SECTION 1

INTRODUCTION

1.1 This order relates to the applications submitted by the Himachal Pradesh State Electricity Board (HPSEB) to the Himachal Pradesh Electricity Regulatory Commission (HPERC) for the determination of Annual Revenue Requirement (ARR), Transmission & Bulk Supply tariff and Distribution & Retail Supply tariff for the FY 2004-05.

Legal provisions

1.2 The Electricity Act 2003 (36 of 2003) (hereinafter referred to as the Act) which has come into force with effect from June 10 2003 is the governing legislation for electricity sector, repealing the Indian Electricity Act, 1910; the Electricity (Supply) Act, 1948, and, the ERC Act, 1998. Among the tariff related provisions, the State Electricity Regulatory Commission (SERC) has to be guided by the National Electricity Policy and the National Tariff policy. The generation, transmission and distribution tariff have to be determined separately, and the SERC has to take into account the principles and methodologies specified by the Central Commission for generation and transmission tariff. However, the relevant provisions as per the Electricity (Supply) Act, 1948 and the ERC Act, 1998 shall continue to be applicable for a period of one year after the enactment of the Act or until the terms and conditions related to the tariff as specified under the Act are finalised, whichever is earlier.

The Act provides the functions of SERC under Section 86, which is extracted here below:

(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: -.

(i) promotion of competition, efficiency and economy in activities of the electricity industry;

(ii) promotion of investment in electricity industry;

(iii) reorganisation and restructuring of electricity industry in the State;

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

Regulations/Guidelines notified by the Commission

1.3 The Commission has issued the following Regulations/ Guidelines/Orders since the tariff order of FY 2001-02.

(i) **The Himachal Pradesh Electricity Regulatory Commission (Guidelines for Establishment of Forum for Redressal of Grievances of the Consumers) Regulations, 2003** (October 23 2003)

These regulations, notified as per section 181 read with sub-section (5) of section 42 of the Act, provide for the procedure for constitution and jurisdiction of the forum, and redressal of grievances of the consumers.

(ii) **Himachal Pradesh Electricity Ombudsman (Terms and conditions of service of officer and employee) Regulations, 2004 (**April 5, 2004)

These regulations notified under sub- section (1) of section 181 of the Act provide for the number and categories of the officers and the staff required for the office of the Electricity Ombudsman, their pay scales, qualifications and the selection procedure.

(iii) **Himachal Pradesh Electricity Regulatory Commission (Electricity Ombudsman) Regulations, 2004.** (April 29, 2004)

These regulations notified under section 181 read with sub-section (7) of section 42 of the Act lay down the procedure for appointment of the Ombudsman, his powers &duties and procedure for redressal of grievances of the consumers.

(vi) **Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2004. (**June 8, 2004)

These regulations, notified under sub- section (1) and clause (zd) of sub-section (2) of section 181 of the Act provide the general guiding factors for determination of tariff and filing of Aggregate Revenue Requirement, Capital Investment, Financing Costs, Rate Base, O&M Expenditure, Depreciation, Distribution loss, Power procurement and purchases, Bulk Supply Tariff and Differentiated Generation and Transmission Tariffs, Wheeling, Surcharge, Quality of Service and Standards of Performance of the licensee.

(v) **Himachal Pradesh Electricity Regulatory Commission (General Conditions of Distribution Licence) Regulations, 2004.** (June 8, 2004)

These regulations, notified under section 16, read with clause (d) of sub-section (2) of section 181 of the Act, set out the conditions within which the distribution licensee will carry out its functions.

(vi) **Himachal Pradesh Electricity Regulatory Commission (General Conditions of Transmission Licence) Regulations, 2004.** (June 10, 2004)

These regulations have been notified under section 16, read with clause (d) of sub-section (2) of section 181 of the Act and set out the conditions within which the transmission licensee will carry out its functions.

(vii) **Himachal Pradesh Electricity Regulatory Commission (General Conditions of Trading Licence) Regulations, 2004.** (June 10, 2004)

These regulations notified under section 16, read with clause (d) of sub-section (2) of section 181 of the Act set out the conditions within which the trading licensee will carry out its functions.

(viii) **Himachal Pradesh Electricity Regulatory Commission (Guidelines for establishment of Forum for Redressal of Grievances of the Consumers) (First Amendment) Regulations, 2004.** (June 21, 2004)

These regulations notified under Section 181, read with sub-section (5) of section 42 of the Act, amend the Himachal Pradesh Electricity

Regulatory Commission (Guidelines for Establishment of Forum for Redressal of Grievances of the Consumers) Regulations, 2003.

(ix) **Himachal Pradesh Electricity Regulatory Commission (Licensee's Duty to Supply Electricity on Request) Regulations, 2004. (**June 21, 2004)

These regulations notified under sub-section (1) of section 181, read with sub-section (1) of section 43 of the Act prescribe the duties of the licensees in respect of supply of electricity on request and the consequences on default.

(x) **Himachal Pradesh Electricity Regulatory Commission (State Advisory Committee) Regulations, 2004.** (June 21, 2004)

These regulations notified under sub-section (1) of section 181, read with section 87 of the Act lay down the procedure for appointment of members, term of office of the members and, the conduct of the proceedings and functioning of the State Advisory Committee.

Tariff concept papers/notes

1.4 The Commission has also issued the following concept papers that provide integral inputs in the tariff determination process of the Commission and outline the tariff philosophy of the Commission.

(i) **Concept paper on Retail Supply Tariff** (July 31, 2001)

This concept paper issued by the Commission discusses the objectives of tariff setting, tariff principles, methodologies, and key issues involved in determining the retail electricity tariff in Himachal Pradesh.

(ii) **Concept note on cost of supply methodology** (May 29, 2004)

This concept note attempts to explain the concept of cost of supply, discusses the approaches to determine the cost of supply and the assumptions to allocate costs to each consumer category at different voltage levels.

Consumer Satisfaction Study

1.5 The HPERC had commissioned a study with the help of, AC Nielsen ORG-MARG Pvt. Ltd., New Delhi to assess customer satisfaction on the availability, accessibility and affordability of electricity in the six districts in Himachal Pradesh, viz, Shimla, Kullu, Chamba, Solan, Kangra and Mandi. This study also provides feedback with respect to the service being provided by the HPSEB. The purpose of conducting this study was to primarily determine the required inputs necessary for formulating future strategies, to ensure better and consistent quality of power supply to the consumers of Himachal Pradesh.

1.6 Primary sample surveys were carried out in all the six districts of the State, during the period June-August, 2003. The Consumer Satisfaction Index (CSI) was estimated for each parameter selected for the study. These CSI's were then aggregated, based on the perceived weightage of different parameters, to obtain an overall CSI for each district. The study revealed that Shimla district is at the top as far as consumer satisfaction is concerned, while Kangra district is at the bottom. The ranks of different districts and the corresponding CSI, as per the study, are given below:

Table 1.1: CSI and rank of different districts as per calculated CSI

District	Rank according to CSI	Overall CSI
Shimla	1st	0.63
Chamba	2nd	0.58
Kullu	3rd	0.57
Solan	4th	0.55
Mandi	5th	0.54
Kangra	6th and Lowest	0.50

The study concludes that Mandi district be focused in respect of small and medium Industrial Consumers category followed by Kangra district for domestic rural, domestic urban, commercial and industrial (large) consumer segments.

