing suggestions/objections which was accepted and the date for filing suggestions/ objections was extended upto 8 February 2007.

1.34 The Commission received 16 objections by the stipulated date i.e. 8 February 2007. The Board filed its replies to the objections set out by various objectors by 22 February 2007, a copy of which was also sent to the individual objectors. The objectors were also allowed to file rejoinder, if any, to the Commission with a copy to the petitioner till 28 February 2007. Accordingly, rejoinders were filed by three objectors to the replies filed by the Board.

1.35 The Commission issued a public notice informing the public about the scheduled date of public hearing. All the parties, who had filed their objections /suggestions, were also informed about the date, time and venue for presenting their case in the public hearing.

1.36 Public hearing was held on 12 March 2007 at the Commission's Court Room in Shimla.

1.37 The Commission had appointed Sh. P. N. Bhardwaj as consumer representative since 18 May 2006 in pursuance to the provisions of Section 94(3) of the Electricity Act 2003, to represent the interest of the consumers in all proceedings before the Commission.

1.38 The issues and concerns voiced by various objectors have been carefully examined by the Commission. The major issues raised by the objectors in their written submission as well as those raised during the public hearing, have been summarized in Section A4:.

A2: TRUE-UP FOR FY05 & FY06

Background

2.1 The Commission had approved the Annual Revenue Requirement and the Tariff for FY05 & FY06 in its Tariff Orders dated July 2, 2004 & June 29, 2005 respectively. These approvals were based on the estimates presented by the Board for costs to be incurred and revenues likely to be generated by the Board during the year.

2.2 Based on the Commission pursuance, the Board furnished the truing up petition for FY05 & FY06 on 15 February 2007. Though there were several information gaps in the truing up petition with detailed information of various expenses not provided by the Board, the Commission admitted the petition and decided to process the truing up petition of the Board.

2.3 While processing the truing up petition, the Commission has also followed the Honourable Appellate's order dated 6 July 2006. This chapter contains true-up for the FY05 & FY06, based on the audited annual statement of accounts.

Energy Demand (Sales), Availability and Balance

Energy Demand (Sales)

2.4 The quantum of energy sales for the year 2004-05 and 2005-06 has been detailed in the table below.

Table 1: Energy Sales (MU) FY05

Category	FY05	FY05	FY05
	Approved	Actual	Trued Up
BPL Domestic Supply	788	810	810
Non Domestic Non Commercial Supply	16	20	20
Commercial Supply	212	224	224
Small & Medium Industrial Power Supply	146	144	144
Large Industrial Power Supply	1372	1347	1347
Agriculture Pumping Supply	24	25	25
Water Pumping Supply	263	271	271
Street Lighting Supply	10	11	11
Bulk Supply	148	98	98
Temporary Metered Supply	1	3	3
Total	**2980**	**2954**	**2954**

Table 2: Energy Sales (MU) FY06

Category	FY06 Approved	FY06 Actual	FY06 Trued Up
BPL	92	0.3	0.3
Domestic Supply	770	866	866
Non Domestic Non Commercial Supply	23	47	47
Commercial Supply	250	218	218
Small & Medium Industrial Power Supply	157	144	144
Large Industrial Power Supply	1558	1835	1835
Agriculture Pumping Supply	27	25	25
Water Pumping Supply	298	305	305
Street Lighting Supply	12	12	12
Bulk Supply	98	106	106
Temporary Metered Supply	4	10	10
Total	**3289**	**3569**	**3569**

2.5 Actual sales for FY05 is less by 26 MU against approved sales by the Commission, while actual sales for FY06 is higher by 280 MU against approved sales by the Commission.

Review of Power Purchase & Energy Balance

Approach of the Commission

2.6 The Commission has evaluated the actual month-wise generation availability in each of the generating stations and mapped the actual monthly demand of the state with the power purchased, to arrive at month-wise power purchase cost for power purchased for own use. The balance of the power purchased has been assumed to be purchased for trading and the same has been used to calculate power purchase cost for trading.

2.7 The Commission has prepared monthly merit order based on variable cost of the generating stations to arrive at the cost of power for state's own use and cost of power for trading.

Own Generation

2.8 The Commission has examined the monthly station-wise generation details of the Board's own stations. The actual generation for the Board's own generating stations for FY05 and FY06 as filed by the Board is 1291.11 MU and 1327.35 MU respectively.

2.9 The station-wise generation projected by the Board in the ARR of FY05 & FY06, generation approved by the Commission in the Tariff Order for the respective years, actuals now furnished in the true-up petition of FY05 & FY06 and generation trued up by the Commission are shown in the tables below.

Table 3: Board's Own Generation (MU) for FY05

Gross Generation (MU)	FY05	FY05	FY05
	Approved	Actual	Trued Up
Bhaba	586	582	582
Bassi	282	271	271
Giri	200	153	153
Andhra	64	53	53
Baner	36	43	43
Gaj	39	51	51
Binwa	30	32	32
Thirot	8	6	6
Ghanvi	81	74	74
Gumma	10	6	6
Holi	16	1	1
Khauli	5	0	0
Micro's	15	25	25
TOTAL Generation	1372	1295.41	1295.41
Less: Auxiliary Consumption	5	4.3	4.3
Net Hydel Generation (MU)	**1367**	**1291.11**	**1291.11**

Table 4: Board's Own Generation (MU) for FY06

Gross Generation (MU)	FY06	FY06	FY06
	Approved	Actual	Trued Up
Bhaba	580	574.25	574.25
Bassi	270	259.46	259.46
Giri	175	193.52	193.52
Andhra	60	62.52	62.52
Baner	40	43.43	43.43
Gaj	41	51.37	51.37
Binwa	30	33.63	33.63
Thirot	4	3.15	3.15
Ghanvi	81	69.85	69.85
Gumma	9	12.50	12.50
Holi	13	4.49	4.49
Larji	0	0	0
Khauli	10	0	0
Nogli	9	0	0
Micro's	17	24.21	24.21
TOTAL Generation	1339	1332.37	1332.37
Less: Auxiliary Consumption	7	5.02	5.02

Gross Generation (MU)	FY06	FY06	FY06
	Approved	Actual	Trued Up
Net Hydel Generation (MU)	**1332**	**1327.35**	**1327.35**

2.10 The Commission approves the generation of 1291.11 MU for FY05 and 1327.35 MU for FY06 from the Board's own generating stations. The balance power requirement of the state was met by power purchase.

Power Purchase

2.11 The Commission has examined the monthly power purchase requirement for calculating the monthly cost of power for state's own consumption. The Commission has calculated the quantum of power purchased for state's own consumption by preparing a monthly merit order based on the monthly bills provided by the Board.

2.12 As per the monthly bills provided by the Board for power purchase for FY05 & FY06, the total power purchased by the Board in the respective years is 4264.31 MU & 4924.94 MU. The Commission has prepared a merit order based on variable cost of the generating stations to calculate the power purchased for state's own consumption. The quantum of power purchased for state's own use for FY05 and FY06 is shown in table below.

Table 5: Total Power Purchase (MU) for State's own use for FY05 and FY06

Gross Power Purchase (MU)	FY05	FY06
	Trued UP	Trued Up
Sources		
BBMB		
OLD HP	43.80	43.80
New HP	84.61	129.25
Dehar	78.84	78.87
BBMB – TOTAL	207.25	251.92
NTPC		
Rihand I	233.76	276.08
Rihand II (Ist Unit)	0.00	101.95
Rihand II (2nd Unit)	0.00	29.26
Unchahar-I	34.42	55.98
Unchahar-II	72.14	113.67
Anta (Gas)	63.92	92.83
Anta (Liquid)	1.22	0.00
Auriya (Gas)	76.17	118.26
Auriya (Liquid)	2.91	0.00

Gross Power Purchase (MU)	FY05	FY06
	Trued UP	Trued Up
Dadri (Gas)	90.02	132.49
Dadri (Liquid)	2.06	0.00
Singrauli	83.25	111.11
Kehalgaon	0.00	0.00
NTPC – TOTAL	659.87	1031.63
NHPC		
Chamera I (At cost)	23.90	55.58
Chamera II (At cost)	12.25	49.95
Salal	33.42	33.63
Uri	13.86	60.50
Tanakpur	7.49	13.24
Dahuli Ganga (7.7 MW)	0.00	13.20
Tehri	0.00	0.00
NHPC – TOTAL	90.92	226.1
NPC		
Narora/ Napp	68.05	62.33
NPC – TOTAL	68.05	62.33
PSEB		
Shanan Share (Extension)	45.00	45.00
Shanan Share At Cost (1 Mw)	5.27	5.27
Bilateral Purchase		
PSEB – Total	50.27	50.27
Banking		
HVPNL	13.95	0.00
DTL	0.00	88.74
Punjab	73.88	191.22
Banking – Total	87.83	279.96
NJPC		
NJPC Against Equity (22%)	86.77	204.74
NJPC State of Region 2.47%	31.49	93.86
NJPC – Total	118.26	298.6
Free Power		

Gross Power Purchase (MU)	FY05	FY06
	Trued UP	Trued Up
Bairasuil	80.26	45.57
Chamera I	245.49	47.56
Chamera II	136.68	13.96
Ranjeet Sagar Dam	40.30	20.59
PSEB Shanan	2.40	1.08
PSEB Thein	0.00	0.00
NJPC	90.93	38.76
Baspa II (IPP)	115.72	13.36
Malana (IPP)	32.27	3.24
Free Power – Total	744.05	184.12
Other Sources		
Khara (UPJVNL)	54.31	65.66
Uttaranchal (UJVNL)	323.68	422.35
Baspa II	137.02	208.61
Unscheduled Interchange	64.30	25.57
Private Micros	0.00	30.16
Other Sources – Total	579.31	752.35
Total Power Purchase	**2605.45**	**3183.51**

2.13 The Commission, thus, approves the power purchase of 2605.45 MU for FY05 and 3183.51 MU for FY06 to meet the state’s own requirement. The balance power purchase has been assumed to be used for trading.

T&D Losses

2.14 As the true up petitions do not have any information on actual T&D losses for FY05 & FY06, the Commission has assumed a T&D loss percentage of 20.5% for FY05 and 19.5% for FY06 as approved in the respective tariff orders. However, this will not impact the overall power purchase cost, only power purchase cost allocated for intra-state sale and trading would be affected.

Energy Balance

2.15 Energy balance for FY05 and FY06 is shown in the table below:

Table 6: Energy Balance for FY05 & FY06

Energy Balance (MU)	FY05	FY06
	Trued Up	Trued Up
Power Availability (MU)		
Own Generation Sources	1295.41	1332.37
Less: Aux. Consumption	4.3	5.02
Power Purchase Sources (CGS, Inter-state etc.)	4264.31	4924.94
Total Availability	**5555.42**	**6252.29**
Sales within the State (MU)	2954.15	3568.68
Proposed T&D Loss % within the State	20.5%	19.5%
Power Requirement for sale within the State (MU)	**3715.92**	**4433.15**
Power Required for Banking	180.65	77.71
Power available for inter-state sale (MU)	1658.85	1741.43
Transmission loss (in respect of sale outside the State)	3.45%	3.45%
Net inter-state sale(MU)	**1601.62**	**1681.35**
Total Sale (within & Outside the State) (MU)	4555.78	5250.04
Overall Losses (MU) (Total availability less Total sale)	999.64	1002.25
Overall T&D Losses %	17.99%	16.03%

Power Purchase Cost

2.16 The Board has filed the power purchase cost at Rs.750.76 Cr & Rs.1082.30 Cr in the true-up petition for the years FY05 & FY06 respectively.

2.17 For verifying the power purchase cost, the Commission has prepared the monthly merit order based on the variable cost of the generating stations from the monthly billing data provided by the Board.

2.18 The total cost of monthly power purchased from a generating station is provided in the monthly power purchase bills. The Commission has used the same to calculate the cost of power purchase for state’s own consumption and for trading (as per dispatch schedule).

2.19 The power purchase cost now approved by the Commission for state’s own consumption for FY05 & FY06 is given in table below.

Table 7: Power Purchase Cost for state's own use for FY05 & FY06

	Source	Trued Up for FY05		Trued Up for FY06	
		Power Purchase (MU)	Cost (Rs. Cr)	Power Purchase (MU)	Cost (Rs. Cr)
NHPC	Salal	33.42	3.07	33.63	2.99
	Tanakpur	7.49	1.10	13.24	1.77
	Chamera-1	23.90	3.62	55.58	8.51
	Chamera-2	12.25	3.23	49.95	12.70
	Uri	13.86	3.59	60.50	15.82
	Dhauliganga	0.00	0.00	13.20	5.73
NTPC	Anta(L)	1.22	0.52	0.00	0.00
	Anta(G)	63.93	10.44	92.83	16.14
	Auraiya(L)	2.91	1.25	0.00	0.00
	Auraiya(G)	76.17	13.43	118.26	23.12
	Dadri(L)	2.06	1.14	0.00	0.00
	Dadri(G)	90.02	16.43	132.49	26.22
	Unchahar-I	34.42	7.65	55.98	12.36
	Unchahar-II	72.14	15.15	113.67	23.97
	Rihand-1 STPS	233.76	46.65	276.08	55.53
	Rihand-2 STPS	0.00	0.00	101.95	18.55
	Rihand Infirm	0.00	0.00	29.26	3.20
	Singrauli	83.25	12.93	111.11	16.68
Other Sources	BBMB Old	43.80	1.58	43.80	1.75
	BBMB New	84.61	2.47	129.25	2.48
	Dehar	78.84	2.47	78.87	2.63
	Nathpa Jhakri	31.49	8.18	93.86	24.32
	Tehri-I	0.00	0.00	0.00	0.00
	Baspa –II	137.02	35.56	208.61	54.35
	Private Micros	0.00	0.00	30.16	7.54
	NAPP	68.05	17.21	62.33	14.51
	RAPP	0.00	0.00	0.00	0.00
	Shanan	5.27	0.21	5.27	0.21
	Shanan Extn	45.00	1.80	45.00	1.80
	Yamuna	323.68	10.50	422.35	16.00
	Khara	54.31	1.90	65.66	2.73
Free Power	Baira Suil	80.26	7.39	62.62	17.39
	Chamera-I	245.49	21.97	76.75	21.57
	Chamera -II	136.68	12.30	13.96	4.68

	Source	Trued Up for FY05		Trued Up for FY06	
		Power Purchase (MU)	Cost (Rs. Cr)	Power Purchase (MU)	Cost (Rs. Cr)
	Shanan Share	2.40	0.17	1.08	0.21
	Ranjeet Sagar Dam Share	40.30	2.82	20.59	3.97
	Malana	32.27	2.26	3.24	0.63
	Baspa - II	115.72	10.14	13.36	2.99
	Nathpa Jhakri	90.93	12.76	38.76	13.15
Equity Power	Nathpa Jhakri	86.77	23.47	204.74	64.25
Others	UI	64.30	19.36	25.57	6.97
	Bilateral Purchase	0.00	0.04	0.00	0.00
	Banking PSEB	73.38	17.99	191.22	45.63
	Banking DTL	0.00	0.00	88.74	21.18
	Banking HVPNL	13.95	3.48	0.00	0.00
Total		**2605.45**	**356.25**	**3183.51**	**574.22**

Table 8: Power Purchase Cost for trading for FY05 & FY06

	Source	Trued Up for FY05		Trued Up for FY06	
		Power Purchase (MU)	Cost (Rs. Cr)	Power Purchase (MU)	Cost (Rs. Cr)
NHPC	Tanakpur	9.69	1.24	2.21	0.30
	Chamera-1	36.72	5.96	9.91	1.66
	Chamera-2	0.00	0.00	7.54	1.77
	Uri	44.76	15.18	11.66	3.43
NTPC	Anta(L)	15.24	7.54	9.44	6.58
	Anta(G)	26.63	3.52	0.00	0.00
	Auraiya(L)	26.95	13.09	15.36	10.37
	Auraiya(G)	37.80	5.36	0.00	0.00
	Dadri(L)	31.86	19.20	10.50	7.57
	Dadri(G)	41.78	6.15	0.00	0.00
	Unchahar-I	19.91	4.00	3.84	0.74
	Unchahar-II	32.60	6.89	0.00	0.00
	Unchahar-III	0.00	0.00	0.00	0.00
	Rihand-1 STPS	60.65	9.59	0.00	0.00
Other Sources	Nathpa Jhakri	117.05	28.73	18.50	4.56
	Baspa –II	904.91	221.06	819.63	223.71

	Source	Trued Up for FY05		Trued Up for FY06	
		Power Purchase (MU)	Cost (Rs. Cr)	Power Purchase (MU)	Cost (Rs. Cr)
	Private Micros	0.00	0.00	55.96	13.99
	NAPP	24.81	5.84	6.65	1.47
Free Power	Baira Suil	0.00	0.00	29.87	7.84
	Chamera-I	2.81	0.23	203.98	53.09
	Chamera -II	24.12	1.96	164.49	43.28
	Shanan Share	0.22	0.02	1.54	0.38
	Ranjeet Sagar Dam Share	8.05	0.56	69.67	17.00
	Malana	8.61	0.60	47.20	11.52
	Baspa – II	26.37	2.15	126.90	32.47
	Nathpa Jhakri	28.29	7.47	93.43	31.38
Equity Power	Nathpa Jhakri	129.15	34.47	33.15	10.41
Total		**1658.86**	**400.78**	**1741.43**	**483.52**

2.20 The Commission approves the total power purchase cost of Rs.757.04 Cr for FY05 and Rs.1057.74 Cr for FY06.

Table 9: Total Power Purchase Cost for FY05 and FY06

	Trued Up for FY05 (Rs. Cr)	Trued Up for FY06 (Rs. Cr)
Own Use	356.25	574.22
Trading	400.78	483.52
Total	**757.04**	**1057.74**

2.21 The Board has also submitted additional expense of Rs. 80.46 Cr for FY05 and Rs. 49.31 Cr for FY06 on account of revised tariff of NJHEP. After analysis of the bills submitted by the Board and discussion with the Board officials the Commission approves additional power purchase expense of Rs. 80.46 for FY05 and Rs. 47.93 Cr for FY06.

Repair & Maintenance (R&M) Cost

2.22 In the Tariff Order for FY05, the Commission had approved net R&M Expense of Rs. 22.70 Cr against the Board’s projection of Rs. 20.56 Cr. The Board has submitted net R&M expense for FY05 as Rs. 17.44 Cr in the truing up petition. The Commission approves R&M expense for FY05 at Rs. 17.44 Cr.

Table 10: R&M Expenses for FY05 (In Rs. Cr)

S. No	Particulars	FY05 Approved	FY05 Actual	FY05 Trued Up
1	Plant & Machinery		6.47	6.47
2	Building		1.85	1.85
3	Other civil works		1.70	1.70
4	Hydraulic Works		0.50	0.50
5	Lines, Cable Network etc.		20.85	20.85
6	Vehicles		(9.76)	(9.76)
7	Furniture & Fixtures		0.06	0.06
8	Office Equipment		(0.01)	(0.01)
9	**Total**		**21.66**	**21.66**
	Less:			
10	Capitalization		(4.22)	(4.22)
11	**Total R&M Expenditure**	**22.70**	**17.44**	**17.44**

2.23 In the Tariff Order for FY06, the Commission had approved net R&M Expenses of Rs. 39.87 Cr against the Board's projection of Rs. 40.47 Cr. The Board has submitted net R&M expenses for FY06 as Rs. 18.35 Cr in the truing up petition. The Commission approves R&M expense for FY06 at Rs. 18.34 Cr after deducting Rs. 0.01 Cr towards R&M of schools and Hospitals, which were not transferred by the Board to the State Government even after the Commission's order.

Table 11: R&M Expenses for FY06 (In Rs. Cr)

S. No	Particulars	FY06 Approved	FY06 Actual	FY06 Trued Up
1	Plant & Machinery	5.13	5.78	5.78
2	Building	2.30	1.88	1.88
3	Other civil works	1.86	1.73	1.73
4	Hydraulic Works	1.42	0.71	0.71
5	Lines, Cable Network etc.	16.78	22.39	22.39
6	Vehicles	(0.66)	(9.56)	(9.56)
7	Furniture & Fixtures	0.12	0.03	0.03
8	Office Equipment	0.11	0.09	0.09
9	Spare Inventory for Maintaining Transmission Redundancy	-	-	-
10	Transfer of amount from employee expense	19.35	-	-
	Total	**46.41**	**23.04**	**23.04**
	Less:			

S. No	Particulars	FY06 Approved	FY06 Actual	FY06 Trued Up
11	Capitalization		(4.69)	(4.69)
12	Transfer to CWIP on a/c of Larji & Khauli	(4.14)		
13	Deduction for R&M of School & Hospital	(0.01)		(0.01)
14	**Total R&M Expenditure**	**39.87**	**18.35**	**18.34**

Employee Expense

2.24 In the Tariff Order for FY05, the Commission had approved net employee expense of 319.38 Cr against the Board's projection of Rs. 357.11 Cr. The Board has submitted, actual net employee expense of Rs. 372.91 Cr for FY05 as per the audited accounts. The Commission approves employee expense for FY05 at Rs. 346.44 Cr after deducting Rs. 25.36 Cr incurred in regularization of employees, Rs. 1.03 Cr towards Overtime and Rs. 0.08 Cr towards LTA.

Table 12: Employee Expense for FY05

S. No	Particulars	FY05 Approved	FY05 Actual	FY05 Trued Up
1	Basic Salaries	199.48	205.37	205.37
2	Overtime	-	1.03	-
3	DA	112.79	119.25	119.25
4	Other Allowances	32.16	32.78	32.78
5	Bonus	-	-	-
6	Fee & Honorarium	0.06	0.01	0.01
7	Medical expense Reimbursement	6.28	6.81	6.81
8	LTA	-	0.08	-
9	Earned Leave	7.14	9.24	9.24
10	Payment under workmen's compensation	0.72	0.96	0.96
11	Leave Salary Contribution	0.63	0.23	0.23
12	Staff Welfare expenses	1.41	1.29	1.29
13	Terminal Benefits	59.45	63.14	63.14
14	**Total Employee costs**	**420.12**	**440.19**	**440.19**
	Less:			
15	Regularized Amount not Allowed	(25.36)	-	(25.36)
16	Capitalization	(75.38)	(67.28)	(67.28)
17	**Net Employee Cost**	**319.38**	**372.91**	**346.44**

2.25 In the Tariff Order for FY06, the Commission had approved net employee expense of Rs. 350.64 Cr against the Board's projection of Rs. 378.53 Cr. The Board has submitted net employee expense of Rs. 412.76 Cr for FY06 as per audited account. The Commission approves employee expense for FY06 at Rs. 408.02 Cr after deducting Rs. 3.75 Cr on account of deviation from PSEB pattern and Rs. 1.0 Cr towards overtime allowance.

Table 13: Employee Expense for FY06

S. No	Particulars	FY06	FY06	FY06
		Approved	Actual	Trued Up
1	Basic Salaries	309.95	254.73	254.73
2	Overtime	-	1.00	-
3	DA	28.74	83.55	83.55
4	Other Allowances	32.43	32.23	32.23
5	Bonus	-	-	-
6	Fee & Honorarium	0.06	0.01	0.01
7	Medical expense Reimbursement	6.33	6.57	6.57
8	LTA	-	0.01	0.01
9	Earned Leave	7.20	12.65	12.65
10	Payment under workmen's compensation	0.73	0.89	0.89
11	Leave Salary Contribution	0.64	0.89	0.89
12	Staff Welfare expenses	1.42	1.27	1.27
13	Terminal Benefits	68.70	88.97	88.97
14	**Total Employee costs**	**456.20**	**482.77**	**481.78**
	Less:			
15	Amount to be Transferred to R&M	(19.35)	-	-
16	Capitalization	(71.01)	(70.01)	(70.01)
17	Disallowance due to deviation from PSEB	(3.75)		(3.75)
18	Tfd to CWIP – larji & Khauli	(11.45)		
19	**Net Employee Cost**	**350.64**	**412.76**	**408.02**

Administrative & General Expenses

2.26 In the Tariff Order for FY05, the Commission had approved net A&G Expenses of Rs. 16.73 Cr against the Board's projection of Rs. 21.31 Cr. The Board has submitted the actual net A&G Expense of Rs. 22.54 Cr for FY05 as per the audited account. The Commission approves A&G Expense for FY05 at Rs. 20.98 Cr after deducting Rs. 1.56 Cr from conveyance and travelling expense on which the Commission had put a cap at Rs. 10.03 Cr.

Table 14: A&G Expenses for FY05

S. No	Particulars	FY05	FY05	FY05
		Approved	Actual	Trued Up
1	Insurance of Employees, Assets etc.	0.01	0.01	0.01
2	Telephone, postage, telegram, internet charges	2.18	2.25	2.25
3	Consultancy charges	0.08	0.08	0.08
4	Conveyance and Traveling expense	10.03	11.59	10.03
5	Printing and stationary	1.16	1.29	1.29
6	Advertising	0.16	0.27	0.27
7	Electricity and water charges	1.86	1.74	1.74
8	Freight	-	2.91	2.91
9	Legal charges	-	0.28	0.28
10	Auditor's fees	-	1.35	1.35
11	Rents, rates & taxes, other than all taxes on income and profit.		1.02	1.02
12	Miscellaneous	4.60	1.66	1.66
13	Study for valuation of assets	11.00	-	-
14	Regulatory Expenses		2.56	2.56
15	**A&G Expenses – Total**	**20.08**	**27.01**	**25.45**
16	Less capitalized	(3.35)	(4.47)	(4.47)
17	**A&G Expenses after capitalization**	**16.73**	**22.54**	**20.98**

2.27 In the Tariff Order for FY06, the Commission had approved net A&G Expenses of Rs. 26.27 Cr against the Board's projection of Rs. 38.10 Cr. The Board has submitted net A&G expenses of Rs. 25.26 Cr for FY06 as per the audited account. The Commission approves A&G Expense for FY06 at Rs. 22.63 Cr after deducting Rs. 2.27 Cr from conveyance and travelling expenses on which the Commission had put a cap at Rs. 10.03 Cr, Rs. 0.05 Cr towards expenses for hospital, Rs. 0.03 Cr towards expense for school and Rs. 0.28 Cr towards expenses for REC Dalhousie.

Table 15: A&G Expenses for FY06

S. No	Particulars	FY06	FY06	FY06
		Approved	Actual	Trued Up
1	Insurance of Employees, Assets etc.	0.01	0.01	0.01
2	Telephone, postage, telegram, internet charges	2.17	2.39	2.39
3	Consultancy charges	0.03	0.05	0.05
4	Conveyance and Traveling	9.03	12.30	10.03

S. No	Particulars	FY06	FY06	FY06
		Approved	Actual	Trued Up
	expense			
5	Printing and stationary	0.79	1.40	1.40
6	Advertising	0.10	0.29	0.29
7	Electricity and water charges	1.13	2.56	2.56
8	Freight	0.08	3.58	3.58
9	Legal charges	0.23	0.26	0.26
10	Auditor's fees	-	1.50	1.50
11	Rents, rates & taxes, other than all taxes on income and profit.	0.68	1.51	1.51
12	Miscellaneous	2.30	1.88	1.88
13	Study for valuation of assets	11.00	-	-
14	Public interaction programme	2.12	0.03	0.03
15	Expenses for Consultants	1.00		
16	Regulatory Expenses	1.68	2.12	2.12
17	For pilot project of pre-paid meters & billing machines	1.00	-	-
18	Ombudsman Expenses	0.17	-	-
	Less:			
19	Expenses for Hospitals	(0.05)		(0.05)
20	Expenses for Schools	(0.03)		(0.03)
21	Expense on REC Dalhousie	(0.28)		(0.28)
22	**A&G Expenses – Total**	**33.17**	**29.87**	**27.24**
23	Less capitalized	(6.90)	(4.61)	(4.61)
24	**A&G Expenses after capitalization**	**26.27**	**25.26**	**22.63**

Interest & Finance Charges

2.28 For approving interest expense for FY05 & FY06, The Commission provisionally approves cost of Larji project at Rs. 960 Cr and Khauli project at Rs. 110 Cr (as submitted by the Board) till costs of these projects are finalized. Interest expenses approved for FY05 and FY06 may change once final cost of these project is decided.

2.29 In Tariff Order for FY05, the Commission had approved interest & finance charges at Rs. 140.74 Cr. The actual net interest expense for FY05 as per the audited account is Rs. 125.50 Cr. The Commission has analysed loan-wise details for FY05 which is detailed below:

2.30 **LIC:** The Board has submitted interest expense of Rs. 16.53 Cr for FY05 as per the audited account. The Commission approves interest expense of Rs. 5.73 Cr after deducting interest on loan of Rs. 250 Cr which Board has taken during FY05 for investing as equity in Uhl-III, Ghanvi-II, and Kashang HEPs. The Commission does not allow principal and interest of this loan to be passed on to the consumers as this loan has been taken for investment in SPVs where the Board will earn return on equity.

2.31 **REC:** The Commission approves interest expense of Rs. 16.27 Cr for FY06 as per the audited account of the Board.

2.32 **PFC:** HPSEB has taken loans of Rs. 1060 Cr towards the Larji project. The Board had been asked to file a detailed petition for Larji project, which it failed to do. In the absence of proper petition, the Commission is not able to determine the completed cost of the project and the resultant implication on interest, depreciation etc. In the absence of detailed tariff petition, the Commission is left with no alternative but to allow interest based on the estimated completed cost of the project as assessed by the inquiry committee constituted by the Commission. The completed cost of the project as the above mentioned inquiry committee's report is Rs. 960 Cr. The GoHP has invested equity of Rs. 48.11 Cr in the Larji project. If the Commission allows debt for the remaining project cost, it comes to Rs. 911.89 Cr. The Commission approves only Rs. 911.89 Cr of loan towards Larji provisionally till the final cost of the Larji project is finalized /approved by the Commission. Based on the sequence of loan taken for the Larji project, the Commission is not allowing Rs. 48 Cr of the Rs. 116 Cr loan taken from PFC and Rs. 100 Cr loan taken from Punjab & National Bank by the Board. The Board has submitted interest expense of Rs. 65.52 Cr for FY06 as per the audited account. The Commission approves interest expense of Rs. 65.11 Cr after deducting Rs. 0.40 Cr towards Larji project. The Commission has taken project cost of Larji at Rs. 960 Cr for FY05 for arriving at this figure. Any loan in excess of Rs. 911.89 Cr (960 Cr minus Rs. 48.11 Cr of GoHP Equity) is not approved by the Commission.

2.33 **Market Bonds & Non SLR Bonds:** The Commission approves interest expense of Rs. 63.64 Cr for FY05 as per the audited account of the Board.

2.34 **Bank:** The Board has submitted interest expense of Rs. 25.55 Cr for FY05 as per the audited account. The Commission approves interest expense of Rs. 23.87 Cr after deducting Rs. 1.69 Cr which was on account of loans taken from UCO Bank for power purchase. As these loans were not capital loan, the Commission will not allow the Board to pass interest on them to state consumers.

2.35 **APDRP/State Govt Loans:** The Commission approves interest expense of Rs. 1.88 Cr for FY05 as per the audited account of the Board.

2.36 **Interest on Power Bonds:** The Commission disapproves interest expense of Rs. 5.97 Cr submitted by the Board as per audited account towards the Power Bonds as these bonds were raised by GoHP to pay for CPSU dues to bail out the Board. Interest payment liability for the same lies with the GoHP and HPSEB can not pass this to state consumers.

2.37 **Interest on GPF:** The Board has submitted interest expense of Rs. 13.62 Cr towards interest on GPF as per the audited account. As this expense arises due to gap between amount invested by the Board and average balance of GPF and lower returns the Board is getting for invested amount against interest rate of 8% which the Board is paying to employees, the Commission disapproves this expense item. The Commission is of the view that the Board has not managed the corpus effectively and hence the consumers should not pay for that.

2.38 **Other Interest Expense:** The Board has shown interest on overdraft/working capital as Rs. 15.71 Cr, rebate allowed for timely payment as Rs. 7.98 Cr, cost of raising finance as Rs. 1.65 Cr, other charges as Rs. 0.97 Cr for FY05 as per the audited accounts. The Commission approves normative working capital which included one month of O&M expense and two months receivables and subtracted consumer security deposit. The Commission approves interest expense on working capital at Rs. 9.58 Cr (@12%) and disapproves rebate allowed for timely repayment as an expense as the Commission believes that these expenses are part of working capital management and already included in interest on working capital. The Commission approves cost of raising finance & other costs by at Rs. 1.65 Cr and Rs. 0.97 Cr respectively.

2.39 Trued up Interest & Finance Charges for FY05 is shown below:

Table 16: Interest & Finance Charges for FY05

Particulars	FY05	FY05	FY05
	Approved	Actual	Trued Up
LIC	4.38	16.53	5.73
REC	16.06	16.27	16.27
PFC	88.97	65.52	65.11
Bonds/Non SLR Bonds	77.18	63.64	63.64
Bank	53.83	25.55	23.87
APDRP	-	1.88	1.88
Interest on Power Bonds to HP Govt.		5.97	-
Interest on GPF	-	13.62	-
Interest on Overdraft / Working Capital	20.32	15.71	9.58
Cost of raising finances	-	1.65	1.65
Other Charges	-	0.97	0.97
Rebate allowed for timely payment	-	7.98	-
Interest & Finance charges Total	260.74	235.29	188.70
Less: Capitalization	120.00	109.79	109.79
Net Interest & Financing Cost	**140.74**	**125.50**	**78.91**

2.40 In Tariff Order for FY06, the Commission had approved interest & finance charges at Rs. 79.70 Cr. The actual net interest Expense for FY06 as per the audited account is Rs. 121.83 Cr. The Commission has analysed loan-wise details for FY06 which is detailed below:

2.41 **LIC:** The Board has submitted interest expense of Rs. 22.37 Cr for FY06 as per the audited account. The Commission approves interest expense of Rs. 2.36 Cr after deducting interest on loan of Rs. 250 Cr which Board has taken during FY05 for investing as Equity in Uhl-III, Ghanvi-II, and Kashang HEPs. The Commission does not allow principal and interest of this loan to be passed on to the consumers as this loan has been taken for investment in SPVs where the Board will earn return on equity.

2.42 **REC:** The Commission approves interest expense of Rs. 16.18 Cr for FY06 as per the audited account of the Board.

2.43 **PFC:** The Board has submitted interest expense of Rs. 68.97 Cr for FY06 as per the audited account. The Commission approves interest expense of Rs. 67.53 Cr after deducting Rs. 1.45 Cr towards Larji project for reason explained above in section 2.32.

2.44 **Market Bonds & Non SLR Bonds:** The Commission approves interest expense of Rs. 57.03 Cr for FY06 as per the audited account of the Board.

2.45 **Bank:** The Board has submitted interest expense of Rs. 25.46 Cr for FY06 as per the audited account. The Commission approves interest expense of Rs. 20.86 Cr after deducting Rs. 0.77 Cr which was on account of loan taken from UCO Bank for power purchase as this loan was not a capital loan and Rs. 3.85 Cr towards loan taken from PNB for Larji project for reason explained above in section 2.32.

2.46 **APDRP/State Govt Loans:** The Commission approves interest expense of Rs. 2.23 Cr for FY06 as per the audited account of the Board.

2.47 **Interest on GPF:** The Board has submitted interest expense of Rs. 17.90 Cr for FY06 towards interest on GPF in the audited account. As this expense arises due to gap between amount invested by the Board and average balance of GPF, lower returns Board is getting for invested amount against interest rate of 8% which the Board is paying to employees, the Commission disapproves this expense item. The Commission is of the view that the Board has not managed the GPF corpus effectively and hence the consumers should not pay for that.

2.48 **Other Interest Expense:** The Board has submitted interest on overdraft/working capital as Rs. 18.34 Cr, rebate allowed for timely payment as Rs. 8.95 Cr, cost of raising finance as Rs. 0.07 Cr, other charges as Rs. 0.87 Cr for FY06. The Commission approves normative working capital which included one month of O&M expense and two months receivables and subtracted Consumer Security Deposit. The Commission approves interest expense on working capital at Rs. 11.19

Cr (@11%) and disapproves rebate allowed for timely repayment as an expense as the Commission believes that these expenses are already included in Interest on Working Capital. The Commission approves cost of raising finance & other costs at Rs. 0.07 Cr and Rs. 0.87 Cr respectively.

2.49 Trued up Interest & Finance Charges for FY06 is shown below:

Table 17: Interest & Financing Charges for FY06

Particulars	FY06	FY06	FY06
	Approved	Actual	Trued Up
LIC	22.16	22.37	2.36
REC	6.81	16.18	16.18
PFC	73.08	68.97	67.53
Bonds/Non SLR Bonds	87.48	57.03	57.03
Bank	25.01	25.46	20.86
APDRP	0.91	2.23	2.23
Interest on account of transmission system Redundancy expenditure	1.26	-	-
Interest on GPF		17.90	-
Interest on Security Deposits	4.64	4.97	4.97
Interest on Overdraft / Working Capital	18.33	18.34	11.19
Cost of raising finances		0.07	0.07
Other Charges		0.87	0.87
Rebate allowed for timely payment		8.95	-
Interest & Finance charges - Total	**239.67**	**243.36**	**183.29**
Transferred to CWIP on a/c of Larji and Khauli	34.15	-	-
Disallowed due to cost overrun on generation projects.	7.65	-	-
Interest & Finance charges before Capitalization	**197.87**	**243.36**	**183.29**
Less: Capitalization	118.16	121.53	121.53
Net Interest & Financing Cost	**79.70**	**121.83**	**61.76**

Depreciation

2.50 In Tariff Order for FY05, the Commission had approved depreciation of Rs. 46.05 Cr against the Board's projection of Rs. 44.25 Cr. The Commission approves actual depreciation for FY05 at Rs. 44.05 Cr as per the audited account of the Board.

2.51 In Tariff Order for FY06, the Commission had approved depreciation of Rs. 41.68 Cr against the Board's projection of Rs. 56.12 Cr. The Commission approves actual depreciation for FY05 at Rs. 53.85 Cr as per the audited account of the Board.

2.52 The depreciation approved above for FY05 and FY06 are on provisional basis due to reasons mentioned below and may change in future:

(a) Absence of asset register, asset wise details.

(b) Project costs of Larji and Khauli have not been finalized.

Returns

2.53 In the Tariff Order for FY05, the Commission had approved return on net fixed assets (NFA) of Rs. 35.82 Cr against the Board's projection of Rs. 36.17 Cr. The actual return on NFA for FY05 as per truing up petition is Rs. 36.18 Cr. The Commission approves return on NFA for FY05 at Rs. 36.18 Cr.

2.54 In the Tariff Order for FY06, the Commission had approved return on equity of Rs. 41.66 Cr against the Board's projection of return on NFA of Rs. 45.18 Cr. The Board has claimed return on NFA of Rs. 44 Cr in truing up petition. The Commission approves return on Equity of Rs. 41.66 Cr for year FY06 as there was no change in the equity after projection of the Commission for FY06.

Prior Period Items

2.55 In the Truing up petition for FY06, the Board has shown prior period expense of Rs. 35.24 Cr in year FY06. On analyzing the same, the Commission was surprised to find that the Board has not presented the full picture and omitted prior period surpluses for FY05 of Rs. 20.14 Cr in the truing up petition for FY05. The Commission approves prior period surplus of Rs. 20.14 Cr for FY05 and prior period expense of Rs. 35.24 Cr for FY05.

Non Tariff Income

2.56 In the Tariff Order for FY05, the Commission had approved non tariff income of Rs. 66.18 Cr against the Board's projection of Rs. 55 Cr. The Commission approves non tariff income for FY05 at Rs. 65.90 Cr as per audited account of the Board.

2.57 In the Tariff Order for FY06, the Commission had approved Non Tariff Income of Rs. 96.21 Cr against the Board's projection of Rs. 71.27 Cr. The Commission approves non tariff income for FY05 at Rs. 78.47 Cr as per audited account of the Board.

Subsidy from GoHP

2.58 In the truing up petition for FY06 submitted by the Board on 15 Feb 2007, the Board has shown receipt of subsidy amount of Rs. 76.85 Cr from HP government on account of difference power purchase rate for free power approved by the Commission and charged by the PTC to the Board. Later in the meetings with government officials, the Commission came to know that the Board has received an additional amount of Rs. 21.55 Cr against the same head in December 2006 and which is not shown by the Board in the truing up petition.

2.59 The Commission approves amount of Rs. 98.40 Cr towards subsidy received from the GoHP in FY06.

Revenue from Sale of Power

2.60 Based on the audited accounts provided by the Board for FY05 & FY06, the revenue generated from the sale of power within the state and outside the state is presented in the table below.

Table 18: Revenue from Sale of Power for FY05 and FY06

Revenue @ Existing Tariff (Rs. Cr)	FY05 Approved	FY05 Actual	FY05 Trued Up	FY06 Approved	FY06 Actual	FY06 Trued Up
Domestic	109.74	110.23	110.23	200.4	170.22	170.22
Commercial	85.70	86.34	86.34	111.6	100.29	100.29
Small Power	47.30	19.61	19.61	57.8	23.01	23.01
Medium Power		25.82	25.82		35.74	35.74
Large Power & PIU	386.48	376.90	376.90	438.4	527.83	527.83
Agriculture	1.42	6.87	6.87	4.5	10.95	10.95
Public Lighting	2.88	3.95	3.95	3.4	4.18	4.18
Bulk Supply	48.42	30.59	30.59	29.6	34.86	34.86
NDNCs	5.81	8.02	8.02	9.0	25.97	25.97
Public water works	78.42	103.51	103.51	104.9	135.57	135.57
Temporary Supply	0.67	1.09	1.09	2.4	1.87	1.87
Energy Sales within State	766.84	772.93	772.93	961.9	1070.49	1070.49
Sale to outside State	318.58	443.62	443.62	206	545.12	545.12
Revenue from Tariffs	1085.42	1216.55	1216.55	1167.9	1615.61	1615.61
Stabilization Surcharge	23.00	0.00	0.00	0.00	0.00	0.00
Total	**1108.42**	**1216.55**	**1216.55**	**1168**	**1615.61**	**1615.61**

2.61 The Commission approves the revenue of Rs. 1216.55 for FY05 and Rs. 1615.61 for FY06 arising out of the sale of power both within and outside the state.

Revenue Requirement

2.62 The Commission herewith approves the Annual Revenue Requirement (ARR) after incorporating the above changes at Rs. 1368.00 Cr for FY05 and Rs. 1748.03 for FY06.

Table 19: Net Revenue Requirement for FY05 & FY06

Annual Revenue Requirement (Rs. Cr)	FY 05 Approved	FY05 Actual	FY05 Trued Up	FY06 Approved	FY06 Actual	FY06 Trued Up
Costs						
Power Purchase	591.45	750.76	757.04	692.00	1082.30	1057.74
Employee	394.76	440.19	413.72	421.65	482.77	478.03
Repairs & Maintenance	22.77	21.66	21.66	42.46	23.04	23.04
Admin & General	20.08	27.01	25.45	33.17	29.87	27.24
Interest	260.74	235.29	188.70	197.87	243.36	183.29
Depreciation	46.04	44.05	44.05	41.68	53.85	53.85
Total Costs	**1335.85**	**1518.96**	**1450.62**	**1428.63**	**1915.19**	**1823.18**
Less: Reduction in generation expenditure due to GoHP share				5.00		
Less: Reduction in generation exp. due to failure to submit separate gen tariff petitions				3.00		
Less: Expenses Capitalized	198.73	185.76	185.76	198.46	200.84	200.84
Net Total Expenses	**1137.12**	**1333.20**	**1264.86**	**1222.16**	**1714.35**	**1622.33**
Add: Reasonable Return	35.82	36.18	36.18	41.66	44.00	41.66
Add: Regulatory Expenses	1.66					
Add: Other Debits		6.64	6.64		0.87	0.87
Add: Power Purchase of account of NJHEP		80.46	80.46		49.31	47.93
Adjust Prior Period Items			(20.14)		35.24	35.24
Annual Revenue Requirement	**1174.6**	**1456.48**	**1368.00**	**1263.82**	**1843.77**	**1748.04**

Revenue Gap/ Surplus

2.63 The Revenue gap/surplus for FY05 & FY06 is shown in the table below.

Table 20: Net Revenue Requirement for FY05 & FY06

(Gap)/ Surplus (Rs. Cr)	FY05	FY 05	FY 05	FY06	FY06	FY06
	Approved	Actual	Trued Up	Approved	Actual	Trued Up
Costs						
ARR	1174.6	1456.48	1368.00	1263.82	1843.77	1748.04
Revenue from sale of power	1108.42	1216.55	1216.55	1168	1615.61	1615.61
Non Tariff Income	66.18	65.90	65.90	96.21	78.47	78.47
Subsidy from GoHP					76.85	98.40
(Gap)/ Surplus	**-**	**(174.03)**	**(85.55)**	**-**	**(72.84)**	**44.44**

2.64 The Commission, hence, allows the gap of Rs. 85.55 Cr in FY05 and surplus of Rs. 44.44 Cr in FY06 to be carried forward in the ARR for FY08.

A3: SUMMARY OF THE ARR PETITION FOR FY08

3.1 This Section summarizes highlights of the petition filed by the Board for determination of the Annual Revenue Requirement (ARR) as well as Generation, Transmission & Bulk Supply Tariff and the Distribution & Retail Supply Tariff. The figures given in this section are the submissions of HPSEB during the presentation made by them before the Commission on December 8, 2006, 15 Feb 2007 and 7 March 2007.

3.2 It would be appropriate to point out here that the submissions made by HPSEB have been inconsistent during the entire tariff process with different sets of data being submitted in different submissions, which led to confusion during the analysis process.

3.3 In view of the above, the Commission has taken a view based on the analysis of the data available to it in totality and has had to ignore various inconsistencies in HPSEB's submissions.

Sales Projections

3.4 HPSEB has projected energy sales of 4692.56 MU for FY08 within the state. The projections have been made on the basis of past trends by applying three years' Compounded Annual Growth Rate (FY03 to FY06) on the estimated sales for FY07, except for Temporary and Bulk supply, which is considered at FY07 levels.

3.5 The energy required to meet the demand of consumer within the states is 5723 MU after taking out transmission and distribution losses of 18.0% as per the estimates of HPSEB.

Table 21: Consumer Category wise Energy Sales

Energy Sales (MU)	FY 06	FY 07	FY 08
	Actuals	R.E.	Projected
Domestic	866.26	914.06	979.25
Antodya/ BPL	0.34	0.62	0.81
Non Domestic - Non commercial	46.89	76.39	122.29
Commercial	218.23	208.64	219.71
Public Lighting	11.74	11.17	12.01
Small Power	58.78	54.72	57.82
Medium Power	85.09	101.10	106.81
Large Supply & PIU	1835.26	2246.33	2658.05
Irrigation & Agriculture	24.73	24.59	26.59
Govt. Irrigation & Water Pumping	305.29	324.13	359.24
Temporary	10.23	19.10	19.10

Energy Sales (MU)	FY 06	FY 07	FY 08
	Actuals	R.E.	Projected
Bulk Supply	105.86	130.89	130.89
Total Energy Sales	**3568.69**	**4111.74**	**4692.56**

Outside State Sales

3.6 HPSEB has projected the total energy availability for FY08 from its own generating stations and power purchase from other sources at 6481 MU (Own Generation of 1823 MU plus Energy available from outside purchase at 4658 MU). After accounting for the energy requirement within the state (5723 MU), Board has been left with 759 MU of extra power for trading to outside sales.

Table 22: Outside State Sales Projection

Energy Sales to Outside State (MU)	FY 04-05	FY 05-06	FY 06-07	FY 07-08
	Actuals	Actuals	R.E	Projected
Energy available for sale to consumers outside state	1,659	1,723	1,048	759
Loss on sale outside state @ 3%	50	52	31	23
Net Energy sold to consumers outside state	**1,609**	**1,671**	**1,017**	**736**

Transmission and Distribution (T&D) loss

3.7 The Commission had approved target T&D loss level of 18.5% in respect of sale within the state for FY07. This represents a reduction of one-percentage point every year from the level approved in FY02 i.e. 23.5%.

3.8 HPSEB has submitted that the T&D losses in FY07 will be actually 18.56% instead of 18.5% as approved by the Commission in its last Tariff Order.

3.9 HPSEB has projected the intra-state T&D loss for FY08 at 18.00%, reduction of 0.56% from FY07.

Energy Availability

Own Hydel Generation

3.10 HPSEB has projected energy availability from its own generation as detailed in section below.

Table 23: HPSEB Projection - Own Hydel Generation

Gross Generation (MU)	FY 05	FY 06	FY 07	FY08
	Actuals	Actuals	R.E.	Projected.
Bhaba	582	574	562	572
Bassi	271	259	262	280
Giri	153	193	176	171
Andhra	53	63	60	63
Ghanvi	74	70	68	75
Baner	43	43	42	40
Gaj	51	51	45	47
Binwa	32	34	27	30
Thirot	6	3	7	5
Gumma	6	13	9	10
Holi	1	4	10	7
Larji	0	0	158	541
Khauli	0	0	0	48
Bhaba Aug (Dec.07)	0	0	0	3
Micro (Below 3 MW)	25	24	25	27
Total Generation	**1,295**	**1,332**	**1,450**	**1,919**
Less: GoHP 12% Share in Larji, Khauli, Baner, Ghanvi & Gaj			38	90
Aux Consumption (MU)	4	5	5	6
Net Generation (MU)	**1,291**	**1,327**	**1,408**	**1,823**

3.11 The energy availability for FY07 is higher than FY06, mainly due to Commissioning of Larji and Khauli, HEPs.

Power Purchase Quantum from Other Sources

3.12 The quantum of power availability for HPSEB from various sources has been detailed in the table below. HPSEB has not segregated the energy to be purchased from these stations for its own consumption and the purchase to be made for sales outside state.

Table 24: HPSEB Projection - Power Purchase Quantum

Gross Power Purchase (MU)	FY 06	FY 07	FY 08
Sources	Actuals	R.E	Projected
BBMB			
OLD HP	43.80	43.80	43.80
New HP	129.25	116.00	116.00
Dehar	78.84	73.80	78.80

Gross Power Purchase (MU)	FY 06	FY 07	FY 08
Sources	Actuals	R.E	Projected
BBMB – TOTAL	251.89	233.60	238.60
NTPC			
Rihand I	276.07	237.00	237.00
Rihand II (Ist Unit)	124.45	270.00	260.00
Rihand II (2nd Unit)	0.00	0.00	
Unchahar-I	59.85	59.00	59.00
Unchahar-II	113.67	90.00	90.00
Unchahar-III		7.00	62.00
Anta (Gas)	92.87	91.00	91.00
Anta (Liquid)	9.44	0.00	
Auriya (Gas)	118.33	131.00	131.00
Auriya (Liquid)	15.36	0.00	
Dadri (Gas)	132.60	132.00	132.00
Dadri (Liquid)	10.50	0.00	
Singrauli	111.11	0.00	
Kehalgaon			140.16
NTPC – TOTAL	1,064.25	1,017.00	1,202.16
NHPC			
Chamera I (At cost)	65.57	60.00	60.00
Chamera II (At cost)	57.53	59.00	59.00
Salal	33.65	35.00	35.00
Uri	72.23	67.00	67.00
Tanakpur	15.48	15.00	15.00
Dahuli Ganga (7.7 MW)	13.20	44.00	44.00
Tehri	0.00	38.00	65.00
NHPC TOTAL	257.66	318.00	345.00
NPC			
Narora/ Napp	69.00	54.00	54.00
Rapp			49.00
NPC – TOTAL	69.00	54.00	103.00
PSEB			
Shanan Share (Extension)	45.00	45.00	45.00
Shanan Share At Cost (1 Mw)	5.26	5.26	5.26
Bilateral Purchase	(0.03)	0.00	
PSEB – Total	50.23	50.26	50.26
Banking with Other States			
HVPNL	0.00	36.00	36.00
DTL	88.74	0.00	0.00

Gross Power Purchase (MU)	FY 06	FY 07	FY 08
Sources	Actuals	R.E	Projected
Punjab	191.22	174.00	174.00
Banking – Total	279.96	210.00	210.00
NJPC (1500 MW)			
Against Equity (22%)	237.96	379.00	256.00
State of Region 2.47%	112.37	147.00	147.00
NJPC – Total	350.33	526.00	403.00
Free Power			
Bairasuil	92.49	175.48	90.00
Chamera I	280.65		
Chamera II	178.40		
PSEB Shanan	2.63	2.63	22.00
PSEB Thein	90.45	22.00	
NJPC	132.08	140.00	140.00
Baspa II (IPP)	140.25	31.56	15.00
Malana (IPP)	50.45	8.92	3.00
Free Power – Total	967.40	380.59	270.00
OTHER SOURCES			
Khara (UPJVNL)	65.96	57.00	57.00
Uttaranchal (UJVNL)	422.33	379.00	379.00
Baspa II (At cost)	1,028.25	1,129.00	1,129.00
Unscheduled Interchange	25.57	0.00	
Unallocated Share	0.00	272.00	262.00
Private Micros	86.12	110.00	110.00
Market Purchase		115.00	50.00
Govt. 12% share in HPSEB Plants		7.51	18.02
Other Sources – Total	1,628.22	2,069.51	2,005.02
TOTAL POWER PURCHASE	**4,918.93**	**4,858.96**	**4,827.04**
External Losses %	3.45%	3.50%	3.50%
NET ENERGY AVAILABLE TO HPSEB	**4,716.03**	**4,688.89**	**4,658.09**

3.13 Some of the highlights of power availability

(a) HPSEB's share in Kahelgaon, Unchahar-III & RAPP will be available to HPSEB during the ensuing year.

(b) Due to increase in energy availability from own hydel stations, the Board has projected lesser gross power purchase for the FY08 than FY07.

(c) External Transmission loss on Power Purchase in FY06 is taken at 3.5% by

HPSEB, based on the actual loss levels for the first six months (as per NREB Report).

Energy Balance

3.14 Based on the data on estimated & projected sales, generation & purchase obtained, the Energy Balance that has been prepared by the Board in FY07 and FY08:

Table 25: HPSEB Projection - Energy Balance

Energy Balance (MU)	FY 06	FY 07	FY 08
	Actuals	R.E.	Projected
Own Generation Sources	1,327	1,408	1,823
Power Purchase Sources (CGS, Inter-state etc.)	4,716	4,689	4,658
Total Availability	6,043	6,097	6,481
Sales within the State (MU)	3,568	4,112	4,693
Proposed T&D Loss % within the State for FY 08	17.40%	18.56%	18.00%
Power Requirement for sale within the State (MU)	4,320	5,049	5,723
Power available for inter-state sale (MU)	1,723	1,048	759
Transmission loss (sale outside the State)	3.00%	3.00%	3.00%
Net inter-state sale(MU)	1,671	1,017	736
Total Sale (within & Outside the State) (MU)	5,240	5,129	5,429
Overall Losses (MU) (Total availability less Total sale)	803	968	1,053
Overall T&D Losses %	13.29%	15.88%	16.24%

Annual Revenue Requirement

Cost of Power Purchase

3.15 The cost of power available from various stations has been projected based on past trends and CERC orders, if any. HPSEB has provided station wise power purchase costs which has been summarised in the table below.

Table 26: HPSEB Projection - Power Purchase Cost

S No	Power Purchase Sources	FY 06-07 (R.E)			FY 07-08 (Proj)		
		Energy Units (MU)	Rs. Cr	Paise /Unit	Energy Units (MU)	Rs. Cr	Paise /Unit
1	Bhakra Nangal						
	Old HP share	43.80	1.93	44	43.80	2.06	47
	New HP share	116.00	2.60	22	116.00	2.55	22
	Dehar	73.80	2.08	28	78.80	2.36	30
2	NHPC						

S No	Power Purchase Sources	FY 06-07 (R.E)			FY 07-08 (Proj)		
		Energy Units (MU)	Rs. Cr	Paise /Unit	Energy Units (MU)	Rs. Cr	Paise /Unit
	Chamera – I	60.00	8.00	133	60.00	8.09	135
	Chamera- II	59.00	17.41	295	59.00	17.65	299
	Salal	35.00	2.49	71	35.00	2.52	72
	Uri	67.00	15.76	235	67.00	10.40	155
	Tanakpur	15.00	1.95	130	15.00	1.87	125
	Dhauli Ganga	44.00	8.84	200	44.00	13.16	299
3	Tehri	38.00	13.30	350	65.00	22.75	350
4	PSEB						
	Shanan Share	45.00	1.80	40	45.00	1.80	40
	Shanan Share (1 MW)	5.26	0.21	40	5.26	0.21	40
	Banking	174.00	52.90	304	174.00	52.90	304
5	HPGCL						
	HPGCL Banking	36.00	10.94	304	36.00	10.94	304
6	NTPC						
	Rihand-I	237.00	38.44	162	237.00	39.01	165
	Rihand-II (2nd Unit)	270.00	40.68	150	260.00	40.82	157
	Rihand-II (Infirm))	0.00	0.00	0.00	0.00	0.00	0.00
	Unchahar -I	59.00	10.94	185	59.00	11.10	188
	Unchahar -II	90.00	17.26	191	90.00	17.51	195
	Unchahar-III	7.00	1.53	219	62.00	13.58	219
	Anta -I	91.00	17.20	189	91.00	17.46	192
	Auraiya-I	131.00	28.13	214	131.00	28.55	218
	Dadri(Gas)	132.00	31.58	239	132.00	31.26	237
	Kehalgaon	0.00	0.00		140.16	24.11	172
7	Narora	54.00	10.27	190	54.00	10.26	190
	Rapp				49.00	13.87	283
	Baspa-II (Purchase)	1129.00	295.80	262	1129.00	295.80	262
8	Nathpa Jhakri (1500 MW)		0.00				
	Purchase(GoHP equity power)	379.00	132.65	350	256.00	89.60	350
	State of Region 2.47%	147.00	41.13	279	147.00	41.16	280
9	Khara (UPJVNL)	57.00	2.11	37	57.00	2.11	37
10	Uttaranchal (UJVNL)	379.00	14.02	37	379.00	14.02	37
11	Free Power(GoHP's entitlement)						
	NHPC (Bairasuil, Chamera-I&II)	175.48	53.35	304	90.00	27.36	304
	PSEB (Shanan & Thein)	24.63	5.68	231	22.00	5.17	235

S No	Power Purchase Sources	FY 06-07 (R.E)			FY 07-08 (Proj)		
		Energy Units (MU)	Rs. Cr	Paise /Unit	Energy Units (MU)	Rs. Cr	Paise /Unit
	Nathpa Jhakri	140.00	42.56	304	140.00	42.56	304
	Baspa-II (IPP)	31.56	6.72	213	15.00	3.53	235
	Malana (IPP)	8.92	1.85	207	3.00	0.71	235
12	Unscheduled Interchange (UI)						
13	Unallocated share	272.00	48.42	178	262.00	49.78	190
14	PGCIL & other Trans charges		60.00			70.00	
15	Total Purchase	4626.45	1031.02		4649.02	1038.59	
16	Short term Purchase from Market	115	57.21	498	50	29	580
17	Private Micros	110	27.5	250	110	27.5	250
18	Govt. 12% share in HPSEB Plants	7.51	1.76	235	18.02	4.23	235
	Total Power Purchase	**4858.96**	**1126.98**		**4827.04**	**1099.32**	

3.16 Some of the issues in projecting the cost of generating stations are:

(a) The tariffs for FY08 for various NHPC Stations were yet to be determined by CERC under the new tariff guidelines at the time of filing of this petition.

(b) The tariffs for free power for FY08 for HPSEB Stations are proposed as Rs. 2.35 per unit as determined by the Commission in last tariff order. Tariff of free power for NJHEP and NHPC has been proposed as Rs. 3.04 per unit.

(c) The Power Purchase cost for the year FY07 for NTPC Stations is based on the actual bills. For FY08, station wise variable cost/unit of NTPC Stations has been escalated by 1.5% from FY07 levels except Rihand II where the increase observed in current bills when seen with reference to previous years is more than 1.5%. Fixed cost/unit of NTPC stations is retained at FY07 levels.

(d) As per CERC Order station wise variable cost/unit, fixed cost/unit of Uri and Tanakpur for FY08 is lower than FY07 levels. Thus, average Cost/unit of procurement for NHPC stations for FY08 has been decreased by 2 Paise from FY07 levels. Variable cost/unit of remaining NHPC stations has been escalated by ~1.4% from FY07 levels.

(e) In case of private sector & inter-state projects, the power procurement is based on the provisions of the bilateral agreements or power purchase agreements. The availability & per unit cost for full FY07 & FY08 are based on the trend during the first half of FY06 and in line with the agreements.

3.17 The charges for wheeling the power from the generation bus to the interface point of the HPSEB for plants located outside HP are to be paid to the central transmission utility PGCIL. These charges have been estimated at the rate of Rs. 56000/ MW/ month as per the recent trend in billing.

Repair & Maintenance Cost

3.18 The Board has projected Rs. 22.30 Cr for FY08 as against Rs. 20.23 Cr for FY07 (Provisional). The effective increase over FY07 works out to 10.2%. The Board has not given the break up of R&M cost in different heads.

Employee Cost

3.19 Salaries & Allowances are estimated to increase by 7.97% p.a. between FY05 and FY08. This increase in salaries & allowances is mainly due to yearly increments in Basic salary allowed to employees. Due to increase in Basic salary, other allowances like HRA, which are linked to Basic Salary, have also been increased in similar proportions.

3.20 As depicted in the table, other allowances, Leave Salary Contribution, LTC, earned leave encashment; staff welfare expenses and payment under workmen’s compensation for FY08 have been projected to increase by 5% to cover the cost of inflation.

3.21 Medical expense reimbursement, fee & honorarium for FY07-08 have been maintained at FY07 levels. The employee expenses projected for FY08 is Rs. 495.53 Cr (post capitalization).

3.22 Later, in reply to the Commission’s queries the Board has proposed a higher employee cost by increasing projected basic salary for FY08 from Rs. 275.51 Cr to Rs. 303.90 Cr and for FY07 from Rs. 264.92 Cr to Rs. 282.03 Cr. The Board also proposed to increase DA for FY07 from Rs. 96.79 Cr to Rs. 103.91 Cr and for FY08 from Rs. 124.32 Cr to 132.78 Cr.

Table 27: HPSEB Projection - Employee Cost

Employee Cost (Rs. Cr)	FY 06	FY 07	FY 08
	Actuals	R.E.	Projected
Salaries & Allowances			
Salaries Merger of DA with Basic	254.73	264.92	275.51
DA	83.55	96.79	124.34
Other Allowances	32.23	32.23	32.23
Overtime	1.00	1.00	1.00
Bonus	0.00	0.00	0.00
Salaries - Total	371.50	394.94	433.09

Employee Cost (Rs. Cr)	FY 06	FY 07	FY 08
	Actuals	R.E.	Projected
Medical expense Reimbursement	6.57	6.66	6.66
Fee & Honorarium	0.01	0.01	0.01
Earned Leave encashment	12.65	16.84	17.63
Leave Salary Contribution	0.89	1.06	1.11
Payment under workmen’s compensation	0.89	0.82	0.86
LTC	0.01	0.01	0.01
Staff Welfare expenses	1.27	1.25	1.31
Other Staff Costs - Total	22.30	26.65	27.60
Pension	65.86	75.74	85.00
Gratuity	20.44	27.82	30.60
Any other items	2.67	3.10	3.30
Terminal benefits - Total	88.97	106.66	118.90
Gross Employee cost	482.77	528.25	579.58
Less: capitalization	70.01	76.61	84.05
Net Employee costs	**412.76**	**451.64**	**495.53**

Administrative & General Expenses

3.23 The Board has projected Rs. 41.10 Cr (as per revised ARR dated 15th Feb 2007) for FY08 as against Rs. 28.46 Cr for FY07 (Provisional). The Board has projected Administration charges for FY08 by applying three years’ Compounded Annual Growth Rate (FY04 to FY06) on the estimated costs for FY07, except for Regulatory and Ombudsman expenses.

3.24 Over and above the regular expenses under A&G costs, the Board has kept Rs. 10 Cr for valuation of Assets. The Commission had approved 11 Cr for valuation of assets during FY06 but Board has revealed that the total cost for conducting valuation of assets is coming out as Rs. 21 Cr. Thus, the Board has escalated the A&G costs to Rs. 41.10 Cr for FY08.

Table 28: HPSEB Projection - Administrative & General Expenses

Administration & General Costs (Rs. Cr)	FY06	FY07	FY08
	Actuals	R.E.	Projected
Administration Charges			
Rent, Rates & Taxes	1.51	2.03	2.74
Telephone, Postage & Telegrams	2.39	2.52	2.65
Consultancy Charges	0.05	0.05	0.05
Conveyance & Travel	12.30	12.55	12.82
Regulatory Expenses	2.12	3.00	4.00
Ombudsman Expenses			

Administration & General Costs (Rs. Cr)	FY06	FY07	FY08
	Actuals	R.E.	Projected
Income Tax Updating Charges	0.00	0.00	0.00
Insurance	0.01	0.01	0.01
Sub Total	18.38	20.16	22.27
Other Charges			
Fees & Subscriptions, Books & Periodicals	0.10	0.12	0.13
Printing & Stationery	1.30	1.37	1.38
Advertisement Expenses	0.29	0.30	0.32
Electricity Charges	2.22	2.50	3.29
Water Charges/ Cold weather expenses	0.33	0.33	0.33
Miscellaneous Expenses	1.88	2.25	2.25
Legal Charges	0.26	0.26	0.26
Audit Fee	1.50	1.67	1.85
Freight Material related Expenses	3.58	4.00	4.00
Public Interaction Program	0.03	0.70	0.70
A&G Expenses – Total	29.87	33.66	36.78
Less: Capitalization	4.61	5.20	5.68
Net A&G Costs	**25.26**	**28.46**	**31.10**

Depreciation

3.25 HPSEB has provided depreciation costs summarised in the table below.

Table 29: HPSEB Projection - Depreciation

Depreciation (Rs. Cr)	FY06	FY07	FY08
	Actuals	R.E.	Projected
GFA - Opening Balance			
Generation	738.10	723.68	1957.28
Transmission	627.63	668.66	818.66
Distribution	826.85	930.00	1010
Others	0	0	0
Total	2192.58	2322.34	3785.94
Net Additions during the Year			
Generation	-14.42	1233.6	164.63
Transmission	41.03	150.00	57.00
Distribution	103.15	80.00	83.00
Others	0	0	0
Total	129.76	1463.6	304.63
GFA - Closing Balance			

Depreciation (Rs. Cr)	FY06	FY07	FY08
	Actuals	R.E.	Projected
Generation	723.68	1957.28	2121.91
Transmission	668.66	818.66	875.66
Distribution	930.00	1010	1093
Others	0	0	0
Total	2322.34	3785.94	4090.57
Depreciation for the Year			
Generation	21.33	18.09	48.93
Transmission	12.70	16.72	20.47
Distribution	19.67	23.25	25.25
Others	0	0	0
Total	**53.70**	**58.06**	**94.65**
Depreciation Rate %			
Generation	2.89%	2.50%	2.50%
Transmission	2.02%	2.50%	2.50%
Distribution	2.38%	2.50%	2.50%
Others			
Total	**2.45%**	**2.50%**	**2.50%**

Interest & Finance Charges

3.26 Interest costs on Commercial loans are estimated to increase from Rs. 121.43 Cr in FY07 to Rs. 140.32 Cr in FY08. The interest expenses for FY08 are proposed on the basis of interest liability for FY08 on the loans outstanding as on 1st April 2007 at agreed rates and prorata interest on fresh loans proposed to be raised in FY08 at prevailing market rates. Details of the fresh loan to be received in FY08 have not been submitted by the Board.

Table 30: HPSEB - Interest Expenses

Interest Cost (Rs. Cr)	FY06	FY07	FY08
	Actuals	R.E.	Projected
LIC	22.37	23.29	21.70
REC	16.18	17.12	24.00
PFC	68.97	76.31	80.00
Bonds	4.20	4.20	3.84
Bank	25.46	37.80	30.17
APDRP	2.23	2.33	2.25
Non SLR Bonds	52.83	43.29	40.05
Other Negotiated Loan	0.00	1.96	18.20
Interest on Overdraft	18.34	12.13	12.00

Interest Cost (Rs. Cr)	FY06	FY07	FY08
	Actuals	R.E.	Projected
Interest on GPF	17.90	15.00	14.81
Cost of raising finances	0.08	0.10	0.10
Other Charges	0.88	0.90	0.70
Interest on Security Deposits	4.97	6.00	7.35
Rebate allowed for timely payment	8.95	6.00	3.15
Interest & Finance Charges - Total	243.36	246.43	258.32
Less: Interest capitalized	121.53	125.00	118.00
Net Interest & Financing Costs	**121.83**	**121.43**	**140.32**

Reasonable Return

3.27 HPSEB has requested for allowing a Reasonable return of 3% on the opening balance of Net Fixed Assets less consumer contribution. Reasonable return for HPSEB is computed as Rs. 42.16 Cr and Rs. 85.61 Cr for the current and ensuing year as detailed in table below.

Table 31: HPSEB Projection - Reasonable Return

Reasonable Return (Rs. Cr)	FY06	FY07	FY08
	Actuals	R.E.	Projected
Opening Balances			
Gross Fixed Assets	2,193	2,322	3,786
Less: Accumulated depreciation	355	409	467
Net Fixed Assets	1,837	1,913	3,319
Less: Consumer contribution	164	185	195
Less: Part of accumulated subventions from State Govt.	221.1	323	270
Net Fixed assets excl Consumer Contribution	1,452	1,405	2,854
Return: 3% on Opening NFA	**43.56**	**42.16**	**85.61**

Non Tariff Income & Other Income

3.28 Non-tariff income includes meter rent/service line rentals, recovery for theft of power/malpractices, wheeling charges recovery, miscellaneous charges from consumers, Interest on Staff loans & advances, Income from Investments, Interest on loans & advances to licensees, Delayed payment charges from consumers, Interest on advances to suppliers/contractors, Interest on banks (other than on fixed deposits), Income from trading, Income from staff welfare activities and Miscellaneous receipts.

3.29 Non Tariff and Other Income as shown in table below, is estimated by HPSEB to increase at around 5% p.a. from last year.

Table 32: HPSEB Projection - Non-Tariff Income & Other Income

Non-Tariff Income (Rs. Cr)	FY06	FY07	FY08
	Actual	R.E.	Projected
Non Tariff Income			
a) Meter Rent/service line rentals	27.09	29.81	31.30
b) Recovery for theft of power/malpractices	0.04	0.06	0.07
c) Wheeling Charges recovery	2.16	2.63	2.77
d) Miscellaneous charges from consumers	2.12	0.80	0.84
Non Tariff Income - Total	31.40	33.30	34.97
Other Income			
a) Interest on Staff loans & advances	1.06	1.06	1.12
b) Income from Investments	0.0	0.00	0.00
c) Interest on loans & advances to licensees	0.0	0.00	0.00
d) Delayed payment charges from consumers	6.04	6.04	6.34
e) Interest on advances to suppliers/contractors	0.45	0.35	0.37
f) Interest on banks (other than on fixed deposits		0.00	0.00
g) Income from trading	1.44	1.87	1.96
h) Income from staff welfare activities	0.04	0.03	0.03
i) Miscellaneous receipts	38.04	43.75	45.94
Other Income Total	47.07	53.10	55.75
Total Non Tariff Income & Other Income	**78.47**	**86.40**	**90.72**

Aggregate Revenue Requirement

3.30 Board has estimated its Aggregate Revenue Requirement (ARR) for FY08 to be Rs. 1878.11 Cr.

Table 33: HPSEB Projection - Aggregate Revenue Requirement

Annual Revenue Requirement (Rs. Cr)	FY06	FY07	FY08
	Actuals	R.E.	Projected
Costs			
Power Purchase	1,082.00	1,126.98	1,099.32
Employee	412.76	451.64	495.53
Repairs & Maintenance	18.35	20.23	22.30
Admin & General	25.26	28.46	31.10
Interest	121.83	121.43	140.32
Depreciation	53.70	58.06	94.65
Total Costs	1,713.90	1,806.80	1,883.22

Annual Revenue Requirement (Rs. Cr)	FY06	FY07	FY08
	Actuals	R.E.	Projected
Add: Reasonable Return	43.56	42.16	85.61
Less: Non-Tariff Income	78.47	86.40	90.72
Annual Revenue Requirement	**1,678.99**	**1,762.56**	**1,878.11**

Revenue from Sale of power at Existing Tariffs

3.31 HPSEB has estimated revenues of Rs. 1186.11 Cr and Rs. 1339.1 Cr in FY07 and FY08 respectively for sale of power from its own consumers at existing tariff:

Table 34: HPSEB Projection - Estimated Revenue at Existing Tariff

Revenue @ Existing Tariff (Rs. Cr)	FY 06	FY07	FY08
	Actuals	R.E.	Projected
Domestic	170.22	205.83	219.36
Commercial	100.29	95.15	101.11
Small Power	23.01	20.78	25.82
Medium Power	35.74	38.70	31.73
Large Power & PIU	527.83	602.59	728.55
Agriculture	10.95	9.13	4.66
Public Lighting	4.18	3.71	3.75
Bulk Supply	34.86	45.20	36.32
NDNCs	25.97	34.98	44.21
Public water works	135.57	121.19	131.92
Temporary Supply	1.87	8.83	11.67
Energy Sales within State	**1,070.49**	**1,186.11**	**1,339.10**
Sale to outside State	**545.12**	**462.88**	**325.00**
Revenue from Tariffs	**1,615.61**	**1,648.99**	**1,664.10**

Coverage of Revenue Gap

3.32 At existing tariff the Board has estimated a revenue gap of Rs. 113.58 Cr and Rs. 214.01 Cr for FY07 and FY08 respectively.

3.33 Revenue Gap of Rs. 214.01 Cr in FY08 is proposed to be covered through additional revenue of Rs. 147.63 Cr from proposed tariff revision and creation of Regulatory Asset of Rs. 66.38 Cr.

3.34 For estimated Revenue Gap of Rs. 100.10 Cr in FY07 after considering revenue surplus of Rs.13.48 Cr in FY06 suitable recovery mechanism need to be evolved separately.

Table 35: HPSEB Projection - Revenue Gap

ARR, Revenue @ Existing Tariff, Revenue Gap	FY06	FY07	FY08
	Actuals	R.E.	Projected
Annual Revenue Requirement	1,678.99	1,762.56	1,878.11
Covered by			
Revenue @ Existing Tariff	1,070.49	1,186.11	1,339.10
Revenue from Sale outside state	545.12	462.88	325.00
GoHP Subsidy	76.85[1]		
Revenue @ Existing Tariff + GoHP Subsidy	1,692.46	1,648.99	1,664.10
Revenue Gap/(Surplus)	**(13.48)**	**113.58**	**214.01**
Covered by			
Addl. Revenue @ Proposed Tariff		0.00	147.63
Regulatory Asset		0.00	66.38
Total	**0.00**	**0.00**	**214.01**
Net Gap/(Surplus) to be addressed	**(13.48)**	**113.58**	**0.00**

Tariff Revision Proposal for FY08

3.35 The Board has proposed to increase tariff for Non Domestic Non Commercial, Small & Medium Industry, Commercial Supply and Bulk Supply Categories by ~4% in order to prevent revenue losses due to reduction in tariff and mainly due to inflationary effect (current inflation is ~5% p.a.). The Board has also proposed to increase the tariff for Large Supply and PIU Consumers as present demand charges for Large Supply and PIU consumers are inadequate to compensate for the loss of revenue due to change in the tariff structure.

3.36 The Board has proposed to include one more category i.e. Public Welfare Institution in the existing categories which would cover all the Govt health institutions & hostels, Govt educational institutions & hostels, Govt hospitals. At present all these consumers are covered under NDNC.

3.37 Board has proposed to change the tariff of certain consumer categories as detailed in the table below:

[1] GoHP has paid subsidy of Rs. 76.85 Crs. on account of free power purchase for FY 06.

Table 36: HPSEB Projection - Existing & Proposed Tariff Structure

Consumer Categories	Energy Charges (Rs. / kWh)		Consumer Service Charges (Rs. / Consumer/ month)		Demand Charges (Rs. / KVA / month)	
	Existing	Proposed	Existing	Proposed	Existing	Proposed
Domestic supply						
(a) BPL	1.65	1.65			Nil	Nil
(b) Others						
0 – 45	1.75	1.75				
46 – 150	1.75	1.75				
151 & above	2.65	2.65	20	20		
Non-Domestic Non Commercial						
0-20 KW	3.65	3.85	50	50	0	0
Above 20 KW	2.95	3.10	100	100	75	75
Commercial Supply						
0- 20 KW	4.00	4.20	50	50	0	0
20- 100 KW	3.20	3.35	100	100	75	75
Above 20 kW	3.00	3.15	200	200	100	100
Small & Medium Industrial Supply						
0- 20 KW	3.40	3.50	50	50	0	0
Above 20 KW	2.75	2.90	100	100	75	75
Large Supply						
EHT (Normal Timings)	2.00	2.45	300	350	170	205
HT (Normal Timings)	2.10	2.50	200	250	200	225
PIU						
EHT (Normal Timings)	2.00	2.65	300	350	250	290
HT (Normal Timings)	2.10	2.70	200	300	330	350
Water Pumping Supply						
LT	2.80	2.80	100	100	175	175
HT	2.20	2.20	100	100	125	125
EHT	2.00	2.00	100	100	100	100
Agriculture Pumping Supply	1.65	1.65	20	20	Nil	Nil
Bulk Supply						
LT	2.70	2.85	100	100	175	175

Consumer Categories	Energy Charges (Rs. / kWh)		Consumer Service Charges (Rs. / Consumer/ month)		Demand Charges (Rs. / KVA / month)	
	Existing	Proposed	Existing	Proposed	Existing	Proposed
HT	2.00	2.10	100	100	125	125
Street Lighting	3.10	3.10	50	50	Nil	Nil
Temporary Supply						
LT	6.00	6.00	100	100	Nil	Nil
HT	4.45	4.45	100	100	300	300
Public Welfare Institution[2]		2.65		20	Nil	Nil

Revenue from Sale of Power at Proposed Tariff

3.38 Revenue from sale of energy at proposed tariff for FY08 is estimated to be Rs. 1486.74 Cr, the details of which are provided in table below.

Table 37: Revenue at Existing and Proposed Tariff

Revenue from Sale of Power (Rs. Cr)	FY08 Projections @ Exist Tariff	FY08 Projections @ Prop Tariff	Growth (%)	A R M
Domestic	219.36	219.36	0.0%	0.00
Commercial	101.11	105.25	4.1%	4.14
Small Power	25.82	26.52	2.7%	0.70
Medium Power	31.73	33.22	4.7%	1.49
Large Power	569.17	673.31	18.3%	104.14
PIU	159.38	192.76	20.9%	33.39
Agriculture	4.66	4.66	0.0%	0.00
Public Lighting	3.75	3.75	0.0%	0.00
Bulk Supply	36.32	37.90	4.4%	1.58
NDNCs	44.21	46.41	5.0%	2.20
Public water works	131.92	131.92	0.0%	0.00
Temporary Supply	11.67	11.67	0.0%	0.00
Total Energy Sales	1,339.10	1,486.74	11.02%	147.63

[2] The impact of this category has not been considered in the additional revenue from proposed tariff.

Average Cost of Supply and Realization

3.39 Average cost of supply and category wise average realization has been summarized in the table below.

Table 38: Average CoS and Realization

Average Realization & Cost of Supply (Rs./Unit)	At Existing Tariff	At Proposed Tariff
	FY08	FY08
Average Cost of Supply of HPSEB	3.46	3.46
Average Realization	3.07	3.34
Regulatory Asset	0.12	0.12
Revenue Gap	0.27	0.00
Category wise Avg. Realization		
Domestic	2.24	2.24
Commercial	4.60	4.79
Small & Medium Power	3.50	3.63
Large Power	2.74	3.26
Agriculture	1.75	1.75
Public Lighting	3.13	3.13
Bulk Supply	2.77	2.90
NDNCs	3.62	3.79
Public water works	3.67	3.67
Temporary Supply	6.11	6.11

Unbundling of ARR for FY07 & FY08

Methodology

3.40 Board has unbundled the costs into generation, transmission and distribution elements of its business and has adopted the following approach towards unbundling, identifying and isolating the different items like assets, costs and revenues.