Electricity Ombudsman and Forum for redressal of grievances of consumers

1.7 As mentioned in Para 1.3 above, the Himachal Pradesh Electricity Regulatory Commission (Electricity Ombudsman) Regulations, 2004 and the Himachal Pradesh Electricity Ombudsman (terms and conditions of service of officer and employee) Regulations, 2004 were notified in April 2004 by the HPERC. The Commission has already initiated action by advertising the post of "Electricity Ombudsman". Clause 6 of the (Electricity Ombudsman) Regulations, 2004 provides that all the expenses of the Electricity Ombudsman's Secretariat etc. shall be paid out of the fund constituted by the Commission under Section 103 of the Act and till the time the fund is constituted, the expenses of the Ombudsman's Secretariat shall be borne by the distribution licensee, i.e., by the HPSEB in such manner and proportion as determined by the Commission. The total amount involved on account of salary and allowances, furniture, vehicles etc. as tentatively assessed by the HPERC is to the tune of Rs. 38,11,233/- (one time expenditure of Rs. 14,31,750/- and recurring expenditure of Rs. 23,79,483/- for a period of nine months). The HPSEB has been requested to make provision for the same and, a corresponding provision of Rs. 32,82,459/- on pro rata basis for seven months has been made in the ARR approved for the FY 2004-05.

1.8 The Board has also not made any provision for expenses to be incurred by it on the office, salary and allowances of the members and staff of the forum to be established for redressal of the consumer grievances as provided in the HPERC (Guidelines for Establishment of Forum for redressal of grievances of consumers) Regulations notified by the Commission in the Rajpatra, Himachal Pradesh on October 23, 2003. The Commission in the interim order issued on May 31, 2004 directed the Board to submit the same by 15th June, 2004. The Board has, however, declined to include it on the grounds that the matter is subjudice in the Honourable High Court of Himachal Pradesh. The Commission has nevertheless included the expense, as computed by it, in the

ARR for the FY 2004-05 just in case the High Court upholds the establishment of the Forum as provided in the Regulations.

State Advisory Committee

1.9 The HPERC had constituted a State Advisory Committee (SAC) consisting of sixteen members in February 2001. The first meeting of the SAC was held on 17th August, 2001 and the second at Shimla on 8th October, 2002.

1.10 The SAC was reconstituted vide notification dated June 18, 2003 (under powers conferred by Section 87 of the Electricity Act, 2003 (36 of 2003).

1.11 The Members of the SAC were selected to represent the interests of electricity industry, commerce, labour, agriculture, academic and research bodies and non-governmental organisations in the energy sector. At present, the SAC has 17 members.

1.12 The third meeting of the reconstituted SAC was held on August 22, 2003 and the agenda, interalia, included discussion on the Electricity Act 2003 and various policy issues including matters regarding procedure for giving free power, model power purchase agreements, guidelines for load forecast, resource planning and power procurement, Grid Code, Distribution and Supply Code filed by the HPSEB, draft guidelines for redressal of consumer grievances, discussion paper on tariff policy, consumer interest and standards of performance of the HPSEB.

Appointment of persons to represent interests of consumers before the State Commission

1.13 The Commission appointed Shri P N Bhardwaj under Section 94(3) of the Act to represent the interests of the consumers in all the proceedings before the Commission relating the tariff petitions. The consumer representative also made presentations to the Commission during the public hearings.

Regulatory experience in Himachal Pradesh

Tariff order for FY 2001-02

1.14 The Board in its first tariff filing (for FY 2001-02) requested the Commission to grant waiver for filing of separate Transmission and Bulk supply Tariff being a vertically integrated utility. The Commission did not agree to this request of the Board and directed it to file separate transmission and Bulk Supply tariff petition or at least file separate data for generation, transmission and distribution businesses. The Board then furnished separate data for the generation, transmission and distribution businesses in the distribution and retail supply tariff application filed on January 29, 2001.

1.15 Thereafter, the Commission invited comments and suggestions from the public by issuing public notices on the tariff filing made by the Board. Later, the Commission conducted public hearings at Parwanoo, Nahan, Paonta Sahib, Dharamshala and Shimla. During this process, the Commission issued several directions with the intention to improve the database and the overall performance of the sector. The Commission issued the first tariff order for FY 2001-02 on October 29, 2001 after careful scrutiny and examination of the petition and subsequent information submitted by the Board.

Directives and compliance

1.16 In the first tariff order, the Commission had issued twenty-one tariff-related directions during the course of public hearings as well as in the tariff order. These directions were aimed at making HPSEB a truly efficient, responsive and dynamic organisation and were an integral part of the Tariff Order.

1.17 The Commission had outlined a time frame for complying with these directions and stressed the importance of monitoring the progress of compliance of these directions.

Non-compliance with directions

1.18 The Board did not comply with most of the directions issued by the Commission within the time frame allowed to it. The Board, however, submitted some information in respect of few directions in the initial progress reports required to be submitted to the Commission. The information submitted by the Board was not only grossly inadequate and incomplete but was halfheartedly prepared and misleading. This was not only the willful contravention of the directions of the Commission but also defiance of the said directions. Accordingly, the Commission on 23rd, 26th, 27th and 30th March 2002; 30th April 2002 and 15th May 2002 issued *suo motu* notices to show cause why action in terms of Section 45 of the Electricity Regulatory Commissions Act, 1998 (Now repealed) and Regulation 51 of HPERC's Conduct of Business Regulations be not initiated against the Board for contravening some ten directions issued by the Commission. Consequently, the Commission issued order-cum-directions imposing appropriate penalties on the Board in respect of contravention of six directions while giving benefit of doubt in respect of the other four, under Section 45 of the ERC Act, 1998. The Board filed appeals in the Honourable High Court against the orders of the Commission. The High Court granted stay on the penalties on February 23, 2003.

1.19 These orders-cum directions are also available in the public domain on the Commission's website for access by all in respect of six such cases.

1.20 Again the Board failed to comply with seven directions which were due for compliance and, *suo motu* show cause notices were similarly issued and penalties imposed under section 142 of the Act in respect of six such cases.

1.21 The compliance status on all the directions given by the Commission in the first tariff order is discussed in detail in section 2 of this order.

Outsourcing of studies by HPSEB

1.22 The Board has submitted that a number of studies, which were required to be conducted as per the directions of the Commission, are being outsourced as given below:

Table 1.2: Studies outsourced by the Board

Name of study	Outsourced agency
Unbundled costs	M/s ASCI, Hyderabad
Transmission and Distribution loss study	M/s ASCI, Hyderabad
Employee costs	M/s ASCI, Hyderabad
Load forecast	M/s ASCI, Hyderabad
Compliance with guidelines issued by the Commission a) Service Rules & Regulation Policy b) Distribution Planning c) Demand Side Management d) Energy Audit	M/s ASCI, Hyderabad
Fixed assets register	M/s ASCI, Hyderabad
Marginal costs pricing	M/s ASCI, Hyderabad
Voltage wise Costs, Assets and Sales	M/s ASCI, Hyderabad

1.23 These studies were awarded by the Board to ASCI in November 2003, i.e. after more than 2 years from the date of issue of the first tariff order. The Board has also submitted that ASCI will require a period of 18 months for submission of these studies from the date of award of the studies. The Commission failed to understand the delay on the part of the Board for taking decision in this regard. It also appeared to the Commission that after outsourcing these studies, the Board was trying to shy away from taking responsibility of providing the necessary information and complying with the directions of the Commission as per the time frame given by the Commission. The studies outsourced in 2003 could have been done much earlier and in time to comply with the directions of the Commission. Also, the Board is relying on the proposed deliverables of ASCI and has not submitted any implementation plan in respect of these studies.

1.24 The Commission further notes that despite the Board's contention to the contrary, the service rules and regulations policy has not been awarded to

ASCI. Similarly, in respect of the fixed assets register, the assignment to ASCI is not as per the directions of the Commission but in defiance of it in-so-far as it requires ASCI to construct fixed assets register based upon the financial data provided by the Board and not by an independent agency as ordered by the Commission.

1.25 Load forecast studies and power procurement plan were prioritised by the order of the Commission and the first and second reports have been submitted by ASCI which have been used as basis for category wise, season wise and period wise estimates of energy consumption for the purposes of cost to serve to various customer classes in FY 2004-05.