Allocation Basis

3.41 In this filing, the approach towards unbundling of the ARR is based on identifying and isolating the different items like activities, assets, costs and revenues to the three functions based on circle wise data available for Generation, Transmission and Distribution function for FY06, based on certain estimates and assumptions. The Board has tried to use limited assumptions in this filing so that the segregation would be close to actuals.

3.42 Therefore, the segregation of expenses (R&M, A&G, Employee Cost, and Depreciation) incurred by the Board for FY06 is primarily based on the circle wise information. HQ cost is allocated in proportion of Generation, Transmission & Distribution cost. Power purchase costs have been fully allocated to Distribution function.

3.43 Interest & Finance charges for FY06 have been allocated on principle of allocated loans (scheme specific). Interest & Finance charges for FY07 & FY08 have been allocated based on outstanding principle amount against loans raised for specific schemes.

3.44 Gross Fixed Assets & accumulated depreciation have been allocated to various functions on the basis of the Audited Accounts for FY06.

3.45 Consumer contribution has been fully allocated to Distribution business. Capital subsidies have been allocated based on the nature of the subsidy. Interest on Security deposits has been fully allocated to Distribution business.

3.46 Expenses capitalized under various expense items have been allocated based on actual capitalization for FY06. Interest capitalized has been allocated based on capital work in progress.

3.47 All income items other than delayed payment surcharge from consumers that form part of other income and non-tariff income have been allocated based on the nature of income. Delayed payment surcharge from consumers has been allocated to Distribution entirely.

3.48 The various elements of the unbundled ARR for FY 08 have been projected on the basis of the actuals for FY06 and latest estimates available for FY07. Tables below summarises the segregated ARR for FY07 & FY08.

Table 39: HPSEB Projection - Function-wise segregated ARR for FY06

Particulars (Rs. Cr)	Generation	Transmission	Distribution	Total
Power Purchase Expenses			1,082.00	1,082.00
Employee Cost	66.72	38.37	377.69	482.77
Net R & M Expenses	4.59	1.65	12.11	18.35
A & G Expenses	8.55	5.34	15.98	29.87
Depreciation	21.33	12.70	19.67	53.70
Interest & Finance Charges	125.70	25.63	92.03	243.36
Less: Interest capitalized	79.32	6.37	35.84	121.53
Less: Other Expenses capitalized	35.16	13.83	25.63	74.62
Reasonable Return	17.80	15.94	9.82	43.56
Less: Non Tariff Income	6.89	21.12	50.46	78.47
Total ARR	**123.31**	**58.31**	**1,497.36**	**1,678.99**

Table 40: HPSEB Projection - Function-wise Segregated ARR for FY07

Particulars (Rs. Cr)	Generation	Transmission	Distribution	Total
Power Purchase Expenses			1,126.98	1,126.98
Employee Cost	72.47	41.48	414.30	528.25
Net R & M Expenses	2.63	1.74	15.86	20.23
A & G Expenses	9.76	6.31	17.59	33.66
Depreciation	18.09	16.72	23.25	58.06
Interest & Finance Charges	137.62	15.96	92.85	246.43
Less: Interest capitalized	81.59	6.55	36.86	125.00
Less: Other Expenses capitalized	38.53	15.15	28.12	81.80
Reasonable Return	16.72	16.73	8.70	42.16
Less: Non Tariff Income	7.87	24.28	54.25	86.40
Total ARR	**129.30**	**52.96**	**1,580.30**	**1,762.56**

Table 41: HPSEB Projection - Function-wise Segregated ARR for FY08

Particulars (Rs. Cr)	Generation	Transmission	Distribution	Total
Power Purchase Expenses			1,099.32	1,099.32
Employee Cost	80.06	45.35	454.17	579.58
Net R & M Expenses	1.72	1.97	18.61	22.30
A & G Expenses	10.45	6.51	19.81	36.78
Depreciation	48.93	20.47	25.25	94.65
Interest & Finance Charges	146.18	19.76	92.38	258.32
Less: Interest capitalized	77.02	6.18	34.80	118.00
Less: Other Expenses capitalized	42.26	16.62	30.84	89.73
Reasonable Return	53.19	20.52	11.90	85.61
Less: Non Tariff Income	8.27	25.49	56.96	90.72
Total ARR	**212.99**	**66.29**	**1,598.84**	**1,878.11**

3.49 The revised ARR of Rs. 1888.11 Cr for FY08 on account of changed A&G expenditure has not been segregated and hence is not reflected here.

3.50 The above ARR has been filed by the Board with the following caveat:

(a) The Segregated ARR as shown in the above tables will be subject to certain changes based on the re-organization and the Transfer Scheme, which the Government of Himachal Pradesh may formulate for the re-organization of HPSEB, as and when the re-organization terms are finalized and the financials may be notified by the Government of Himachal Pradesh under the statutory scheme as per the provisions of Section 131, 133 etc of the Electricity Act, 2003.

(b) In the circumstances, the financials disclosed in the segregated ARR may be treated as provisional with liberty to HPSEB to file with the Commission, the changes that may be brought about by the re-organisation of HPSEB, as and when the Government of Himachal Pradesh notifies the same.

Waiver

3.51 The Board has stated that it is trading energy (purchasing and selling) under the current structure only to meet the demand requirements of the state and optimizing the usage of Board's capacity (both allocated and owned capacities). These transactions are a mix of purchase, sale and banking transactions. The Board is not undertaking any transactions purely on a trading merit to earn profits from a trading transaction. Therefore, there is no "Trading business" inherent in the operations of the Board. In view of the above, Board has sought a waiver for providing of information in the formats indicated for trading business.

3.52 The Board has requested the Commission to condone any inadvertent omissions/ errors/ shortcomings and permit the Petitioner to add/ change/ modify/ alter this filing and make further submissions as may be required at a future date.

Prayer

3.53 HPSEB had requested the Commission for the following:

(a) approve the Aggregate Revenue Requirement of FY07 and FY08 as well as the Tariff Revision Proposal for FY08;

(b) make the proposed Retail Supply Tariffs applicable from April 1, 2007;

(c) treat the filing as complete in view of substantial compliance as also the specific requests for waivers with justification placed on record and;

(d) pass such other and further orders as are deemed fit and proper in the facts and circumstances of the case.

A4: OBJECTIONS FILED AND ISSUES RAISED BY CONSUMERS DURING PUBLIC HEARING

4.1 There were 16 objectors who filed written objections to the Tariff petition filed by the Board, list of whom are as follows:

(a) Gujarat Ambuja Cement Ltd., Darlaghat

(b) ACC Gagal Cement Works, Barmana

(c) The Kullu Hotels & Guest Houses Association, Kullu

(d) CII, PIA & BBNIA, KACCI Industries Association

(e) M/s Auro Spinning Mills, Baddi

(f) M/s H.M.Steels Ltd., Kala Amb

(g) M/s Sri Rama Steels Ltd., Barotiwala

(h) M/s J.B. Steel Rolling Mills, District Sirmour

(i) Director (Elementary Education), Himachal Pradesh

(j) Director (Higher Education), Himachal Pradesh

(k) Director (Horticulture), Himachal Pradesh

(l) Director (Health Services), Himachal Pradesh

(m) Director (Agriculture), Himachal Pradesh

(n) Director (Animal Husbandry) Himachal Pradesh

(o) Consumer Representative

(p) Mehatpur Industries Association

4.2 The public hearing was held on 12 March 2007 at the Commission's Court Room in Shimla. Names of objecting organization/companies and their respective representatives, who presented their cases before the Commission during public hearing, are given below.

Table 42: List of Objectors present during Public Hearing

S. No.	Objector/Organization	Represented by
1	Gujarat Ambuja Cement Ltd., Darlaghat.	Sh. Sunil Sood
2	ACC Gagal Cement Works, Barmana.	Sh. Pankaj Sharma
3	CII, PIA & BBNIA, KACCI Industries Association	Sh. Rajinder Gularia
4	M/s Auro Spinning Mills, Baddi.	Sh. Satish Mehta
5	M/s H.M. Steels Ltd., Kala Amb.	Sh. P.C. Deewan
6	M/s Sri Rama Steels Ltd., Barotiwala	
7	M/s J.B. Steel Rolling Mills, Distt. Sirmour.	
8	Director (Elementary Education), Himachal Pradesh	Sh. Ravinder Sharma, Sr. Asstt., Legal Cell.
9	Director (Higher Education), Himachal Pradesh.	Sh. Dinkar Burathoki, Joint Director, Higher Education.
10	Director (Horticulture), Himachal Pradesh	Dr. I.D. Gupta, Subject Matter Specialist
11	Director (Health Services), Himachal Pradesh.	Sh. Rajeev Sharma, Addl. Director (Health).
12	Director (Animal Husbandry), Himachal Pradesh	Dr. V.B. Joshi, Dy. Director(AH&B)
13	Consumer Representative.	Sh. P. N. Bhardwaj

4.3 Issues raised by the objectors along with the replies given to the objections by HPSEB and views of the Commission are mentioned in the sections below:

General Comments on Petition filed by the Board

4.4 The objectors pointed out the following issues related to the Tariff petition filed by the Board:

(a) Tariff proposal is against the spirit of the Electricity Act, 2003.

(b) Tariff proposal encourages cross subsidization.

(c) The revenue from sale of power does not give the actual picture.

(d) No data in the petition for recovery of expenditure made for providing electricity connection.

(e) Low Generation projected for the Larji and Khauli Projects.

(f) Audited Accounts of previous years not submitted with the petition.

(g) Incomplete tariff proposal and Non-compliance of directives.

(h) Incomplete information on consumer complaints.

(i) No details on load curves in the petition.

(j) Need for creation of a Public Welfare Institution.

(k) No information on power interruptions.

(l) Voltage-wise break-up of embedded cost of supply for each consumer category not given.

(m) Time frame for asset verification is not given.

(n) The gains made under APDRP not highlighted.

(o) No steps on safety measures undertaken by Board.

(p) No mention in the petition about "HPSEB Development Fund".

(q) Tariff Proposal does not contain details of facilities given to the senior citizens. It has also been noticed that in some instances the employees of Board are not aware of these schemes for senior citizens.

(r) Details of tariff roll back subsidy not given.

(s) No mention of infrastructure charges collected from the consumers.

(t) Quantum of power purchase from Baira Sail and Chamera II not given.

(u) The tariff fixation should be based on cost to serve and not average cost of supply.

(v) WTM structure is slow in taking decisions. Board needs to re-work on governance of its HR activities.

Board's Response:

4.5 The compilation of the replies to the above issues filed by HPSEB is as follows:

(a) The Board has provided the basis for estimation of energy sales in the petition. The Commission should take an independent view.

(b) The Board has already submitted the cost data for EHV and sub-transmission network for FY07. The data for FY08 would be submitted by 31 March 2007.

(c) Board has estimated the generation from Larji and Khauli for FY08, based on design energy, in the absence of data for previous years. Any increase or decrease in the same can be factored in during the time of true up.

(d) Audited accounts for FY06 were submitted along with the tariff petition for FY08.

(e) The petition filed by the Board has been examined in terms of its compliance with the statutory requirements. The compliance of directions has been reviewed through review hearings by the Commission. Board has also submitted an updated status of compliance on various directives issued under different tariff orders.

(f) The Board would be pleased to furnish the representative load curves if the Commission demands the same for determination of the Aggregate Revenue Requirement.

(g) The Board would like the Commission to take an independent view on the creation of a Public Welfare Institution.

(h) GIS/GPS based asset mapping is underway and will be completed in about two years.

(i) APDRP enabled the Board to provide stable and quality power to consumers and also helped to reduce T&D losses.

(j) Every possible measure is undertaken by the Board to minimize the accidents.

(k) The creation of “HPSEB Development Fund” will not be possible for the Board for FY07 due to disallowance of genuine expenses and considering future liabilities.

(l) The Board is providing various facilities to the senior citizens such as bill payment through cheques on the spot, separate counters, proper seating arrangements and staff to assist the senior citizens etc.

(m) There was an inadvertent error in the public notice regarding balance subsidy. No subsidy for the previous financial years is outstanding.

(n) No format is prescribed by the Commission for giving details on infrastructure charges.

(o) The quantum of power purchase against free power from Baira-suil and Chamera II has been considered and clubbed with others.

Commission’s Observations:

4.6 The Commission agrees with the objectors that the petition filed by the Board was not in conformity with the provisions of the Electricity Act 2003, the National

Electricity Policy, the National Tariff Policy as well as the directions given in the previous Tariff Orders issued by the Commission. The Board has proposed no increase for domestic and agriculture categories whereas, an increase in the tariffs of the subsidizing categories has been proposed.

4.7 The tariff petition has many information gaps on many aspects despite the fact that a validation session was held with the Board and interim orders pointing out information deficiencies were issued. Details relating to several key parameters of the ARR were not provided to the satisfaction of the Commission, despite being given ample opportunity, with the result that the Commission is left with no option but to exercise prudence check and to make suitable assumptions to fill the gaps for finalising the ARR.

4.8 The Board has proposed a new category i.e. Public Welfare Institution. This category would cover all Government health institutions; Government educational institutions and hostels; and, Government hospitals which are presently covered under NDNC category. The Commission in its tariff order of FY02 had created NDNC category based on nature of use. Therefore, the request of the Board and the objectors for placing the Public Welfare Institutions in domestic category would be a retrograde step and against the provisions of the Act. The State Govt. can subsidise Public Welfare Institutions by providing subsidy as per section 65 of the Act.

4.9 The Commission does not agree with the reasons given for the non-creation of HPSEB Development Fund. The Commission had created this fund in the Tariff Order of FY07 for some specific reasons. Though this matter is part of the review petition filed by the Board in the Appellate Tribunal, the Commission would await the final orders of the Hon’ble Tribunal.

4.10 The Commission also agrees to revamp the scheme for Senior Citizens to make the Board personnel as well as the general public aware of the recent Board’s customer care initiatives.

4.11 The Commission has reviewed the progress of the compliance of directions issued in the past tariff orders and its views are brought out in detail in Chapter A11: of this order.

4.12 The Commission agrees on strengthening the Governance of HR structure in the Board. Thus, the Commission directs the Board to adopt such policy measures that can bring their decision making levels in lines with the private entities. Board may take the consulting services of organizations like CII for restructuring its HR activities and to get in touch with the changing requirements of the private sector industries.

Performance and Functioning of the Board

4.13 The objectors in their submissions cited various shortcomings in the functioning of the Board as well as highlighted operational deficiencies which are as follows:

(a) Revenue gap for FY08 is substantially high.

(b) Huge shortfall in the estimated own gross hydel generation for FY07.

(c) External losses are higher than prescribed norm of 3% in case of 'Sale outside the State'.

(d) Requirement of power for the industry is not properly assessed thereby showing reduction in internal sales.

(e) Projection of T&D losses has taken U-turn in the FY08.

(f) Power cuts on industrial consumers need to be reduced.

(g) For FY08 the projected cost of power purchase from GoHP is higher compared to the current year.

(h) Estimated repair and maintenance cost is high.

(i) Employment cost is very high.

(j) Interest expenses are very high. No satisfactory reply by the Board to redress it.

(k) The assets of HPSEB have shown an increase by 63% without giving any details.

(l) No reason given by the Board to revise the approved interest and finance cost for the FY07.

(m) Less subsidy claim from GoHP for the year FY06.

(n) High administrative and general expenses.

(o) Rate of Return (ROR) claimed by the Board is not justified.

(p) Unviable hydro power plants of the Board specially small/micro hydro plants.

(q) Outages due to power failure/voltage fluctuation leading to loss of production.

(r) Peak load and normal load restrictions be removed.

(s) Attrition at senior engineering level affecting quality of services.

(t) Inadequate maintenance leading to transformer failures.

(u) High outstanding dues from the Government Departments/undertakings and consumers.

(v) Non-availing of benefits which might be available under CDM.

(w) Non-implementation of MYT framework.

(x) In spite of the direction/instruction that the surety for power loads are not required but the field staff is still insisting for the same.

Board’s Response:

4.14 The compilation of the replies to the above issues as filed by HPSEB is as follows:

(a) The shortfall in the estimated own gross hydel generation is due to delay in commissioning of all the three units of Larji and Khauli HEP in the current year.

(b) External losses on power purchase have been worked out on the actual loss levels for the first six months and NR external losses.

(c) Trading (sale outside state) has been estimated on the total power availability after adjustment of its own requirements within the State.

(d) T &D loss reduction target for the ensuing year is proposed at 0.56%.

(e) For FY07 the Commission had approved the rate of power purchase cost as Rs. 2.35 per unit. An upfront subsidy claims of the differential i.e. Rs. 3.04 – 2.35 = 69 Paise per unit had to be claimed from GoHP that was not yet reimbursed. Therefore, the cost of free power for FY07 is worked out as Rs. 3.04 per unit. If Board receives any subsidy on this account the same would be adjusted for FY07.

(f) Power Supply in the State is much better in comparison to the adjoining states; however, effective steps are being taken to ensure that the reliability of power further improves.

(g) Repair and maintenance costs are lower than the approved costs for the current year.

(h) The hike in employees cost is on account of uncontrollable aspects like DA increase, annual increments, merger of DA with DP and recent announcement of interim relief by GoHP, among others.

(i) The Board is actively seeking opportunities to restructure the high cost debts and successfully restructured loans aggregating to Rs. 727 Cr in the last three-four years.

(j) The Board has furnished the details of loans for the FY07 along with the ARR for FY08 to the Commission to examine the interest costs and allow appropriate increase in tariff to ensure full recovery of approved costs.

(k) There was an inadvertent error in the public notice given in the newspaper. The rollback subsidy was already paid by GoHP and no subsidy for the previous years is outstanding against the State Government.

(l) The projected increase in the A&G expenses is mainly on account of inflation, increase in sanctioned load and certain efficiency improvement measures being planned by the Board.

(m) The Corporatization of Board is yet to take place and the Board feels it appropriate to work out the RoR on net fixed assets instead of claiming returns on equity. Moreover, gross fixed assets for FY07 have increased due to the capitalization of Larji and Khauli.

(n) The Board is in full agreement to the viewpoints of the objectors on disinvestment of its own unviable small/micro hydro power plants, as these plants are run to supply power locally.

(o) There is no outrage on EHV system. Sometimes due to regularization of supply and due to technical reasons like load shedding, there are chances of tripping. HPSEB has no control on grid system voltage as it runs on an integrated mode.

(p) Peak load and normal load restrictions are imposed to bring discipline to the system and to flatten the load curve. No power is available in the Grid during peak hours and the Board has to pay higher costs for drawing power from the Grid.

(q) The Board is in the process for recruitment of engineers at JE and AE level.

(r) The transformer failure level in the State is below 5%, which is less than the national average.

(s) Efforts are being made to recover the outstanding dues.

(t) The Carbon trading is at the evolutionary stage. The Commission may provide framework for sharing of benefits.

(u) The next filing by the Board for FY09 will be done as per the MYT guidelines.

(v) The proposed non-tariff income is kept lower keeping in view the past growth trend.

(w) There was no failure of the Grid in the last year. However, outage of 132 KV (EHV) system occurs sometimes due to regulation of supply and technical reasons like load shedding/maintenance etc.

(x) The Commission may examine the wheeling charges and allow appropriate increase in tariff to ensure full recovery of approved costs.

(y) The Board has started investing the uncovered amount of GPF fund in FDRs. in a phased manner.

Commission's Observations:

4.15 The Commission is concerned with the sharp decline in generation from its own projects and had directed the Board in the tariff order of FY06 to carry out detailed investigation into the reasons for the decline of generation since the Board needs to run these projects optimally to enhance its revenues. Unfortunately the Board has not taken any action in this regard which is a matter of great concern.

4.16 The Commission is of the view that the Board has done satisfactory work regarding debt restructuring. The achievements are not up to the mark due to restricted scope of call back option of certain high interest bonds. The Commission observes that in view of the hardening interest rates further restructuring may not be presently possible.

4.17 The Commission has directed the Board to take up the matter with the Government of Himachal Pradesh specifically with Secretary (LSG), so that the outstanding dues could be recovered from the local bodies' grants or the Board may consider disconnection at an appropriate time.

4.18 The Commission is conducting T&D Loss study for the state. Therefore, the Commission observes that in this respect no immediate action is required to be taken by the Board. However, the Board should continue to prepare schemes for reducing T&D losses especially in rural areas.

4.19 The Commission appreciates the initiatives taken by the Board such as introduction of VRS, abolition of vacant posts, filing of vacancies by deployment etc. to reduce the cost of employees. The Commission observes that despite the initiatives taken by the Board, the employee cost is still high. The Commission has already directed the Board to take steps to abolish non-functional posts in a phased manner and identify the surplus/redundant posts on top priority that can be abolished by offering VRS.

4.20 The Commission has already put in place the Standards of Performance Regulation and the quality of supply would be monitored based on the indices specified therein.

4.21 The Commission is not satisfied with the progress made regarding fresh recruitments, despite clear directions issued in this regard. The Commission would give due attention to the manpower issues.

Regulatory Principles for the Order

4.22 The objectors made the following submissions with respect to the regulatory principles adopted for the petition as well as their requests to the Commission:

(a) Strict enforcement of the Distribution Licensees' Standards of Performance Regulations to ensure quality of power is essential.

(b) The proposed creation of a regulatory asset for the FY08 should not be allowed.

(c) A multi year tariff framework should be adopted.

(d) Non-compliance of previous directions issued by the Commission is high.

(e) The principles and norms followed in the previous tariff orders should be continued.

(f) Demand charges and Energy charges need to be rationalized.

Board's Response:

4.23 HPSEB has replied that the Commission may take a view on the above issues.

Commission's Views:

4.24 The Commission is concerned about the inappropriate implementation of Standard of Performance Regulations. The Commission is vigorously pressing the matter with Board and has issued notice in this regard.

4.25 The Commission has addressed the above issues in this tariff order and is covered in the subsequent chapters. The Commission is already in the process of laying down the framework for MYT which shall be put in place in the next six months.

Tariff Related Issues

Domestic Consumers

4.26 The objectors pointed out the following issues related to the domestic consumers in the Tariff petition filed by the Board:

(a) Lower revenue realization from Domestic Category of Consumers for the FY07.

(b) Loss of revenue on account of cross subsidy on sale of domestic supply is again projected high for the FY08.

Board's Response:

4.27 The compilation of the replies to the above issues as filed by the Board is as follows:

(a) The revenue realization for FY07 given in the Tariff Order was projected based on a particular sale mix based on the past trends. The Board has no control over the actual sale mix and the resultant revenue. The Commission may consider the loss of revenue by the Board on this account and a suitable recovery mechanism of the overall revenue gap for FY07 may be determined.

(b) The current tariff fixed for domestic supply is fairly close to the target given for cross-subsidization under the National Tariff Policy.

Commission's Views:

4.28 The Commission makes an independent assessment of the projections on load growth of each category. Any variation in projections is subject to true up based on actuals, in the subsequent year.

Small Industries

4.29 The objectors pointed out the following issues related to the Tariff petition for small industries filed by the Board:

(a) Proposed tariff increase in various categories of industrial consumers is without any justification.

(b) Rationalization of standard voltage for industries through re-categorization of industries into LT, HT and EHT.

(c) Chargeable demand for the levy of Demand Charges to be restored at the earlier level of 80%.

(d) Standard Supply Voltage for SME category may be re-examined.

Board's Response:

4.30 The compilation of the replies to the above issues filed by the Board is as follows:

(a) Government of India has left flexibility for life line tariffs for economically backward sections for cross subsidy upto 50%. The current tariffs in the State are fairly close to this target.

(b) The Board would like the existing provisions to continue for Standard Voltages for supply defined by the Commission in Tariff Order for FY07.

(c) There is a merit in charging demand charges on the basis of contract demand as the consumers pay in proportion to the capacity blocked by them.

Commission's Views:

4.31 The Commission supports the rationalisation of tariffs which is guided by the provisions of section 61 of the Electricity Act 2003 and is also propounded in the National Electricity Policy (NEP) and National Tariff Policy.

4.32 Regarding re-categorisation on KVA basis the Commission is of the opinion that the data available with the Board is presently on KW basis and in the absence of proper data, correct assessment of the impact of the re-categorisation would not be possible. Further, in view of the two part tariff put in place, the connected load has no relevance with respect to tariffs.

Large Industries including Steel Industries

4.33 The objectors pointed out the following issues relating to Large Industries including Steel industries the Tariff petition filed by the Board:

(a) Grant of incentive for high load factor.

(b) Increase in billable contract demand and free hand to customers in amending their contract demand.

(c) No justification of peak load exemption charges.

(d) Incentives for supplies at high voltage.

(e) Peak load exemption to continuous process industries.

(f) The provisions made by the Commission for charging processing fee in respect of change in contract demand is not being implemented by the Board.

(g) Recovery of expenditure for providing electricity connection is not done as per the Recovery of Expenditure Regulations framed by the Board.

(h) Definition of Power Intensive Units (PIU) needs a revision. Peak load restriction for PIU category should be abolished.

(i) Categorization of industries on load in KVA instead of KW basis.

(j) Misuse of lighting load sanction by the consumers.

Board's Response:

4.34 The compilation of the replies to the above issues as filed by the Board is as follows:

(a) Apart from the separate incentive proposal for maintaining higher power factor, the KVAH based demand charges automatically benefit the consumers who have a higher power factor.

(b) There is a merit in charging demand charges on the basis of contract demand as the consumers pay in proportion of the capacity blocked by them.

(c) The peak load restrictions are imposed to bring discipline to the system and to flatten the load curve. Whenever the system experiences low frequency, the Board has also to pay higher costs for drawing more power from the Grid.

(d) The change in the rebate structure for supply of power at higher voltage level would require an increase in energy charges to maintain overall revenue neutrality. The Commission may take an independent view on this matter.

(e) Certain categories of consumers are not permitted to use electricity during peak load hours and those permitted, PLEC is applied.

(f) The Board will follow the directions given by the Commission for allowing the consumers to revise their contract demand within the limit of sanctioned load twice a year.

(g) The Commission has already approved the cost data for FY07 and infrastructure cost for setting up the system of supply to the consumers' premises will be charged accordingly.

(h) The Commission may take an independent view for redefining the Power Intensive Unit (PIU) Category.

(i) The Board sees merit in categorization of industries on load in KW instead of KVA basis. The Commission may take final view in the matter.

(j) The lighting load requirement of different industrial units does not vary in proportion with the total sanctioned load/contract demand. In view of this, allowing a fixed percentage of the contract demand during peak hours is not desirable.

Commission's Views:

4.35 For determining tariffs the Commission would consider all the suggestions in the light of the provisions under section 61 of the Electricity Act 2003, the National Electricity Policy and the National Tariff Policy.

4.36 The Commission has already decided that the consumers may change their contract demand twice in a year and the processing charges have already been specified in the tariff order for FY07. Therefore, the consumers may approach the Commission if they find the orders in this matter are not being implemented by the Board.

4.37 The Commission agrees with the reply of the Board in respect of peak load exemptions/restrictions that the overall grid parameters have to be factored in while allowing exemptions and imposing restrictions.

4.38 The aggrieved consumers are free to approach the Commission if they find that the recovery of expenditure regulations is not being implemented properly by the field officers of the Board.

4.39 The Commission has noted the request for changing the definition of PIU. This change will be incorporated in this tariff order itself.

Rural Consumers

4.40 The objectors pointed out the following issue related to the Tariff petition filed by the Board for Rural Consumers.

(a) Agriculture and Allied Activities (AAA) Tariff may also be extended to the Horticulture Activities whose connected load capacity falls within the limit of AAA and are undertaken by the farmers on their own land and not on the lease land.

Board's Response:

4.41 The reply filed by the Board is as follows:

(a) The objection has already been taken care by the Commission in the tariff order of FY07. Some horticulture activities have already been included in the tariff schedule of Agriculture and Allied Activities supply.

Hotels

4.42 The objectors pointed out the following issues:

(a) Two part tariff involving Demand charges not justified for hotels.

(b) Hospitality industry is being clubbed in the Commercial Category Class instead of being categorised as Small and Medium Industry.

Board's Response:

4.43 The reply of the above issues filed by the Board is as follows:

(a) The Board would like to continue with the current tariff structure as this gives economic signals to the consumers.

(b) The tariff schedule for hotel consumers in other states also gets covered under commercial category. The request requires revision of the tariff schedule category. The Commission may take an independent view in the matter.

Public Sector Institutions

4.44 The objectors pointed out the following issues:

(a) Electricity Tariff for Government establishments of health sector such as Health Institutions, Hostels and Government Hospitals to be fixed at par with the tariff for domestic category.

(b) Domestic tariff for Animal Husbandry Institutions and related activities are being charged under NDNC category and should be covered under domestic category.

(c) Agriculture Tariff be charged for the units/activities being run by the Department of Horticulture.

(d) Domestic Tariff of Rs. 1.75/kWh for Government Educational Institutions.

(e) Domestic Tariff for Government Establishments of Department of Agriculture.

Board's Response:

4.45 The compilation of the replies to the above issues as filed by the Board is as follows:

(a) The Board has proposed to include Government Public Welfare Institutions in the domestic category with the tariff similar to highest slab of domestic consumers. The Commission may take an independent view.

(b) The request would require revision of the tariff schedule, which falls under the jurisdiction of the Commission. The Commission may take an independent view.

(c) The Objection has already been taken care of by the Commission in the tariff order for FY07. However, for industrial type of activities such as Fruit Canning Units, Mushroom Composting Units, Air Handling and Air Conditioning Units, Modern Floriculture Centres etc., the relevant industrial tariff shall apply.

(d) In the ARR for the FY08, Board has proposed to include one more category i.e. Government Public Welfare Institutions in the existing domestic category with the tariff similar to highest slab of this category. This category would cover all the Government Health Institutions and Hostels, Government Educational Institutions & Hostels and Government Hospitals. The Commission may take an independent view on the matter.

(e) There is a separate subsidized schedule for Agriculture and Allied Activities. The Commission may take an independent view on this matter.

Commission's Views:

4.46 The Commission is not in favour of creating more categories of consumers and feels that the present categorisation is appropriate considering the consumer mix in the state. Moreover, the Commission has already included orphanages, homes for old people and destitutes, hostels attached to educational institutions, leprosy homes, Panchayat Ghar, Patwarkhanas in the domestic categories to take care of the needs of social public sector institutions. However, in case the State Govt. wishes that certain class of consumers need to pay less, then it may provide subsidy to such class of consumers, as per the provisions under section 65 of the Act.

4.47 The Commission has taken note of the views of the various objectors on the issues related to tariff and these have been given due consideration while finalising the tariffs for FY08 contained in the ensuing chapters.

A5: INTERACTION WITH OFFICERS AND MEMBERS OF HIMACHAL PRADESH STATE ELECTRICITY BOARD

5.1 The Commission held formal interaction with the officers and Members of the Board, to enable the Commission to understand the strategies, systems and the working procedures of their units as well as the problems and difficulties being faced by them and the suggestions proposed by them to bring about efficiency and improvement in the working.

5.2 Schedule of formal interactions with the Officers & Members of HPSEB is as follows:

Table 43: Schedule of Interaction with the Board Officers

S.No.	Date & Time	Officer
1	13/3/07 at 2.30 PM	Chief Engineer Operation (South), HPSEB, Shimla
2	13/3/07 at 3.30 PM	Chief Engineer Operation (Central Zone), HPSEB, Mandi
3	13/3/07 at 4.30 PM	Chief Engineer (MM), HPSEB, Shimla
4	14/3/07 at 2.30 PM	Chief Engineer (Transmission), HPSEB, Hamirpur
5	14/3/07 at 3.30 PM	Chief Engineer (Generation), HPSEB, Sundernagar
6	15/3/07 at 11 AM	Chairman and Members of the Board
7	15/3/07 at 3.00 PM	Chief Engineer (PSP), HPSEB, Shimla Chief Engineer (Projects) HPSEB, Shimla Chief Engineer (Larji) HPSEB, Kullu
8	16/3/07 at 2.30 PM	Chief Engineer (System Planning), HPSEB, Shimla
9	16/3/07 at 3.30 PM	Chief Engineer (System Operation), HPSEB, Shimla

5.3 Separate detailed questionnaires were issued for the interactive meetings with each officer in advance while for the Whole Time Members of the Board, a list of issues arising out of interaction with officers of the Board was forwarded.

5.4 Responses to various questionnaires were submitted by the respective officers in writing during the interaction. Their responses to the questionnaires are on record of the Commission.

5.5 The issues that were raised by the various officers of HPSEB and the Commission during these interactions are summed up below.

Shortage of engineers affecting services and effectiveness

5.6 All the senior officers of the Board were unanimous on the issue that there was an acute shortage of graduate AEs and Diploma holder JEs which was adversely affecting the quality of services and efficiency of the various units. The Commission understood their concern and emphasized upon the Members of the Board to undertake this recruitment immediately to maintain quality of engineering standards in the Board. The Commission had given specific directions to the Board, in the previous tariff order, to recruit AEs and JEs on priority, which unfortunately had not been complied with. Chairman HPSEB informed that the Board was seized of the matter and the recruitment of AEs/JEs is under process and assured that the posts would be filled by July 2007.

Need for increasing the quantum of power banked

5.7 The Commission mentioned that the present quantum of power banked with the neighbouring States is quite less which needs to be increased. The Board assured that they would explore possibilities of banking arrangements with DTL and Rajasthan besides Punjab and Haryana. However, their only concern was that the states may not be able to return the power, banked with them, on account of less availability of power during winter months. Commission requested that banking arrangement be made with only those States/Utilities which can assure return of power during winter.

Proper cost benefit analysis of taking share from Central sector projects

5.8 The Commission felt that the Board needs to undertake proper cost benefit analysis with respect to the share from the projects coming up in the central sector. The Commission also suggested that the Board needs to vigorously pursue the matter with the Ministry of Power, Govt. of India for allocating greater share from the ultra mega power projects, likely to come up in the next five years, as this power would be quite cheap. The Board agreed to this and assured that the matter would be given due importance.

Legal contracts for sale of surplus power through trading companies

5.9 The Commission expressed concern that though PTC had agreed to take surplus power from the Board at attractive rates, it had failed to lift the contracted power thereby causing loss to the Board. The Commission suggested that the legal contracts need to be made fool proof to prevent reoccurrence of such violations in future. The Board informed that it had engaged the services of a Sr. Advocate, for drafting the contract document and incorporating adequate safeguards to protect the interests of the Board. The contract for the year FY08 would be signed based on the contract document so prepared.

Enforcement and Vigilance Wing:

5.10 The Commission suggested to the WTMs of the Board that Enforcement and Vigilance wing of the Board needs to be detached from the operation wing and be placed under Member (Finance) of the Board for ensuring proper checks specially in high revenue areas initially for a few months and if the performance is improved then this arrangement be made permanent. This wing also needs to be strengthened and made more effective to check commercial losses. The Board agreed to examine this and assured to take appropriate measures in this regard. The Commission also stressed upon replacing the officials posted in high revenue areas, who had completed their tenure in these areas.

Facilities for senior citizens

5.11 The Commission pointed out that the various consumer groups had mentioned during the hearing that the Board has not provided the requisite facilities to senior citizens as per the directions of the Commission. The Commission mentioned that it would not hesitate to impose penalties if this direction was not complied with the letter and spirit. The Board assured to take suitable measures to implement the direction of the Commission.

Equity from State Government

5.12 The Commission highlighted the need for the State Government to increase its equity in the Board, which could be utilized for cleaning of the balance sheet in view of the impending unbundling of the utility and also mentioned that the Commission had given an advisory to the State Govt., in the current tariff order, to this effect. The WTMs of the Board assured that they would take up the matter with the State Government.

Calibration of tri-vector meters

5.13 The Commission informed that many objectors during the hearing mentioned that no schedule for calibration of tri-vector meters, installed in the premises of the consumers, had been prepared by the Board. The Board in its response mentioned that they are considering outsourcing of this activity to private parties, as putting in place its own setup would not be viable. The companies, which had been short listed by the Commission for third party meter testing would also be conducted for this work.

Employees Productivity

5.14 The Commission suggested that the Board needs to formulate some indices to measure the productivity of its employees in respect of its generation, transmission and distribution businesses. The Board agreed to this suggestion and mentioned that they would formulate such indices in consultation with the Commission.

Rationalisation and redeployment of staff

5.15 The officers of the Board informed that in view of the acute shortage of certain category of posts, there was an urgent need for rationalization and redeployment of staff from the head offices to the field units. There was over manning in some areas and deficiency in other areas. Further the manpower was under qualified and lacked the skills needed to meet the demands of work assigned to them. The Commission mentioned that a direction in this regard had also been issued in the previous tariff order but it seemed that the Board has not been able to tackle this problem. The Commission requested the WTMs of the Board to assign top priority to this issue as this would result in better manpower utilization and improved services to the consumers. The Board assured to take immediate action in this regard.

Outsourcing of billing and collection activities

5.16 Certain officers of the Board informed that they propose to outsource billing and collection activities in view of acute shortage of staff in field and had moved a proposal to the Board for approval.

5.17 The Commission suggested that the Board needs to carry out a cost benefit analysis of such a proposal. The WTMs of the Board mentioned that the matter is under consideration with them and they would inform the Commission of the decision taken in the matter.

Incentives for generation staff

5.18 The officers of the Board had suggested that one way of increasing the generation from Board's own projects could be by giving incentive to the staff employed at the generating stations like advance increments on the pattern of BBMB, free accommodation etc. The Commission requested the WTMs of the Board to look into the suggestion as there has been a declining trend with respect to Board's own generation which needs to be addressed on priority since the power purchase cost of the Board was increasing day by day. The WTMs of the Board agreed to examine the issue. The officers of the Board had also suggested that the security and cleanliness of generating stations and major sub stations may be out sourced in view of staff shortage. The Commission agreed with the proposal and requested the WTMs of the Board to consider and approve the same.

Petrol limit for field engineers

5.19 The officers of the Board informed that the present limit of petrol is inadequate especially at Chief Engineer level, considering the jurisdiction, and needs to be revised for effective monitoring and inspection. The Commission requested the WTMs of the Board to look into this issue, to which they agreed.

MRI print outs along with consumer bills

5.20 The Commission enquired from the Board whether MRI print outs were being enclosed along with the bills to all the consumers covered under the two part tariff particularly the industrial consumers. The Board informed that the MRI print outs were not being annexed to the consumer bills, but the bill was based on the MRI readings and those requiring there printouts can obtain after payment necessary fees.. The Commission informed that it may make it mandatory to include MRI print outs to industrial consumers, in a phased manner.

Land Acquisition at Larji Project

5.21 The Commission pointed out that it had come to its notice that at Larji project, water could not be presently stored in the reservoir to the designed level because of pending acquisition of land, which was to get submerged. The Board informed that the land acquisition process has been completed and the necessary compensation to the land owners would be paid in March, 2007 itself and the generation at Larji would not be affected.

A6: REVIEW OF SALES PROJECTION – FY08

6.1 The Board, in its petition, has submitted the revised estimates of sales of 4112 MU to the different consumer categories for FY07. It has done the revised estimation using actual sales figures for April 2006 – September 2006 and projecting sales of October 2006 – March 2007 in same proportion as actual energy sold during April - Sep 2006 with respect to energy sold during April-Sep 2005.

6.2 For FY08, the Board has estimated an increase of 581 MU in total sales within the state and projected total sales as 4693 MU for FY08. The energy sales for FY08 have been projected by applying three years' Compounded Annual Growth Rate (FY03 to FY06) on the estimated sales for FY07, except for Temporary and Bulk supply connections, which has been kept at FY07 levels.

6.3 During Technical Validation session with the Board officials, the Commission discussed the trends in growth in sales over the years. For checking the rationale behind sales estimation and to get in-depth information on sales, the Commission directed the Board to submit the category-wise and slab-wise actual sales figures for last three years. The Board, however, failed to submit slab-wise sales figures for different categories and submitted only category-wise sales figures to the Commission. The Commission also directed the Board to submit the category-wise actual sales for each month of FY07 (till December), which was complied with by the Board.

6.4 The Commission also asked the Board to provide the details of applications pending for new connections to enable the Commission to examine and assess the growth in sales to each consumer category, which was complied with by the Board.

6.5 The Commission has undertaken a detailed analysis of the sales projected by the Board. The Commission has analysed the year-on-year variations in sales as well as the short term and long term trends in sales and has computed the CAGR over the short term, i.e., 3 years and long term, i.e., 10 years. The Commission has approved the total sales of 4977.87 MU, which shows a growth rate of 16% as compared to the previous year.