Non submission of tariff petitions for FY 2002-03 and FY 2003-04

1.26 The HPERC guidelines for Revenue and Tariff filing provide that the utility shall furnish to the Commission at least three months before the ensuing financial year, full details of its calculations of the expected aggregate revenue from the charges for the financial year. Accordingly, the Commission requested the Board to submit the tariff petition and provide details for the FY 2002-03 (vide letter No.HPERC/031/ /ED (TFA)/AM/MST/2001-1543 P-212-I dated September 11, 2001) and FY 2003-04 (vide letter No.HPERC/031/ /ED (TFA)/031/2001-36 P-123 dated January 3, 2001); however, the Board did not make any filing for the FY 2002-03 & 2003-04.

Tariff petition for FY 2004-05

Procedural Background

1.27 The HPSEB filed the petition for determination of Annual Revenue Requirement and Distribution & Retail Supply Tariff for the FY 2004-05 on 29th January 2004 and submitted further details on 4th March, 2004 before the Commission along with the application for determination of Transmission and Bulk Supply Tariff. This was submitted in response to the Commission's direction to the Board to immediately submit the tariff petition for FY 2004-05 vide its letter No/HPERC/ED (TFA)/031-II/AM/GA/2003-4173 dated January 2, 2004.

1.28 The Energy & Resources Institute (TERI), were appointed Consultants to assist the Commission in assessment of the ARR and determination of tariff on "Cost to Supply" Methodology – the first in North India. The Commission deeply acknowledges the immensely valuable and rich contribution, a thoroughly professional and dedicated support, and, indeed, extra ordinary application of mind in finding solutions to some of the knotty junctures during the exercise.

1.29 The HPSEB in its petition has stated that though the Government of Himachal Pradesh is committed to reforming its power sector, it has decided not to un-bundle the Board and will emphasize more on enhancing the efficiency within the Board by creating independent centres with separate accounts for its major wings combined with administrative, financial and technical measures. It has proposed to maintain separate accounts for generation, transmission and distribution. The Government proposes to create independent centres with separate accounts for its major wings combined with administrative financial and technical measures within the Board to achieve the above objectives.

1.30 HPERC (Terms and Conditions for Determination of Tariff) Regulations, 2004 have been notified by the Commission on June 8 2004 and have come into force on June 10 2004. The petitions were filed before the regulations came into force and therefore, do not confirm to these terms and conditions.

Non-compliance with the Electricity Act, 2003

1.31 The Commission recognizes the necessity to provide subsidised tariff to certain consumer categories, given the socio-economic situation prevailing in the state. The Commission is, however, of the view that the same needs to be provided in a transparent manner and should not unnecessarily burden the subsidising consumers. The Commission's tariff philosophy has always emphasized the need to gradually reduce the cross subsidies present in the tariff structure.

1.32 The Commission is of the view that the petition submitted by the Board does not follow the intent and spirit of the objects and purposes of the Act and the philosophies of the Commission as put forward by it in the concept papers issued on tariff determination since its inception. It also does not provide any concrete direction for improvement of the health of the sector.

1.33 The Commission also observes that the Board has not taken any steps to reduce cross subsidies in the tariff petition submitted for FY 2004-05. Instead it has proposed a very high increase in tariff for industrial consumers, especially the large industries, while no tariff increase has been proposed for domestic consumers. Such a tariff structure would further increase the cross subsidies and distort the tariff structure rather than rationalize it. In this context, the Commission would like to highlight the following provisions of Section 61 of the Act that are the guiding principles for determination of tariff:

> "61(c) the factors which would encourage competition, efficiency, economical use of the resources, good performance and optimum investments;
>
> 61(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; "

It is, thus, obvious that the tariff petition is based on the objective of increasing cross subsidy, thereby ignoring the principles set out by the Commission and the objects and purposes of the Act. The Commission's views on the tariff structure proposed by the Board are discussed in greater length in Sections 7 and 8 of this tariff order.

Misleading tariff petition and inadequate representation of domestic consumers

1.34 The Commission would like to highlight that the tariff petition submitted by the Board was grossly misleading especially for the domestic consumers, as no increase has been proposed in their tariff. Due to this reason, not many domestic consumers came forward with their objections during the public hearings. The Commission is, thus, conscious of the fact that there was inadequate representation of domestic consumers in the tariff determination process. As mentioned earlier, the Commission appointed a consumer representative to represent interests of consumers in all the proceedings before the Commission relating the tariff petitions and some persons known for their interest in the domestic class of consumers, to state the case of unorganized domestic consumers. The Commission has taken every effort to keep the interests of all consumers in the tariff determination process and in doing so has been primarily guided by the principle of reducing and eliminating cross subsidies and rationalisation of the tariff structure.

1.35 The Commission would also like to highlight that the presentation made by the Board and its consultants on each day of the public hearings was also misleading for the domestic consumers. The tariff for domestic consumers was shown at the levels as approved by the Commission in FY 2001-02, whereas, the Board is presently charging from the domestic consumers, the tariff existing before the tariff order for FY 2001-02 as the State Government had rolled back the domestic tariff with effect from June 1, 2002. The proposed increase is thus shown as nil on the assumption that the State Government will provide the necessary subsidy, though, no information on the Government's approval on this has been provided in the petition.

Salient features of the tariff petition for FY 2004-05:

1.36 The Board has proposed to reintroduce Monthly Minimum Charges (MMC) for the categories of Commercial supply, Medium Industrial Power supply, Large Industrial Power supply, Water Pumping supply, Agricultural Pumping supply and Bulk Supply. This is in conflict with Board's own slogan to save energy. MMC serves as a disincentive to consumers to conserve energy and is, thus, antithesis of the Energy Conservation Act.

1.37 The Board has also proposed to replace the existing two part tariff structure comprising energy charge and demand charge for large industrial and water supply categories by a single part tariff on the ground that the Board was not given enough time to build up the required database of contract demand and it led to huge number of disputes leading to non-recovery of Board's revenue and increase in the administrative burden. The Commission would like to stress that the reason for the administrative burden was due to the wrong interpretation of the tariff order and its provision with respect to the two-part tariff structure on the part of the Board.

Credibility of HPSEB's database

1.38 The Commission had in the tariff order of FY 2001-02, directed the Board to take urgent steps to build a credible and accurate database with unbundled costs and expenditure between the three businesses of generation, transmission and distribution as well between the various customer classes to enable the stakeholders to focus on these costs and expenses and have rational basis for the determination of tariffs under the performance based regime with some regulatory certainty. It had also directed the Board that the next tariff petition must be supported by an accurate and credible database with appropriate MIS. The Board at that time had stated on affidavit that it will be able to comply with this direction by March 31, 2003.

1.39 The Commission is, however, dismayed to see that the Board has not been able to provide a reliable and adequate database even in 2004, when more than one year has passed after the date requested by the Board itself for compliance of this direction. The data submitted by the Board is unreliable, inaccurate and inadequate. This constrains the Commission in its desire to move in the direction of determination of tariff based on the principles of multi year tariff as envisaged under section 61(f) of the Act. The lack of data has also severely held back the movement towards developing the cost to serve model as envisaged by the Commission in the concept note issued by it on the concept of cost of supply. The Commission had, therefore, made some assumptions in the analysis to determine the cost of supply at different voltage levels. These assumptions were, however, made after consultation and discussion with the Board.

Comparisons with other States

1.40 The Board in the tariff petition has provided cost comparison with other states like Assam, Meghalaya, Manipur, Nagaland, Mizoram, Sikkim, Tripura etc. The Commission would like to emphasize that such comparisons are not only illusory but also irrelevant as the data provided for the HPSEB and other states are for different years and different circumstances. Moreover, comparisons should be made with the best performing utilities across the country and the aim of the Board should be to reach the optimal level of efficiency rather than compare its performance with poorly performing utilities.