6.6 The Commission has approved the sales to each category of consumers as detailed below:

6.7 **Domestic Supply:**

(a) The trend analysis of sales to this category shows that the year-on-year variation in sales ranges between 4.4% and 13.5% while 10 year CAGR for sales is 8.20%. The actual growth rate of sales for FY06 is 7.04%, while number of domestic consumers increased by 35,455. The expected growth rate of sales for FY07 is 8.35%. The Board has projected an increase of 35,994 domestic consumers in FY08. Number of pending applications for domestic category as per the Board's submission is 1,127 as on 7 March 2007.

(b) Considering all this, for FY07, the Commission has projected an increase in sales to this category at 8.20%, which is line with 10 years' CAGR for sales to this category.

(c) This above demand projection included the demand projection for BPL category also. The Board has projected 800 consumers under BPL category. Assuming that on an average all consumers in this category will consume 45 units per month, the estimated consumption under this category comes as 0.43 MU for FY08. Revised estimates for FY07 for BPL category is 1.37MU based on the actual monthly sales till December 2006. The Commission therefore estimated sales to this category equal to 1.37MU for the FY08.

6.8 **NDNCS and Commercial:**

(a) NDNCS category was created in the Tariff Order for FY02. In the absence of segregated data for sales to this category prior to FY02, the Commission has assessed the trend in sales for the NDNCS and Commercial category together.

(b) An analysis of the trend in sales to the NDNCs and Commercial category together shows that the year-on-year variation in sales ranges between 3.7% and 13.32%. The long term (10 years) CAGR for sales is 9.18% while the short term (3 years) CAGR is 9.51%. The actual growth rate of sales for FY06 is 8.50% and estimated growth rate for FY07 is 9.87%.

(c) Considering all this, for FY08, the Commission has projected an increase in sales to this category at 9.18% which is in line with the 10 years' CAGR for sales to the NDNCS and Commercial Supply categories considered together.

6.9 **Small & Medium Industrial Power Supply:**

(a) An assessment of the growth in sales to this category indicates large variations in growth on a year-to-year basis with variation in sales ranging from -36.5% to 13.6%.

(b) The trend in the data is more consistent from FY02 onwards from where it shows continuous increase in consumption except for FY06. Further the 10 year CAGR is -2.16% and the 3 year CAGR is 5.95%. The expected growth rate in sales for FY07 is 5.02%. The Board has projected an increase of 317 consumers in this category for FY08. Number of pending applications as per the Board's submission is 143 as on 7th March, 2007.

(c) After detailed analysis of the trend in sales, pending applications for new connections and the economic outlook of the State, the Commission has projected an increase in sales to this category at 6.94% which is 5 year CAGR for this category.

6.10 **Large Industrial Power Supply:**

(a) An assessment of the growth in sales to this category indicates large variations in growth on a year-to-year basis with variation in sales ranging from 0.9% to 35.93%. The long term (10 years) CAGR for sales is 12.85% while the short term (3 years) CAGR is 25.99%. The actual growth rate in sales for FY06 is 35.93% while the expected growth rate for FY07 is 32.22%.

(b) After detailed analysis of the trend in sales and the economic outlook of the State for the forthcoming year, the Commission has projected an increase in sales to this category at 19% which is the 5 year CAGR for this category.

6.11 **Power Intensive Units (PIU):**

(a) A new category called PIU had been created in the Tariff Order for FY07, which relates to Power Intensive Large Industries. The Commission had earlier directed the Board to submit details of the PIUs in the state i.e., No. of Consumers, EHT/HT classification, their connected load, contract demand and actual consumption for year FY07, which was not complied with by the Board.

(b) The Commission has assessed the trend in sales for the PIU and Large Industrial Power Supply category together. Due to unavailability of the actual data for FY07, the Commission has estimated the sales to PIU for FY08 in the same proportion of Large Power Supply Category as it was in FY06.

6.12 **Agriculture and Allied Activities Supply:**

(a) An assessment of the growth in sales to this category indicates large variations in growth on a year-to-year basis with variation in sales ranging from -8.33% to 41.67%.

(b) The long term (10 years) CAGR for sales is 8.02% while the short term (3 years) CAGR is 7.09%.

(c) Looking at the static growth in agriculture sector of Himachal Pradesh, the Commission has projected an increase in sales to this category at 8.02%, which is in line with the 10 year CAGR of this category.

6.13 **Water Pumping Supply:**

(a) An analysis of the trend in sales to this category shows that the year on year variation in sales ranges from -2.88% to 13.04%. The long term (10 years) CAGR for sales is 7.97% while the short term (3 years) CAGR is 8.7%.

(b) The Commission has projected increase in sales to this category at 7.97% which is in line with the 10 year CAGR for this category.

6.14 **Street Lighting Supply:**

(a) An analysis of the trend in sales to this category shows that the year on year variation in sales ranges from -3.45% to 20%. The long term (10 years) CAGR for sales is 6.57% while the short term (3 years) CAGR is 4.36%. The actual growth rate of sales for FY06 is 8% while expected growth rate for FY07 -3.45%.

(b) The Commission has projected increase in sales to this category at 6.57% which is in line with the 10 year CAGR for this category.

6.15 **Bulk Supply:**

(a) An analysis of the trend in sales to this category shows that the year on year variation in sales ranges from -15.44% to 35.92%. The long term (10 years) CAGR for sales is -0.33% while the short term (3 years) CAGR is 3.38%.

(b) The actual growth rate of sales for FY06 is 9.38% while expected growth rate for FY07 is 21.53%. There are 5 pending applications in this category, as submitted by the Board on 7th March 2007. The Commission has projected increase in sales to this category at 3.38% which is in line with the 3 year CAGR for sales to this category.

6.16 **Temporary Supply:**

(a) The Commission has approved the sales equal to estimated sales for FY07 under this category i.e. 20.03 MU.

6.17 After detailed scrutiny of the consumer category wise sales, the Commission approves sale of 4977.87 MU for FY08 to the retail consumers in the state of Himachal Pradesh as detailed in the table below:

Table 44: Approved Consumer Category wise Sales for FY07

Energy Sales (MU)	FY 06	FY07	FY08	FY08
	Actual	RE	Projected	Approved
Domestic	866.25	937.94	979.25	1,014.99
BPL	0.34	1.37	0.81	1.37
Non Domestic - Non comm.	46.89	67.46	122.29	73.66
Commercial	218.23	223.82	219.71	244.38
Public Lighting	11.74	11.34	12.01	12.08
Small & Medium Supply	143.86	151.08	164.63	161.57
Large Supply	1,514.25	2,002.14	2,206.18	2,434.55
PIU	317.36	419.62	451.87	510.24

Energy Sales (MU)	FY 06	FY07	FY08	FY08
	Actual	RE	Projected	Approved
Agriculture and Allied Activities	24.73	23.79	26.59	25.70
Govt. Irrigation & Water Pumping	305.29	320.75	359.24	346.31
Temporary	10.23	20.03	19.10	20.03
Bulk Supply	105.86	128.66	130.89	133.00
Total Energy Sales	**3,247.68**	**4,307.99**	**4,691.75**	**4,977.87**

6.18 The annual sales across various categories of consumers have been broken down into monthly sales based on the seasonality of actual monthly sales in FY05, FY06 and FY07. The monthly sales projections have been used to dispatch generation for meeting this demand as discussed in the following section.

Table 45: Monthly Demand Projection

Month	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
Demand	375	387	396	408	397	417	420	435	412	440	434	456	4978

A7: REVIEW OF POWER PURCHASE AND ENERGY BALANCE

Approach of the Commission

7.1 The Commission has undertaken an exhaustive exercise to evaluate the month wise generation availability in each of the generating stations to address the issues emanating from seasonality, banking, costing and trading of power.

7.2 The Commission has forecasted the monthly demand of state consumers using past trends and prepared monthly merit order based on variable cost of the generating stations. The quantum and cost of power has been segregated for consumers of the state and for trading to evaluate the actual cost of power for trading and ensuring that the risks of trading are not passed onto the consumers of the state. The lowest cost power has been allocated to the consumers within the state. Power remaining after meeting the demand within the state has been considered for the trading.

7.3 For trading, the Commission has assumed that HPSEB will be able to trade the extra power after meeting the state's demand @ Rs. 6 per unit. Surplus power, for which variable cost is more than 6 Rs. per unit, has been discarded.

7.4 In Tariff Order for FY07, the Commission had suggested that the Board should undertake review of its existing trading strategy so as to ensure that the consumers of the state do not subsidize the cost of trading power. This was not complied by the Board. In the ARR petition for FY08, the Board has not segregated the total power purchase in to purchase cost for meeting demand within the state and purchase cost for trading. The Commission directs the Board to prepare merit order of dispatch to segregate the power purchase cost in power purchase cost for meeting state's demand and power to be used for trading and also formulate trading strategy to maximize gain from selling the surplus power available in the summer months.

Power Availability

Power Availability from Board's own stations:

7.5 HPSEB has operational installed capacity of 453 MW after commissioning of Larji & Khauli HEP. The Board in its ARR petition has estimated the projected generation for FY08 to be 1823 MUs.

7.6 The Commission has analyzed the past trend in generation for each power plant to estimate the energy generated from various stations for FY08. For projecting the energy generated, the Commission has adopted the methodology of moving averages.

7.7 For Bhaba, Bassi and Ghanvi, average of the energy generated in the last 5 years was considered while for Gaj, Giri, Baner, Binwa and Thirot 7 year average has been considered. Similarly for Gumma & Andhra, 6 year average has been taken. For Micro Hydel plants generation has been estimated at same level as the revised estimates for FY07. For Larji and Khauli, annual generation estimates have been taken from the brief tariff petition of Larji & Khauli filed by the Board for the tariff fixation of respective stations. For Holi, projected generation is the same as actual availability in FY07.

7.8 GoHP has 12% Free Power share in 5 of the HPSEB generating stations viz. Ghanvi, Baner, Gaj, Larji and Khauli. This power has to be purchased by the HPSEB from the GoHP. Thus the net power available to the Board for own use from own generating stations will be – "(Total power available from HPSEB generating stations) – (Free Power share of GoHP in HPSEB generating stations)".

7.9 Based on above the Commission has estimated the net energy availability from the Board's own generating plant for own use as 1824 MU. The remaining power requirement of the Board shall be met by power purchase.

7.10 The Commission's estimates are shown in the table below:

Table 46: Net Power Availability (MUs) for own use from Board's own Stations (Commission)

Stations	FY08 (Total)	Free Power Share of GoHP	Net Available to HPSEB
Bhaba	564		564
Bassi	277		277
Giri	173		173
Andhra	62		62
Ghanvi	71	8	63
Baner	38	4	34
Gaj	45	5	40
Binwa	29		29
Thirot	7		7
Gumma	9		9
Holi	10		10
Larji	566	68	498
Khauli	48	6	42
Micros	24		24
Gross Generation	1923	92	1831
Auxiliary consumption	7		7
Net Generation	**1916**	**92**	**1824**

Power Availability from Bhakra Beas Management Board (BBMB)

7.11 For estimating the power availability from BBMB stations, the Commission has analyzed the monthly and annual availability of the stations for the last four years. The Commission has then calculated the annual availability for FY08 of each station as the average of the actual annual availability of the respective station for last four years.

7.12 After taking into account the share allocations to the Board from each station, the Commission has estimated that 248.4 MUs would be available at the generator bus-bar of the BBMB stations as HPSEB's share. The month-wise estimates are as shown below:

Table 47: Projected Power Availability (MUs) from BBMB Stations – HPSEB share (Commission)

Stations	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Jan-08	Feb-08	Mar 08	Total
BBMB Old	2.2	3.1	3.6	4.6	4.6	3.8	3.1	3.1	3.2	2.9	2.4	2.5	39.1
BBMB New	7.0	9.8	11.5	14.7	14.7	12.1	9.9	9.9	10.1	9.1	7.7	8.0	124.5
Dehar	6.8	7.0	6.8	7.0	7.0	6.8	7.0	6.8	7.0	4.8	4.4	4.8	76.2
Total	**16**	**19.9**	**21.9**	**26.3**	**26.3**	**22.7**	**20**	**19.8**	**20.3**	**16.8**	**14.5**	**15.3**	**239.8**

Power Availability from NTPC stations

7.13 To estimate the power availability from NTPC stations, the Commission has projected the monthly Plant Load Factor (PLF) for each plant for the year FY08. The projection was done by taking the 4 year average of actual PLF for the respective plant in the respective month.

7.14 For Anta, Auriya and Dadri gas and liquid fuel plants, the division of PLF between the two types of fuel was done based on the PSEB petition to CERC on the issue. The data for the analysis was taken from NREB.

7.15 The auxiliary consumption was assumed to be at the same level as of FY07 (taken from the Bills of the NTPC stations submitted by the Board).

7.16 The energy to be generated by each plant was then estimated for each month based on the plant capacity, projected PLF and Auxiliary consumption and the number of hours of operation in each month. Depending on HPSEB's share allocation in each plant, the energy available to HPSEB from each generating station every month has been arrived at.

7.17 The summary of the projections is shown in the table below:

Table 48: Projected Power Availability from NTPC Stations (Commission)

Stations	Apr-07	May-07	Jun-07	Jul- 07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08	Total (MU)
Anta(L)	1.1	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.4	1.3	1.2	1.3	15.2
Anta(G)	5.6	6.1	6.2	6.3	6.2	6.2	6.6	6.6	6.9	6.6	6.1	6.3	75.7
Auraiya(L)	2.3	2.3	2.5	2.6	2.5	2.4	2.7	2.5	2.7	2.6	2.4	2.5	30.0
Auraiya(G)	8.0	7.9	8.5	9.1	8.6	8.2	9.2	8.6	9.3	9.0	8.3	8.6	103.3
Dadri(L)	2.3	2.7	2.6	2.9	2.7	2.7	2.9	3.0	2.9	3.0	2.6	2.8	33.1
Dadri(G)	7.8	9.1	8.7	9.8	9.1	9.2	9.7	10.1	9.8	10.2	8.9	9.6	112.0

Stations	Apr-07	May-07	Jun-07	Jul- 07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08	Total (MU)
Unchahar-I	4.2	4.2	4.0	4.2	4.2	3.8	3.9	3.9	4.3	4.2	3.9	4.2	49.0
Unchahar-II	6.2	6.0	6.5	5.7	6.2	6.6	6.6	6.9	7.3	7.1	6.7	7.1	78.9
Unchahar-III	4.4	4.4	4.5	4.3	4.5	4.4	4.4	4.5	4.8	4.8	4.4	4.8	54.2
Rihand-1 STPS	19.4	20.4	21.1	21.3	20.4	17.5	19.6	19.0	19.2	21.0	19.6	21.0	239.5
Rihand-2 STPS	16.8	22.2	20.2	21.6	17.7	18.0	20.8	20.4	20.8	22.2	20.8	22.4	243.9
Kehalgaon	8.4	8.8	13.0	13.0	12.7	12.3	13.0	13.1	13.8	14.0	13.1	14.1	149.3
Total	**89.8**	**98.7**	**102.3**	**105.8**	**99.5**	**95.9**	**104.3**	**103.5**	**106.9**	**109.8**	**101.7**	**108.3**	**1184**

Power Availability from NHPC stations

7.18 The energy generation and month-wise availability from NHPC stations for FY08 has been projected based on their design energy. Energy available for HPSEB is computed based on the share allocated to the state.

7.19 However, quantum of free power allocated to GoHP i.e. 12% of the total generation in Chamera I and Chamera II has not been included in the net power available to the Board from NHPC stations. The free power share allocated to GoHP will be discussed under free power available to the Board.

7.20 Hence, the table below shows the Commission's estimates of energy availability to HPSEB plant-wise and month-wise:

Table 49: Projected Power Availability (MUs) from NHPC Stations (Commission)

Stations	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Jan-08	Feb-08	Mar 08	Total (MU)
Salal	1.8	3.1	4.5	4.6	4.6	4.0	2.2	1.2	0.9	0.6	0.7	1.1	29.2
Tanakpur	0.6	0.8	1.2	1.9	1.9	1.8	1.5	0.9	0.7	0.6	0.5	0.5	12.9
Chamera-1	2.8	5.3	5.3	8.0	9.7	4.8	2.8	1.9	1.7	1.8	1.7	1.8	47.7
Chamera-2	6.8	7.7	5.4	7.7	7.7	5.5	2.5	1.8	1.4	1.4	2.0	4.3	54.4
Uri	8.5	8.8	8.5	8.8	7.8	5.4	3.0	1.9	1.9	2.1	3.4	6.9	66.9
Dhauliganga	1.9	3.1	4.9	7.1	7.1	5.5	3.2	1.8	1.1	1.1	0.9	1.0	38.6
Total	**22.9**	**29.4**	**30.4**	**38.9**	**39.6**	**27.6**	**15.6**	**9.7**	**7.7**	**7.7**	**9.4**	**15.9**	**249.7**

Power Availability from other sources

7.21 For Tehri – I, the energy availability for HPSEB is estimated based on its design energy, seasonality based on the average seasonality of all the NHPC generating stations and share allocated to HPSEB.

7.22 The energy availability from Narora Atomic Power Plant (NAPP) in FY08 has been taken equal to the average availability of the plant for last 4 years, as the working of the plant is not expected to change and there is no seasonality in generation of atomic power plants.

7.23 The energy availability from Rajasthan Atomic Power Plant (RAPP) has been estimated based on the inputs provided by the Board and information available from NPCIL. It is assumed that one of the units will come under commercial operation from Aug07 and other unit will be operational from Feb08.

7.24 Generation from Nathpa Jhakri (SJVNL) is estimated equal to the revised estimated generation for FY07 with the average seasonality in FY05 and FY06.

7.25 The energy availability from Shanan, Shanan extn., Khara and Yamuna stations have been taken as average of the energy available from these stations for the last four years.

7.26 For Private Micros, the energy availability for FY08 has been is estimated at same level of FY07 as submitted by the Board and seasonality based on the seasonality of all the stations during FY06 and FY07.

7.27 Power availability from Baspa-II has been estimated based on its design energy.

Table 50: Projected Power Availability (MUs) from other Stations (Commission)

Stations	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08	Total (MU)
Tehri-I	6.0	8.1	9.0	10.9	11.1	8.1	4.5	2.7	2.2	2.0	2.5	4.2	71.2
NAPP	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	66.4
RAPP	0.00	0.00	0.00	0.00	4.8	4.8	4.8	4.8	4.8	4.8	9.2	9.2	47.3
Nathpa Jhakri	12.9	25.0	28.6	19.2	14.8	9.7	5.0	7.4	7.1	6.4	6.4	7.8	150.3
Shanan	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	5.1
Shanan Extn	5.8	5.3	4.8	5.1	5.6	4.8	4.8	1.9	0.5	0.5	0.5	3.9	43.5
Yamuna (UJVNL)	26.5	35.4	36.3	45.0	58.5	49.5	32.8	19.4	15.8	14.9	14.2	22.8	370.9
Khara	4.8	5.8	5.7	6.7	8.0	6.8	6.7	4.3	3.6	3.0	2.1	3.9	61.4
Private Micros	9.1	9.6	8.9	12.5	14.2	12.4	8.4	6.1	7.7	5.4	6.2	9.7	110.00
Baspa – II	41.9	72.6	169.6	183.5	183.5	129.5	69.5	50.3	41.0	37.9	32.7	37.9	1050.1
Total	**112.9**	**167.7**	**268.8**	**288.8**	**306.4**	**231.5**	**142.4**	**102.8**	**88.6**	**80.8**	**79.7**	**105.3**	**1976**

Power Available from Free Power & Equity Power

7.28 The GoHP has 12% free power share in 5 of the HPSEB power plants viz. Ghanvi, Baner, Gaj, Larji & Khauli. This free power will be purchased by the Board throughout the year.

7.29 The GoHP also has free power share of 12% in three of the NHPC plants (i.e. Baira Suil, Chamera I & Chamera II), Shanan (500 KW), 4.6% in Ranjeet Sagar Dam, 12% in Baspa II & Nathpa Jhakri and 15% in Malana. GoHP also has 22% equity share in Nathpa Jhakri.

7.30 The GoHP has agreed to provide free power and equity power from these plants to the Board during winter months (Nov to Mar), when the Board is deficit in energy.

7.31 The table below shows the Commission's estimates of energy availability to HPSEB plant-wise and month-wise:

Table 51: Projected Power Availability (MUs) as Free Power & Equity Power (Commission)

Stations	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Jan-08	Feb-08	Mar 08	Total (MU)
Free Power													
Baira Suil	-	-	-	-	-	-	-	2.9	2.6	2.7	3.4	7.2	18.8
Chamera-I	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.8	7.1	7.6	6.9	7.6	37.1
Chamera –II	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	4.7	4.7	6.7	14.2	36.00
Shanan Share	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.2	0.2	1.1
Ranjeet Sagar Dam	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	3.4	3.0	3.2	2.7	16.2
Malana	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	1.7	1.6	1.9	3.2	10.5
Baspa – II	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.9	5.6	5.2	4.5	5.2	27.3
Nathpa Jhakri	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35.8	34.4	31.2	30.9	37.9	170.1
Ghanvi	0.7	1.0	0.9	1.0	1.2	1.0	0.8	0.4	0.3	0.3	0.3	0.6	8.5
Baner	0.4	0.4	0.4	0.6	0.7	0.5	0.4	0.2	0.1	0.1	0.2	0.5	4.6
Gaj	0.5	0.6	0.5	0.7	0.8	0.6	0.5	0.2	0.1	0.2	0.3	0.5	5.4
Larji	5.1	5.8	10.2	10.6	10.6	9.9	5.4	2.6	2.1	1.7	1.6	2.4	67.9
Khauli	0.4	0.4	0.6	0.9	0.9	0.7	0.5	0.4	0.2	0.2	0.2	0.4	5.8
Total	**7.1**	**8.2**	**12.6**	**13.8**	**14.2**	**12.7**	**7.6**	**69.2**	**62.5**	**58.7**	**60.3**	**82.6**	**409**
Equity Power													
Nathpa Jhakri	-	-	-	-	-	-	-	66	63	57	57	69	312

Banking

7.32 HPSEB has entered into energy banking agreements with Punjab and Haryana

(HVPNL). Punjab and Haryana give energy to HPSEB in winter and the same is returned to them by the Board in the summers. The banking agreements are constrained by the ability of the different parties to return the power banked. This year, HPSEB has proposed the following banking schedule and the same has been approved by the Commission:

Table 52: Projected Power Availability (MUs) due to Banking (Commission)

Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08
29	-45	-49	-85	-56	-13	7	29	46	55	70	13

7.33 The negative numbers in the above table denote the energy in MU returned by the HPSEB.

Total Power Availability

7.34 The table below shows the Commission's estimates of total energy availability to HPSEB:

Table 53: Projected Total Power Availability (MUs) at HPSEB System Boundary (Commission)

Stations	FY08 (Approved)
HPSEB	1824
BBMB	240
NTPC	1184
NHPC	250
Other Sources	1976
Free Power & Equity Power	721
Total	**6195**

Cost of Power from Various Sources

Generation cost of Board's own generating stations

7.35 The Board has not filed proper tariff petitions for its own generating stations as all the costs associated with generation are being shown as part of Board's expenses under various heads such as Employee cost, R&M cost, A&G cost, Interest Costs, Depreciation etc. Therefore the Commission is not able to approve tariff for each generating stations. Further the tariff petitions for Larji and Khauli have not been prepared and submitted as per the CERC guidelines, without which it will be not possible for the Commission to determine the capital cost, generation tariff etc for these projects.

Cost of power from NTPC stations

7.36 The variable cost of power from NTPC station has been estimated keeping in mind the rising fuel prices. Hence, the month-on-month increase in variable cost of energy from NTPC station for the last 44 months was analyzed and the cost of power in the future was projected based on this. The projected variable cost from NTPC stations in Rs./unit is as shown in the table below.

Table 54: Variable cost of NTPC Stations in Rs. /Unit

Stations	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08
Anta(L)	7.07	7.16	7.25	7.34	7.43	7.52	7.62	7.71	7.81	7.90	8.00	8.10
Anta(G)	1.44	1.45	1.47	1.48	1.49	1.51	1.52	1.53	1.55	1.56	1.58	1.59
Auraiya(L)	6.77	6.85	6.94	7.02	7.11	7.20	7.29	7.38	7.47	7.57	7.66	7.76
Auraiya(G)	1.92	1.95	1.98	2.01	2.04	2.07	2.10	2.13	2.16	2.19	2.22	2.26
Dadri(L)	7.40	7.49	7.58	7.68	7.77	7.87	7.97	8.07	8.17	8.27	8.37	8.48
Dadri(G)	1.88	1.91	1.94	1.97	2.00	2.02	2.05	2.08	2.11	2.15	2.18	2.21
Unchahar-I	1.30	1.31	1.32	1.32	1.33	1.34	1.35	1.35	1.36	1.37	1.38	1.38
Unchahar-II	1.29	1.30	1.31	1.31	1.32	1.33	1.34	1.34	1.35	1.36	1.36	1.37
Unchahar-III	1.29	1.29	1.30	1.31	1.32	1.32	1.33	1.34	1.34	1.35	1.36	1.37
Rihand-1 STPS	1.01	1.02	1.02	1.03	1.04	1.05	1.06	1.07	1.08	1.09	1.10	1.11
Rihand-2 STPS	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Singrauli STPS	0.89	0.89	0.90	0.90	0.91	0.91	0.91	0.92	0.92	0.93	0.93	0.93
Kehalgaon	1.10	1.10	1.11	1.12	1.12	1.13	1.13	1.14	1.14	1.15	1.15	1.16

7.37 The fixed costs of the NTPC stations has been estimated based on Annual Fixed Cost as approved by the CERC and station wise average other costs for past 36 months for these stations. The projections for fixed costs and other costs in Rs. Cr are as shown below:

Table 55: Fixed cost of NTPC Stations in Rs. Cr

Stations	FY08
Anta(L)	0.06
Anta(G)	4.18
Auraiya(L)	0.12
Auraiya(G)	6.15
Dadri(L)	0.17
Dadri(G)	8.80
Unchahar-I	3.38
Unchahar-	5.48
Unchahar-	5.37
Rihand-1	18.37
Rihand-2	14.97

Stations	FY08
Singrauli	1.09
Kehalgaon	9.29

Cost of power from NHPC stations

7.38 The variable charge for the NHPC stations has been estimated at the same level as of the current year (FY07).

Table 56: Variable cost of NHPC Stations in Rs. / Unit

Stations	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08
Salal	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63
Tanakpur	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Chamera-1	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Chamera-2	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Uri	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Dhauliganga	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81

7.39 For estimating the fixed charges, Annual Fixed Charge (AFC) from each station was considered and compared with the recovery from primary energy charge. The remaining amount, depending on the state's share in the plant's generation, was allocated to HP along with the estimate of other charges.

Table 57: Fixed cost of NHPC Stations in Rs. Cr

Stations	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08
Salal	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
Tanakpur	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Chamera-1	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37
Chamera-2	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
Uri	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47
Dhauliganga	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38

Cost of power from other sources

7.40 The cost of power from Tehri-I has been taken at Rs.3.50 as proposed by the Board in the ARR petition.

7.41 Power purchase cost from BBMB stations has been estimated by assuming 4% annual increase in O&M cost of the generating station from the FY06 level.

Table 58: Power Purchase cost of BBMB Stations in Rs. /Unit

Station	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08
BBMB Old	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43
BBMB New	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21
Dehar	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36

7.42 Cost of free power procured from the government for use in winter months has been taken as Rs. 3.04/unit as billed by the PTC for FY 07 which has been approved by the Commission and the average cost of equity power has been taken as Rs.3.5/unit as per HPSEB's projections.

7.43 The power purchase cost from Baspa-II has been taken estimated based on the Commission's tariff order for Baspa-II.

Table 59: Power Purchase Cost from Baspa-II station

Cost	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08
Fixed Cost (In Cr)	16.51	16.51	16.51	16.51	16.51	16.51	16.51	16.51	16.51	16.51	16.51	16.51
Variable Cost (Rs./ Unit)	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98

7.44 Power purchase cost for the Nathpa Jhakri has been estimated based on CERC order.

Table 60: Power Purchase Cost from Nathpa Jhakri station

Cost	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Jan-08	Feb-08	Mar 08
Fixed Cost (In Cr)	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29
Variable Cost (Rs./ Unit)	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81

7.45 Power purchase rates for NAPP and RAPP has been taken as per the tariff indicated by NAPP and RAPP.

7.46 Power purchase rate for the State's Private Micro generating stations are estimated @ Rs. 2.50 per unit.

7.47 The rates at which power is taken from other sources are as per bilateral agreements and are shown in the table below:

Table 61: Power Purchase cost of Other Stations in Rs. /Unit

Station	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Jan-08	Feb-08	Mar 08
NAPP	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.91
RAPP	2.83	2.83	2.83	2.83	2.83	2.83	2.83	2.83	2.83	2.83	2.83	2.83
Private Micro's	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Shanan	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Shanan Extn	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Yamuna	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37
Khara	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37

Power Purchase

7.48 The Board's filing on the number of units to be purchased is indicated in Chapter A3. As no rationale was given for arriving at the availability or power purchase numbers, the Commission has conducted its own analysis, based on merit order dispatch principle, as shown below.

Merit Order for the State's Use

7.49 The cheapest available power with HPSEB should be made available for use within the state. From the remaining power, the cheapest should be banked as the same will be made use for state's consumption in the months of energy deficit. The remaining power may be traded if it is profitable to do so.

7.50 To achieve this objective and keeping in mind that cost of power from the same generating station may be different in different months, the Commission prepared a monthly plant-wise dispatch schedule based on the variable cost of power from various stations at the boundary between the transmission and the distribution system.

7.51 The dispatch schedule matched the available power with demand for use within the state and demand for banking. The cheapest power was dispatched first, and then the cheapest of the remaining and so on till all the demand was met. If in any month the state's demand remains unfulfilled even after dispatching all the available power then the extra power must be procured from the market or taken from the Government's share of free power.

7.52 It may be noted that inspite of cost of power from Tehri I station being very high, it has been scheduled in the merit order for state's own use. This has been done based on HPSEB's assertion that if this power is not scheduled this year, then HPSEB will not get the benefit of cheaper power in subsequent years.

7.53 The following table shows the net energy at the state boundary allocated for the state's own use and for banking.

Table 62: Energy Allocated for State's Own Use

Station	Power Purchase for Own use (HP Boundary)	MU	Total Cost (Rs. Cr)
NHPC	Salal	29	2.38
	Tanakpur	13	1.85
	Chamera-1	48	8.35
	Chamera-2	54	8.03
	Uri	67	11.25
	Dhauliganga	39	7.78
NTPC	Anta(L)	9	7.32
	Anta(G)	45	7.97
	Auraiya(L)	18	13.72
	Auraiya(G)	61	14.93
	Dadri(L)	19	16.51
	Dadri(G)	66	16.17
	Unchahar-I	32	5.16
	Unchahar-II	61	8.71
	Unchahar-III	41	6.19
	Rihand-1 STPS	177	24.41
	Rihand-2 STPS	184	20.08
	Kehalgaon	111	13.01
Other	BBMB Old	39	1.75
	BBMB New	125	2.71
	Dehar	76	2.84
	Nathpa Jhakri (SOR)	150	12.24
	Tehri-I	71	25.81
	Baspa –II	908	274.56
	Private Micros	110	27.50
	NAPP	39	7.68
	RAPP	38	11.04
	Shanan	5	0.21
	Shanan Extn	43	1.80
	Yamuna	371	14.22
	Khara	61	2.35
Free Power	Baira Suil	19	5.92
	Chamera-I	37	11.27
	Chamera –II	36	10.94
	Shanan Share	1	0.33
	Ranjeet Sagar Dam Share	16	5.10
	Malana	11	3.20
	Baspa – II	27	8.28
	Nathpa Jhakri	170	51.71
	Ghanvi	3	1.05

Station	Power Purchase for Own use (HP Boundary)	MU	Total Cost (Rs. Cr)
	Baner	2	0.59
	Gaj	2	0.70
	Larji	21	6.32
	Khauli	2	0.71
Equity	Nathpa Jhakri	312	109.16
Total		**3769**	**793.82**

7.54 Total annual deficit of HPSEB's system considering monthly merit order is estimated to be 441 MU at state boundary (456 MU at regional interface). This deficit is to be met by getting power from unallocated shares in winter months and purchasing power through bilateral agreements. The average procurement cost of deficit power is assumed by the Commission at Rs.3.56/unit considering unallocated power of 272 MU at Rs. 1.90 per unit as per the Board's projection in the ARR petition and remaining power at Rs. 6 per unit. Thus total cost of power procurement from traders would be Rs. 162.31 Cr.

7.55 The total energy purchased for state's own use is thus, 4210 MU (at HPSEB System Boundary) at a total cost of Rs.956.13 Cr.

7.56 The average cost of this power purchase, without taking into account generation from HPSEB's own stations, works out to Rs.2.11/unit.

Merit Order for Sale outside the State

7.57 The remaining power, after the state's use, may be used for sale outside the state during the summer month. It must be noted that only the power which costs lower at the state boundary than the price it fetches should be traded to make profits. Trade must not be done based on the average cost of surplus power. For the purpose of sale of surplus power outside state, the Commission has taken the rate of sale of power as Rs. 6.0/unit, which is lower than the rate at which HP Government is selling its share of power to PTC. The balance power available for sales outside the state is as shown in the table below along with the per unit cost at the state boundary:

Table 63: Energy Available for Sale outside State

Station	Power Purchase for Sale outside state (HP Boundary)	MU	Total Cost (Cr)
NTPC	Anta(G)	31	5.34
	Auraiya(G)	42	9.80
	Dadri(G)	46	10.64
	Unchahar-I	17	2.69
	Unchahar-II	18	2.60
	Unchahar-III	13	1.98
	Rihand-1 STPS	63	8.37

Station	Power Purchase for Sale outside state (HP Boundary)	MU	Total Cost (Cr)
	Rihand-2 STPS	59	6.48
	Kehalgaon	39	4.47
Other Sources	Baspa –II	142	26.75
	NAPP	28	5.48
	RAPP	10	2.83
Free Power	Ghanvi	5	1.53
	Baner	3	0.80
	Gaj	3	0.94
	Larji	47	14.32
	Khauli	3	1.04
	Nathpa Jhakri	-	0.00
	Total	**569**	**106.07**

7.58 The average cost of power available for sale outside the state works out to Rs. 1.82/unit.

Prior Period Power Purchase Cost for Baspa-II

7.59 In the ARR petition for FY08, the Board has mentioned that it may be liable to pay the differential amount in case the tariff approved by the Commission for the Baspa-II HEP is higher than the provisional billing rate and the Commission may therefore consider this aspect while approving the power purchase cost for FY08.

7.60 As per the tariff approved by the Commission for the Baspa-II HEP, the Board will be required to pay Rs. 32.45 Cr for amortization of past arrears in FY08, which will be amortized in next seven years. Other than this, the Commission has projected that the Board will also be paying interest amount of Rs. 16.87 Cr during FY08 towards the average balance amount. The above mentioned amounts are payable in equal monthly instalments. The Commission approves Rs. 49.32 Cr for past arrears payable in FY08 in equal monthly instalments.

PGCIL Charges

7.61 The Board has filed for Rs. 70 Cr as PGCIL charges. As no supporting argument was offered for this number, the Commission has approved the charges at the same level as approved in Tariff Order for FY07. The PGCIL charges thus allowed work out to Rs. 69.92 Cr.

Transmission and Distribution Losses

7.62 In the ARR petition, the Board has filed the revised estimates for transmission and distribution losses within the state for FY07 as 18.56% and projected transmission and distribution losses for FY08 at 18%. In the information submitted by the Board on 7 March 2007, Transmission and Distribution losses within the state for FY06 has been modified by the Board from 17.4% in the ARR petition to 18.04%. However, in the Tariff Order for FY07, the Commission has approved the transmission and distribution losses within the states for FY 07 at 18.5%. Since 78% growth in sales for FY08 in comparison of revised estimates for sales for FY07 is coming from Large Industries and PIU category, the Commission believes that loss level for FY08 can be reduced by 1% from previous year's level and thus approves transmission and distribution loss level at 17.5% for FY08.

Energy Balance

Table 64: Energy Balance at HPSEB Boundary for FY08

Particulars (MU)	FY07	FY08	FY08
	R.E.	Projected	Approved
Power from Own Stations	1408	1823	1824
Power from Other Sources	4689	4658	4338
Power Purchased from Market			441
Total Power Available for Sale or Energy Input	6097	6481	6603
Energy Sales within the state			
a) LT Sales			
b) HT Sales			
c) EHT Sales			
Total Energy Sales	4112	4693	4978
Total Transmission and Distribution Loss	18.56%	18.0%	17.5%
Energy Requirement for sale in state	5049	5723	6034
Energy available for sale outside the State	1048	759	569

A8: REVIEW OF FY08 - COSTS

Employee Costs

8.1 In the ARR Petition for FY08, the Board has projected revised employee expenses for FY07 as Rs. 528.25 Cr, capitalization of Rs. 76.61, resulting in a net employee cost of Rs. 451.64 Cr For FY08, the Board has proposed gross employee expenses of Rs. 579.58 Cr, capitalization of Rs. 84.05 Cr and net employee expenses of Rs. 495.53 Cr.

8.2 The Board has estimated the employee expenses for FY08 by assuming an average increase of 4% in basic salary per annum, DA increase of 3 to 4% in two instalments and 5% increase on account of inflation in LTC, Earned Leave Encashment & Payment under Workmen's Compensation. Medical expenses, Fee & Honorarium have been projected at FY07 levels.

8.3 The Commission is of the view that the Board's employee cost is very high in comparison of other Utilities in the Country. The Commission will like to reiterate its stand that the Board needs to cut down employee expenses and improve productivity of employees. The Commission in its previous tariff order recommended the Board to conduct a detailed manpower and organisation study for HPSEB which would be useful to take proactive action towards optimising manpower deployment in its various functions, wings and offices.

8.4 The Commission has analysed the employee cost projections submitted by the Board and found that figures of basic salary and DA in the employee expenses for FY06 & FY07 were quite different from the earlier submissions of the Board and the Commission's estimations. The Commission directed the Board to provide explanation for the variation, for which the Board failed to provide a satisfactory reply. In reply the Board has proposed a higher employee cost by increasing projected basic salary for FY08 from Rs. 275.51 Cr to Rs. 303.90 Cr and for FY07 from Rs. 264.92 Cr to Rs. 282.03 Cr. The Board also proposed to increase DA for FY07 from Rs. 96.79 Cr to Rs. 103.91 Cr and for FY08 from Rs. 124.32 Cr to 132.78 Cr.

8.5 In the process of detailed analysis of the employee cost, the Commission has discovered that post the merger of DA with basics salary in FY06, employee expenses has not been recorded in proper heads in the Board's balance sheet for FY06. The figures from the balance sheet have been used by the Board for projection of employee expenses for FY08 and revised estimates for FY07. The Commission has projected the figures for basic salary and DA based on the Commission approved figures for FY07 as the Board was unable to make corrections in the projections.

8.6 While projecting employee expense for FY08, the Commission has considered the reduction in the number of employees due to natural attrition through retirement as submitted by the Board under its retirement pattern. The Commission has calculated the average monthly salary per employee and has computed the salary cost for FY08 after taking into account the natural attrition and assuming 4% increase in basic salary due to promotions and hikes.

8.7 In the past, the Board had shown interest in offering VRS to the Board's employee to cut down the employee cost. In the tariff order for FY07, the Commission had made a provision of Rs. 3 Cr towards offering VRS to HPSEB employees. In the revised estimates for FY07, the Board has not shown any expense towards VRS. The Commission therefore directs the Board to submit details of VRS plan, cost, and cost sharing agreement between Government of HP and the Board to the Commission.

8.8 In the tariff order for FY07, the Commission had decided not to allow any future increase in the DA in the Annual Revenue Requirement of the Board till the Board improves its efficiency. For FY08, the Commission approves DA at the rates allowed/approved in Tariff Order for FY07.

8.9 In the petition, the Board has shown the employee terminal benefits for FY06 as Rs. 88.97 Cr, which was shown as Rs. 70.35 Cr in the last year's ARR petition. The Commission directed the Board to provide an explanation for such variance, to which the Board failed to provide a satisfactory reply. The Board has projected the expense towards terminal benefits at Rs. 118.90 Cr for FY08 and the revised estimates for FY07 at Rs. 106.66 Cr.

8.10 The Commission approves the expenses towards the employee terminal benefits at Rs. 96.23 Cr for FY08, assuming a 4% annual increase from actual figures of FY06. For Earned Leave and Leave Salary Contribution also, the Commission has adopted the similar methodology. The Commission approves the other expenses (under employee costs), Fee & Honorarium, Medical Expenses, LTA, Payment under workmen's Compensation, staff welfare expenses at the same level as projected by the Board. The Commission disallows Rs. 3.75 Cr in total employee expenses due to deviation of salary of HPSEB from PSEB pattern as per CAG report for 2001-02.

8.11 The Commission has taken average capitalization of last three years and has arrived at the capitalization percentage for FY08. The approved Employee expenses for FY08 is summarized in the table below:

Table 65: Approved Employee Expenses for FY08 (In Rs. Cr)

S. No	Particulars	FY05	FY06	FY06	FY07	FY07	FY08	FY08
		Actual	Approved	Actual	Approved	R.E.	Projected	Approved
1	Basic Salaries	205.37	309.95	254.73	313.51	282.03*	303.90*	316.82
2	Overtime	1.03	-	1.00	-	1.00	1.00	-

S. No	Particulars	FY05	FY06	FY06	FY07	FY07	FY08	FY08
		Actual	Approved	Actual	Approved	R.E.	Projected	Approved
3	DA	119.25	28.74	63.55	65.84	103.91*	132.78*	66.53
4	Other Allowances	32.78	32.43	32.23	32.63	32.23	32.23	32.23
5	Bonus	-	-	-	-	-	-	-
6	Fee & Honorarium	0.01	0.06	0.01	0.01	0.01	0.01	0.01
7	Medical expense Reimbursement	6.81	6.33	6.57	6.92	6.66	6.66	6.66
8	LTA	0.08	-	0.01	0.08	0.01	0.01	0.01
9	Earned Leave	9.24	7.20	12.65	7.28	16.34	17.63	13.69
10	Payment under workmen's compensation	0.96	0.73	0.89	0.73	0.82	0.86	0.86
11	Leave Salary Contribution	0.23	0.64	0.89	0.64	1.06	1.11	0.97
12	Staff Welfare expenses	1.29	1.42	1.27	1.29	1.25	1.31	1.31
13	Terminal Benefits	63.14	68.70	88.97	70.00	106.66	118.90	96.23
14	Provision for Employee VRS				3.00	-	-	
15	**Total Employee costs**	**440.19**	**456.20**	**482.77**	**501.94**	**552.48**	**616.41**	**535.32**
16	Amount to be transferred to R&M		(19.35)	-	-	-	-	-
17	Disallowance due to deviation from PSEB Pattern		(3.75)	-	(3.75)		-	(3.75)
18	Capitalization	(67.28)	(71.01)	(70.01)	(73.36)	(76.61)	(84.05)	(85.44)
19	Tfd to CWIP - Larji & Khauli		(11.45)	-	-	-	-	-
20	**Net Employee Cost**	**372.91**	**350.64**	**412.76**	**424.83**	**475.87**	**532.36**	**446.14**

Administrative & General Costs

8.12 In the ARR Petition for FY08, the Board has projected revised A&G expenses for FY07 at Rs. 33.66 Cr, capitalization of Rs. 5.20 Cr and net A&G expenses of Rs. 28.46 Cr For FY08, the Board has projected A&G expenses of Rs. 36.78 Cr, capitalization of Rs. 5.68 Cr and net A&G expenses of Rs. 31.10 Cr

8.13 The Board has projected administrative expenses by taking two year's Compounded Annual Growth Rate (FY04 to FY06) on the estimated costs for FY07 except for Regulatory and Ombudsman expenses. Other charges are estimated by applying percentage increase in actuals for FY06 over FY05 on the estimated costs for FY07,

* Revised figure as submitted by the Board vide letter dated 9th March, 2007

except for Legal charges, Freight charges and expenses on Public Interaction Programme, which are kept at FY07 levels.

8.14 Later in the revised ARR petition dated 15 February 2007, the Board increased projection for gross A&G Expenses to Rs. 41.10 Cr by including expense of Rs. 10 Cr for study on valuation of assets as total cost of this study is Rs. 21 Cr. After analysing the contract awarded, the Commission has concluded that payment required for the study during FY08 will not be higher than 11 Cr which has already been allowed by the Commission in Tariff Order for FY06.

8.15 The Board has projected Conveyance and travelling expenses as Rs. 12.82 Cr despite the Commission putting a cap on the expenditure on this head at FY07 at Rs. 10.38 Cr. The Commission approves Conveyance and travelling expenses at Rs. 10.38 Cr.

8.16 The Commission has approved expenses towards electricity and water charges, Freight, Rents & Taxes assuming 4% annual increase from actual figures of FY06. The Commission has approved other expenses at the level projected by the Board.

8.17 The Commission has come across certain deviations in the operations of the Board despite the repeated directions issued by it. The Board has been running hospitals & schools, which as per the Commission's direction were to be transferred to GoHP in FY06. Hence, the A&G expenses for these schools and hospitals have not been approved by the Commission.

8.18 The capitalization of A&G expenses has been computed based on the average capitalization rate for last 4 years. The approved A&G expenses for FY08 are summarized in the table below.

Table 66: Approved A&G Expenses for FY08 (In Rs. Cr)

S. No	Particulars	FY05	FY06	FY06	FY07	FY07	FY08	FY08
		Actual	Approved	Actual	Approved	R.E.	Projected	Approved
1	Insurance of Employees, Assets etc.	0.01	0.01	0.01	0.01	0.01	0.01	0.01
2	Telephone, postage, telegram, internet charges	2.25	2.17	2.39	2.67	2.52	2.65	2.65
3	Consultancy charges	0.08	0.03	0.05	0.09	0.05	0.05	0.05
4	Conveyance and Traveling expense	11.59	9.03	12.30	10.38	12.35	12.82	10.38
5	Printing and stationary	1.29	0.79	1.40	1.53	1.48	1.51	1.51
6	Advertising	0.27	0.10	0.29	0.32	0.30	0.32	0.32
7	Electricity and water charges	1.74	1.13	2.56	2.24	2.83	3.62	2.77
8	Freight	2.91	0.08	3.58	3.13	4.00	4.00	3.87

S. No	Particulars	FY05	FY06	FY06	FY07	FY07	FY08	FY08
		Actual	Approved	Actual	Approved	R.E.	Projected	Approved
9	Legal charges	0.28	0.23	0.26	0.32	0.26	0.26	0.26
10	Auditor's fees	1.35	-	1.50	1.58	1.67	1.85	1.85
11	Rents, rates & taxes, other than all taxes on income and profit.	1.02	0.68	1.51	1.16	2.03	2.74	1.64
12	Miscellaneous	1.66	2.30	1.88	2.01	2.25	2.25	2.25
13	Study for valuation of assets	-	11.00	-	-	-	10.00	-
14	Public interaction programme	-	2.12	0.03	0.68	0.70	0.70	0.70
15	Expenses for Consultants		1.00	-	-	-	-	-
16	Regulatory Expenses	2.56	1.68	2.12	2.23	3.00	4.00	4.00
17	For pilot project of pre-paid meters & billing machines	-	1.00	-	0.12	-	-	-
18	Ombudsman Expenses*	-	0.17	-	0.12	-	-	-
	Less:							
19	Expenses for Hospitals		(0.05)	-	(0.05)	-	-	(0.05)
20	Expenses for Schools		(0.03)	-	(0.03)	-	-	(0.03)
21	Expense on REC Dalhousie		(0.28)	-	-	-	-	-
22	**A&G Expenses – Total**	**27.01**	**33.17**	**29.87**	**28.49**	**33.65**	**46.78**	**32.18**
23	Less capitalized	(4.47)	(6.90)	(4.61)	(4.80)	(5.20)	(5.68)	(5.83)
24	**A&G Expenses after capitalization**	**22.54**	**26.27**	**25.26**	**23.69**	**28.46**	**41.10**	**26.35**

*included in item (16) – Regulatory Expenses in actuals for respective years

Repairs and Maintenance Cost

8.19 In the ARR Petition for FY08, the Board has projected revised R&M expenses for FY07 at Rs. 20.23 Cr and for FY08 at Rs. 22.30 Cr As per the submission of the Board, the R&M expenses have increased by 10.2% over the FY07 estimates on account of inflation, increase in asset base and to increase the operational efficiency of the existing assets. The Board had not submitted the break up of R&M expenses of HPSEB in different heads and proposed capitalization in the ARR petition.

8.20 During the technical validation sessions and subsequent interactions with the Board officials, the Commission directed the Board to submit details of R&M expenses which was complied with by the Board.

8.21 The Commission has approved an increase of 5% per annum on account of inflation on different expense items under R&M expenses over the actual expenses for FY06 submitted by the Board.

8.22 The capitalization of R&M expenses has been taken as average capitalization rate for last 4 years.

8.23 The Commission has directed the Board to submit details of R&M expenses on schools and hospitals run by the Board. The Board complied with by same and submitted R&M expenditure of Rs. 0.04 Cr on schools and hospitals run by the Board. As mentioned above in A&G expenses, the Commission has disapproved these expenses and deducted from R&M expenses.

8.24 The approved R&M expenses for FY08 is summarized in the table below:

Table 67: Approved R&M Expenses for FY08 (In Rs. Cr)

S. No	Particulars	FY05	FY06	FY06	FY07	FY07	FY08	FY08
		Actual	Approved	Actual	Approved	R.E.	Projected	Approved
1	Plant & Machinery	6.47	5.13	5.78	8.40	6.37	7.02	6.37
2	Building	1.85	2.30	1.88	2.63	2.07	2.28	2.07
3	Other civil works	1.7	1.86	1.73	2.31	1.91	2.10	1.90
4	Hydraulic Works	0.50	1.42	0.71	0.68	0.78	0.86	0.78
5	Lines, Cable Network etc.	20.85	16.78	22.39	29.40	24.68	27.20	24.68
6	Vehicles	(9.76)	(0.66)	(9.56)	(12.60)	(10.54)	(11.61)	(10.54)
7	Furniture & Fixtures	0.06	0.12	0.03	0.05	0.03	0.04	0.03
8	Office Equipment	(0.01)	0.11	0.09	0.32	0.10	0.11	0.10
9	Transfer of amount from employee expenses	-	19.35	-	-	-	-	-
10	**Total**	**21.66**	**46.41**	**23.04**	**31.19**	**25.40**	**28.00**	**25.41**
	Less:							
11	Capitalization	(4.22)	(2.39)	(4.69)	(5.91)	(5.17)	(5.70)	(4.88)
12	Transfer to CWIP on a/c of Larji & Khauli	-	(4.14)	-	-		-	-
13	Deduction for R&M of Schools & Hospitals		(0.01)	-	(1.26)		-	-
14	**Total R&M Expenditure**	**17.44**	**39.87**	**18.35**	**24.02**	**20.23**	**22.30**	**20.49**

Interest & Financing Cost

8.25 In the ARR Petition for FY08, the Board has projected revised interest & financing expenses for FY07 at Rs. 246.43 Cr, capitalization of Rs. 125 Cr and net interest & financing expenses of Rs. 121.83 Cr For FY08, the Board has projected interest & finance expenses of Rs. 258.32 Cr, capitalization of Rs. 118 Cr and net interest & financing expenses of Rs. 140.32 Cr.

8.26 The Board has proposed interest & financing expenses for FY08 based on interest liability for FY08 on the loans outstanding as on 1 April 2007 at agreed rates and prorata interest on fresh loans proposed to be raised in FY08 at prevailing market rates.

8.27 In Tariff order for FY07, the Commission directed the Board to submit loan-wise detail for all loans with their interest rate, repayment schedule etc. The Board has provided loan-wise for all loans details for FY07 with their interest rates and repayment schedule but has failed to provide repayment schedule & proposal of fresh loans to be raised in FY08.

8.28 The Commission has considered the investment plan for FY08 submitted by the Board to project/approve fresh loans for FY08.

8.29 Proposed interest & financing expenses by the Board are tabulated below:

Table 68: Proposed Interest and Finance Charges for FY08 (In Rs. Cr)

Particulars	FY06	FY07	FY08
	Actual	R.E.	Projected
LIC	22.37	23.29	21.70
REC	16.18	17.12	24.00
PFC	68.97	76.31	80.00
Bonds	4.20	4.20	3.84
Bank	25.46	37.80	30.17
APDRP	2.23	2.33	2.25
Non SLR Bonds	52.83	43.29	40.05
Other Negotiated Loan	0.00	1.96	18.20
Interest on Overdraft	18.34	12.13	12.00
Interest on GPF	17.90	15.00	14.81
Cost of raising finances	0.08	0.10	0.10
Other Charges	0.88	0.90	0.70
Interest on Security Deposits	4.97	6.00	7.35
Rebate allowed for timely payment	8.95	6.00	3.15
Interest & Finance charges Total	243.36	246.43	258.32
Less: Capitalization	**121.53**	**125.00**	**118.00**

Particulars	FY06	FY07	FY08
	Actual	R.E.	Projected
Net Interest & Financing Cost	**121.83**	**121.43**	**140.32**

8.30 As the repayment schedule for loan repayment for FY08 was not provided by the Board, for projection of interest & financing expenses for FY08, the Commission has made assumptions on repayment schedule for FY08 based on repayment schedule of FY07. The Commission has also made assumptions about the interest rates of the fresh loans proposed/approved by the Commission for FY08.

8.31 The Commission's analysis of loans is detailed below:

8.32 **PFC**:

(a) As per the information submitted by the Board, total outstanding loan amount against PFC as on 1st April 2007 is Rs. 817.57 Cr. There are 38 different loans. The Commission has done loan-wise analysis and projected repayment of Rs. 93.25 Cr against these loans. The Board will also be raising new loans of Rs. 21.40 Cr from PFC in year FY08 (at interest rate 9.5%). The Commission has calculated interest payable for FY08 towards PFC loans at Rs. 68.95 Cr.

(b) HPSEB had taken loans of Rs. 1060 Cr towards the Larji project. The Board had been asked to file a detailed petition for Larji project, which it failed to do. In the absence of proper petition, the Commission is not able to determine the completed cost of the project and the consequential implications on interest, depreciation etc. In the absence of detailed tariff petition, the Commission is left with no alternative but to allow interest based on the completed cost of the project, as assessed by the inquiry committee constituted by the Commission. The completed cost of the project as per the inquiry committee's report was Rs. 960 Cr. The GoHP has invested equity of Rs. 48.11 Cr in the Larji project. If the Commission allows debt for the remaining project cost, it comes to Rs. 911.89 Cr. The Commission approves only Rs. 911.89 Cr of loan towards Larji, provisionally, till the final cost of the Larji project is finalized /approved by the Commission. Based on the sequence of loan taken for the Larji project, the Commission is not allowing Rs. 48 Cr of the Rs. 116 Cr loan taken from PFC and Rs. 100 Cr loan taken from Punjab & National Bank by the Board. This will reduce interest payable towards PFC loans by Rs. 3.35 Cr. Thus the Commission allows interest amount of Rs. 64.63 Cr towards PFC loans.

8.33 **LIC:** As per the information submitted by the Board, total outstanding loan amount against LIC as on 1st April 2007 is Rs. 270.66 Cr. There are 9 different loans. The Board has taken a loan of Rs. 250 Cr for funding equity portion of various SPV projects. The Commission does not allow interest on this loan to be passed on to the consumers as this loan has been taken for investment in SPVs where Board will earn return on equity. The Commission has projected repayment of Rs. 4.06 Cr against other loans. The Commission approves interest payable for FY08 towards LIC loans at 1.68 Cr.

8.34 **Bank Loans:**

(a) Bank of India (BoI) – Total outstanding loan amount against BoI as on 1st April 2007 is Rs. 2.10 Cr. The Commission has projected repayment of Rs. 1.10 Cr during FY08. The Commission approves interest payable for FY08 towards BoI loans at 0.12 Cr.

(b) United Bank of India (UBI) - Total outstanding loan amount against UBI as on 1st April 2007 is Rs. 0.11 Cr. The Commission has projected repayment of Rs. 0.11 Cr during FY08. The Commission approves interest payable for FY08 towards UBI loans at 0.004 Cr.

(c) UCO Bank - Total outstanding loan amount against UCO Bank as on 1st April 2007 is Rs. 56.60 Cr. The Board has taken these loans for power procurement. As these loans were not capital loans, the Commission will not allow the Board to pass interest on them to the consumers.

(d) Punjab & National Bank (PNB) – The Board has taken 100 Cr loan from PNB for Larji project. Interest on these loans for FY08 has been projected by the Commission at 8.18 Cr As explained above in 8.32(b), the Commission is not allowing interest on these loans.

(e) Co-operative Bank – Total outstanding loan amount against Co-operative Bank as on 1st April 2007 is Rs. 248 Cr. This includes Rs. 70 Cr loan taken for execution of Khauli HEP. The Board had been asked to file a detailed petition for Khauli project, which it failed to do. In the absence of proper petition, the Commission is not able to determine the complete cost of the project and the resultant implication on interest, depreciation etc. In the absence of detailed tariff petition, the Commission approves this loan provisionally till cost of the Khauli project is determined by the Commission. The Commission has projected repayment of Rs. 4 Cr against these loans during FY08. The Commission approves interest payable for FY08 towards Co-operative Bank loans at Rs. 22.14 Cr.

8.35 **HP Government Loans (APDRP loans):** As per the information submitted by the Board, total outstanding loan amount against HP Government loan is Rs. 19.52 Cr. The Commission has projected repayment of Rs. 1 Cr against these loans during FY08. The Commission approves interest payable for FY08 towards these loans at Rs. 2.20 Cr.

8.36 **Non SLR Bonds:** As per the information submitted by the Board, total outstanding loan amount against Non SLR Bonds is Rs. 333.60 Cr. There will be no repayment against these loans. The Commission approves interest payable for FY08 towards these loans at Rs. 34.37 Cr.

8.37 **REC loans:** As per the information submitted by the Board, total outstanding loan amount against REC loan is Rs. 113.88 Cr. The Commission has projected repayment of Rs. 70 Cr against these loans during FY08. Board will also be raising new loans of Rs. 183.71 Cr from REC in year FY08 (at interest rate 9.0%). The Commission approves interest payable for FY08 towards these loans at Rs. 15.37 Cr.

8.38 **HPSEB Bonds (Market Bonds):** As per the information submitted by the Board, total outstanding loan amount against HPSEB Bonds is Rs. 35.49 Cr. The Commission has projected repayment of Rs. 5.5 Cr against these loans during FY08. The Commission approves interest payable for FY08 towards these loans at Rs. 3.83 Cr.

8.39 **Other Negotiated Loans:** The Board has projected loan amount of Rs. 320.21 Cr as other negotiated loans. The Commission directed the Board to provide details and purpose of these loans. The Board informed the Commission that these loans will be raised for repayment of older loans. The Commission does not approve any interest on these loans as repayment of loans should be managed by the Board internally and no fresh loans should be taken for the same.

8.40 The Commission has allowed interest on consumer security deposit at Rs. 6.75 Cr assuming Rs. 150 Cr as Consumer Security Deposit for the FY08.

8.41 Regarding Working Capital, the Commission has worked out the requirement as per the norms of one month O&M expenses and two months receivables to arrive at the requirement. The Commission has subtracted Rs. 150 Cr of consumer security deposit from working capital requirement as the Board shall be using consumer security deposit to fund the working capital and has approved the interest on the remaining amount at rate of interest of 10% per annum. The financing charges have been taken as 0.5% of the loan raising amount. The Commission has approved Interest on Working Capital and finance charges as Rs. 14.07 Cr.

8.42 The Board has projected expense of Rs. 12 Cr as interest on overdraft and Rs. 3.15 Cr towards rebate allowed for timely repayment. The Commission believes that these expenses are part of working capital management and already included in interest on working capital and disapproves them.

8.43 The Board has projected interest expense of Rs. 14.81 Cr towards interest on GPF. As this expense arises due to gap between the amounts invested by the Board and average balance of GPF and lower returns that the Board is getting for invested amount against interest rate of 8% which the Board is paying to employees. The Commission is of the view that the Board can meet this expense by better management of GPF corpus specially in view of the high rates prevalent today and therefore this expense cannot be passed on to the consumer.

8.44 The interest and financing charges approved by the Commission in this ARR are tabulated below:

Table 69: Approved Interest and Finance Charges for FY08 (In Rs. Cr)

Particulars	FY06	FY07	FY08	FY08
	Actual	R.E.	Projected	Approved
LIC	22.37	23.29	21.70	1.68
REC	16.18	17.12	24.00	15.37
PFC	68.97	76.31	80.00	64.63
HPSEB Bond and Non SLR Bond	57.03	47.49	43.89	38.20
Bank	25.46	37.80	30.17	26.98
APDRP	2.23	2.33	2.25	2.20
Other Negotiated Loan	0.00	1.96	18.20	-
Interest on GPF	17.90	15.00	14.81	-
Interest on Security Deposits	4.97	6.00	7.35	6.75
Interest on Overdraft	18.34	12.13	12.00	14.07
Cost of raising finances	0.08	0.10	0.10	
Other Charges	0.88	0.90	0.70	
Rebate allowed for timely payment	8.95	6.00	3.15	
Interest & Finance charges Total	**243.36**	**246.43**	**258.32**	**169.89**
Less: Capitalization	121.53	125.00	118.00	76.45
Net Interest & Financing Cost	**121.83**	**121.43**	**140.32**	**93.44**

Depreciation

8.45 In the ARR petition for FY08, the Board has proposed depreciation of Rs. 94.65 Cr on adhoc basis stating that the data relating to function-wise fixed assets is not available. The Board has shown net addition of assets worth Rs. 1463.60 Cr during FY07 and Rs. 304.63 Cr for FY08. The Commission directed the Board to submit details of these asset additions which were partially complied by the Board.

8.46 On detailed analysis, the Commission has discovered that assets of Larji HEP worth Rs. 1233.60 Cr have been added to the asset base in FY07. As the Commission has provisionally approved cost of the project at Rs. 960 Cr, the Commission will allow addition of Rs. 960 Cr only on account of Larji HEP till the project cost is finalized / approved by the Commission.

8.47 The Commission has also reduced Rs. 15.56 Cr from the asset block for schools and hospital, which the Commission has ordered the Board to transfer to the GoHP. Therefore, the depreciation approved by the Commission is tabulated below:

Table 70: Approved Depreciation for FY08 (In Rs. Cr)

S. No	Particular	Depreciation Rate	Opening GFA Balance	Depreciation
1	Generation	2.50%	1683.68	42.09
2	Transmission	2.50%	818.66	20.47
3	Distribution	2.50%	1010	25.25
4	Total		3512.34	87.81
5	Less - Unproductive Assets	2.50%	15.56	0.39
6	**Total**		**3496.78**	**87.42**

Expenses Capitalised

8.48 The Commission has calculated the capitalization based on average capitalization rate in the past years. The details of the approved expense capitalization are tabulated below:

Table 71: Approved Capitalization for FY08 (In Rs. Cr)

S. No	Particulars	FY05	FY06	FY07	FY07	FY08	FY08
		Actual	Actual	Approved	R.E.	Projected	Approved
1	Employee Cost	67.28	70.01	73.36	76.61	84.05	85.54
2	R&M Expenses	4.22	4.69	5.91	5.17	5.70	4.88
3	A&G Expenses	4.47	4.61	4.80	5.20	5.68	5.83
4	Interest & Finance Expenses	109.79	121.53	60.23	125.00	118.00	76.45
5	Total	185.76	200.84	144.31	211.97	213.43	172.60

Return on Equity

8.49 The Board has proposed a return of Rs. 85.61 Cr @ 3% of net fixed assets of Rs. 2854 Cr. The Commission has, however, continued with the return on equity (RoE) approach which was adopted in the tariff order for the FY06.

8.50 As per the Annual Report of FY 2003-04, the equity capital of the Board is Rs. 280 Cr. Further, as per the information to the Commission, additional equity of Rs. 2.11 Cr was infused in FY05. Considering no equity infusion in FY06, FY07 and FY08, the Commission has apportioned the equity capital of the Board at Rs. 282.11 Cr into generation, transmission and distribution in the same ratio as the GFA at the start of FY08. The Commission has approved RoE to the generation, transmission and distribution businesses at the rate of 14%, 14% and 16%, respectively, in accordance with its Tariff Regulations, as detailed in the table below:

Table 72: Approved Return on Equity (RoE) for FY08 (In Rs. Cr)

S. No	Particular	% Share in total GFA	Equity (Rs. Cr)	Return on Equity (%)	Return on Equity (Rs. Cr)
1	Generation	47.94%	135.23	14%	18.93
2	Transmission	23.31%	65.71	14%	9.21
3	Distribution	28.76%	81.12	16%	12.98
4	**Total**	**100.00%**	**282.11**		**41.12**

Annual Revenue Requirement

8.51 The Board, in its Annual Revenue Requirement (ARR) has included cost of power purchased for sale outside state in cost of total power purchased. During the technical validation session and interaction with the Board, the Commission asked it to file for power sale outside state business separately using trading format, which the Board failed to comply by with. In the Annual Revenue Requirement (ARR), the Commission has approved only cost of power purchase for own use in cost of power purchase. The Commission has analysed revenue from sale of power outside the state separately.

8.52 The Commission herewith approves the Annual Revenue Requirement (ARR) at Rs. 1831.43 Cr as against Rs. 2026.76 Cr proposed by the Board for FY08. This annual revenue requirement also includes prior period power purchase cost of Baspa-II HEP of Rs. 49.32 Cr and prior period truing up expenses of Rs. 41.12 Cr as evaluated in Chapter A2. The detailed break up of various components of the ARR is shown below:

Table 73: Approved Annual Revenue Requirement (ARR) for FY08 (In Rs. Cr)

S. No	Expense	FY08	
		Proposed	Approved
1	Power Purchase for Own Use (With Banking)	1029.32	956.13[3]
	Power Purchase for Trading		-
2	Prior Period Power Purchase (Baspa-II)	49.32	49.32
3	Prior Period Truing Up Expense	-	41.12
4	PGCIL Charges	70.00	69.92
5	Employee Expenses	616.41	531.57
6	A&G Expenses	46.78	32.18
7	R&M Expenses	28.00	25.37
8	Depreciation	94.65	87.42

[3] In the ARR of HPSEB, the Commission has taken into consideration the Cost of power purchase for sale within the state

S. No	Expense	FY08	
		Proposed	Approved
9	Interest & Financing	258.32	169.89
10	**Total Gross Exp.**	**2,192.80**	**1962.91**
11	Less - Expenses Capitalized	213.43	172.60
12	Net Total Expenses	1,979.37	1,790.31
13	Return on Equity	85.61	41.12
14	**Annual Revenue Requirement**	**2064.99**	**1831.43**

Unbundled Revenue Requirement

8.53 The unbundled revenue requirement for each business, viz. generation, transmission and distribution, vis-à-vis the proposed revenue requirement is shown in the table below. However, it should be noted that for the purposes of segregation between different businesses, the Commission had to accept the proportion considered by HPSEB in the absence of Fixed Asset Register and proper segregation of various cost components. The Commission has continued with the proportion used in FY04.

Table 74: Approved Unbundled Revenue Requirement for FY08 (In Rs. Cr)

S. No	Particular	FY08 (Approved)			
		Generation	Transmission	Distribution	Total
1	Employee Expenses	78.19	28.11	425.27	531.57
2	R & M Expenses	8.64	2.47	14.26	25.37
3	A & G Expenses	7.28	3.06	21.83	32.18
4	Interest and Finance Charges	74.06	25.26	63.82	163.14
5	Depreciation	41.91	20.38	25.14	87.42
6	Interest on Security Deposit	-	-	6.75	6.75
9	Return on Equity	18.93	9,21	12.98	41.12
10	**Total**	**229.00**	**88.49**	**570.06**	**887.55**
11	Less: Expenses to be Capitalized	50.25	17.39	104.96	172.60
12	Total Costs	178.75	71.11	465.10	714.95
13	Truing Up Expense	10.28	4.09	26.75	41.12
14	**Total Cost including Truing Up**	**189.03**	**75.20**	**491.84**	**756.06**

A9: TARIFF PHILOSOPHY & DESIGN

Cost to Serve

9.1 In this Section, the Commission has elaborated on the detailed methodology and assumptions used for determination of the cost of supply giving reasons for the changes in assumptions, wherever applicable.

9.2 In the earlier Tariff Orders, the Commission had made an effort to reduce the cross-subsidies, by reducing the differential between the average revenue realisation and the cost of supply at the respective voltage. The Commission had also tried to ensure that no consumer category is subject to a tariff shock and reduction in cross-subsidy had to be in a gradual manner.

9.3 The tariffs proposed by the Board in ARR petition have little scientific basis as they are neither based on average cost nor on voltage wise cost of supply.

9.4 The Commission has developed a Cost to Serve Model based on information provided by the Board. In subsequent sections, detailed assumptions and the method of computation of the cost of supply for FY08 has been explained.

Assumptions

9.5 The Commission has considered the following assumptions

(a) Energy Input – Only the energy input into the state transmission system is required for intra state consumption and it has not considered energy sale outside the state.

(b) Energy flows through each voltage level to reach Low-Tension (LT) consumer. So the losses and costs at higher voltages are shared at lower voltages. It was an assumption due to lack of load flow study information and accurate power flow diagram outlining the flow of energy from one voltage to another.

(c) Category-wise sales have been allocated to different voltages in the same proportion based on past information, except for the categories where sales data at different voltages is available like Large Industries, Water Pumping, and Bulk Supply.

(d) As the Board has failed to submit authentic information on losses at different voltage level, the losses at EHT level have been estimated at 3.71% - similar to past year. The overall losses in the Board system for sales within the state has been benchmarked at 17.5% for FY08 - losses at 11 KV and above (HT) have been considered as 7.50% and resultant losses at voltage levels below 11 KV (LT) have been estimated at 21.60%.

(e) Cost segregation across voltage levels and consumer category wise is not available with the Commission. Segregation has been done based on the information provided by the Board in the past.

Methodology

9.6 Power Cost - The unit cost of generation and power purchase has been determined by dividing the total generation and power purchase cost with the total energy input into the system for the state's own consumption.

9.7 Cost of Supply to consumers at 66 kV and above has been determined by allocating the losses and cost according to the sales in this network (66 kV and above) and power wheeled through this network. Similarly, losses have been apportioned according to the sale at this system and the power wheeled through this system.

9.8 Cost of Supply to consumers at High Tension (11 kV and above) has been estimated by allocating costs and losses according to the sales to HT consumers and power wheeled to reach the LT network. It also proportionally includes the cost and losses incurred during the wheeling of power at 66 kV and above network.

9.9 Cost of Supply for the consumers at Low Tension (below 11 kV) level has been estimated by ascertaining the distribution cost (below 11 kV), losses (below 11 kV) and sales to LT consumers. It also includes the proportional costs (and losses) incurred for wheeling the power at higher voltage levels (from 220 kV till 11 kV).

Sales at various voltage levels

9.10 The sales at various voltage levels have been estimated based upon assumptions mentioned above, and are reproduced in the table below:

Table 75: Sales at Different Voltage Levels

S. No	Category	Total Sales (MU)	EHT (>=66kV)	HT (>=11kV)	LT (<11kV)
1	Domestic	1016	-	-	1016
2	NDNCS	74	-	22	52
3	Commercial	244	-	37	207
4	Small & Medium Industrial Power	162	-	-	162
5	Large Power Supply	2435	1141	1293	-
6	Power Intensive Units	510	281	230	
7	Water Pumping	346	-	52	294
8	Street Lighting	12	-	-	12
9	Agricultural and Allied Activities	26	-	-	26
10	Bulk supply	133	-	93	40
11	Temporary Supply	20	-	-	20

S. No	Category	Total Sales (MU)	EHT (>=66kV)	HT (>=11kV)	LT (<11kV)
	Total (inside State)	**4,978**	**1,422**	**1,727**	**1,829**

Losses at various voltage levels

9.11 As discussed earlier, the losses at each voltage level have been assessed on the basis of certain assumptions. The losses at each voltage level are brought out in the Table below:

Table 76: T&D Losses at Different Voltage Levels

S. No	Particular	T & D Loss
1	66 kV and above (EHT)	**3.7%**
2	11 kV and above (HT)	**7.5%**
3	Below 11 kV (LT)	**21.58%**
4	Total	17.5%

Note: As the Board has failed to submit authentic information on losses at different voltage level, the losses at EHT level have been estimated at 3.71% - similar to past year. The overall losses in the Board system for sales within the state has been benchmarked at 17.5% for FY08 - losses at 11 KV and above (HT) have been considered as 7.50% and resultant losses at voltage levels below 11 KV (LT) has been estimated at 21.58%.

Cost Segregation

9.12 All the costs are divided into Generation, Transmission, and Distribution, in the following manner.

9.13 Generation and Power purchase cost: The Commission has considered the approved generation and power purchase cost at Rs. 1264.39 Cr – Own generation cost at Rs. 189.02 Cr plus total cost of power purchase at Rs. 1075.37 Cr.

9.14 Transmission Cost: The Commission has approved transmission cost of Rs. 80.19 Cr, including Rs. 5 Cr, towards metering, billing and collection which is reflected in the distribution cost, as discussed earlier. This cost has been apportioned to the sale to industrial consumers, the power wheeled through this system and loss incurred in this network.

9.15 Distribution Cost: For arriving at the CoS, the Commission has considered the distribution cost of Rs. 486.84 Cr after deducting 5 Cr towards the metering, billing and collection cost incurred for the consumers in the transmission system. The distribution cost has further been divided into HT and LT network costs, according to the proportion of sales in these networks.

Table 77: Cost Allocation

Cost Head	Energy Wheeled (Excluding Losses) (In MUs) – A	Cost Allocation (Rs Cr) – B	Unit Cost (Rs/Unit) (B/A*10)	Applicable Categories
Generation cost	6034	1264.39	2.10	EHT, HT and LT
Transmission cost	6034	80.19	0.16	EHT, HT and LT
Distribution Cost => 11 kV	4389	236.40	0.66	HT and LT
Distribution Cost < 11 kV	2333	250.44	1.37	LT
Total		**1831.43**		

Table 78: Loss Allocation

Loss	Energy Wheeled (MU) - A	Loss (MU) – B	Loss (%) C = (B/A)*100	Gen Cost * C (Rs/Unit)	Applicable Categories
Transmission Loss	4978	224	4.50%	0.09	EHT, HT and LT
Distribution Loss(=>11 kV)	3556	329	9.26%	0.19	HT and LT
Distribution Loss(<11 kV)	1829	503	27.52%	0.58	LT

9.16 The approved CoS at different voltage level for determination of tariff is shown in the table below.

Table 79: Cost to Serve

S. No.	Particulars	Generation bus bar	EHT (>=66 kV)	HT (>=11kV)	LT (<11kV)	Total
1	Energy Input (MU)	6,034	6,034	4,389	2,333	-
2	Loss (MU)	-	224	329	503	1,056
3	Sales at respective level (MU)	-	1,422	1,727	1,829	4,978
4	Cost at respective level (Rs. Cr)	1264.39	80.19	236.40	250.44	1,831
5	Cost Allocation					-
	Generation Cost		2.10	2.10	2.10	-
	Transmission Cost		0.16	0.16	0.16	-
	Distribution Cost (>= 11 kV)			0.66	0.66	-
	Distribution Cost (< 11 kV)			-	1.37	-
6	Loss Allocation					-
	Transmission Loss Allocation	4.55%	0.09	0.09	0.09	-
	Distribution Loss Allocation (>11 kV)	9.43%	-	0.19	0.19	-

S. No.	Particulars	Generation bus bar	EHT (>=66 kV)	HT (>=11kV)	LT (<11kV)	Total
	Distribution Loss Allocation (<11 kV)	27.31%	-	-	0.58	-
7	**Cost of Supply**		**2.35**	**3.21**	**5.16**	**3.68***

*Rs 3.68 per unit is average cost of supply

Existing Level of Cross Subsidies

9.17 In the previous Tariff Orders for FY05, FY06 and FY07, the Commission had taken steps towards reduction of cross-subsidy and had attempted to align the tariffs with the cost of supply at various voltage levels. In attempting to align tariffs with the cost of supply, the Commission acknowledged the fact that though there is an urgent need for ensuring recovery of the cost of supply from the consumers to ensure fiscal sustainability of the Board, the exercise should not send tariff shocks to any class of consumers. Moreover, a certain minimum level of support would be required to be given to make electricity affordable for households in BPL category.

9.18 The Commission recognises that the estimation of cost of supply at different voltage levels would require extensive, reliable and credible data and information at different voltage levels and is a separate detailed exercise on its own. Nevertheless, the Commission has endeavoured to arrive at some estimates by making certain assumptions. In this Order, the Commission has extended the same principles as in previous years to compute the voltage-wise CoS for FY08 as given above.

Tariff Principles

9.19 The philosophy of tariff determination is primarily guided by the principles enshrined in Section 61 of the Electricity Act, 2003, Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2004 and the National Electricity Policy issued by Ministry of Power, GoI on February 12, 2005. The guiding principles as laid down in Section 61 of the Act are reproduced below:

(a) the principles and methodologies specified by the Central Commission for determination of the tariff applicable to generating companies and transmission licensees;

(b) the generation, transmission, distribution and supply of electricity are conducted on commercial principles;

(c) the factors which would encourage competition, efficiency economical use of the resources, good performance and optimum investments;

(d) safeguarding of consumers' interest and at the same time, recovery of the cost of electricity in a reasonable manner;

(e) the principles rewarding efficiency in performance;

(f) multi-year tariff principles;

(g) that the tariff progressively, reflects the cost of supply of electricity, and also reduces and eliminates cross-subsidies within the period to be specified by the Appropriate Commission;

(h) the promotion of co-generation and generation of electricity from renewable sources of energy;

(i) the National Electricity Policy and tariff policy.

9.20 The Commission has also laid down similar guiding factors for determination of tariff in its HPERC (Terms and Conditions for Determination of Tariff) Regulations, 2004 and Himachal Pradesh Electricity Regulatory Commission (Guidelines and Formats for Tariff Filing) Regulations, 2005.

9.21 Apart from these principles, the National Electricity Policy has also laid down emphasis on Multi-Year Tariff framework, segregation of technical and commercial losses, incentives for the use of pre-paid meters, putting in place the governance structure in distribution needed for ensuring recovery of cost of service from consumers, minimum level of support for consumers of poor categories, need to correct the imbalance on account of cross subsidy progressively and gradually without giving tariff shock to the consumers and above all, to promote competition which is the very essence of the Electricity Act. The National Electricity Policy also emphasises that advance subsidy be given by the State Government as per Section 65 of the Act to the power utility and mentions that necessary budgetary provision be made in advance so that the utilities do not suffer financial problems. The Electricity Policy further mentions of the need to make efforts to ensure that subsidies reach the targeted beneficiaries in the most transparent and efficient way.

9.22 The Board has submitted request to the Commission in its letter dated 7 March 2007 to introduce two part tariff structure in the peak load exemption charges to restrain the industrial consumers to take the peak load sanction without actually utilizing it and thus blocking the capacity of the substations of the Board unnecessarily.

9.23 The Commission has decided to introduce two part tariff structure in the peak load exemption charges. There will be additional monthly demand charges of Rs 50 per kVA for peak load exemption.

Approved Tariff Design

DS: Domestic Supply

9.24 The existing schedule is applicable to consumers using electrical energy for lights, fans, heaters, cooking ranges, ovens, refrigerators, air conditioners, stereos, radios, televisions, mixers, grinders, electric iron, sewing/embroidery/knitting machines, domestic pumping sets and other domestic appliances in a single private house/flat or any other residential premises, religious places with connected load upto 5 kW, Panchayat Ghars and Patwarkhanas upto 2 kW, Orphanages, homes for old people and destitute, Working Women Hostels, Hostels attached to the educational institutions if supply is given separately to each hostel and the electricity charges are recovered from the students based on actual consumption and Leprosy Homes run by charity and un-aided by the Government.

9.25 The Board has proposed no increase in the domestic category in its ARR.

9.26 As per the National Electricity Policy, the tariff for BPL consumer has to be designed at 50% of average cost of supply. As the average cost of supply is Rs 3.68 per unit, the tariff for BPL consumers has been increased and fixed at Rs 1.85 per unit.