Subsidy from the State Government of Himachal Pradesh

1.41 In May 2002, the State Government of Himachal Pradesh rolled back the tariff approved by the Commission for domestic consumers in the tariff order of FY 2001-02 to the pre November 2001 levels (this decision was made effective form 1st June, 2002). However, this order for roll back of tariff was issued without the approval of the HPERC and the Commission expressed its objection to all parties concerned in this regard. The State Government was, as a consequence of its order to roll back tariff, liable to compensate the Board for the loss in the revenue on account of this tariff roll back, which is to the tune of Rs 21 Crores annually. The State Government compensated the Board for this amount till FY 2002-03, however, the Board did not receive the subsidy for the year 2003-04 and no information has been provided for the year 2004-05 in the petition submitted by the Board. The Board has thus incurred a loss of Rs. 21 Crores in FY 2003-04 together with a surcharge of Rs. 3.52 crore on account of this.

1.42 The Commission strongly feels that it is the responsibility of the utility to improve its financial sustainability and not incur losses due to indiscriminate adoption of policies of the State Government. The Commission does not see any reason why the Board did not revert back to the tariffs approved by the Commission in its tariff order, if the corresponding subsidy amount was not received by it. Section 61(b) of the Act states that the generation, transmission and supply of electricity are to be conducted on commercial principles. Thus, the Board should not be unnecessarily burdened due to the socio-economic objectives of the State Government.

1.43 The Commission wishes to emphasize that an even flow of subsidy payments is necessary for the HPSEB to meet its liabilities in a timely manner. If the State Government wants to subsidize any particular consumer category, it should submit a proposal for the same to the Commission. The Commission will then determine the amount to be paid as subsidy and, the terms and conditions of such payment otherwise the tariff as determined by the Commission for the categories being subsidized will be applicable. The Commission also informed the State Government regarding this vide its letter No. HPERC/CHM/452/NKV-03-5803 dated May 31, 2004 followed by No. HPERC/CHM/452/NKV-03-5912 dated 15th June, 2004. The Commission received fax letter bearing reference No. MPP-C(3)-1/89-I-loose dated 2June 8, 2004 from the Chief Secretary-cum-Secretary(Power) to the Government of Himachal Pradesh informing the Commission that the Government has already conveyed its decision to the Commission vide his office letter/endorsement No. MPP-C(3)-3/90-IV dated May 29, 2002 and the Government decision and the present rates of domestic tariffs with Government subsidy has to continue. This letter is reproduced in the next page.

FAX NO: 2627162 <u>Most Immediate</u>

No. MPP-C(3)-1/89-I-loose

Government of Himachal Pradesh,

Department of MPP & Power.

From

The Chief Secretary-cum-Secy.(Power) to the

Government of Himachal Pradesh, Shimla-2.

To

The Secretary,

H.P. Electricity Regulatory Commission,

Keonthal Estate, Khalini, Shimla-171 002.

Dated: Shimla-2, the 28-06-2004.

Subject: - Provision of Subsidy by State Government

Sir,

I am directed to refer to your letter No. HPERC/CHM/452/NKV-03-5912 dated 15th June, 2004 on the subject above cited and to say that the Government has already conveyed its decision, to Hon'ble Commission vide this office letter/endorsement No. MPP-C(3)-3/90-IV dated May 29, 2002. The Government decision and the present rates of domestic tariffs with Government subsidy has to continue.

Yours faithfully,

Sd/-

Joint Secretary(Power)

to the Government of H.P.

Endst.No. Even No. Dated Shimla-2 the,

1. Copy forwarded for information to the Chief Engineer (Commercial), HPSEB, Vidyut Bhawan, Shimla-4 for information please.

Sd/-

Joint Secretary(Power)

to the Government of H.P.

The letter dated May 29, 2002 referred to above is also reproduced here below: -

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FAX NO: 203600   OUT TODAY

No. MPP-C(3)-3/90-IV   CONFIDENTIAL

Government of Himachal Pradesh,
Department of MPP & Power.

From

The Principal Secretary(Power) to the
Government of Himachal Pradesh.

To

The Chairman,
H.P. State Electricity Board,
Vidyut Bhawan, Shimla-171 004.
Dated: Shimla-2, the May, 2002.

Subject: - Decision regarding restoration of old rates for the domestic consumers as were prevalent before the hike in tariff on 1-11-2001.

Sir,

I am directed to inform you that the matter regarding charging of domestic power tariff was placed before the Cabinet for consideration on 27-5-2002 who have decided as under: -

> "The Cabinet deliberated the proposal in detail and approved that directions be issued to HPSEB to restore status quo ante in the matter of charging tariff from the domestic consumers which were prevalent before 1-11-2001 i.e. before the date the domestic tariff was hiked by the HPERC. This decision will be effective from 1st June 2002. Further while taking the above decision the Cabinet observed that the Government should compensate the losses on this account to HPSEB. The Cabinet also directed that HPSEB should improve its efficiency to reduce its losses."

2. You are, therefore, requested to take further necessary action in the matter within stipulated period and compliance be sent to this Department, immediately.

Yours faithfully,
Sd/-
Secretary(Power)
to the Government
of H.P.

Endst.No. MPP-C(3)-3/90-IV Dated May 29, 2002.

1. Copy forwarded for information to the Chairman, HPERC, Keonthal Estate, Khalini, Shimla-2.
2. Copy to Additional Secretary(GAD) to the Government of Himachal Pradesh, Shimla-2, for information please.

Sd/-
Secretary(Power)
to the Government
of H.P.

1.44 This has to be in consonance with Section 65 of the Electricity Act 2003, which deals with the provision of subsidy by the State Government. The Section reads as follows:

"65. Provision of subsidy by State Government

If the State Government requires the grant of any subsidy to any consumer or class of consumers in the tariff determined by the State Commission under section 62, the State Government shall, notwithstanding any direction which may be given under section 108, pay, in advance and in such manner as may be specified, the amount to compensate the person affected by the grant of subsidy in the manner the State Commission may direct, as a condition for the licencee or any other person concerned to implement the subsidy provided for by the State Government:

Provided that no such direction of the State Government shall be operative if the payment is not made in accordance with the provisions contained in this section and the tariff fixed by State Commission shall be applicable from the date of issue of orders by the Commission in this regard."

Formal interaction with the Officers and Members of the Board

1.45 The Commission conducted formal interactive sessions with the various officers and Members of the Board to be able to understand the strategies, systems and the working procedures of their departments as well as the problems and difficulties being faced by them, if any in greater detail and depth. The Commission considered these as absolutely essential to arrive at just and fair determination of tariffs. These formal interactions were held in the Commission's office after the public hearings as per the following schedule:

Table 1.3: Schedule of formal interactions with the Officers & Members of HPSEB and Government of H.P.

S. No.	Date	Concerned officers
1.	10.6.2004	Chief Engineer (Op)(Central Zone) and Superintendent Engineer (M&T) Circle, Bilaspur
2.	11.6.2004	Chief Engineer (Op)(Northern Zone) and Superintendent Engineer (Operations) Circle, Una

3.	14.6.2004	Chief Engineer (Op)(South zone) and Superintendent Engineer, Operations Circle, Solan & Chief Accounts Officer
4.	15.6.2004	Chief Engineer (System Planning) and Director (P&D)(REC), Dalhousie
5.	16.6.2004	Chief Engineer (Materials Management), Shimla Chief Engineer (Projects) and Chief Engineer (Larji)
6.	17.6.2004	Chief Engineer Transmission, Director (Sub-Stations), Hamirpur and Director (SLDC)
7.	18.6.2004	Chief Engineer (Generation) & Director (Design), Power House, Sundernagar.
8.	19.6.2004	Chief Engineer (Commercial)
9.	21.6.2004	All Members of the Board.
10.	25.6.2004	Department of MPP& Power, Government of H.P.

The details of interactions are given in Section 5 of this order.