9.27 The Commission had continued with two-slab tariff structure which was introduced in the Tariff Order for FY07.

9.28 The comparison of existing tariff, tariff proposed by the Board and that approved by the Commission for domestic category is given below:-

Table 80: Existing, Proposed and Approved Tariff for Domestic Category

Description	Existing		Proposed		Approved by Commission	
	Energy Charges	Consumer Service Charges	Energy Charges	Consumer Service Charges	Energy Charges	Consumer Service Charges
Units/Month	Rs/kWh	Rs/consumer/ month	Rs/kWh	Rs/consumer/ month	Rs/kWh	Rs/consumer/ month
BPL Consumer (Up to 50 units per month)	1.65	Nil	1.65	Nil	1.85	Nil
0-150	1.75	20	1.75	20	1.90	20
Above 150	2.65	20	2.65	20	2.90	20
Pre-paid meter	1.65		1.65		1.90	

9.29 The Govt. of Himachal Pradesh had provided subsidy to the Domestic Consumers last year (FY07). The Details of the given subsidy is shown below:

Table 81: Effective Domestic Tariff after GoHP subsidy for last year

S. No	Consumer Slab	Tariff for Last Year	Govt. of HP Subsidy (In Rs./Unit)	Effective Tariff for Consumer
1	>0 - <=150	1.75	1.05	0.70
2	>150 - <=300	2.65	1.25	1.40
3	>300	2.65	0.50	2.15

9.30 The Commission assumes that for the current year also (FY08) the Govt. of Himachal Pradesh will provide subsidy to keep the domestic tariff at last year's level. To keep the domestic tariff at effective tariff level for FY07, The GoHP may be required to provide following per unit subsidy:

Table 82: Effective slab wise per unit GoHP subsidy for FY06 to keep tariff at last year level

S. No	Consumer Slab	Tariff for Current Year	Govt. of HP Subsidy (In Rs./Unit)	Effective Tariff for Consumer
1	>0 - <=150	1.90	1.20	0.70
2	>150 - <=300	2.90	1.50	1.40
3	>300	2.90	0.75	2.15

9.31 The Commission has increased the tariff for Domestic category as the average cost of supply for state consumers has increased by 13% in FY08 in comparison of FY07.

9.32 Due to the increased tariff, consumers in this category will get an additional burden of Rs. 17.03 Cr.

Table 83: Impact of proposed Tariff on Domestic Category

Total Projected Revenue at Existing Tariff (Rs Cr)	Total Projected Revenue at Proposed Tariff (Rs Cr)	Net Impact of Proposed Tariff (Rs Cr)
230.80	247.84	17.03

9.33 The rebates and surcharges have been detailed in 'Part-1 General of Annexure II', and have been listed below:

(a) **Higher Voltage Supply Rebate (HVSR):** Applicable as specified under 'Part-1 General of Annexure II'.

(b) **Lower Voltage Supply Surcharge (LVSS):** Applicable as specified under 'Part-1 General of Annexure II'.

(c) **Lower Voltage Metering Surcharge (LVMS):** Applicable as specified under 'Part-1 General of Annexure II'.

(d) **Late Payment Surcharge (LPS):** Applicable as specified under 'Part-1

General of Annexure II'.

(e) **Night Time Concession (NTC):** Applicable @ 20 paise/kWh as specified under 'Part-1 General of this Annexure II'.

(f) **Power Factor Surcharge (PFS):** Not Applicable.

(g) **Disturbing Load Penalty (DLP):** Applicable as specified under 'Part-1 General of this Annexure II'.

Non Domestic Non Commercial Supply

9.34 This schedule is applicable to Govt and semi Government offices, Government Hospitals, Educational Institutions viz. Schools, Universities; I.T.Is, Colleges, Government Sports Institutions, Government Mountaineering Institutions and allied sports, Government Libraries, Hostels and residential quarters attached to the educational institutions if supply is given at a single point; Religious places such as Temples, Gurudwaras, Mosques, Churches with connected load greater than 5 kW, Sainik and Government Rest Houses, Anganwari workers training centres; Hospitals run on charity basis; Sarais and Dharamsalas run by Panchayats and Municipal Committees or on donations and those attached with religious places; and Panchayat Ghars and Patwar Khana greater than 2 kW.

NOTE: In the case of residences attached to the Government as well as private Institutions, the same shall be charged at the 'Domestic tariff' where further distribution to such residential premises is undertaken by the Board and the Board provides meters for individual consumers.

9.35 The Board has proposed to create new category i.e. Public Welfare Institution for all the Govt. health institutions & hostels, Govt. educational institutions & hostels, Govt. hospitals which are presently covered under NDNC, which has not been agreed to by the Commission for reasons mentioned at para 4.46.

9.36 The Board has retained the existing tariff structure in its petition and proposed to increase energy charges by 20 paisa per kWh for 0-20 KW slab and 15 paisa per kVAh for above 20 KW slab.

9.37 The Commission has increased energy charges by 10 paisa per kWh for 0-20 KW slab and 10 paisa per kVAh for above 20 KW slab for FY08 in comparison to FY07. Consumer service charges and demand charges are kept at existing levels.

9.38 The comparison of existing tariff, tariff proposed by the Board and that approved by the Commission is given in the tables below: -

Table 84: Existing, Proposed and Approved Tariff for NDNCS Category (Up to 20kW)

Existing	Proposed	Approved by the Commission

Energy Charge	Consumer service charge	Energy Charge	Consumer Service Charge	Energy Charge	Consumer Service Charge
Rs./kWh	Rs/consumer/ month	Rs./kWh	Rs/consumer/ month	Rs./kWh	Rs/consumer/ month
3.65	50	3.85	50	3.75	50

Table 85: Existing, Proposed and Approved Tariff for NDNCS Category (Above 20kW)

Existing			Proposed			Approved by the Commission		
Energy Charge	Consumer Service charge	Demand Charge	Energy Charge	Consumer Service charge	Demand Charges	Energy Charge	Consumer Service charge	Demand Charge
Rs./kVAh	Rs./con./ month	Rs./kVAh /month	Rs./kWh	Rs./con./ month	Rs./kVAh /month	Rs./kVAh	Rs./con./ month	Rs./kVAh /month
2.95	100	75	3.10	100	75	3.00	100	75

9.39 The Commission has increased the tariff for NDNCS category as the average cost of supply for state consumers has increased by 13% in FY08 in comparison of FY07.

9.40 Due to the increased tariff, consumers in this category will get an additional burden of Rs. 0.58 Cr.

Table 86: Impact of proposed Tariff on NDNCS Category

Total Projected Revenue at Existing Tariff (Rs Cr)	Total Projected Revenue at Proposed Tariff (Rs Cr)	Net Impact of Proposed Tariff (Rs Cr)
28.23	28.81	0.58

9.41 The rebates and surcharges have been detailed in 'Part-1 General of Annexure II', and have been listed below:

(a) **Higher Voltage Supply Rebate (HVSR):** Applicable as specified under 'Part-1 General of Annexure II'.

(b) **Lower Voltage Supply Surcharge (LVSS):** Applicable as specified under 'Part-1 General of Annexure II'.

(c) **Lower Voltage Metering Surcharge (LVMS):** Applicable as specified under 'Part-1 General of Annexure II'.

(d) **Late Payment Surcharge (LPS):** Applicable as specified under 'Part-1 General of Annexure II'.

(e) **Contract Demand Violation Charge:** Applicable as specified under 'Part-1 General of Annexure II'

(f) **Night Time Concession (NTC):** Applicable @ 20 paise/kVAh as applicable as specified under 'Part-1 General of Annexure II'.

(g) **Power Factor Surcharge (PFS):** Not Applicable.

(h) **Disturbing Load Penalty (DLP):** Applicable as specified under ‘Part-1 General of Annexure II’.

(i) **Peak Load Exemption Charges (PLEC):** Not Applicable.

(j) **Peak Load Violation Charges (PLVC):** Not Applicable.

Commercial Supply (CS)

9.42 This schedule is applicable to consumers for lights, fans, appliances like pumping sets, central air conditioning plants, lifts, heaters, embroidery machines, printing press, power press and small motors in all Commercial premises such as shops, business houses, cinemas, clubs, banks, private offices, private hospitals, petrol pumps, hotels/motels, welding sets, service stations, private nursing homes, private rest/guest houses, private research institutions, private coaching institutions, private museums, dry cleaning, garages and private auditoriums, departmental stores, restaurants, lodging and boarding houses. This schedule will also include all other categories, which are not covered by any other tariff schedule.

9.43 The Board has retained the existing tariff structure in its petition and proposed to increase energy charges by 20 paisa per kWh for 0-20 KW slab and 15 paisa per kVAh for 20 KW-100 KW and above 100 KW slabs.

9.44 The Commission has increased energy charges by 10 paisa per kWh for 0-20 KW slab and by 10 paisa per kVAh for 20 KW-100 KW and above 100 KW slabs for FY08 in comparison of FY07. Consumer service charges and demand charges are kept at existing levels.

9.45 The existing tariff, tariff proposed by the Board and tariff approved by the Commission are given in the tables below.

Table 87: Existing, Proposed and Approved Tariff for CS Category (Up to 20kW)

Existing		Proposed		Approved by the Commission	
Energy Charge	Consumer service charge	Energy Charge	Consumer Service Charge	Energy Charge	Consumer Service Charge
Rs./kWh	Rs/cons/month	Rs./kWh	Rs/cons/month	Rs./kWh	Rs/cons/month
4.00	50	4.20	50	4.10	50

Table 88: Existing, Proposed and Approved Tariff for CS Category (Above 20kW)

Slab	Existing			Proposed			Approved by the Commission		
	Energy Charges	Service Charges	Demand Charges	Energy Charges	Service Charges	Demand Charges	Energy Charges	Service Charges	Demand Charges
	Rs/kVAh	Rs/con/ month	Rs/kVAh /month	Rs/kVAh	Rs/con/ month	Rs/kVAh /month	Rs/kVAh	Rs/con/ month	Rs/kVAh /month

20-100 kW	3.20	100	75	3.35	100	75	3.30	100	75
Above 100kW	3.00	200	100	3.15	100	75	3.10	200	100

9.46 In case of unauthorised mobile welding sets, the consumer will pay Rs. 20 per kW per day, in addition to the energy charges.

9.47 The Commission has increased the tariff for CS category as the average cost of supply for state consumers has increased by 13% in FY08 in comparison of FY07.

9.48 Due to the increased tariff, consumers in this category will get an additional burden of Rs. 2.52 Cr.

Table 89: Impact of proposed Tariff on CS Category

Total Projected Revenue at Existing Tariff (Rs Cr)	Total Projected Revenue at Proposed Tariff (Rs Cr)	Net Impact of Proposed Tariff (Rs Cr)
111.62	114.14	2.52

9.49 The applicable rebates and surcharges have been detailed in 'Part-1 General of Annexure II', and have been listed below:

(a) **Higher Voltage Supply Rebate (HVSR):** Applicable as specified under 'Part-1 General of Annexure II'.

(b) **Lower Voltage Supply Surcharge (LVSS):** Applicable as specified under 'Part-1 General of Annexure II'.

(c) **Lower Voltage Metering Surcharge (LVMS):** Applicable as specified under 'Part-1 General of Annexure II'.

(d) **Late Payment Surcharge (LPS):** Applicable as specified under 'Part-1 General of Annexure II'.

(e) **Contract Demand Violation Charge:** Applicable as specified under 'Part-1 General of Annexure II'

(f) **Night Time Concession (NTC):** Applicable @ 20 paise/kVAh as applicable as specified under 'Part-1 General of Annexure II'.

(g) **Power Factor Surcharge (PFS):** Not Applicable.

(h) **Disturbing Load Penalty:** Applicable as specified under 'Part-1 General of Annexure II'.

(i) **Peak Load Exemption Charges (PLEC):** Not Applicable.

(j) **Peak Load Violation Charges (PLVC):** Not Applicable.

Small and Medium Industrial Power Supply (SMS)

9.50 This schedule is applicable to Industrial consumers with connected load not exceeding 100 kW including pumps (other than irrigation pumping), poultry farms and sheds, Atta Chakkies, and also for supply to Information Technology Industry, limited only to IT Parks recognised by the State/Central Government. The Industrial type of Agricultural loads with connected load falling in the above-mentioned range and not covered by Schedule "AAA" shall also be charged under this schedule.

9.51 The Board has retained the existing tariff structure in its petition and proposed to increase energy charges by 10 paisa per kWh for 0-20 KW slab and 15 paisa per kVAh for above 20KW slabs.

9.52 The Commission has increased energy charges by 10 paisa per kWh for 0-20 KW slab and by 10 paisa per kVAh for above 20KW slabs for FY08 in comparison of FY07. Consumer service charges and demand charges are kept at existing levels. There will be additional monthly demand charges of Rs 50 per kVA for peak load exemption (on load exempted during peak hours).

9.53 The existing tariff, tariff proposed by the Board and tariff approved by the Commission are given in the tables below.

Table 90: Existing, Proposed and Approved Tariff for SMS Category (Up to 20kW)

Existing		Proposed		Approved by the Commission	
Energy Charge	Consumer service charge	Energy Charge	Consumer Service Charge	Energy Charge	Consumer Service Charge
Rs./kWh	Rs/consumer/ month	Rs./kWh	Rs/consumer/ month	Rs./kWh	Rs/consumer/ month
3.40	50	3.50	50	3.50	50

Table 91: Existing, Proposed and Approved Tariff for SMS Category (Above 20kW)

Existing			Proposed			Approved by the Commission		
Energy Charge	Consumer Service charge	Demand Charge	Energy Charge	Consumer Service charge	Demand Charges	Energy Charge	Consumer Service charge	Demand Charge
Rs./kVAh	Rs./con./	Rs./kVAh/	Rs./kWh	Rs./con./	Rs./kVAh/	Rs./kVAh	Rs./con./	Rs./kVAh/

	month	month		month	month		month	month
2.75	100	75	2.90	100	75	2.85	100	75

9.54 The Commission has increased the tariff for SMS category as the average cost of supply for state consumers has increased by 13% in FY08 in comparison of FY07.

9.55 Due to the increased tariff, consumers in this category will get an additional burden of Rs. 1.85 Cr.

Table 92: Impact of proposed Tariff on SMS Category

Total Projected Revenue at Existing Tariff (Rs Cr)	Total Projected Revenue at Proposed Tariff (Rs Cr)	Net Impact of Proposed Tariff (Rs Cr)
61.62	63.47	1.85

9.56 The rebates and surcharges have been detailed in 'Part-1 General of Annexure II', and have been listed below:

(a) **Higher Voltage Supply Rebate (HVSR):** Applicable as specified under 'Part-1 General of Annexure II'.

(b) **Lower Voltage Supply Surcharge (LVSS):** Applicable as specified under 'Part-1 General of Annexure II'.

(c) **Lower Voltage Metering Surcharge (LVMS):** Applicable as specified under 'Part-1 General of Annexure II'.'

(d) **Late Payment Surcharge (LPS):** Applicable as specified under 'Part-1 General of Annexure II'.

(e) **Contract Demand Violation Charge:** Applicable as specified under 'Part-1 General of Annexure II'.

(f) **Late Payment Surcharge (LPS):** Applicable as specified under 'Part-1 General of Annexure II'.

(g) **Night Time Concession (NTC):** Applicable @ 20 paise/kVAh as applicable as specified under 'Part-1 General of Annexure II'.

(h) **Power Factor Surcharge (PFS):** Applicable as specified under 'Part-1 General of Annexure II'.

(i) **Disturbing Load Penalty (DLP):** Not Applicable.

(j) **Peak Load Exemption Charges (PLEC):** Applicable as specified under 'Part-I General of Annexure II'.

(k) **Peak Load Violation Charges (PLVC):** Applicable as specified under 'Part-I General of Annexure II'.

9.57 All consumption for bonafide factory lighting, i.e., energy consumed in factory premises including factory building, its offices, stores, time keeper office, canteen, library, staff dispensary, welfare centre and factory yard lighting shall be charged under this tariff schedule. The consumption for bonafide use of residential/staff quarters and street lighting of the colony shall also be charged under this tariff schedule if the supply is not taken separately but taken at the same single supply point of the industry. Such consumption shall be charged for the energy consumed at the following rates, irrespective of whether the consumer has opted for peak time consumption or not:

(a) During normal times : normal rate

(b) During peak times: the PLEC rate

(c) During night time : the night time rate

9.58 If supply for colony lighting / residences is taken separately than the same shall be charged as per the relevant category under this schedule of tariff.

Large Industrial Power Supply

9.59 This schedule is applicable to all industrial power consumers with connected load exceeding 100 KW including the Information Technology industry (limited only to IT parks recognized by the State/Central Government) and not covered by schedule "PIU" or "AAAS".

9.60 The Board has retained the two part tariff structure in its petition and proposed to increase energy charges for EHT by 45 paisa per kVAh and for HT by 40 paisa per kVAh. It has proposed to increase demand charges for EHT from Rs 170/kVAh/month to Rs 205/kVAh/month and for HT from 200/kVAh/month to 225/kVAh/month. It has also proposed to increase Consumer Service charges for EHT from Rs 300/Consumer/month to Rs 350/Consumer/month and for HT from Rs 200/Consumer/month to Rs 250/Consumer/month.

9.61 The Commission has increased energy charges by 15 paisa per kVAh for EHT and HT consumers for FY08 in comparison of FY07. The Commission has also increased demand charges for EHT from Rs 170/kVAh/month to Rs 185/kVAh/month and for HT from Rs 200/kVAh/month to Rs 225/kVAh/month. Consumer Service charges has been kept at existing levels. There will be additional monthly demand charges of Rs 50 per kVA for peak load exemption (on the exempted load during peak hours).

9.62 The existing tariff, tariff proposed by the Board and tariff approved by the Commission are given in the table below:-

Table 93: Existing, Proposed and Approved Tariff for LS Category

	Existing			Proposed			Approved by the Commission		
	Energy Charges	Service Charges	Demand Charges	Energy Charges	Service Charges	Demand Charges	Energy Charges	Service Charges	Demand Charges
	Rs/kVAh	Rs/con/ month	Rs/kVAh /month	Rs/kVAh	Rs/con/ month	Rs/kVAh /month	Rs/kVAh	Rs/con/ month	Rs/kVAh /month
EHT	2.00	300	170	2.45	350	205	2.15	300	185
HT	2.10	200	200	2.50	250	225	2.25	200	225

9.63 The Commission has increased the tariff for LS category as the average cost of supply for state consumers has increased by 13% in FY08 in comparison of FY07.

9.64 Due to the increased tariff, consumers in this category will get an additional burden of Rs. 45.80 Cr.

Table 94: Impact of proposed Tariff on LS Category

Total Projected Revenue at Existing Tariff (Rs Cr)	Total Projected Revenue at Proposed Tariff (Rs Cr)	Net Impact of Proposed Tariff (Rs Cr)
614.70	660.50	45.80

9.65 The rebates and surcharges have been detailed in ‘Part-1 General of Annexure II’, and have been listed below:

(a) **Higher Voltage Supply Rebate (HVSR)**: Applicable as specified under ‘Part-1 General of Annexure II’.

(b) **Lower Voltage Supply Surcharge (LVSS)**: Applicable as specified under ‘Part-1 General of Annexure II’.

(c) **Lower Voltage Metering Surcharge (LVMS)**: Applicable as specified under ‘Part-1 General of Annexure II’.

(d) **Late Payment Surcharge (LPS)**: Applicable as specified under ‘Part-1 General of Annexure II’.

(e) **Contract Demand Violation Charge**: Applicable as specified under ‘Part-1 General of Annexure II’.

(f) **Night Time Concession (NTC)**: Applicable @ 20 paise/kVAh as specified under ‘Part-1 General of Annexure II’.

(g) **Power Factor Surcharge (PFS)**: Applicable as specified under ‘Part-1 General of Annexure II’.

(h) **Disturbing Load Penalty (DLP)**: Applicable as specified under ‘Part-1 General of Annexure II’.

(i) **Peak Load Exemption Charges (PLEC):** Applicable as specified under 'Part-I General of Annexure II'.

(j) **Peak Load Violation Charges (PLVC):** Applicable as specified under 'Part-I General of Annexure II'.

9.66 All consumption for bonafide factory lighting i.e. energy consumed in factory premises including factory building, its offices, stores, time keeper office, canteen, library, staff dispensary, welfare centre and factory yard lighting shall be charged under this tariff schedule. The consumption for bonafide use of residential/staff quarters and street lighting of the colony shall also be charged under this tariff schedule if supply is taken at a single point. Such consumption shall be charged for the energy consumed at the following rates, irrespective of whether the consumer has opted for peak time consumption or not:

(a) During normal times: normal rate

(b) During peak times: the PLEC rate

(c) During night time : the night time rate

9.67 If supply for colony and/or its residences is taken separately then the same shall be charged as per the relevant consumer category of this schedule of tariff.

Power Intensive Units

9.68 The schedule is applicable to all power intensive industries – mini steel plants, rolling mills, re-rolling mills, mini steel plants with rolling mills, sponge iron plants, ferro alloys/ferro silicon units, ferro manganese, ferrochrome, sodium metal, caustic soda, calcium carbide, silicon carbide, potassium/sodium chlorate and arc/induction furnaces with connected load exceeding 100kW.

9.69 The Board has retained the two part tariff structure in its petition and proposed to increase energy charges for EHT by 65 paisa per kVAh and for HT by 60 paisa per kVAh. It has proposed to increase demand charges for EHT from Rs 250/kVAh/month to Rs 290/kVAh/month and for HT from 330/kVAh/month to 350/kVAh/month. It has also proposed to increase Consumer Service charges for EHT from Rs 300/Consumer/month to Rs 350/Consumer/month and for HT from Rs 200/Consumer/month to Rs 300/Consumer/month.

9.70 The Commission has increased energy charges by 40 paisa per kVAh for EHT and HT consumers for FY08 in comparison of FY07. The Commission has also decreased demand charges for EHT from Rs 250/kVAh/month to Rs 185/kVAh/month and for HT from Rs 330/kVAh/month to Rs 225/kVAh/month. Consumer Service charges has been kept at existing levels. There will be additional monthly demand charges of Rs 50 per kVA for peak load exemption (on load exempted during peak hours).

Table 95: Existing, proposed and Approved Tariff for PIU Category

	Existing			Proposed			Approved by the Commission		
	Energy Charges	Service Charges	Demand Charges	Energy Charges	Service Charges	Demand Charges	Energy Charges	Service Charges	Demand Charges
	Rs/kVAh	Rs/con/ month	Rs/kVAh /month	Rs/kVAh	Rs/con/ month	Rs/kVAh /month	Rs/kVAh	Rs/con/ month	Rs/kVAh /month
EHT	2.00	300	250	2.65	350	290	2.40	300	185
HT	2.10	200	330	2.70	300	350	2.50	200	225

9.71 The Commission has increased the tariff for PIU category as the average cost of supply for state consumers has increased by 13% in FY08 in comparison of FY07.

9.72 Due to the increased tariff, consumers in this category will get an additional burden of Rs. 3.24 Cr.

Table 96: Impact of proposed Tariff on PIU Category

Total Projected Revenue at Existing Tariff (Rs Cr)	Total Projected Revenue at Proposed Tariff (Rs Cr)	Net Impact of Proposed Tariff (Rs Cr)
176.29	179.53	3.24

9.73 The rebates and surcharges have been detailed in 'Part-1 General of Annexure II', and have been listed below:

(a) **Higher Voltage Supply Rebate (HVSR)**: Applicable as specified under 'Part-1 General of Annexure II'.

(b) **Lower Voltage Supply Surcharge (LVSS)**: Applicable as specified under 'Part-1 General of Annexure II'.

(c) **Lower Voltage Metering Surcharge (LVMS)**: Applicable as specified under 'Part-1 General of Annexure II'.

(d) **Late Payment Surcharge (LPS)**: Applicable as specified under 'Part-1 General of Annexure II'.

(e) **Contract Demand Violation Charge**: Applicable as specified under 'Part-1 General of Annexure II'

(f) **Night Time Concession (NTC)**: Applicable @ 20 paise/kVAh as specified under 'Part-1 General of Annexure II'.

(g) **Power Factor Surcharge (PFS)**: Applicable as specified under 'Part-1 General of Annexure II'.

(h) **Disturbing Load Penalty (DLP)**: Applicable as specified under 'Part-1

General of Annexure II'.

(i) **Peak Load Exemption Charges (PLEC):** Applicable as specified under 'Part-I General of Annexure II'.

(j) **Peak Load Violation Charges (PLVC):** Applicable as specified under 'Part-I General of Annexure II'.

9.74 All consumption for bonafide factory lighting i.e. energy consumed in factory premises including factory building, its offices, stores, time keeper office, canteen, library, staff dispensary, welfare centre and factory yard lighting shall be charged under this tariff schedule. The consumption for bonafide use of residential/staff quarters and street lighting of the colony shall also be charged under this tariff schedule if supply is taken at a single point. Such consumption shall be charged for the energy consumed at the following rates, irrespective of whether the consumer has opted for peak time consumption or not:

(a) During normal times: normal rate

(b) During peak times: the PLEC rate

(c) During night time: the night time rate

9.75 If supply for colony and/or its residences is taken separately then the same shall be charged as per the relevant consumer category of this schedule of tariff.

Water Pumping Supply (WPS)

9.76 The existing schedule is applicable to Government connections for water and irrigation pumping. The schedule also covers all consumption for bonafide Pump House lighting.

9.77 The Board has proposed no changes in tariff for WPS category.

9.78 The Commission has increased the energy charges LT and HT consumers by 40 paisa per kVAh and 30 paisa per kVAh for EHT consumers in this category for FY08 in comparison of FY07. The Commission has also increased demand charges for LT from Rs 175/kVAh/month to Rs 200/kVAh/month, for HT from Rs 125/kVAh/month to Rs 150/kVAh/month and for EHT from Rs 100/kVAh/month to Rs 120/kVAh/month. Consumer Service charges has been kept at existing levels. There will be additional monthly demand charges of Rs 50 per kVA for peak load exemption (on load exempted during peak hours).

9.79 The existing tariff, tariff proposed by the Board and tariff approved by the Commission is given in the table below:-

Table 97: Existing, Proposed and Approved Tariff for WPS Category

	Existing			Proposed			Approved by the Commission		
	Energy Charges	Service Charges	Demand Charges	Energy Charges	Service Charges	Demand Charges	Energy Charges	Service Charges	Demand Charges
	Rs/kVAh	Rs/con/ month	Rs/kVAh /month	Rs/kVAh	Rs/con/ month	Rs/kVAh /month	Rs/kVAh	Rs/con/ month	Rs/kVAh /month
LT	2.80	100	175	2.60	100	175	3.00	100	200
HT	2.20	100	125	2.40	100	125	2.40	100	150
EHT	2.00	100	100	1.8	100	100	2.10	100	120

9.80 The Commission has increased the tariff for WPS category as the average cost of supply for state consumers has increased by 13% in FY08 in comparison of FY07.

9.81 Due to the increased tariff, consumers in this category will get an additional burden of Rs. 11.07 Cr.

Table 98: Impact of proposed Tariff on WPS Category

Total Projected Revenue at Existing Tariff (Rs Cr)	Total Projected Revenue at Proposed Tariff (Rs Cr)	Net Impact of Proposed Tariff (Rs Cr)
122.46	133.53	11.07

9.82 The applicable rebates and surcharges have been detailed in 'Part-1 General of Annexure II', and have been listed below:

(a) **Higher Voltage Supply Rebate (HVSR)**: Applicable as specified under 'Part-1 General of Annexure II'.

(b) **Lower Voltage Supply Surcharge (LVSS)**: Applicable as specified under 'Part-1 General of Annexure II'.

(c) **Lower Voltage Metering Surcharge (LVMS)**: Applicable as specified under 'Part-1 General of Annexure II'.

(d) **Late Payment Surcharge (LPS)**: Applicable as specified under 'Part-1 General of Annexure II'.

(e) **Contract Demand Violation Charge**: Applicable as specified under 'Part-1 General of Annexure II'.

(f) **Night Time Concession (NTC)**: Applicable 20 paise/kVAh as applicable as specified under 'Part-1 General of Annexure II'.

(g) **Power Factor Surcharge (PFS)**: Applicable as specified under 'Part-1 General of Annexure II'.

(h) **Disturbing Load Penalty (DLP)**: Applicable as specified under 'Part-1

General' of Annexure II.

(i) **Peak Load Exemption Charges (PLEC):** Applicable as specified under 'Part-I General of Annexure II'.

(j) **Peak Load Violation Charges (PLVC):** Applicable as specified under 'Part-I General of Annexure II'.

Agriculture and Allied Activities Supply (AAAS)

9.83 This schedule shall be applicable to private Irrigation Pumping loads with connected load not exceeding 20 kW. Private Irrigation loads in individual /Society's names above 20 kW are also covered under this tariff.

9.84 This schedule shall also be applicable to green houses, poly houses, processing facilities for agriculture, pisciculture, horticulture, floriculture and sericulture etc. where all such activities are undertaken by farmers only under this category. This schedule will also be applicable to temporary agricultural loads such as wheat threshers, paddy threshers, tokas, cane crushers.

9.85 The Board has proposed single part tariff for AAAS category and not proposed any tariff increase. The existing tariff, tariff proposed by the Board and tariff approved by the Commission for AAAS is given in the table below:-

Table 99: Existing, Proposed and Approved Tariff for AAAS Category (Up to 20kW)

Existing		Proposed		Approved by the Commission	
Energy Charge	Consumer service charge	Energy Charge	Consumer Service Charge	Energy Charge	Consumer Service Charge
Rs./kWh	Rs/consumer/ month	Rs./kWh	Rs/consumer/ month	Rs./kWh	Rs/consumer/ month
1.65	20	1.65	20	1.85	20

Table 100: Existing, Proposed and Approved Tariff for AAAS Category (Above 20kW)

Existing			Proposed		Approved by the Commission		
Energy Charge	Consumer Service charge	Demand Charge	Energy Charge	Consumer Service charge	Energy Charge	Consumer Service charge	Demand Charge
Rs./kVAh	Rs./con./ month	Rs./kVAh/ month	Rs./kWh	Rs./con./ month	Rs./kVAh	Rs./con./ month	Rs./kVAh/ month

Existing			Proposed		Approved by the Commission		
Energy Charge	Consumer Service charge	Demand Charge	Energy Charge	Consumer Service charge	Energy Charge	Consumer Service charge	Demand Charge
Rs./kVAh	Rs./con./ month	Rs./kVAh/ month	Rs./kWh	Rs./con./ month	Rs./kVAh	Rs./con./ month	Rs./kVAh/ month
1.00	20	50	1.65	20	1.20	20	50

9.86 As per the National Electricity Policy, the tariff for any category has to be kept at least at 50% of average cost of supply. As the average cost of supply is Rs 3.68 per unit, the tariff for Agriculture consumers has been increased and fixed at Rs 1.85 per unit.

9.87 The rebates and surcharges have been detailed in 'Part-1 General of Annexure II', and have been listed below:

(a) **Higher Voltage Supply Rebate (HVSR):** Applicable as specified under 'Part-1 General of Annexure II'.

(b) **Lower Voltage Supply Surcharge (LVSS):** Applicable as specified under 'Part-1 General of Annexure II'.

(c) **Lower Voltage Metering Surcharge (LVMS):** Applicable as specified under 'Part-1 General of Annexure II'.

(d) **Late Payment Surcharge (LPS):** Applicable as specified under 'Part-1 General of Annexure II'.

(e) **Contract Demand Violation Charge:** Applicable as specified under 'Part-1 General of Annexure II'.

(f) **Night Time Concession (NTC):** Applicable @ 20 p/kVAh as specified under 'Part-1 General of Annexure II'.

(g) **Power Factor Surcharge (PFS):** Applicable as specified under 'Part-1 General of Annexure II'.

(h) **Disturbing Load Penalty (DLP):** Applicable as specified under 'Part-1 General' of Annexure II.

(i) **Peak Load Exemption Charges (PLEC):** Applicable as specified under 'Part-I General of Annexure II'.

(j) **Peak Load Violation Charges (PLVC):** Applicable as specified under 'Part-I General of Annexure II'.

Bulk Supply

9.88 This schedule is applicable to general or mixed loads to M.E.S and other Military establishments, Railways, Central PWD Institutions, Hospitals, Departmental colonies, A.I.R Installations, Aerodromes, construction power to hydroelectric projects and other similar establishments where further distribution to various residential and non-residential buildings is to be undertaken by the consumers for their own bonafide use and not for resale to other consumers with or without profit. However, in case of MES, this schedule shall continue to apply till such time M.E.S. do not avail open access.

9.89 The Board has proposed a hike of 15 paisa per kVAh in Energy charges for both LT and 10 paisa per kVAh HT consumers in this category.

9.90 The Commission has increased energy charges by 25 paisa per kVAh for HT and LT consumers for FY08 in comparison of FY07. The Commission has increased demand charges for HT from Rs 125/kVAh/month to Rs 150/kVAh/month and for LT from Rs 175/kVAh/month to Rs 200/kVAh/month. Consumer Service charges has been kept at existing levels.

9.91 The Commission has introduced EHT consumers as a separate group under Bulk Supply. The existing tariff, tariff proposed by the Board and tariff approved by the Commission is given in the table below: -

Table 101: Existing, Proposed and Approved Tariff for Bulk Supply Category

	Existing			Proposed			Approved by the Commission		
	Energy Charges	Service Charges	Demand Charges	Energy Charges	Service Charges	Demand Charges	Energy Charges	Service Charges	Demand Charges
	Rs/kVAh	Rs/con/ month	Rs/kVAh /month	Rs/kVAh	Rs/con/ month	Rs/kVAh /month	Rs/kVAh	Rs/con/ month	Rs/kVAh /month
LT	2.70	100	175	2.85	100	175	2.95	100	200
HT	2.00	100	125	2.10	100	125	2.25	100	150
EHT	--	--	--	--	--	--	2.15	100	140

9.92 The Commission has increased the tariff for BS category as the average cost of supply for state consumers has increased by 13% in FY08 in comparison of FY07.

9.93 Due to the increased tariff, consumers in this category will get an additional burden of Rs. 4.75 Cr.

Table 102: Impact of proposed Tariff on Bulk Supply Category

Total Projected Revenue at Existing Tariff (Rs Cr)	Total Projected Revenue at Proposed Tariff (Rs Cr)	Net Impact of Proposed Tariff (Rs Cr)
38.81	43.56	4.75

9.94 The rebates and surcharges have been detailed in 'Part-1 General of Annexure II', and have been listed below:

(a) **Higher Voltage Supply Rebate (HVSR):** Applicable as specified under 'Part-1 General of Annexure II'.

(b) **Lower Voltage Supply Surcharge (LVSS):** Applicable as specified under 'Part-1 General of Annexure II'.

(c) **Lower Voltage Metering Surcharge (LVMS):** Applicable as specified under 'Part-1 General of Annexure II'.

(d) **Late Payment Surcharge (LPS):** Applicable as specified under 'Part-1 General of Annexure II'.

(e) **Night Time Concession (NTC):** Applicable @ 20 p/kVAh as specified under 'Part-1 General of Annexure II'.

(f) **Contract Demand Violation Charge:** Applicable as specified under 'Part-1 General of Annexure II'.

(g) **Power Factor Surcharge (PFS):** Not Applicable.

(h) **Disturbing Load Penalty (DLP):** Not Applicable.

(i) **Peak Load Exemption Charges (PLEC):** Not Applicable.

(j) **Peak Load Violation Charges (PLVC):** Not Applicable.

Street Lighting Supply

9.95 This schedule is applicable for Street Lighting system including traffic control signal systems on roads and Park lighting in Municipalities, Panchayats and Notified Committee areas.

9.96 The Board has proposed no change in tariff for this category. The Commission has also kept tariff this category at existing levels. The existing, proposed and the tariff approved by the Commission is given as under :-

Table 103: Existing, Proposed and Approved Tariff for Street Lighting Supply Category

Existing		Proposed		Approved by the Commission	
Energy Charge	Consumer service charge	Energy Charge	Consumer Service Charge	Energy Charge	Consumer Service Charge
Rs./kWh	Rs/consumer/ month	Rs./kWh	Rs/consumer/ month	Rs./kWh	Rs/consumer/ month
3.10	50	3.10	50	3.10	50

9.97 The rebates and surcharges have been detailed in 'Part-1 General of Annexure II', and have been listed below:

(a) **Higher Voltage Supply Rebate (HVSR):** Applicable as specified under 'Part-1 General of Annexure II'.

(b) **Lower Voltage Supply Surcharge (LVSS):** Applicable as specified under 'Part-1 General of Annexure II'.

(c) **Lower Voltage Metering Surcharge (LVMS):** Applicable as specified under 'Part-1 General of Annexure II'.

(d) **Late Payment Surcharge (LPS):** Applicable as specified under 'Part-1 General of Annexure II'.

(e) **Night Time Concession (NTC):** Not Applicable.

(f) **Power Factor Surcharge (PFS):** Not Applicable.

(g) **Disturbing Load Penalty (DLP):** Not Applicable.

(h) **Peak Load Exemption Charges (PLEC):** Not Applicable.

(i) **Peak Load Violation Charges (PLVC):** Not Applicable.

Temporary Metered Supply

9.98 This schedule is applicable to all loads of temporary nature including exhibitions, touring talkies, circuses, fairs, melas, marriages, festivals, temporary supply for construction purposes including civil works by Government departments and other similar purposes for temporary needs only. However, this tariff is not applicable to wheat threshers and paddy threshers which shall be covered under Agriculture and Allied Activities Supply (AAAS) even for temporary connection.

9.99 The Board has proposed no change in tariff for this category. The Commission has also kept tariff of this category at existing levels. The existing, proposed and the tariff approved by the Commission is given as under: -

Table 104: Existing, Proposed and Approved Tariff for Temporary Meter Category (Up to 20 KW)

Existing		Proposed		Approved by the Commission	
Energy Charge	Consumer service charge	Energy Charge	Consumer Service Charge	Energy Charge	Consumer Service Charge
Rs./kWh	Rs/consumer/ month	Rs./kWh	Rs/consumer/ month	Rs./kWh	Rs/consumer/ month
6.00	100	6.00	50	6.00	100

Table 105: Existing, Proposed and Approved Tariff for Temporary Meter Category (above 20 KW)

Existing			Proposed			Approved by the Commission		
Energy Charge	Service charge	Demand Charge	Energy Charge	Service charge	Demand Charges	Energy Charge	Service charge	Demand Charge
Rs./kVAh	Rs./con./ month	Rs./kVAh /month	Rs./kWh	Rs./con./ month	Rs./kVAh /month	Rs./kVAh	Rs./con./ month	Rs./kVAh /month
4.45	100	300	4.45	100	300	4.45	100	300

9.100 The rebates and surcharges have been detailed in ‘Part-1 General of Annexure II’, and have been listed below:

(a) **Higher Voltage Supply Rebate (HVSR):** Applicable as specified under ‘Part-1 General of this Annexure II’.

(b) **Lower Voltage Supply Surcharge (LVSS):** Applicable as specified under ‘Part-1 General of this Annexure II’.

(c) **Lower Voltage Metering Surcharge (LVMS):** Applicable as specified under ‘Part-1 General of this Annexure II’.

(d) **Late Payment Surcharge (LPS):** Applicable as specified under ‘Part-1 General of this Annexure II’.

(e) **Night Time Concession (NTC):** Applicable @ 20 p/kVAh as specified under ‘Part-1 General of this Annexure II’.

(f) **Power Factor Surcharge (PFS):** Not Applicable.

(g) **Disturbing Load Penalty (DLP):** Not Applicable.

(h) **Peak Load Exemption Charges (PLEC):** Not Applicable.

(i) **Peak Load Violation Charges (PLVC):** Not Applicable

A10: REVENUE PROJECTIONS

Revenue from Sales of Power within State

10.1 For calculation of projected revenues for each category of consumers – along with its slabs and sub categories – actual past data has been taken into account for certain categories like domestic and industrial consumers. For other categories, estimation has been done to split sales across slabs and sub categories – as proposed by the Board.

10.2 The Commission has calculated the revenue from Sale of Power across each consumer category at existing and approved tariff. The effective tariff decrease for FY08 has been calculated at 6.22%.

Table 106: Revenue Projection from Sale of Power within State for Year FY08 (In Rs. Cr)

Revenue (In Rs. Cr)	Board		Commission		FY08
	Existing Tariff	Proposed Tariff	Existing Tariff	Approved Tariff	Revenue Mobilization
Domestic	219.36	219.36	230.80	247.84	17.03
BPL					
NDNCS	44.21	46.41	28.23	28.81	0.58
Commercial	101.11	105.25	111.62	114.14	2.52
Small & Medium Supply	57.55	59.74	61.62	63.47	1.85
Large Supply	569.17	673.31	614.70	660.50	45.80
PIUs	159.38	192.76	176.29	179.53	3.24
WPS	131.92	131.92	122.46	133.53	11.07
AAAS	4.66	4.66	3.78	3.78	0.0
Public Lighting	3.75	3.75	4.50	5.02	0.51
Bulk Supply	36.32	37.90	38.81	43.56	4.75
Temporary	11.67	11.67	12.21	12.21	0.00
Total Revenue	**1339.1**	**1486.74**	**1405.02**	**1492.38**	**87.36**

Non Tariff Income

10.3 The Board has proposed Non-Tariff and other income of Rs. 90.72 Cr for FY08. The Commission has analysed the proposal and approved the different non tariff income items assuming that annual growth rate of 10%. The Commission also believes that new measures adopted by the Board to curb theft like incentive scheme for public and the Board employee, etc. would also result in an increase against recovery on account of theft and malpractices to at least Rs. 1.10 Cr for FY08.

10.4 The details of proposed/approved Non tariff income is shown in table below:

Table 107: Approved Non Tariff Income for Year FY07 (In Rs. Cr)

S. No	Particulars	FY05 Actual	FY06 Actual	FY07 Approved	FY07 R.E.	FY08 Projected	FY08 Approved
1	Non-tariff Income:						
	a) Meter Rent/service line rentals	24.62	27.09	30.00	29.81	31.30	32.79
	b) Recovery for theft of power/malpractices	0.02	0.04	1.00	0.06	0.07	1.10
	c) Wheeling Charges recovery	1.77	2.16	2.31	2.63	2.77	2.90
	d) Miscellaneous charges from consumers	5.63	2.12	7.30	0.80	0.84	2.56
2	Other Income						
	a) Interest on Staff loans & advances	1.11	1.06	1.30	1.06	1.12	1.17
	b) Delayed payment charges from consumers	7.17	6.04	9.29	6.04	6.34	6.64
	c) Interest on advances to suppliers/contractors	0.57	0.45	0.70	0.35	0.37	0.54
	d) Income from trading	1.11	1.44	1.30	1.87	1.96	2.05
	e) Income from staff welfare activities	0.05	0.04	0.05	0.03	0.03	0.04
	f) Miscellaneous receipts	23.85	38.04	30.89	43.75	45.94	48.12
3	**Total Non-Tariff & Other Income**	**65.90**	**78.47**	**84.13**	**86.40**	**90.72**	**97.92**

Revenue from Sales of Power outside State

10.5 The Board in its petition has proposed revenue from Sale of Power outside the state as Rs. 325 Cr. It has not submitted the cost of power purchased for sales of power outside state. During technical validation session and the interaction, the Commission asked the Board to treat sale of power outside state and sale of power with in state separately and submit details of sale of power outside state in Trading Formats approved by the Commission, which the Board failed to, comply with.

10.6 The Commission, thereafter, prepared Dispatch Merit Order. It has allocated the cheapest power for own consumption and treated remaining power available for sale outside state. The net power available for sale outside the state as brought out in clause 7.57 is 569 MUs.

10.7 The Commission has assumed that the Board will be able to Sell power @ Rs. 6.00 per unit based on input it got from PTC. In deriving income from sale of power outside state, the Commission has taken into account only that power which is available at less than Rs. 6.00 per unit, i.e. where the Board will make profit.

10.8 The cost of power purchase for sale of power outside state , revenue and profit from it are tabulated below:-

Table 108: Revenue Projection for Sale of Power outside State (In Rs. Cr)

Parameters	Rs Cr
Power purchase for sales outside state	106.07
Revenue from sale of power outside state	349.24
Profit from sales of power outside state	243.18

Overall Revenue – Expenditure Position of HPSEB

10.9 The overall revenue and expenditure position of HPSEB after the revision in tariff is given in the table below:

Table 109: Overall Revenue-Expenditure position of HPSEB for Year FY07

Parameters	Rs Cr
Annual Revenue Requirement	1,831.43
Revenue From Sale of Power within state	1,492.38
Non Tariff Income	97.92
Revenue from within state	1,590.30
Revenue Gap	**241.13**
Power purchase cost for sales outside state	106.07
Revenue from sale of power outside state	349.24
Profit from sales of power outside state	**243.18**
Surplus after addressing the revenue gap	**2.04**

10.10 The Commission allocates the surplus of Rs 2.04 Cr for the development of the Board. This will be used for the training of the Board employee (Rs 50 Lakhs) and in VRS programme (Rs 1.54 Cr). The Commission had already allocated Rs 3 Cr towards VRS programme in tariff Order for FY07.

A11: REVIEW OF THE PERFORMANCE OF HPSEB WITH RESPECT TO COMPLIANCE OF DIRECTIONS OF THE COMMISSION

11.1 The Commission had issued 21 directions in the Tariff Order of FY02, 26 directions in the Tariff Order of FY05, 24 directions in Tariff Order for FY06, and, 12 directions with 5 advisories were issued in FY07. The directions of the tariff orders till 2005, which were partially complied or not complied, were listed together in the Tariff Order of FY06.

11.2 The abstract of the status of the compliance reported by the Board and the views of Commission on the directions given till Tariff Order of FY07 are as follows:

Directions of Tariff Order of FY02

Unbundled Costs (Direction Nos. 7.1 to 7.3)

Board's Response:

11.3 M/s ASCI, Hyderabad has now submitted the final report on the model to rationalize the tariff to the Board which has been submitted to the Commission. Further, the Board had submitted the information regarding unbundled costs and expenditures between the three businesses of transmission, generation and distribution for the past years and for the FY08, and this information has been filed in the tariff petition for FY08 on 30 November 2006.

Commission's View:

11.4 The Commission observes that the final report has been submitted by the Board vide affidavit dated 7 February 2007 during the hearing held on 13 February 2007. However, the Board is still segregating certain costs, e.g. Employees cost on proportional basis rather than on actual basis, thereby defeating the purpose of segregation of costs.

Financial Restructuring (Direction No.7.8)

Board's Response:

11.5 The Board has not yet finalized Financial Restructuring Plan. Board has submitted that the financial restructuring plan is a part of the study of restructuring of the Board, which is being conducted by M/s ASCI and as such, the final report on financial restructuring is linked with the final report of restructuring of the Board. Therefore, final report on financial restructuring of the Board is held up due to clarity on the restructuring for which the State Government has to take a final decision on the model to be adopted.

Commission's View:

11.6 The Commission expresses its dissatisfaction over the performance of M/s ASCI as the institute is taking long time to come up with the final report. The Commission directs the Board to seriously pursue the matter with regard to the final model of restructuring with GoHP so that the report is expedited from M/s ASCI.

Simulating Competitive Conditions (Direction Nos. 7.9 & 7.10)

Board's Response:

11.7 The requisite plan was submitted to the Commission and on this plan the Commission had issued show cause notice to the Board as the said plan did not specify the benchmarks required by the Commission. The Commission discharged the Board of the notice because of lack of jurisdiction as the said powers had not been delegated by GoHP under section 22(2) of Electricity Regulatory Act, 1998.

Commission's View:

11.8 The Commission observes that in view of impending restructuring of the power sector, this direction has become irrelevant and hence be dropped from further reporting.

Public Interaction (Direction Nos. 7.11 & 7.12)

Board's Response:

11.9 The public interaction programme had been approved by the Commission with modifications at a total cost of Rs. 2.12 Cr for first phase i.e. for FY06. Thereafter Commission had approved Rs. 2.5 Cr for FY07. During FY07, Urja Melas were organized in tribal fairs at Keylong, Minjar Mela at Chamba, Shoolni fair at Solan, Rohru fair at Rohru international Dushera festival at Kullu and Una Utsav at Una. The Lavi Mela at Rampur Bushare, Renuka Mela at Renuka, Hamir Utsev at Hamirpur and Tribal fair at Rekong Peo had also been included for organizing Urjja Melas during the coming months. These melas are providing key stones to build consumer awareness and becoming best source to convey information to the consumers.

Commission's View:

11.10 The Commission observes that though the Board has tried to make headway through different activities under Public Interaction Programme, but the message is not percolating to the consumers to the desired extent. The compliance report states only the steps being taken by the Board on awareness, thereby, sidelining the important activities such as establishment of call centers and monitoring of the performance of the complaint centers. Further, the Board may engage services of an Agency to structure the public awareness campaign, instead of an in-house effort, which has not been effective. The Commission observes that giving complaint telephone number of bills can address the issue to some extent in rural areas. The

Commission directs the Board to draw an Annual Plan for the Programme for FY08 and submit the same to the Commission for approval.

Unproductive assets (Direction 7.13)

Board's Response:

11.11 The Board has already identified the abandoned generation micro/mini hydro projects viz. Billing (200 kW), Shansha (200 kW) and Shishu (100 kW) located in Lahaul Valley and Jubbal (150 kW) located in district Shimla. These projects have already been handed over to Himurja free of cost for refurbishment and running. Further, the Board has also handed over Chhaki Nallah Project (200 kW) to Gram Panchayat Naggar on April 25, 2005 at net present value of Rs. 23.36 lacs. As regards, the vacant land/rest houses, these can not be considered as idle, unproductive and un-remunerative as the land/rest houses keeps on appreciating. Moreover, no rest house can be considered as un-remunerative as it provides facility to the touring officers, which adds to the efficiency in the working of the organization. The Board has also identified surplus stores of Rs. 265 lacs and the necessary action to dispose off the same is being taken by the field units as per the codal provisions.

Commission's View:

11.12 The Commission is satisfied with the progress reported and directs the Board to take immediate action to dispose off the identified surplus stores and submit the report to the Commission.

Power Sector Reforms (Direction No. 7.14)

Board's Response:

11.13 The quarterly return on power sector reforms is regularly being submitted to the Commission and quarterly return upto December 2006 stands submitted to the Commission.

Commission's View:

11.14 The Commission observes that the Board is regularly reporting on quarterly basis the progress under Power Sector Reforms. The Board may continue with its efforts and the Board may now report on half yearly basis.

Marginal Cost Pricing (Direction Nos.7.22 to 7.24)

Board's Response:

11.15 The Board entrusted the study of Marginal Cost Pricing to M/s ASCI, but has not yet received the report as per the contract agreement. During the interaction of M/s

ASCI with the Board, M/s ASCI have indicated that such marginal cost pricing has not yet been carried out in any state in the country and they will be submitting their comments on this direction shortly. The comments will be submitted to the Commission on the receipt of the same.

Commission's View:

11.16 The Commission observes that dilly-dallying by M/s ASCI, Hyderabad, for submitting the report on Marginal Cost Pricing puts a question mark on the performance of the Organisation. The Commission shall await for the final comments of M/s ASCI.

Wholesale Supply of Power and Malana Project (Direction Nos.7.25 & 7.26)

Board's Response:

11.17 The information on Malana Hydel Project was submitted to the Commission on 1 April 2002. The GoHP had already decided the issue regarding wholesale supply of power and issued Notification in this regard on 31 March 2005.

Commission's View:

11.18 The Commission observes that in view of the compliance reported by the Board and the orders issued by the GoHP with regard to wholesale power, the direction is complied with and be dropped from subsequent reporting.

Voltage-wise Data (Direction No.7.29)

Board's Response:

11.19 M/s ASCI had submitted the information in regard to voltage-wise, category-wise, time of day-wise projections and the same was already sent to the Commission in case No. 114/03 during August 2005.

11.20 The letter of award for GIS/GPS based asset mapping including consumer indexing and valuation of assets of HPSEB has been awarded to M/s Tata Consultancy Services, New Delhi, on dated 16 January 2007. The voltage-wise assets have been included in the scope of the work of Tata Consultancy Services.

Commission's View:

11.21 The Commission observes that the Board has not submitted the data of voltage wise consumer details even in the current tariff petition. Since, the Commission has already initiated the T&D loss study, which would also address the voltage-wise parameters, the Board may now only compile data of the consumers parameters, at different voltages, which is critical for MYT.

Directions of Tariff Order of FY05

Debt Restructuring (Directions 7.13, 9.4.1.1 to 9.4.1.4)

Board's Response:

11.22 With reference to Direction No. 9.4.1.1 the HPSEB has got restructured the old high cost interest bearing loans amounting to Rs. 727.81 Cr with cheaper rate of interest upto March 2006, as a result of which the Board will save approximately Rs. 59.36 Cr over the remaining period of these loans.

11.23 With reference to Direction No. 9.4.1.2 the HPSEB is implementing the tariff order issued by the Commission in letter and spirit.

11.24 With reference to Direction No. 9.4.1.3 Board submits that Roll Back Subsidy amounting to Rs. 46.46 Cr which was recoverable from the GoHP upto 31 March 06 has been released by the GoHP during the month of June 2006, as such, no subsidy for the previous financial years is outstanding against the GoHP. As regards the subsidy for the FY07, which has been assessed to the tune of approx. Rs. 110 Cr, the GoHP has released Rs. 100 Cr to the Board during the month of January 2007, against the actual assessment upto Feb. 2007 of Rs. 91.51 Cr.

Commission's View:

11.25 The Commission observes that the Board has done satisfactory work in this regard. The Commission observes that in view of the hardening interest rates, further restructuring may not be possible. Further, the subsidy due from the State Government has been received and some headway has been made in diverting unproductive assets. Hence, the direction be dropped from subsequent reporting.

Prioritisation of deliverables from ASCI (Direction Nos.9.4.1.5)

Board's Response:

11.26 Board has submitted that Ministry of Power, GoI had granted extension upto 6 June 2007 for unbundling of the Board. The Board has sent a proposal on the unbundling of the Board to the GoHP, which is still under consideration.

Commission's View:

11.27 The Commission directs the Board to expedite the remaining deliverables from M/s ASCI and submit the report at the earliest, and also pursue with the State Government to finalise the model for unbundling so that the associated planning can be undertaken.

Valuation of Assets (Direction Nos. 7.15 to 7.17 & 9.4.1.8)

Board's Response:

11.28 The letter of award for GIS/GPS based asset mapping including consumer indexing and valuation of assets of HPSEB has been awarded to M/s Tata Consultancy Services, New Delhi on dated 16 January 2007. The voltage-wise assets have been included in the scope of the work of Tata Consultancy Services.

Commission's View:

11.29 The Commission expresses its concern at the inordinate delay in undertaking a study on physical verification and valuation of assets of the Board. Since the Board has now awarded the work to M/s TCS, the Board is directed to submit quarterly report on the progress made.

T&D Losses (Direction 9.4.2 & 10.4.4)

Board's Response:

11.30 The latest status in respect of this direction is as under:-

Sampling of EHV & HV feeders has been done jointly by HPSEB and M/s KLG Systel Ltd. in consultation with HPERC.

(a) Sampling of DTR is yet to be finalized by M/s KLG Systel Ltd in consultation with HPERC.

(b) M/s KLG Systel Ltd. has started field study in various field units.

11.31 A meeting to review the progress of various issues concerning to T&D loss study was held on 26 October 2006 in the Commission. In the said meeting, certain Directions were issued to expedite the activities relating to the status of the above study. The progress on this behalf will be submitted to the Commission on the next date of hearing.

Commission's View:

11.32 The Commission directs the Board to extend all assistance to the study and a core group be constituted to be associated with the study as per the TOR of the study.

Capital Works in Progress (CWIP) (Direction No. 9.4.3)

Board's Response:

11.33 It is submitted that during the FY06, the capital works in progress for Rs. 127.23 Cr has been capitalized. During FY07 (upto December 2006) the capital works in progress to the tune of Rs. 861.37 Cr have been capitalized.

Commission's View:

11.34 The Commission observes that the compliance reported by the Board on this direction is very satisfactory. However, the Board continue its efforts to further reduce the CWIP.

Multi Year Tariff (Direction No. 9.4.6)

Board's Response:

11.35 For introducing Multi Year Tariff, the Board proposes to file Multi Year Tariff Petition for FY09. The bids for the same had already been invited and technical bids have been scrutinized. The financial bids of the responsive firms have been opened.

Commission's View:

11.36 The Commission directs the Board to undertake the necessary measures commensurate with the time schedule to be framed for the Multi Year Tariff so as to ensure MYT filing in November 2007.

Category-wise detail of Sales etc. (Direction No.9.4.8)

Board's Response:

11.37 It is submitted that the requisite data had been submitted to the Commission through affidavit dated 19 August 2005.

Commission's View:

11.38 The necessary direction relating to this has already been given in Direction 7.29 Voltage-wise data (Direction No. 7.29) Therefore, this direction be deleted from subsequent reporting.

Capital Projects, Time and Cost Overruns (Direction No. 9.4.4 and 9.4.11)

Board's Response:

11.39 The Board had submitted information on cost overrun in respect of various projects to the Commission and no fresh orders regarding this direction has been given by the Commission in the 6th Review-cum-Monitoring hearing held on 19 February 2005.

11.40 Further, on the direction of the Commission, the Board has constituted the Committee for all major generation projects with appropriate information system with Member (F&A) as its Chairman. The Terms of Reference of the Committee has already been submitted to the Commission in the Review-cum-Hearing status for April 2005. The 1st meeting of the committee was held on 12 April 2005 and since then 8 meetings of this committee were held. The minutes of meetings of the committee were sent to the concerned field officers for implementation.

Commission's View:

11.41 The Commission directs the Board to submit the proceedings of the meeting of this Committee on a quarterly basis. Further, the Board to keep a close check on time and cost overrun, as the additional expenditure incurred on this account would be disallowed by the Commission.

Outstanding dues from the Government Departments (9.4.13)

Board's Response:

11.42 The Board has informed that the dues against I&PH Department as on 28-2-2007 was Rs. 28 Cr & other Govt. departments. Rs. 3.65 Cr. The Government has already paid the subsidy for roll back of tariff as well as subsidy.

Commission's View:

11.43 The Commission is satisfied with the status reported and hopes that the outstandings would have been cleared by end of the financial year. Board to continue reporting the outstandings after every quarter.

Employee Cost (Direction No.9.4.14)

Board's Response:

11.44 In compliance to the direction of the Commission, the following steps have been taken by the Board.

Reduction in staff

11.45 Due to normal attrition rate of recruitment, about 2 percent of the total employees are likely to retire every year in the next five years. It is expected that the staff strength would get reduced by 10 percent over the next 5 years period.

Creation of new posts

11.46 Wherever possible, redeployment has been done. Only those functional posts shall be filled, which are of utmost importance.

Abolition of vacant posts:

11.47 The matter regarding abolition of posts lying vacant for more than three years has been considered by the Board and 1340 posts of various categories have been abolished so far.

Filling of vacancies of Class-III & IV by way of re-deployment

11.48 The existing functional vacancies have been filled up by re-deployment of qualified staff working on lower posts. An internal exercise for rationalization has been done and 1251 posts of various categories including 47 AEs (E)/(C/M) have been filled up by this process over the last three years.

Employment on compassionate grounds

11.49 The HPSEB has decided to give employment under EAS purely on daily wages, instead of giving employment on regular/contract basis.

Regularization of daily wages

11.50 The regularization is being done strictly as per parameters of judgement of Hon'ble Supreme Court in case of Mulraj Upadhaya V/S State.

Voluntary Retirement Scheme

11.51 A Voluntary Retirement Scheme had been approved for some categories by the Board. The reference was made to the GoHP on 9 December 2004 for providing funds to the tune of Rs. 125 Cr to make payment of ex-gratia retirement benefit to the officials opting under this scheme. After expiry of last date prescribed for options under VRS, as many as 1059 employees have opted for VRS. In the first phase the Board proposed to consider 343 employees for VRS, who have been left with more than 5 years service. The case has been moved for providing financial support of Rs.19.54 Cr on account of ex-gratia for giving VRS and no filling up against these posts shall be made in future against such posts. The CEs/CAO have been requested to identify surplus/redundant posts, which can be abolished as a result of VRS.

11.52 There is no over staffing in HPSEB and as many as 4335 posts of various categories are lying vacant as on 31 December 2006 owing to the fact that there is blanket ban on direct recruitment for last many years. The staff position in HPSEB as it stood on 31 December 2006 is as under:-

Table 110: Class-wise Employee Strength

S.No.	Class	Sanctioned	Existing	Vacant
1	I & II	2011	1815	196
2	III & IV	25455	21378	4077
3	Personal Posts	3372	3372	-
4	Total	30838	26565	4273

Commission's View:

11.53 The Commission observes that despite the initiatives taken by the Board, the employee cost is still high. The Commission directs the Board to take steps to abolish non-functional posts in a phased manner and identify surplus/redundant posts that can be abolished on top priority by offering VRS. At the same time, the Board also needs to take steps to recruit AEs/JEs, as there is a growing vacuum at these critical levels which would adversely affect the efficiency and effectiveness of the Board.

Material Management (Direction No. 9.4.15)

Board's Response:

11.54 In order to avoid mismatching of the equipment/material, the Board had decided ordering the turnkey packages with labour component in APDRP schemes being executed in all twelve circles of the Board. The Calendar of Actions has been prepared which is being adhered to ensure the regular flow of material.

11.55 As regarding purchase of material ordered in excess of the requirement and lying unused for six months, Special Audit has been conducted and reports submitted to the Commission. The status of the following is as under:-

(i) **Standard Purchase Order**: The standardization of purchase order, General Terms & Conditions & Contract Agreement have been finalized.

(ii) **Inspection Manual**: Inspection manual has been prepared and same stands approved by the Board on 23 September 2005.

(iii) **Third Party Inspection**: The Third Party Inspection has been approved by the Board.

(iv) **Modern technique to reduce inventories:** The inventory Management software has been developed specially for Central Stores and shall be linked with the Chief Engineer office. All critical and non-critical items shall be monitored at Central level through this software. All the stores are to be connected through a network for effective inventory control.

Commission's View:

11.56 The Commission observes that compliance reported on the direction is satisfactory. However, the Commission directs the Board to continue making efforts to adopt modern material management methods to minimize inventories and reduce supply lags.

Metering, Billing and Collection efficiency (Direction No. 9.4.16)

Board's Response:

11.57 The Board submits that a pilot project with M/s Secure Meters Ltd. was undertaken and 250 prepaid meters were installed in Shimla town as a non-commercial pilot project for six months. The pilot project has also been successfully completed. The performance of these meters is satisfactory with regard to accuracy and other parameters.

11.58 The process of taking option from the consumers already having post-paid and pre-paid meters under pilot projects were started. With initial reluctance now some consumers have given the option and system will be put in place in March 2007.

Commission's View:

11.59 The Commission observes that level of awareness among the consumers for pre-paid meters is negligible and directs the Board to take steps to increase awareness among consumers and also ensure that adequate meters and vending arrangements are in place.

Mobility of Field Staff (Direction Nos. 9.4.18)

Board's Response:

11.60 The Board submits that 51 trucks/utility vehicles have been procured during FY06. The requisitions received from the Chief Engineers for procuring 50 trucks during FY07 are under process.

Commission's View:

11.61 The Commission expresses its satisfaction over the compliance and this direction be dropped from the subsequent reporting.

400 KV line from Nalagarh to Kunihar and 400 KV substation at Kunihar (9.4.21)

Board's Response

11.62 The Board has reported that the substation at Kunihar is included in the transmission plan prepared for 2015 and CEA has also concurred the proposal. Efforts are being made to get this work included in the Regional Power Plan.

Commission's View:

11.63 The Board to submit progress in this regard on a regular basis.

Justification of REC funded schemes (Direction Nos. 9.4.20)

Board's Response:

11.64 The office of Director Design, REC has been designated as Director, RGGVY and the Headquarter has been shifted from Dalhousie to Shimla in October 2005 as per the direction of the Commission.

11.65 Government of India has only sanctioned one scheme under Rajiv Gandhi Grameen Vidyutikarn Yojna (RGGVY) for Chamba District but no funds have been released so far. Similarly, the schemes for RGGVY for remaining 11 districts have not been sanctioned by the Govt. of India. In the absence of scheme lot of representations have piled up due to non-release of connections to tube wells, non-electrification of sub-villages and houses, system improvement schemes for improvement in quality and reliable power, non-release of electric connections to the consumers etc. Therefore, the implementation of REC scheme have become inevitable.

11.66 Further, it is intimated that Ministry of Finance has given its consent for availing the negotiated loan of Rs. 24 Cr to be availed from REC Ltd, New Delhi under State Annual Plan during FY07. The GoHP has been requested to make the provision of Rs. 24 Cr under the State Annual Plan during the FY07 in order to avail negotiated loan of Rs. 24 Cr from REC Ltd., New Delhi. The Commission is, therefore, requested to give the necessary approval to avail this loan.

Commission's View:

11.67 The Commission suggests that the Board may go in for multilateral funding for the schemes. These schemes must be critical and should be taken up through this mode where there is no provision for sanction under RGGVY. For other important works, Board may submit a proper proposal in this regard.

Himachal Pradesh Jal Vidyut Vitran Nigam Ltd (HPJVVNL) (Direction No. 9.4.21)

Board's Response:

11.68 Though M/s HPJVVNL (now Beas Valley Power Corporation Ltd.) is SPV of HPSEB, but it is having its own Board of Directors. The MD is working under overall guidance, superintendence and control of Board of Directors of HPJVVNL. The BoD in its first meeting held on 10 March 2004 had delegated requisite financial, legal and administrative powers.

11.69 Regarding staff, HPSEB is posting its employees in HPJVVNL on need basis and as per requirement of the Nigam and presently 394 employees are positioned at HPJVVNL.

Commission's View:

11.70 The Commission observes that the issue relating to SPVs has been discussed in the directions of FY07. Therefore, this is deleted from subsequent reporting.

Generation Cost of Board's Own Projects (Direction Nos. 9.4.24 & 9.4.24.1)

Board's Response:

11.71 The application for the determination of tariff with respect to Board's own projects has been filed before the Commission for FY07 on 30 November 2006 to the extent possible.

Commission's View:

11.72 The Commission observes that the Board has partially submitted the information and major costs have been allocated on assumptions, which cannot be accepted. The Board is directed to make actual allocation of all costs, and the Commission would only then consider the petitions and determine tariffs for each project.

Harmonic Distortions (Direction No.9.4.25)

Board's Response:

11.73 It is submitted that this direction had now been stayed by the Hon'ble Appellate Tribunal for Electricity, New Delhi, in Appeal No. 175/05.

Commission's View:

11.74 The Commission observes that the Appellate Tribunal has decided against the harmonic penalty and not stayed any study in this regard. Therefore, the Board should continue to measure harmonics in different areas/substations/feeders particularly all major industries generating harmonic and ensure that necessary remedial measure are being taken by these industries to reduce harmonics. The Board to submit report on quarterly basis.

MISCELLANEOUS (Direction No. 10.4.20)

(a) e-Governance

Board's Response:

11.75 Under e-governance, HPSEB has decided to implement REFNIC software developed by NIC, HP Unit Shimla as one of the measures. The status of implementation of REFNIC is as under:

(a) The REFNIC software has already been loaded on the server at HPSEB and the customization is also complete.

(b) The PCs required for implementation of REFNIC have been received, installed and commissioned.

(c) The implementation of REFNIC in Accounts Wings has been completed in July/August 2006. The REFNIC software is planned to be implemented in Administrative Wing.

(d) Implementation of second phase of REFNIC covering rest of the offices in Vidyut Bhawan Complex has been approved and procurement action is also initiated.

11.76 Computers have also been provided to all field divisions/circle, CEs offices for office automation.

11.77 HPSEB has put up consumer friendly information on its website i.e. www.hpseb.com, complaints can also be lodged through website which are delivered at info@hpseb.com. The online payments have already been integrated/implemented on Board's website w.e.f. 26 October 2006 and reports are being finalized.

Commission's View:

11.78 The Commission is satisfied that some progress has been made by the Board under e-Governance but still more initiatives are required to be put in place in the field for better generation of data and accurate and timely MIS.

(b) GPF, CPF etc. of Employees

Board's Response:

11.79 It is submitted that the total subscription of Rs. 608.15 Cr ending March 2006, the amount of Rs. 404 Cr have been invested in FDRs leaving balance of Rs. 204.15 Cr and a sum of Rs. 5.67 Cr per month had been decided to be invested every month to bridge the gap within three years as per direction of Commission. Further, it is submitted that a sum of Rs. 22.68 Cr on account of investment from October 2006 to January 2007 have been credited to this account.

Commission's View

11.80 The issue also forms part of the direction of FY07 and be deleted from subsequent reporting from here.

(c) Scheduling of Baspa-II (Direction c)

Board's Response:

11.81 It is submitted that all the queries raised by the Power Grid have been replied to by HPSEB and the requisite payment amounting to Rs. 25,45,000 for carrying out the integration work of Baspa-II HEP with SLDC Control Centre Shimla on turn key basis is being released in favour of PGCIL. The work is expected to be completed within 6 months i.e. latest by June 2007.

Commission's View:

11.82 The Board has informed that the matter has been resolved with PGCIL and the work is expected to be completed by June 2007. The Board is directed to report on compliance with this direction.

Directions of Tariff Order of FY06

Declining generation of Board's own stations (Direction No. 10.5.2)

Board's Response:

11.83 The year-wise generation (in MkWh) from FY02 to 07 (upto January 2007) is as under:-

Table 111: Generation of Board's own generating stations

Year	FY02	FY03	FY04	FY05	FY06	FY07
Generation	1149.50	1277.92	1356.95	1295.41	1332.37	1244.81

11.84 However, in compliance to the Commission's directions, the Board constituted a Committee consisting of the following officers to investigate the reasons for declining generation in respect of power stations under the control of Chief Engineer (Gen).

Table 112: Members of Committee

S. No.		
1	M.D. HPJVVNL	Chairman
2	CE (Designs), Sundernagar	Member
3	E (Gen)	Member-Secy.

11.85 The Committee has submitted its report, a copy of which was submitted to the Commission during review hearing on 13 February 2007.

Commission's View:

11.86 The Commission staff shall scrutinize the report of the Committee, submitted by the Board and the Commission would thereafter issue appropriate directions in the matter.

Procurement of long-term Power (Direction Nos. 10.5.3 & 10.5.4)

Board's Response:

11.87 As per final report submitted by M/s ASCI on "Load Forecasting, Power Procurement and Resource Planning" which covers the study period upto the FY15, the energy shortages during the winter months in our State are likely to be of the following order:-

Table 113: Energy shortage during winter season

Year	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15
Energy deficit (MU)	932	1133	1006	157	224	138	241	489	537

11.88 GoHP has already committed to supply its free power entitlement in existing projects to HPSEB during the winter months i.e. November to March during which the State is deficient in power. This means an additional availability of 159 MUs. Furthermore, HPSEB is also availing GoHP's entitlement in Nathpa Jhakri project – both on account of free power and power available in lieu of equity during winter months, which means an additional availability of 435 MUs, HPSEB also receives power from Govt. of India during the winter months from its "unallocated quota" in central sector projects, which is about 260 MUs at the current level of allocation. Besides, HPSEB also proposes to arrange 150 MUs during winter months under the energy banking agreements with neighbouring States.

11.89 As per the report of M/s ASCI, the maximum energy shortages to the tune of 1133 MUs are envisaged during the FY08. After accounting for the availability from all the sources enumerated above, HPSEB is likely to have net energy deficit of around 120 MUs. This energy shortage is in fact limited only to the peak winter months i.e. December to February, and that too during certain hours of the day. These marginal energy shortages can be made good by resorting to short term purchase through competitive bidding as per procedure laid down.

11.90 In view of the position given above, HPSEB is of the view that there appears to be no justification to go in for medium term procurement of power in accordance with the guidelines issued by Govt. of India on 19 January 2005 for determination of tariff by bidding process.

Commission's View:

11.91 The status indicates a steep fall in the energy deficit from FY09 to FY10 for which no justification/data has been provided. The Commission urges the Board to streamline the power procurement and resource planning in view of the imminent MYT regime. Further, a proper cost benefit analysis be undertaken with respect to share from CGS and efforts should be made to seek greater share from upcoming ultra mega power projects.

High Voltage Distribution System (Direction No. 10.5.5)

Board's Response:

11.92 It is submitted that a one measure for implementation of HVDS System is the addition of more and more single-phase transformers in the system to reduce the HT/LT ratio. Accordingly, Board had procured 78 single-phase transformers and targets for installing the same zone-wise have been fixed by the Board. All the Chief Engineers (Operation) have been directed to install 60 transformers (20 in each zone) during the current financial year.

11.93 Further, the Board has awarded the work of GIS/GPS based assets mapping to M/s Tata Consultancy Services, as such, all the single line diagram and mapping of 33 kV/11 kV network will be prepared after the completion of the studies. The reason of losses is being studied in the energy audit conducted for various circles. The HVDS designs will be carried out after the compilation of the above data.

Commission's View:

11.94 The Commission observes that according to the direction, the Board was directed to submit a comprehensive report for implementing the HVDS in the state focusing mainly on high T&D Loss circles, but instead of that in its report the Board has highlighted the various issues involved in HVDS. Therefore, Commission directs the Board to prepare a comprehensive plan and submit the same to the Commission in next three months.

Installation of single phase transformers (Direction No. 10.5.6)

Board's Response:

11.95 The Board submits that it shall install the single phase transformers as per the provision made in the APDRP schemes within the period co-terminating with the completion of APDRP.

Commission's View:

11.96 The Commission directs the Board to intimate the progress with regard to installation of single-phase transformers on a regular basis.

Ratio of single and two-phase lines to three phase LT lines (Direction No. 10.5.7)

Board's Response:

11.97 To reduce LT/HT ratio from the present level, the provision of development of infrastructure has been made in Rajiv Gandhi Grameen Vidyutikarn Yojna (RGGVY) and the Board envisaged improvement in this direction after the implementation of 12 different schemes when sanctioned by the Govt. of India.

Commission's View:

11.98 The Commission directs the Board to actively pursue the matter with the GoI for sanction of the various schemes envisaged under the RGGVY so as to improve the line ratios.

Integrated grid in the State (Direction No. 10.5.8)

Board's Response:

11.99 The work of integration of HPSEB system with Uttaranchal system has been completed. The integration of HPSEB system with Uttaranchal system has been done on 16 January 2006. With this, entire H.P. system is running on integrated mode with Northern Grid.

Commission's View:

11.100 The Commission expresses its satisfaction over the fact that the various systems of HPSEB have been integrated to the single grid. In view of the compliance, this direction is dropped from further reporting.

Interface metering (Direction No. 10.5.9)

Board's Response:

11.101 As per clause 11.28 of the Tariff Order for FY07, the Commission had directed the Board to achieve 100% metering by 30 September 2006. It is submitted that the Board has already installed energy meters on medium voltage feeders as detailed below:-

Table 114: Installation of Energy Meters on Medium Voltage Feeders

S.No.	Description of M.V. feeders	Ending 10/06
1	33 kV	97.97%
2	22 kV	90.53%

S.No.	Description of M.V. feeders	Ending 10/06
3	11 kV	99.54%

11.102 During the meeting held with HPERC on 26 October 2006, M/s KLG Systel Ltd. has informed that meters on 32 interface (inter-unit/Inter supply) points have not been installed. A list of the same was received on 28 October 2006 which was also supplied to the field units for immediate compliance. Out of 32 interface points, meters have been installed on 9 interface points and for the balance, the meters are being arranged.

Commission's View:

11.103 The Board is directed to install the requisite meters on priority for the timely completion of the T&D loss study and energy audit.

Replacement of defective/dead stop meters (Direction No. 10.5.10)

Board's Response:

11.104 The latest status of dead stop/defective meters ending December 2006 is given in the below table.

Table 115: Status of Dead stop/defective meters as on 31 December 2006

S.No.	Dead Stop/Defective Meters	No. of Meters
1	Total dead stop/ defective meters as on 31.3.2006	39780
2	Addition during 1.4.06 to 31.12.06	79528
3	Replacement during 1.4.06 to 31.12.06	89353
4	Balance defective/ dead stop meters ending 31.12.06	29955

11.105 From the above, it is evident that Board is trying its best to replace the defective/dead stop meters on the system but due to addition of dead stop/defective meters every month, the position more or less remains the same. The Board is procuring sufficient number of meters for providing new connections as well as replacement of dead stop/ defective meters.

Commission's View:

11.106 The Commission is satisfied with the progress reported on replacement of dead stop/defective meters. However, the addition of about 80,000 defective/dead stop meters in the 9 months of the current financial year is a matter of concern. Thus, Commission directs the Board to ascertain the reasons for such a large number of defective meters and measures to improve the situation. Further, these defective meters be replaced regularly by the field units since the Board has reported that field officers have been delegated powers for procurement of meters.

Prepaid metering (Direction No. 10.5.11)

Board's Response:

11.107 Same as per status given in direction 10.4.13 (Direction No.9.4.16) as above.

Commission's View:

11.108 The Commission directs the Board that adequate pre-paid meters and associated arrangements be put in place at the earliest so that the consumers can get the pre-paid connections, if they so desire.

Consumer services for senior citizens (Direction No. 10.5.12)

Board's Response:

11.109 The directions have been implemented and the necessary orders have been issued. The wide publicity of this direction is published on 18 January 2007 in the Newspapers - The Hindustan Times, Chandigarh; The Tribune, Chandigarh; Amar Ujala, Himachal Edition; Divya Himachal (Shimla/Dharamshala); and, Dainik Bhaskar Hindi, Himachal Edition.

Commission's View:

11.110 The Commission feels that though the Board may have conveyed the necessary orders to implement these directions of the Commission, it may not have been fully implemented by the field units. Therefore, the Commission directs the Board to submit separate affidavits from each Chief Engineer of the three operation zones to the effect that this particular direction of the Commission has been implemented in letter and spirit. The requisite affidavits to be filed along with the next compliance report.

Unmanning of Sub-Stations (Direction No. 10.5.13)

Board's Response:

11.111 In compliance to the direction of the Commission, the Board had already initiated action for unmanned sub-stations. The following unmanned sub-stations have been commissioned so far:-

Table 116: Unmanned sub-stations

S. No	Sub-Station
1	33/11 , 1x1 MVA, Bhota.
2	33/11, 1x1 MVA, Dhaneta.
3	33/11, 2x1.6 MVA, Chabotra.

S. No	Sub-Station
4	33/11, 2x1.6 MVA, Rangus
5	33/11, 1x1.6 MVA Khudian
6	33/11, 1x2.5 MVA, Beri.
7	33/11, 2x1.6 MVA, Talai
8	33/11, 2x3.15 MVA, Nagwain
9	33/11, 1x6.3 MVA, Har Raipur.
10	33/11, 1x1 MVA Chovin (Kangra)
11	33/11, 1x1 MVA Chadiar (Kangra)
12	33/11, 1x1 MVA Drung (Kangra)
13	33/11, 1x2.5 MVA Khad (Una)
Under Execution	
1	33/11, 2x1.6 MVA, Lunj (Kangra)
2	33/11, 2x1.6 MVA, Sadhan (Dalhousie)
3	33/11, 2x3.15 MVA, Panthaghati (Shimla)

Commission's View

11.112 The Commission is satisfied with the reported number of commissioned unmanned sub-stations. However, the Commission observes that all these sub-stations are 33kV sub stations and no sub-station of higher voltage than 33kV has been executed or is under execution. The Commission directs the Board to continue with its process and extend this process to 66 kV and above sub-stations also.

Legal liability insurance (Direction No. 10.5.14)

Board's Response:

11.113 It is submitted that bids were invited from the Shimla based Insurance Companies during September 2005, out of which only one insurance company (ICICI Lombard Insurance Company) offered its proposal and other companies did not respond despite of repeated requests. In order to have competitive bidding, it was decided in March, 2006 to call afresh offers from all the Insurance Companies in the insurance field. As such, bids were again invited from 12 Insurance Companies but again only one insurance Company i.e.; ICICI Lombard Insurance Company submitted its proposal within a stipulated period. The matter was examined against the receipt of single quotation and it was suggested by the F&A Wing to obtain the amount of premium paid by neighbouring SEB's in similar insurance proposal. In view of above, afresh offers have been invited from 12 Insurance Companies upto 15 March 2007 for legal liability insurance to cover the fatal/non-fatal cases in the entire State of H.P.