Commission's views on regulatory experience in Himachal Pradesh

1.46 The Commission reiterates that it believes that the regulator and the utility have common good of the power sector, financial viability of the Board on sustainable basis and the interest of the consumer in their minds. The Board must recognize the opportunities arising from and the inevitability of the reform measures, which would indeed revitalise the utility. The Commission also understands that with the establishment of the regulatory bodies in India in the mid-nineties, a new phase for the utilities emerged which required internal as well as external co-ordination by the utility. However, at that time not many utilities were equipped adequately to deal with this added responsibility and sufficient resources: financial as well as human resources were also not committed to this. The public utilities still lack behind in taking steps that would help them in dealing with these issues effectively. However, the Board should recognize that considerable time has passed since then and it should now be well prepared to contribute more effectively and efficiently in the reform process. The Board also needs to understand that the success of the initiative of independent regulation and the improvement of the power sector in the state requires support, cooperation and initiatives from the Board.

1.47 The remaining tariff order is organized as below:

Section 2: Review of the Performance of HPSEB with respect to compliance of the directions of the Commission

Section 3: Summary of petition.

Section 4: Consumers' Objections/Suggestions.

Section 5: Interactions with Officers and Members of the Board and Government of Himachal Pradesh.

Section 6: Analysis of the Revenue Requirement.

Section 7: Commission's approach to cost of supply.

Section 8: Tariff Philosophy and Design of Tariff Structure

Section 9: Directions-cum-Orders.

Annexure-1: Schedule of General and Service Charges.

Annexure-2: HPSEB: Notification and Schedule of tariff.

Annexure-3: Government of H.P. letters dated May 29 2002 & 2June 8 2004.

Annexure-4: List of objectors

SECTION 2

REVIEW OF THE PERFORMANCE OF THE HPSEB WITH RESPECT TO COMPLIANCE OF THE DIRECTIONS OF THE COMMISSION

2.1 While issuing its first tariff order (FY 2001-02), the Commission had given a number of directions to the Board, both at the time of hearing and in the order issued. This section discusses the compliance status of all the directions given by the Commission in the tariff order for FY 2001-02 and after.

2.2 In the directions where the Board was to comply by the next tariff petition and the same was not filed within next six months, the directions had to be complied within the next six months.

2.3 Unbundled Cost (Directions No. 7.1 to 7.3 of Tariff Order for FY 2001-02)

2.3.1 Directive

2.3.1.1 The Commission on September 21, 2001 directed the Board to take urgent steps to build a credible and accurate database with unbundled costs and expenditure between the three businesses of generation, transmission and distribution as well as between the various customer classes to enable the stakeholders to focus on these costs and expenses, and have rational basis for the determination of tariffs under performance based regime with some regulatory certainty. The Commission had directed the Board to support the next tariff petition by an accurate and credible data base with an appropriate MIS.

2.3.1.2 In the affidavit dated October 3, 2001, the Board stated that it will not be able to provide this information by the next tariff petition and that it proposed to comply with this direction by March 31, 2003. The Commission, however, did not accept the plea of the Board and reiterated its direction that this information must be provided by the next tariff petition because of the critical nature of this information.

2.3.2 HPSEB response on the status of implementation

2.3.2.1 The Board has submitted that information regarding the unbundled costs and expenditure between the three businesses of generation, transmission and distribution has been provided for the FY 2001-02, 02-03, 03-04 and 04-05. The details with respect to various customer classes have not been submitted. The Board has submitted that it is conducting this study by outsourcing the help. The work has been awarded to ASCI, Hyderabad on November 5, 2003. They will require a period of 18 months for conducting the study. The Commission had earlier, issued a show cause notice to the HPSEB as the required plan was not submitted in time. The Board after awarding the study to ASCI prayed to the Commission to discharge the show cause notice. The judgement on the case has been kept reserved by the Commission.

2.3.3 Commission's response on status of implementation

2.3.3.1 Direction 7.32 of the Tariff Order provided that in the directions where the Board was to comply with by the next tariff petition and the same was not filed within next six months, the directions should be complied with by 28th April, 2002.

2.3.3.2 The Board failed to submit the information by 28th April, 2002 and the Commission took *suo motu* notice of the contravention of this direction and issued a show cause notice under Section 45 of ERC Act (Now repealed) and later covered it under Section 142 of the EA,2003.

2.3.3.3 The accurate database with unbundled costs and expenditure between the three businesses of generation, transmission and distribution as well as between the various customer classes is the fundamental bottom line data to enable the stakeholders to focus on these costs and expenses and to calculate the cost of supply to various consumer categories accurately. The extent of cross-subsidy between various customer classes also cannot, therefore, be measured precisely. This would be a major handicap for the Commission in determination of tariff in future. It was precisely for this reason that the Respondent Board was asked to furnish the unbundled costs.

2.3.3.4 After very deep and anxious thought, the Commission imposed a fine of Rs.40,000/- and additional Rs.2,400/- per day w.e.f. 29-4-2002 upto the date of compliance to the satisfaction of the Commission to be so notified by it.

2.3.3.5 It is incorrect for the Board to say that the judgement in the case has been reserved by the Commission.

2.4 Transmission and Distribution Loss (Direction No. 7.4 of Tariff order for FY 2001-02)

2.4.1 Directive

2.4.1.1 The Commission on September 18, 2001 directed the Board to submit a plan by March 31, 2002 for reducing losses, both technical and non-technical together with relevant load flow studies and details of investment requirement to achieve the planned reductions. It also observed in the interim order of September 20, 2001 that the investments must aim at reducing the T&D losses and better quality of supply and service to the consumers. The Board in its affidavit of October 3, 2001 had undertaken to comply with this direction of the Commission.

2.4.2 HPSEB's response on status of implementation

2.4.2.1 The Board has submitted that the plan for reduction of losses, both technical and non-technical was submitted on April1, 2002. However, the plan did not include load flow studies and the Board requested for an extension of time upto December 31, 2003 for submission of the requisite plan. The Commission did not find merit in this and issued show cause notice to the HPSEB and subsequently imposed penalties on the Board. The Board filed an appeal in the High Court against the Commission's order on which the High Court granted stay on February 23, 2003.

2.4.2.2 The HPSEB has outsourced the work to conduct these studies. The work was awarded to ASCI, Hyderabad on November 5, 2003 and they are to submit their report within a period of 18 months from the date of award. The consultants will prepare demand forecast based on load research and economical variables like GDP, quality of power and analyse the power system upto distribution level in Himachal Pradesh by conducting power flow, stability, fault level and other appropriate computer studies under alternative generation and transmission scenarios to formulate the optimum long term development for the primary, secondary & distribution system with planned reduction of losses to minimum possible. The detailed plan has been submitted by the HPSEB in the tariff petition for the FY 2004-05.

2.4.3 Commission's response on status of implementation

2.4.3.1 The plan submitted by the Board under the cover of its letter of April 1, 2002 by way of compliance of the Commission's direction was neither supported by any load flow studies nor did it contain details of investment requirement and instead prayed for extension in time upto December 31, 2003 for submission of the requisite plan supported by relevant load flow studies and investment requirement to achieve the planned reduction.

2.4.3.2 The T&D loss is an important component in determining the tariff and substantially affects the cost of supply to the consumer. The reduction in T&D loss not only provides electricity to the consumer at a lower rate but also reduces the investment requirement of the utility in meeting the additional loads of the consumers. The HP Government has entered into an MOU with the Government of India on March 31, 2001 for reduction of T&D Loss by 5% by the end of the FY 2003-04. Until and unless the plan of reduction of the T&D loss is supported by the load flow studies and the investment requirements known, the reduction in the T&D losses as proposed by the HP Government cannot be achieved. Further, if the Board was to prepare such plans by December 31, 2003 it would practically have had 3 months to implement the plan for achieving the desired reduction, which is an impossible task. The Board, therefore, should have taken necessary steps for the preparation of the plan and to determine the investment requirement immediately after the MOU had been signed by the GoHP with the GOI, even before the directions were issued by the Commission in the public hearing held on September 18, 2001.

2.4.3.3 Further, the Board, in its letter dated April 1, 2002 made the submission that the carrying out of load flow study was not possible at that stage as necessary installation of meters at interface points and distribution transformers was in progress. For carrying out the load flow studies, which were essentially required for planning of the system and to know the investment requirement for up-gradation of system, the requirement of generation data, load data and line data for different conditions such as peak hydro/peak thermal, low/high load conditions etc. was only required, which had nothing to with the installation of electronic meters on feeders up to 11 kV and distribution transformers. The extra time, therefore, required by the Board in carrying out these studies was without merit.

2.4.3.4 The reasons advanced by the HPSEB for the prayed extension were neither supported by status/action taken report nor by any convincing reasons and therefore could not be considered by the Commission. The prayer for extension in time upto December 31, 2003 for complying with the direction was, therefore, rejected.

2.4.3.5 In the above noted matter, the Commission was prima facie satisfied from the material placed on record on behalf of the HPSEB that the Board had contravened the above direction. The Commission, therefore, issued a *suo motu* notice on April 30, 2002 to show cause as to why the prayer made by the Board seeking extension in time for submitting plans be not rejected and action in terms of Section 45 of the ERC Act, 1998 and Regulation 51 of HPERC's Conduct of Business Regulations be not initiated.

2.4.3.6 After due process and procedure and giving very deep and anxious thought, penalty of Rs.20, 000/- was imposed upon the Board. Additional penalty for continuing failure @ Rs.1200/- per day was further imposed immediately after March 31, 2002 until the date of compliance to the Commission's satisfaction to be so notified by the Commission. The Commission further ordered that the Board shall submit the Status/Action taken Reports on the fifteenth day of every month until the compliance was made. The Board however, appealed against this order and the High Court granted stay.

2.4.3.7 The Commission after great efforts had been able to arrange grant of US $75000 from PPIAF (A World Bank facility) for reviewing the studies to be conducted by the Board relating to T&D Loss, Demand side Management and Marginal cost. This grant had to be surrendered because of the failure of the Board to submit these studies in time.

2.5 Employee Cost (Directions No.7.5 and 7.6 of Tariff Order for FY 2001-02)

2.5.1 Directive

2.5.1.1 The Commission on September 18, 2001, directed the Board to submit by March 31, 2002, plans, both short-term and long-term, for rationalisation of existing manpower for improvements in efficiency through scientific engineering resources management, improving and updating the organisation strategies and systems and skills of human resources for increased productivity. The Board in its affidavit of October 3, 2001 agreed to comply with and submit the above study by the above-mentioned date.

2.5.1.2 The Commission on September 20, 2001, directed that the Board should give a very serious and deep though to the methods for reducing the employee cost, as in the opinion of the Commission natural attrition was not the only solution to this burning problem. The Board in its affidavit of October 3, 2001, agreed to consider the above in the overall context of the study on the rationalisation of the existing manpower.

2.5.2 HPSEB's response on status of implementation

2.5.2.1 The details regarding the above were not submitted in the given time frame and the Board had requested for an extension in the time frame. The Commission, however, issued a show cause notice for contravention of this direction and imposed penalties on the Board. The Board, in response to this, filed an appeal in the High Court on which the High Court had granted stay on February 23, 2003.

2.5.2.2 The Board has submitted that this work has been awarded to ASCI, Hyderabad on November 5, 2003, which shall submit its report within a period of 18 months from the date of award. The Board has in the tariff petition for the FY 2004-05 provided the details of employees retiring in the next one year.

2.5.3 Commission's response on status of implementation

2.5.3.1 The Board under the cover of its letter of April 1, 2002, after the expiry of the deadline for submission of requisite information, instead of submitting the requisite plans informed that the preparation of the plans as per the direction of the Commission was under study and prayed that the date of submission of this plan be extended upto March 31, 2003. In the above noted matter, the Commission was prima facie satisfied from the material placed on record on behalf of Board that it had contravened the above direction. The Commission, therefore, issued a *suo motu* notice to the Board on April 30, 2002 to show cause as to why the prayer made by the Board seeking extension in time upto March 31, 2003 for submitting the aforesaid plans, be not rejected, and why action in terms of Section 45 of the ERC Act, 1998 and Regulation 51 of the HPERC's Conduct of Business Regulations, 2001 be not initiated against the Board for contravening the said direction.

2.5.3.2 Instead the HPSEB filed the application for extension of time upto March 31, 2003. The reasons advanced by the HPSEB for the prayed extension were neither supported by status/action taken report nor by any convincing reasons and could not, therefore, be considered by the Commission. The prayer for extension in time upto March 31, 2003 for complying with the direction was, therefore, rejected.

2.5.3.3 After due process and procedure and after giving a very deep and anxious thought penalty of Rs.20,000/- was imposed upon the Board with additional penalty of Rs.1200/- per day for the continuing failure from 1st April, 2002 to the date of compliance to the satisfaction of the Commission, to be so notified by it. The Board filed an appeal in the High Court, which granted the stay.

2.6 Demand Forecast (Direction No. 7.7 of the Tariff Order for FY 2001-02)

2.6.1 Directive

2.6.1.1 The Commission during the hearing on September 18, 2001 had directed the Board to submit a plan by September 30, 2003 for undertaking load research to determine the load profile of the consumers, supplied under each tariff. As a part of this load study the Board should collect information on the demand from various consumers at different times of the day as well as consumption of energy during these intervals. The Board in its affidavit dated October 3, 2001 agreed to undertake this study by the above mentioned date.

2.6.2 HPSEB's response on status of implementation

2.6.2.1 The details on the above direction have not been submitted yet. The Board has, however, submitted that it is conducting the above study outsourcing the help. The work has been entrusted to ASCI, Hyderabad who are required to submit the report on the above aspects within a period of 18 months from the date of award.

2.6.3 Commission's view on status of implementation

2.6.3.1 Draft report submitted by the consultants to the Board was made available to the Commission. The commission has accepted it with some further directions.

2.7 Financial Restructuring (Direction No. 7.8 of Tariff Order for FY 2001-02)

2.7.1 Directive

2.7.1.1 The Commission on September 21, 2001 directed the Board to commission a study on total financial management of the Board so as to determine an optimal capital structure, including key financial parameters and submit this study by September 30, 2002. The Board in its affidavit dated October 3, 2001 undertook to carryout the above study.

2.7.2 HPSEB's response on status of implementation

2.7.2.1 The Board has submitted that it is conducting this study by outsourcing the help and has requested for an extension of submission of this plan. The work has been awarded to ASCI, Hyderabad on November 5, 2003 who are required to submit the report on the above aspects within a period of 18 months from the date of award. The scope of work covers identifying business/profit centres in generation, transmission and distribution, reviewing existing staffing pattern, review current practices and system including financial capital structure, develop models for financial and management accounting and preparation of human resource inventory.

2.7.3 Commission's view on status of implementation

2.7.3.1 The Board on Septemberember 30, 2002, instead of submitting the report, prayed that the date of submission of this study be extended upto March 31, 2003 on the plea that the main component of financial restructuring related to the equity component of the Larji Hydroelectric Project had not been tied up.

2.7.3.2 The Commission in its letter dated 24th October, 2002 pointed out that the proposal of the Board for extension in time was not supported with the status report, work done so far and the plan to ensure that the direction would be complied with by the proposed date and, therefore, directed the Board that before the request of extension in time was considered, the

Board should submit the status report on the work done during the last one year specifying whether the study was being undertaken through a consultant or in-house and the plan to ensure that the study would be completed by 31.3.2003. Further, if the work had been assigned to a consultant, the details of the date of award of contract, scope of work and the time fixed for carrying out of study be indicated and in case the study was being carried out in-house, copy of the order constituting the Committee to undertake such study and the mandate given be supplied.