Commission's View:

11.114 The Commission directs the Board to complete this exercise at the earliest without waiting for a response from neighbouring SEB's and submit the report to the Commission.

Audit (Direction No. 10.5.15)

Board's Response:

11.115 76 Electrical Sub-divisions (Urban & Industrial) have been identified as highly revenue oriented Sub-division. Audit of consumers account of 42 sub-divisions have already been conducted and 7 are being conducted by Audit Parties and tour programme of Audit Parties for remaining 27 highly revenue oriented sub-divisions will be issued shortly. These 49 Electrical Sub-Divisions were inspected/audited by 32 Internal Audit Parties covering 5889 account months. The short assessment to the extent of Rs. 3,59,39,305 was detected by Internal Audit Parties, out of which a sum of Rs. 3,39,67,036 has been accepted by the field units and for short assessment amounting to Rs. 19,72,269, the matter is under process. The other irregularities pointed out by the Audit Parties are being attended by the field units.

Commission's View:

11.116 The Commission directs the Board that abstract of reports of such audit parties be submitted to the Commission. Commission is of the opinion that all high revenue sub division consumers must be covered under 100% consumer audit once each year, while other sub division may be covered once in tow/three years if there are manpower constraints.

Outstanding dues from local bodies (Direction No. 10.5.16)

Board's Response:

11.117 The Board has informed that the dues against I&PH Department as on 28-2-2007 was Rs. 28 Cr & other Govt. departments Rs. 3.65 Cr. The Government has already paid the subsidy for roll back of tariff as well as upfront subsidy for the previous years.

Commission's View:

11.118 Since this direction is similar to Direction 11.43, , this be deleted from subsequent reporting.

Pay & Allowances (Direction No. 10.5.17)

Board's Response:

11.119 It is submitted that no deviation from PSEB and GoHP is being allowed.

Commission's View:

11.120 The Commission directs that this direction be dropped from subsequent reporting, as it is already exercising prudence of this account on the overall employee expenses at the time of approving the ARR.

Litigation (Direction No. 10.5.18)

Board's Response:

11.121 It is submitted that a Committee headed by the Member (Admn.) has been constituted to look into the matters regarding outside the Court settlement of the litigation cases against the Board. However, serious strenuous and concerted efforts are being made for out of court settlement wherever possible in the interest of the Board.

Commission's View:

11.122 In view of the position explained, the Commission orders that this direction be dropped from future reporting.

O&M of generation projects in tribal areas (Direction No. 10.5.19)

Board's Response:

11.123 There are only 5 projects in tribal area i.e. Killar, Thirot, Rongtong, Rukti & Holi. These projects are lifeline for the tribal area being the only source of power to the people of that area. In view of the importance of these projects realistic and practical view is required. Further, to reduce the O&M costs of these power houses the Board is taking all effective measures. Recently, the Board has given AMC for the operation and maintenance of Holi project.

11.124 The matter is being taken up with the GoHP to bear the difference of expenses as suggested by the Commission. This is a policy matter to be decided by the GoHP.

Commission's View:

11.125 The Commission observes that there has been no headway in the matter. The Commission directs the Board to actively pursue with the GoHP to bear the difference of expenditure on this count.

Other Businesses (Direction No. 10.5.21)

Board's Response:

11.126 The Board had already submitted to the Commission on July 2005 that it can not diversify its operation and take up new businesses. However, this direction has been stayed by the Appellate Tribunal for Electricity, New Delhi.

Commission's View:

11.127 In view of the orders of the Appellate Tribunal, this direction be deleted from subsequent reporting.

Toll tax on Larji Tunnel (Direction No. 10.5.22)

Board's Response:

11.128 It is submitted that the matter has been taken up with the GoHP for levy of toll tax on the vehicles passing through Larji Traffic Tunnel vide letter no. HPSEB (Sectt) 401-Larji (traffic tunnel)/2005-52100 dated 11 August 2005, addressed to the Addl. Secretary (Power) to the Go HP.

Commission's View:

11.129 The Commission observes that this direction would also form part of other businesses and, therefore, this be deleted from here for subsequent reporting, in view of the Appellate Tribunal's order.

Submission of Quarterly Accounts (Direction No. 10.5.23)

Board's Response:

11.130 The Board is at present maintaining its accounts as per the provision contained in the Electricity Act, 1948. Further as per section 185(2) (d) of the Electricity Act, 2003, all rules made under sub-section-1 of section 69 of Electricity (Supply) Act, 1948 shall continue to have effect until such rule are rescinded or modified, as the case may be. It may be submitted that these rules have neither been rescinded nor modified. Thus the Electricity Act, 2003 does not prohibit the Board to maintain its account in the old pattern. At the time when the re-organization of the Board is under active consideration, it would not be prudent to change the accounting procedure at this state.

Commission's View:

11.131 The Commission observes that in view of the position explained and considering the impending reorganization of the Board, compliance on this direction be dropped from future reporting.

Fiscal Discipline & Truing up (Direction No. 10.5.24)

Board's Response:

11.132 The Board is trying to curtail the revenue expenditure with +3% of the ARR approved by the Regulatory Commission but in exceptional circumstances like purchase of power, which are beyond the control of the Board, the Commission may take a lenient view.

11.133 The Board reiterates that it is taking effective steps to maintain stringent control on its expenses.

11.134 The Board has submitted the truing up petition for Tariff Orders for FY05 and FY06 on dated 15 February 2007.

Commission's View:

11.135 The Board has submitted truing up petition for the previous years by the stipulated date i.e. 15 February 2007, and this has been accounted for in this Tariff Order.

Larji Project (Direction Nos. 9.4.23.1)

Board's Response:

11.136 The Board submits that a Committee has been constituted to fix responsibility for the very high per MW cost as per the directions of the Appellate Tribunal for Electricity, New Delhi, and the report shall be submitted to the Commission shortly.

Commission's View:

11.137 The Board to submit the report of the Committee constituted and also the action taken report in the next three months.

Directions of Tariff Order 0f FY07

Decision making processes (Direction No. 12 a)

Board's Response:

11.138 In order to facilitate speedy decision making in the Board and to ensure regular monitoring of progress on various projects under execution, following steps have already been taken by the Board:-

(a) Frequent & regular holding of WTM/ full Board meetings have helped the Board to cut short delays and expedite decision making.

(b) Regular & Frequent SPC meetings at the Board and Chief Engineer level are being held in order to cut short the delay and to ensure that critically required material is made available to field in sufficient quantity and in timely manner.

(c) Board is aware of the necessity of sufficient delegation of Financial Powers to its field agencies, which can be demonstrated by delegation of Financial Power to CE's/SE's/XENs who are executing the APDRP schemes. The Board has now decided to allow similar delegation to other deposit works of IPH, other Government Departments as well as private parties i.e. IPPs and Industries.

(d) Decision of the Board to execute major projects on turnkey basis can also be construed as a major step in the direction of decentralization of Administrative and Financial Powers. Due to this measure alone the execution of major projects has been substantially shortened.

(e) Board has recently awarded a major IT package which besides improving the MIS of the Board, would result in optimum power network management, reduction in theft and commercial losses due to computerized billing and speedy disposal of customer grievances.

11.139 Regarding hiring services of Consultant(s) for carrying out work studies on current systems and implementing its recommendations, it is submitted that since the proposal of unbundling of the Board is with GoHP, it may not be appropriate at this stage to get any such study conducted through a Consultant.

Commission's View:

11.140 The Commission observes that the reporting of the compliance is very evasive and the main issues have been sidelined in the compliance report. The Commission observes that effective monitoring is lacking and immediate steps need to be taken to remove the deliberate delays caused by vested interests, which are hampering the decision making processes.

Accelerated programme for renovation, modernization and up-gradation (Direction 12 b)

Board's Response:

11.141 Board is aware of the importance of availing CDM credits for its new generating projects as well as RMU of older ones. In a recent decision, Board has decided to engage the services of a Consultant for assisting the Board in completing the formalities/ requirements for registering itself with the Registering Agency and availing these credits. Expression of interest for identifying the Consultants has also been called. As regards to productivity liked incentives scheme for the staff deployed in generation stations as well as other sub-systems of the Board, the matter was extensively deliberated upon in the Board and it was decided not to go for this scheme for the moment.

Commission's View:

11.142 The Commission again expresses its dissatisfaction at the quality of reporting of compliance with this direction. The compliance only mentions the steps being initiated by the Board regarding CDM credits thereby sidestepping the main issue, which was renovation and modernization of the older plants to ensure optimal generation. The Board has informed that a scheme for repair and maintenance of Bassi Power House is being prepared and various steps being taken on this direction would be elaborated in the subsequent compliance report. The Commission expresses its concern about the poor quality of manpower being posted at generating stations and advises the Board to ensure that better quality people are posted on generating stations keeping in view the future unbundling of the utility, which would otherwise cripple the generating company, at inception, if this issue is not addressed in time. The Commission also directs the Board to chalk up a proper plan for training of the staff posted at generating stations.

Debt sustainability study (Direction No. 12 c)

Board's Response:

11.143 It is submitted that in compliance to the instructions of the Commission, a Committee has been constituted for debt sustainability study. The committee has conducted its first meeting. Report in this regard is likely to be submitted to the Board by the Committee shortly.

Commission's View:

11.144 The Commission again observes that the reporting leaves much to be desired and direct that the report be submitted to the Commission immediately on priority.

Manpower Planning (Direction No. 12 d)

Board's Response:

11.145 It is informed that shortage of Man Power including Engineers and another Technical staff is due to blanket ban on direct recruitment. However, Board has now obtained the approval of GoHP for filling up the following vacant posts of AEs and JEs:-

Table 117: Vacant Posts

S.No.	Vacant Positions	Numbers
1	AE(E)	40 Nos.
2	AE(C)	11 Nos.
3	JE(E)	186 Nos.
4	JE(C)	68 Nos.

11.146 The recruitment process is under active consideration of the Board.

Commission's View:

11.147 The Commission observes that the compliance mentions the steps being taken to recruit officers at Junior level but is silent about the manpower planning studies, succession plans etc. of which there is no mention in the compliance report. The Commission believes that recruitment can be speeded up, if people are taken on contract. The Commission directs the Board to submit quarterly information on the progress made in this regard.

Rationalization of staff, redeployment, training and specialization in key activities (Direction No. 12 e)

Board's Response:

11.148 Steps are already afoot to study the sanctioned strength based on norms and to finalize the norms for Power Houses etc. Best efforts are underway to monitor proper deployment and optimum utilization of available manpower. In order to meet the shortage of manpower, the Board has filled up the posts by rationalization/re-deployment/re-designation of eligible official working on lower posts possessing requisite qualification as per R&P Rules.

11.149 During the preceding year i.e. FY06, 865 personnel were sponsored for various programmes (Training, Workshops, Conferences and Seminars). During the ongoing year upto Sept, 2006, 315 personnel were sponsored for various training programmes / Seminars/ Workshops / Conferences etc. and it would be our endeavour to send more personnel for training on need basis vis-à-vis budget available.

Commission's View:

11.150 The Commission observes that there is an urgent need to frame a proper training plan for the various categories of staff, for which the Board may have to put in place a dedicated officer and the training needs may be identified by hiring the services of some experts from reputed training organization. The Board will report quarterly compliance in this regard.

Change in R&P rules (Direction No. 12 f)

Board's Response:

11.151 There is regular exercise in the Board to review and amend R&P rules as and when felt necessary in the best interest of the Board's work. The Board has already amended R&P Rules of AEs/JEs Electrical to include persons having degree/Diploma in Electronics/Electronics and communication or computer science for specialized jobs in units like designs, planning, commercial, SLDC, System

Operation, System Planning, etc. These posts should be distinctly earmarked for them i.e. unit-wise. In addition to above, 30% posts at AAO level have been now earmarked for professionally qualified people such as CA, ICWA, MBA (Finance) & M. Com. in accounts wing of the Board.

Commission's View:

11.152 The Commission reiterates its view that many specialized functions within the Board need to be manned by persons having high technical/managerial skills. Therefore, the R&P Rules should be modified qualitatively so as to make the organization competitive to meet the challenges of the changing power sector scenario on the pattern of the State Government, a provision for contractual appointment in the R&P Rules may be considered by the Commission to provide a legal basis for such appointments.

Reduction of Commercial losses (Direction No. 12 g)

Board's Response:

11.153 It is submitted that the progress of Head office Flying Squad units for the FY06 and for FY07 upto September 2006 regarding theft and other irregularities detected is tabled below.

Table 118: Flying Squad Units upto September 2006

Year	Total connection checked	Cases detected	Amount charged/released in lieu of irregularities (Rs.)
FY06	3714	35	16,41,798/-
Upto Sept. 06	1243	12	15,42,152/-

11.154 Further, the total progress of HPSEB including field and head office Flying Squads regarding theft of energy for FY06 and for FY07 upto September 2006 is tabled below.

Table 119: Progress during FY06

Total connection checked	Total theft case detected	kWh estimated as pilferage	Amount assessed (Rs)	Amount realized (Rs)
66233	271	1,85,231 kWh	31,82,832	15,36,648

Table 120: Progress upto September 06

Total connection checked	Total theft case detected	kWh estimated as pilferage	Amount assessed (Rs)	Amount realized (Rs)
38014	225	1,25,226 kWh	16,50,191	15,38,522

11.155 In order to strengthen the existing Flying Squad units, the detailed proposal for additional posts of Sr. XEN (Flying Squad) is under examination.

11.156 Further, in accordance with the direction of Commission, the detailed instructions are being issued to the field units to monitor monthly consumption of all consumers with connected load 50 kW and above and to identify and investigate cases of all such consumers with high connected load and low consumption and also where significant variation in consumption is observed vis-à-vis previous consumption figures.

11.157 The field officers have been directed to prepare monthly exception reports of energy consumption in respect of medium and large industrial consumers indicating therein the connected load, load factor, number of shift, energy consumed, type of industry, etc. Accordingly, the action is being taken by field officers. In order to fully implement the direction of the Commission, the Board had requested for extension upto 31December 2006 to the Commission.

Commission's View:

11.158 The Commission observes that the Board needs to strengthen its existing units by deploying more flying squads and increasing their staff strength and also to take stringent action against officials of the Board, where their complicity in assisting theft is confirmed. The Board may consider transferring control of the enforcement unit to Member (F&A) and is further directed to submit quarterly reports in this regard.

Energy Audit (Direction No. 12 h)

Board's Response:

11.159 It is submitted that detailed instructions in this regard have been issued to the field units to conduct energy audit of industrial feeders. However, it is submitted that the Board has already been conducting energy audits of industrial consumers along with the other consumers.

Commission's View:

11.160 The Commission observes that it has received many complaints regarding the inadequacy of the power network in the industrial areas. An assessment of the situation prevailing on the ground is being undertaken.

11.161 The Commission directs the Board to regularly check all the meters installed on 11kV and above feeders, and readings should be used to measure the quantity of energy supplied to individual revenue segments. The Board is directed to maintain metering data of all incoming and outgoing feeders at all substations that are useful of conducting energy audit. The Board is directed to submit the Energy Audit reports to the Commission on a quarterly basis.

Implementation of MYT (Direction 12 i)

Board's Response:

11.162 It is submitted that the Board has floated the tenders for MYT framework for filing the petitions for generation, transmission, distribution, trading and SLDC business in accordance with the terms of reference of the tender floated by the Commission in this regard.

Commission's View:

11.163 The Commission observes that the Board needs to engage a competent Consultant to assist them in implementing the MYT framework, which the Commission would put in place this year and the first control period shall commence from the next financial year onwards. In the meanwhile, the Board should undertake a proper exercise to assign correct costs, among the three businesses of generation, transmission and distribution as well as generate more reliable and accurate data of consumption and revenue trends.

Investment plan (Direction 12 j)

Board's Response:

11.164 The Board has submitted the requisite investment plans.

Commission's View:

11.165 The investment plan for the FY08, submitted by the Board would be considered by the Commission in due course.

Study to determine Cost of Supply (Direction 12 k)

Board's Response:

11.166 It is submitted that the Board will provide all necessary assistance to the Consultants appointed by the Commission to undertake this study.

Commission's View:

11.167 The Commission is already undertaking this study and therefore, this direction be deleted from subsequent compliance reports.

Determination of generation tariff of Board's own projects (Direction 12.l)

Board's Response:

11.168 It is submitted that the cost of generation in respect of Board's own project will be filed before the Commission to the extent possible.

Commission's View:

11.169 The Commission observes that the Board has failed to file proper petition in the time frame mentioned in the direction. In the ARR for the FY08, submitted recently by the Board, the petition in respect of Larji and Khauli are again not complete and proper. In the absence of proper submission of data, the Commission would undertake its own prudence check.

Miscellaneous (Direction No. 12 m)

Provide toll free numbers and call centers for complaint redressal (Direction No. 12 m(i))

Board's Response:

11.170 As submitted under direction 12.4(a) an IT Package is under implementation in the Board which shall also be taking care of complaint redressal mechanism. Data centre at Board headquarter and call centre along with toll free number are being established under CRM modules for speedy grievances redressal.

Commission's View:

11.171 The Commission observes that such call centres should also be opened up in other parts of the state to facilitate the consumers in lodging their complaints. The Board to submit quarterly progress in this regard.

Board to implement contributory pension scheme instead of regular pension for all new recruitments on GoHP pattern in order to reduce future pension liabilities (Direction No. 12 m(ii))

Board's Response:

11.172 It is submitted that this is under the consideration of the Board.

Commission's View:

11.173 The Board is directed to operationalise the Contributory Pension Scheme in a manner so as to ensure that there is no diversion of these funds to the general expenditure of the Board, as has happened in the past in the case of the GPF account of the Board. As and when the Pension Fund Regulatory and Development Authority (PFRDA) is constituted by the Central Government, the Board may take steps to ensure transfer of the funds/account to the Account/Scheme/Pension Fund designated by the PFRDA. The Board is directed to ensure that the funds of Contributory Pension Scheme are not diverted to the General Expenditures of the Board.

Creation of separate Protection unit and separate O&M wing for the existing generating stations (Direction 12 m (iii))

Board's Response:

11.174 The proposal for creation of a separate protection unit is under examination. So far as creation of a separate O&M wing for the existing Generation stations is concerned, it may be stated that Chief Engineer (Generation) is controlling all these stations independently in the Board.

Commission's View:

11.175 The Commission observes that the matter be accorded priority and the final decision be expedited.

Reduction in inventories and computerized material management with connectivity with all stores (Direction 12 m (iv))

Board's Response:

11.176 The Board has already circulated directions to all concerned units regarding minimizing inventories in the stores and position is reviewed every quarter by the Board. As regard computerized material management, major stores of the Board have already been computerized and shall be connected through WAN which is under implementation through IT package explained in direction 12.4(a).

Commission's View:

11.177 The Commission directs the Board to intimate the reduction in inventory level which has resulted from the steps it has taken and submit information about various measures initiated by the Board. The progress regarding computerisation of stores and its linkages with office of CE (MM) be reported on quarterly basis.

To delegate powers to CEs for transfer of employees within their area of operation (Direction 12 m (v))

Board's Response:

11.178 In this context, it is stated that there is general ban on transfer by the GoHP, which is applicable to HPSEB also. However, to ensure objectivity and efficiency, recently, instructions have been issued by the Board in regards to shifting/rotation of JE (Stores) and Meter ledger Clerk/Bill Distributor.

Commission's View:

11.179 The Commission observes that there is a need to rotate the staff deployed in high revenue areas for which the Board may take immediate necessary steps.

Invest its corpus of GPF of the employees over the next three years in higher paying instruments so that the employees interests are safeguarded (Direction 12 m (vi))

Board's Response:

11.180 It is submitted that by the end of March 2006, an amount of Rs. 404 Cr has been invested in FDRs against the total subscription of Rs. 608.15 Cr, leaving a balance of Rs. 204.15 Cr. A sum of Rs.5.67 Cr per month has been decided to be invested every month to bridge the gap within three years as per directions of the HPERC.

Commission's View:

11.181 The Commission observes that the un-invested amount of the Board has increased from the previous year and the Board needs to address the matter on priority. Board is directed to submit regular information in respect of the investment made to cover the gap.

Trading strategies and systems (Direction 12.5 (a))

Board's Response:

11.182 At present, the Board is already following well-planned strategies for earning more revenue by trading surplus power for summer months. One of the steps taken by the Board to extract maximum advantage from the deficient power scenario of northern grid in summer has been to go for competitive bidding for sale of surplus power during the current year. The response was very good and a rate of Rs. 5.70 per unit was finalized for sale of this power, which has been the highest rate offered to the Board. However, due to certain deficiencies with the buying company, they were not able to lift the entire load scheduled to them, which resulted in some loss to the Board. But still Board was able to get reasonably good revenue in summer. To meet its winter demand, Board has decided to call bids for supply of power during the winter months. This will lead to competition and is expected to get fairly competitive rates for purchase of power during winter season. To meet the balance demand, Board has been able to convince the GoHP to divert its equity as well as 12% free power share to HPSEB during winter months.

Commission's View:

11.183 The Commission informed the Board about the recent judgement of the Appellate Tribunal for Electricity, New Delhi regarding the trading of power and directed the Board to examine its likely impact on its revenues. The other comments have been already made in the direction "Procurement of Long Term Power" of FY07.

Best practices for restructuring the project implementation units of the Board and its Special Purpose Vehicle Companies (SPVs) (Direction 12.5 (b))

Board's Response:

11.184 The Board has already decided to execute projects under SPVs by creating full owned SPVs Companies for execution of project at different river basin. This will definitely result in timely and speedy execution of the projects and specific reduction in time taken in decision making, as the M.D, BoD of SPVs have full powers with regard to project execution, therefore, comparison is not required to be made SPVs.

11.185 As regard suggestion by the Commission for including independent directors preferably from CPSUs, it is submitted that HPSEB have all technical experts of its own, who are competent in all respect to take decision with regard to technical as well as financial and other managerial issues. Having representatives from CPSUs may not result in smoothening as they may not have sufficient time for engaging in resolution issue resulting to functioning of SPVs.

Commission's View:

11.186 The Commission observes that its only concern is that the working culture and organization climate, existing within the Board, should not percolate into the new SPVs which would defeat the very purpose for which these SPVs were set up.

Giving more autonomy to SPVs (Direction 12.5 (c))

Board's Response:

11.187 It is submitted that Special Purpose Vehicles have been created under the overall control of HPSEB, as such, in certain specific cases the SPVs have to approach the Board Management. But these SPVs are independent as far as decisions for timely execution of the projects is concerned and the majority of the issues are decided by the respective Board of Directors at their level. It would not be out of place to mention here that these SPVs are working smoothly and effectively on professional lines.

Commission's View:

11.188 The Commission's views have been expressed above.

Selection of most viable projects for implementation (Direction 12.5 d)

Board's Response:

11.189 In this regard, it is submitted that decision to allot project for execution does not entirely lie with the Board as GoHP has the authority to decide which project is to be implemented by the SPVs. The suggestion of the Commission, however, shall be kept in mind while applying for new projects to the GoHP.

Commission's View:

11.190 The Commission feels that the Board may compete for bigger projects, which are advertised by the Government, if they are confident about the techno-economic viability of such projects.

Transmission network in the State (Direction 12.5 e)

Board's Response:

11.191 A proposal to expand the transmission EHV network has been prepared and part of which has been posed for various funding agencies for financial support. Possibility of availing of multi lateral funding as suggested by the Commission shall be explored. At present, a scheme for Rs. 95 Cr for up-gradation of transmission infrastructure in industrial area is under implementation. This has been funded by REC.

Commission's View:

11.192 The Commission observes that the Board needs to put in place a suitable mechanism for evacuating power from small hydro projects. The Board also needs to seek multilateral funding for financing the transmission plan it has prepared for the next 10 years along with an appended HRD component subservient to the unbundled components' needs. Board is directed to submit six monthly progress reports in this regard.

A12: NEW DIRECTIONS

12.1 The directions issued in the previous tariff orders, which have been discussed in Chapter A11, that have not been complied with by the Board shall be carried forward in the present tariff order and the Board is required to diligently comply with these directives. The Commission has also directed to drop a few directions from subsequent reporting that had become redundant with the time or have been fully complied with.

12.2 In view of the impending MYT regime to be ushered in the state of Himachal Pradesh, the Commission issues the following directions to the Board in order to meet the requirements of the MYT regime.

12.3 **Unbundling Costs:** The Commission has been directing the Board to segregate its costs various functions of Generation, Transmission and Distribution. The exercise has been conducted and reported by the Board but without adequate background work and a transparent and consistent methodology. In light of the above, there is a requirement to update the existing Accounts Manual incorporating the new statutory and regulatory requirements, new accounting procedures and develop separate Accounts Manuals. The broad scope of work is as follows:

(a) Study the existing accounting system, identify process weaknesses and suggest improvements to meet various statutory and regulatory requirements. The existing accounting systems needs to be studied to understand the flow of information and documents for the various transactions. The study should include studying applicable statutes, internal control procedures w.r.t. financial reconciliations, billing and collection, requirements of financial management information systems (MIS) and training of officers.

(b) Develop detailed Accounting Manuals and modifications to the Chart of Accounts (CoA). Activities like (i) Cash and Bank – Treasury Functioning, (ii) Employees Cost related jobs (iii) Purchase and sale of power (iv) Material/ Stock (v) Consolidation of Accounts and Budget (vi) Costing (vii) Financial MIS should be covered in the new manuals.

(c) Training to officers of Finance and Accounts Wing - Based on revisions in the Accounting Manuals, accounting policies, procedures, chart of accounts and formats, training to all officials at corporate and unit levels needs to be imparted. Training should be done at the corporate office. This module should include development of training materials, presentations, case studies and examples.

12.4 **Database Management and Management Information System (MIS):** In spite of the regulatory regime being in place for more than six years in the state of Himachal, the quality of data provided by the Board remains an issue. 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. In view of the above, Commission directs the Board to

(a) Develop a standardised computerized database to handle all performance data related to its operations.

(b) Develop standardised information requirement formats for capturing data across consumer categories and across circles/divisions for the purpose of monitoring and review. Ensuring that multiplicity of information and sources do not exist in the system.

(c) Generate MIS, which will enable it to provide consistent and detailed information for actionable decisions.

(d) Submit a report on standardised formats developed and procedures put in place to collect and process the data, by 30 June 2007.

12.5 **Quality of supply** The Commission feels the necessity to benchmark quality of supply parameters and link the quality of supply to returns earned by the licensee. The parameters for monitoring and tracking would be based on the technical and customer service parameters, as detailed in Standards of Performance (SoP) for Distribution and Transmission licensees.

The Commission directs the Board to submit compliance reports as per the regulation. The Commission directs the Board to conduct a baseline study for quality parameters. The Board, as required under the SoP regulation, shall formulate all the requisite formats of reporting of various parameters by 30 April 2007.

12.6 **Benchmark study:** The Board is directed to review its existing processes like New Consumer Registration, Energy Audit, Meter Reading, Bill Generation, Bill Distribution, Customer care, etc and compare with other better performing utilities. Emphasis should also be laid on approach to reduce costs by bringing efficiency in the process and by utilising the best practices. The review of the processes can be structured around:

(a) Method/ technology (IT Systems and tools) deployed

(b) Extent of outsourcing of field/ data handling activities

(c) Process time cycles for different consumer categories

(d) Existence of procedure manuals, etc.

12.7 **Manpower Planning:** Board is directed to conduct a comprehensive study of its manpower and prepare a detailed report on the various HR practices to be adopted to make the licensees productive.

(a) Creation of a personnel database capturing all details of existing employees including their age, qualification, date of joining, salary details, current area of work, skill sets, training received, etc.

(b) The database should be utilised to understand the retirement pattern and its resultant implications in terms of costs like Terminal Benefits – department wise should be submitted annually.

(c) Conduct of a Benchmarking study comparing manpower costs and norms across similar states/utilities vis-à-vis HPSEB.

(d) Manpower staffing norms and organization structure across various administrative units – corporate and field level. The issues emanating from revenue cycle and customer service processes should be addressed on priority. The review should highlight administrative/field level issues of manpower numbers including calculation of excess or deficit cadre wise.

(e) Detailed action plan for addressing shortfall or surpluses of staff. It should include best practices report of redeployment, outsourcing and manpower rationalization practices prevalent in the industry.

12.8 **Business Plan for next Five Years:** In view of the impending MYT regime, the Board should focus on the long term development of businesses of Generation, Transmission and Distribution (GTD) and prepare a detailed business plan for each of the entities to be discussed and agreed with various stakeholders. The Board should be making preparations to develop such a plan and file it along with the MYT filing scheduled by 30 November 2007.

12.9 **Investment Plan:** Based on the filings of the Board, the Commission has noticed several glitches in maintenance of loan details for the projects. It poses regulatory hurdles in approving loans which are utilised for activities other than financing capital expenditure, like financing equity, utilised for meeting revenue deficit, for loan repayment, in funding a SPV unrelated to the licensed business, etc. The Commission directs the Board to maintain instrument-wise, source-wise, year-wise, asset-wise, purpose-wise, and date-wise, details for all loans along with their repayment schedules on an ongoing basis and submit status reports on quarterly basis.

12.10 **Study on SCADA:** The Commission directs the Board to carry out a pilot project/study on implementing Supervisory Control And Data Acquisition (SCADA) for the large industrial consumers as well as the un-manned stations. The SCADA system monitors the power distribution system and supply on a real time basis and abnormalities in the system are immediately flagged and corrective action is taken. When SCADA is fully implemented, it would lead to faster identification-isolation-and restoration of faults, loss minimisation, forecasting of load, intelligent alarms, better resource handling, reactive power management, Distribution Management System (DMS), more efficient outage management, switching optimisation and network study and planning. This study can help the Board to keep a tab on faulty power distribution in the state. Board is directed to submit this pilot SCADA project/study to the Commission till 30 November 2007.

12.11 **Measurement of Harmonics**: Although levy of penalty on harmonics has been withdrawn by the Commission as a consequence to the judgment dated 21.8.2006 of Appellate Tribunal of Electricity, the Commission observes that harmonics induced by non-linear loads are affecting the supply system, quality of supply, consumers' appliances and life of all the equipments connected to the system. The Commission, therefore, reiterates its direction issued in the tariff order of FY 2004-05 and directs the Board to ensure that the connected loads do not induce any harmonics and distort the supply waveform beyond the limits specified in IEEE standard 519. Further the Board shall measure, analyze and monitor the harmonic levels at the supply points to the users and other strategic locations on the transmission system, which, it considers prone to harmonics, at regular intervals of six months and take suitable measures to ensure that these are within limits and send reports to Commission, regularly. The first such report in respect of Solan, Nahan, Una and Kangra circles be sent by 30th June, 2007.

12.12 **Minimum voltage level for Power Intensive Units**: A number of connections have been released by HPSEB for mini steel plants rolling mills, Sponge Iron, ferroalloys, ferrosilicon, arc/ induction furnace and other power intensive units on different voltages ranging from 11 KV to 132 KV. Some of the connections released on 11 KV are not on independent dedicated feeders. Such industries with non-linear type of loads affect the power supply system in terms of generating severe harmonics that impacts the quality of supply and supply system. The impact is more severe at lower voltage than if the supply is given at higher voltage to such units.

The Commission therefore, directs the Board that henceforth no connection shall be released to power intensive units on voltage less than 33 KV and without provision of independent feeder with control sub-station and necessary protection and harmonic filters/ reactive compensation installed at consumer end. Further the release of load to arc furnaces is totally disallowed in future.

12.13 **Streamlining of billing and collection** - The Commission observes that management of billing of consumers and collection of revenue is one of the critical areas affecting the public as well as the Board, which needs to be addressed on priority. A comprehensive detailed in house study be carried out in this area keeping in view the following factors:-

(a) staffing norms for the purpose, their up gradation/ revision due to geographical area of the Pradesh, accessibility/ communication modes, etc;

(b) billing cycle as provided in the HPERC (Security Deposit) regulations, 2005 and reallocation of existing staff accordingly;

(c) existing computerization of billing, ledger maintenance and collection and future planning thereof;

(d) introduction of spot billing through hand-held electronic machines or otherwise;

(e) introduction of pre-paid metering;

After detailed study requisite man power planning be undertaken and alternatives like out sourcing/ franchising be considered. The Commission directs the Board to submit the detailed report after carrying out the study, by 30th of September, 2007.

A13: STRATEGIC MANAGEMENT ISSUES

13.1 In this section, the Commission would like to discuss certain important issues, which are very pertinent to the power sector scenario in the State.

13.2 The Power Sector in the State has not been able to realise even a modicum of its stated potential. There is a severe lack of focus with respect to conversion of the sector into a precursor for economic revival in the State. At the policy level no effort has been made to structure potential to the peaking power needs of the Northern Region. Investments in the Sector are stultified by rigidity, uncertainty and the enunciation of policy frameworks which ostensibly encourage but in actual practise distort the process of operationalizing new projects retarding government's own resource potential and the need for provisioning for a renewable explosion in this region.

Unbundling uncertainity

13.3 The Utility's ability to manage efficiently and at optimum levels has come apart at the doorstep of political expediency. Reforms within the sub-structure have been undertaken listlessly and without enthusiasm and are awaiting of the 'panacea' of "unbundling". This constant 'waiting for Go dot' scenario has created necrosis within a monolithic structure pandering to vested interest, unmindful of the need for focus and efficiency. Even a state of readiness on "unbundling" has not been achieved. In spite of a large number of directives from the Commission, extensive process disorientation is the order of the day in the Utility. Even inculcation of required technical manpower has not been undertaken despite myriad interventions by the Commission.

13.4 As we move towards unbundling in subsequent year there will be need for the Government to get ready for cleaning up the balance sheet of the Board. By Commission's estimate a sum of about Rs. 600 Cr. spread over 3-4 years will have to be provisioned for this.

Development of renewables

13.5 A total of Rs 7500 Cr is likely to be invested in HP over the next 5 years in terms of renewables. There are a large number of issues connected with transmission system augmentation setting up of regulations on transmission, wheeling, open access and tariff. Necessary consultative and institutional mechanism has to be worked out so that the Commission and the Government do not get involved in confrontation on these issues.

13.6 Although 250 to 300 projects have been approved or are in process of being approved, only 6-7 have fructified largely because of uncertainty on Govt. policy/Regulatory front on tariffs, open access, wheeling, transmission and third party sales. The investors are not ready to move in without the Government, the Commission and the Board addressing these, therefore, the Government needs to redraft its hydro policy which is unfriendly to invest and set up a mechanism for speeding up the actual project implementation or the Commission will have to intervene in the implementation process.

Govt. initiatives and policy

13.7 The Government has decided to provide equity injection to the private sectors in terms of the new hydro policy. HPSEB itself is also setting up generating stations which require similar equity inputs from the State.

13.8 The hydro policy deals with the issues which in the Electricity Act, 2003 are within the domain of the Commission and therefore, in contravention of the Central Act. The Government may consider renunciating its policy taking the above into account.

13.9 The Government is advised to support the Board in terms of setting up a large transmission infrastructural project for developing the necessary transmission corridors along with the appended HRD component. This project may be undertaken with multilateral agency like ADB/World Bank. Once the DPR for the project has been developed over the next 3–4 months the Board should be advised to obtain bridging loans to operationalise the project pending due diligence by ADB/World Bank. This will ensure that transmission corridors are funded quickly on the basis of retroactive financing.

Infrastructure in industrial areas

13.10 The Baddi, Barotiwala and Nalagarh area of the State has become a major industrial hub and many new industries are coming up in the area. Two factors mainly responsible for this surge of industries in the State are;

(a) the industrial package offered by the GOI ;and

(b) the very low industrial tariffs and regulatory certainty.

13.11 The sudden growth of industries has put a lot of strain on the existing infrastructure in this area. The availability of reliable and good quality power is a key parameter for the sustainability of these industries in the long run. There have been reports from the Govt. departments and corporations facilitating these industries about the inadequacy of the Board’s electrical network in the area to cater to the needs of the industries, which is causing unnecessary delays, even after the loads have been sanctioned. There are also a number of complaints about the infrastructure charges being levied in an arbitrary and ad hoc manner, thereby causing a lot of harassment to the entrepreneurs.

13.12 Since industrial consumers are the main cross subsidizing category which have ensured that the tariffs for other categories remain within affordable limits, it is also important for the Commission to ensure that the new industries willing to come into the State do not get disillusioned by the inadequate power network in the area or the arbitrary attitude of the officials concerned.

13.13 Therefore the Commission feels that an independent study and evaluation of the situation as it exists on the ground and the Board's initiatives to meet the growing requirement of power, in this area, needs to be undertaken immediately through an expert.

Declining generation

13.14 The Board has set up generating stations across the State and the total installed capacity, prior to commissioning of Larji was 330 MW. With the commissioning of Larji, this would go upto 456 MW. The Board in its present tariff petition has estimated generation of 1916 MUs for the next year. The details of own generation indicate a downward trend over the past few years.

13.15 Since the per unit generation cost of some of the major projects of the Board is less that Rs. 1, any substantial increase in its own generation would benefit the consumers of the State, as the cheaper power is targeted towards the local consumers, as per the merit order prepared by the Commission in its tariff orders. The Commission had issued directions in its tariff order for FY06 that the Board undertakes a study to identify the reasons for the declining generation of its own projects. The Board had constituted a Committee to investigate the matter and it was required to submit its report latest by 30.9.2006.

13.16 Now the Board in its compliance status report has mentioned that the field units have been directed to measure the water discharge properly and that they have sought extension in time upto 31st Dec. to submit the report. Prime facie it seems that the Board has not accorded the due importance to this matter and would come up with a report, which may gloss over the major deficiencies in their systems, which could perhaps serve no real purpose.

13.17 It would therefore be in the larger interest of the consumers of the State that the Commission undertakes an independent study, atleast on all projects above 10 MW capacity, to identify the issues and pin point the key areas which need to be addressed, to optimize generation from the projects owned by the Board so that it ensures better efficiencies as well as greater generation of cheaper power, which benefits all the consumers of the State.

Tariff related issues

13.18 A look at the past and current electricity consumption and power availability data shows that there is a deficit of 975 million units (approx.) in the winter months from November to March. At this time, the HPSEB has to rely upon the State Government's share of free power as also equity power in Nathpa Jhakri Project to meet with the winter demand. The Board also expects to get 248 MUs from banking arrangement but still needs an additional 441 MUs from the market to meet the winter demand. The cost of free power available from GoHP has been taken as Rs.3.04 per unit and equity power at Rs. 3.50 per unit, the rate proposed by HPSEB. The GoHP, however, proposes to claim market rate of more than Rs. 6 per unit from the HPSEB for this power, which is likely to put an additional burden on the Board to the tune of about Rs. 200 Cr. The Board also bears a burden of Rs. 160 Cr on account of power purchased from outside the State.

13.19 It is evident that the summer surplus of the Board, when it sells power or does banking, is significantly negated by deficits of power availability in winter. There is an opportunity cost on account of the relatively good supply of electricity to the consumers in deficit winter months, when the Board has a power deficit and other neighbouring states including Delhi face regular power cuts. The Commission, while taking a holistic view of the annual power availability and demand, at the time of approving the ARR of the Board, has very limited options available to it while carrying out the balancing act. The options available are:-

(a) To pass on the high costs of winter power to consumers thru higher tariffs/demand charges/winter levy.

(b) To allow creation of Regulatory Asset for the Board for uncovered revenue gap, which will force the Board to raise more debt.

(c) To allow the Board to resort to load shedding in winters thereby reducing demand but this would affect quality of life, the economy of the State and affect public conveniences in general.

13.20 The issue regarding fixing of trading margin had been petitioned in the Hon’ble Appellate Tribunal for Electricity, which has ruled that a maximum trading margin of 4% could be claimed over and above the generation cost determined for a generating station. This order of the Hon’ble Tribunal would necessarily cap the revenues emanating from trading of power. Though an appeal has been filed in the Hon’ble Supreme Court, against the order of the Hon’ble Tribunal, this issue might eventually have a major impact on the revenues of both the State Govt. and the Board, from sale of surplus power.

13.21 An analysis of the present tariff order would reveal that the tariffs of consumers within the State continue to be low, because of the surpluses generated from sale outside the State. Any reduction in this revenue stream may necessitate sharp increase in tariffs or else the State Govt. might have to intervene though direct and indirect subsidies. Application of winter surcharge across the spectrum may also become necessary.

This is an issue thrown up in this tariff order for discussion among various stakeholders particularly the Board and the State Govt., which may need to be redressed by the Commission in the next few years.

13.22