2.7.3.3 The Board has not so far replied to the observations made by the Commission.

2.7.3.4 Capital structure and prudent financial management have direct bearing on financial health, operational performance and creditworthiness of the Electricity Board, the improvement of which is the sole aim and purpose of the Electricity Act, 2003. Key financial parameters are the ratios to measure the same. Without these, it is not known as to how the Board can keep an eye on the performance of the utility and manage its finances in a prudent manner. The Commission is mandated to improve the financial health of the Electricity Board which was loosing heavily on account of irrational tariffs and lack of budgetary support from the State Government

2.7.3.5 The Commission was, therefore, left with no alternative but to call upon the Board to show cause as to why proceedings under Section 45 of the Electricity Regulatory Commissions Act, 1998 read with Regulation 51 of the Himachal Pradesh Electricity Regulatory Commission (Conduct of Business Regulations), 2001, be not initiated for contraventions and non-compliance of the directions issued by the Commission as above. Suo motu show cause notice was issued on 15-2-2003.

2.7.3.6 The fact of having awarded the work to ASCI though does assuage the gravity of the contraventions to some extent, these studies and plans could have been awarded much earlier, had the Board taken the directions of the Commission seriously. The Commission had no doubt, whatsoever, that these studies would have definitely facilitated the Board in streamlining its functioning and bringing in more efficiency and economy in its operations.

2.7.3.7 After due process and procedure and after giving very deep and anxious thought the Commission imposed upon the Board penalty of Rs.40,000/- and additional Rs.2400/- per day with effect from 1-10-2002 upto the date of compliance to the satisfaction of the Commission to be so notified by it. The Board filed and appeal in the High Court, which granted the stay.

2.8 Simulating Competitive Conditions (Direction No. 7.9 and 7.10 of Tariff Order for FY 2001-02)

2.8.1 Directive

2.8.1.1 The Commission had directed the Board to submit a plan for introducing competitive conditions between the various circles in the generation, transmission and distribution departments of the utility together with an implementation program for the same by December 31, 2001.

2.8.2 HPSEB's response on status of implementation

2.8.2.1 The HPSEB has submitted that the plan to encourage competitive scenario was put forward for consideration of the Commission on December 26, 2001. The Commission has desired further information on benchmarks, mechanism and procedure for rewarding the best and discouraging the worst and the implementation programme and subsequently served a show cause notice to the HPSEB.

2.8.3 Commission's view on status of implementation

2.8.3.1 The plan submitted by the Board on December 26, 2001 by way of compliance of the Commission's direction did not have any benchmarks, mechanism or procedure for rewarding the best and discouraging the worst and no implementation programme implying thereby that the plan had been prepared in an unprofessional manner without proper application of mind and due diligence. It was a coloured compliance. The Commission, nevertheless, in its role as facilitator gave to the plan a shape and a face to simulate the competitive conditions and posed it to the Board vide its letter of February 7, 2002 to propose the leftout benchmarks and appropriate mechanism and procedure for rewarding the best and discouraging the worst by February 28, 2002.The Board instead of submitting the requisite information, prayed for an extension in time by six months after the expiry of the deadline for submission of the requisite information. The Commission after careful thought and consideration rejected the Board's prayer for extension in time and issued a show cause notice to the Board. After hearing the case in this regard, the Commission by extending the benefit of doubt whether legally it would not attract clauses (g) and (h) of sub section (2) of Section 22 of ERC Act, 1998 (now repealed) discharged the notice. Nevertheless, the discharge was on technical and legal grounds and not on merit.

2.9 Public Interaction (Directions No. 7.11 and 7.12 of Tariff Order for FY 2001-02)

2.9.1 Directive

2.9.1.1 The Commission had during the course of hearing on September 22, 2001 at Nahan directed the Board to submit a plan by March 31, 2002 to develop and implement a comprehensive public interaction programme through consultative committees, preparation, publication and advertisement of material helpful to various consumer interest groups and general public on various activities of the Utility, dispute settlement mechanism, accidents, rights and obligation of the consumers etc. In its affidavit dated October 3, 2001, the Board asked for additional time and requested that the submission of the plan will be possible only by September 30, 2002. The Commission, however, strongly believed that submission of plan by March 31, 2002 was possible and therefore, reiterated the deadline.

2.9.2 HPSEB's response on status of implementation

2.9.2.1 The Board has submitted that it had requested for an extension for the submission of this plan upto September 30, 2002. This was not granted by the Commission and a show cause notice was issued to the Board. The Board submitted its reply on this and subsequently, the Commission imposed penalties on the Board. The Board in response to this, filed an appeal in the High Court on which the High Court granted stay on April 23, 2003.

2.9.2.2 The Board has also stated that a plan for this directive was submitted to the Commission on September 30, 2002. The Commission, however, was of the view that the plan submitted was not in line with the directions. It, therefore, directed the Board to submit the above plan with definite time frame for implementation of each element. The Board in response to the above has prayed to the Commission that necessary guidelines in preparation of this plan may kindly be imparted so that plan on the lines as desired by the Commission can be prepared and submitted.

2.9.3 Commission's view on status of implementation

2.9.3.1 The Board under the cover of its letter of April 1, 2002, after the expiry of the deadline for submission of requisite information, instead of submitting the requisite plan prayed that the date of submission of this plan be extended upto September 30, 2002.

2.9.3.2 The reasons advanced by the Board for the prayed extension were neither supported by the status/action taken report nor by any convincing reasons and could not be considered by the Commission. The prayer for extension in time upto September 30, 2002 for complying with the direction was, therefore, rejected.

2.9.3.3 In the above noted matter, the Commission was prima facie satisfied from the material placed on record on behalf of the Board that the Board had contravened the above direction The Commission, therefore, issued a *suo motu* notice on April 30, 2002 to show cause as to why the prayer made by the Board seeking extension in time upto September 30, 2002 for submitting the aforesaid plan be not rejected and action in terms of Section 45 of the ERC Act, 1998 (now repealed) and Regulation 51 of HPERC's Conduct of Business Regulations be not initiated.

2.9.3.4 Penalty of Rs. 15,000/- was imposed upon the Board. Additional penalty for continuing failure @ Rs. 900/- per day was further imposed on the Board after March 31, 2002 until the date of compliance to the Commission's satisfaction to be so notified by the Commission. The Board appealed against the above order in the High Court which granted the stay.

2.10 Unproductive Assets (Direction No. 7.13 of Tariff Order for FY 2001-02)

2.10.1 Directive

2.10.1.1 The Commission directed the Board to file an affidavit by October 24, 2001 to support its statement to the effect that the Board does not have any un-productive, un-remunerative and idle assets.

2.10.2 HPSEB's response on status of implementation

2.10.2.1 The HPSEB submitted the information on unproductive assets on January 31, 2002.

2.10.3 Commission's view on status of implementation

2.10.3.1 The Board had filed an affidavit on January 31, 2002 in which it made a complete U-turn from its deposition made earlier on September 24, 2001 before the Commission that it had no idle, unproductive and unremunerative assets, and instead furnished the details of unproductive, unremunerative and idle assets with the Board. The perusal of this information revealed that the Board had made a false statement on September 24, 2001 before the Commission that it had no unproductive, unremunerative and idle assets. It also bared out huge inconsistencies and incongruities in that even the store items that did not form part of the fixed assets had been included in the information. The Commission then issued a *suo motu* notice to the HPSEB. After a detailed hearing of the case, the Commission discharged the Board from the liability under Section 193 of the IPC and Section 45 of the ERC Act, 1998 (now repealed) with an advice that the Board must check and verify its records before making a statement before the Commission.

2.11 Power Sector Reforms (Direction No. 7.14 of Tariff Order for FY 2001-02)

2.11.1 Directive

2.11.1.1 During the course of hearing on September 19, 2001 at Shimla, the Commission directed the Board to submit by October 3, 2001, an affidavit giving the plan and the programme for implementation of the reform process as envisaged in the MoU signed between the GoHP and the GoI, progress made in this direction and the milestones set out and achieved in respect of each area of reform.

2.11.1.2 The Commission also directed the Board to strictly follow the guidelines and the programme for implementation of the reform process as envisaged in the MoU and update the Commission every quarter on the progress made in this direction through a report. The first report in this regard was to be submitted on or before January 15, 2002.

2.11.2 HPSEB's response on status of implementation

2.11.2.1 The HPSEB has submitted the above information upto the quarter ending December, 2003.

2.11.3 Commission's view on status of implementation

2.11.3.1 The report submitted by the Board vide letter dated January 15, 2002 revealed that the milestones for some of the activities have been deferred without giving any reasons. The Commission took the view that this was a coloured compliance, if at all, and hence issued show cause notice to the HPSEB. However, taking an extremely lenient view at that time, Commission discharged the notice.

2.12 Fixed Assets and Capital works in progress (Directions No. 7.15 to 7.17 of Tariff Order for FY 2001-02)

2.12.1 Directive

2.12.1.1 The Commission had directed the Board to supply information on fixed assets and capital works in progress as under: -

a) Preparation of Fixed Assets Register (FAR) by 31-3-2002.

b) Undertake an investigation of amount reflected in the capital works progress account and submit the same to the Commission by 31-3-2002.

c) Conduct physical verification of assets by an independent agency and submit a report on the Fixed Assets Register by September 30, 2002.

2.12.2 HPSEB's response on status of implementation

2.12.2.1 The HPSEB has submitted that the information on fixed assets and capital works in progress has been provided to the Commission on April 1, 2002. The Board has also submitted that the difference in the capital expenditure on works in progress as per Annual Accounts (Rs.1081.34 crores) and as per the details provided to the Commission (Rs. 924.13 crores) is under reconciliation.

2.12.2.2 The Board has further submitted that it had asked for extension of time for the submission of the report concerning physical verification of assets. It had requested that instead of physical verification from the independent agencies it shall get it done by making internal arrangements. To this the Commission had issued a show cause notice. The Board in its reply submitted that due to financial constraints it had requested that instead of physical verification from independent agencies it should get it done by making internal arrangements. The Board has, however, awarded the study to the ASCI, Hyderabad on November 5, 2003 who shall submit the report within 18 months. The Board has also submitted the progress of all the 24 Circles to the Commission.

2.12.3 Commission's view on status of implementation

2.12.3.1 While fixing the tariff, the Commission is to allow 3% return on net fixed assets of the Board. This is to ensure that the utility earns some profit to have funds for the new investments required for the expansion of the power system and also for the replacement of the existing assets. The Commission had reasons to believe at the time of issuance of the above said direction that the information provided by the Board on its various assets was sketchy, insufficient and incomplete.

2.12.3.2 The Board on September 30, 2002, instead of submitting the report, prayed that the date of submission of this plan be extended upto March 31, 2003 on the plea that the physical verification of the assets in some eight Circles had been completed and the work was in progress in other Circles.

2.12.3.3 The Commission, in its letter dated October 24, 2002, pointed out that the proposal of the Board was not supported with the status report, work done so far and the plan to ensure that the direction would be complied with by the proposed date and, therefore, directed the Board that before the request of extension in time was considered, the Board shall submit the status report indicating the date on which the work was awarded to an independent agency, the time period allowed for the completion of the study, the progress made so far and the plan to ensure that the work of conducting physical verification would be completed before 31-3-2003. The Board failed to reply to the observations of the Commission. The Commission was, therefore, left with no alternative but to call upon the Board to show cause as to why proceedings under section 45 of the ERC Act, 1998 (Now repealed) be not initiated for contravention and non-compliance of this direction. After due process and, procedure, the Commission imposed a penalty of Rs.50,000/- and additional Rs.3000/- per day w e f. 1-10-2002 upto the date of compliance to the satisfaction of the Commission.

2.12.3.4 Outsourcing the task to ASCI has been with regard to the preparation of the FAR on the basis of the data supplied by the Board and not physical verification by an independent Agency as ordered by the Commission. Continued non-compliance of this direction and determination of revenue potentials of such assets or fair value thereof is likely to result in disastrous consequences in the wake of transfer scheme to be prepared by the GoHP under section 131 of the EA, 2003.

2.13 Metering, billing and collection efficiency (Directions No. 7.18 and 7.19 of Tariff Order for FY 2001-02)

2.13.1 Directive

2.13.1.1 The Commission directed the Board to undertake the following: -

a) to accelerate replacement of defective and dead stop meters as on December 31, 2001 and complete this work not later than March 31, 2002 and thereon, clear the backlog on quarterly basis. All meters becoming defective and dead stop after March 31, 2002, shall be replaced only by electronic meters.

b) timely reading, billing and collection from consumers could significantly improve the cash flow of the Board. The system need to be reviewed with a view to streamline the process and minimize the time between the consumption and the receipt of revenue from such consumption. The Board should review the process of timely meter reading, billing and collection of revenue for streamlining the process. The Board should also explore the possibility of outsourcing these tasks if found economical and efficient. Prepaid metering which eliminated the credit to the consumer for the energy used by him might also be considered for introduction in a phased manner. A report on the progress made in this direction should be provided along with this tariff petition.

2.13.2 HPSEB's response on status of implementation

2.13.2.1 The Board had requested for an extension of time period for the replacement of total dead stop/defective meters. The Commission, however, issued a show cause notice for contravention of this direction and imposed penalties on the Board. The Board in response to this filed an appeal in the High Court on which the High Court had granted stay on February 23, 2003.

2.13.2.2 The Board further submitted that all the dead stop/defective meters as on December 31, 2001 had been replaced on June 6, 2002. The Board has also submitted the status of replacement of dead stop/defective meters as on December 31, 2001 in respect of South/North and Central Zone to the Commission. This along with the progress made in the meter placement or replacement and procurement was submitted by the HPSEB in the petition.

2.13.3 Commission's view on status of implementation

2.13.3.1 HPSEB in its petition had proposed an increase in the general and service charges. These were to be charged from the consumers for the rentals of the energy meters and various services rendered. The Commission approved higher monthly rentals to that proposed by the HPSEB for the energy meters keeping in view the annuity charges to be recovered on no profit basis based on their costs. The cost of the energy meters assumed for working out the annuity was revised upwards to ensure that the energy meters purchased by the Board not only met international standards but also were of electronic type. Since the Commission approved higher meter rentals, it passed necessary directions to the Board that from March 31, 2002 onwards, all defective/dead stop energy meters be replaced with electronic meters only. The service charges were moderated and rationalised, wherever required, and felt necessary by the Commission, keeping in view the actual work involved and the specialization that needed to be put in by the Board in terms of man-hours for extending such a service as also the testing tools and plant required for such works. Penalty charges, to curb malpractices were introduced in specific cases where the Board notices meter tempering."

2.13.3.2 The Commission had allowed the Board in the Tariff Order dated October 29, 2001 an additional revenue to the tune of Rs.3.60 crores by approving monthly meter rentals of Rs.10/- per month per meter and Rs.25/- per month per meter in respect of single phase and poly phase (upto 50 amps. capacity) energy meters respectively.

2.13.3.3 Electronic meters, due to higher accuracy class and long service life, are cost effective, tamperproof meters with low payback period which are bound to bring down the transmission and distribution losses and increase revenue. The higher monthly meter rent approved by the Commission over and above the rates proposed by the Board for various capacities of meters should generate adequate funds to be able to replace all the defective and dead stop meters with electronic meters

2.13.3.4 The Chief Engineer (Commercial), HPSEB, Shimla vide his letter dated April 1, 2002, while reporting the status of various directions to be complied with by March 31, 2002, stated that the status of replacement of all dead stop and defective meters as on December 31, 2001 by March 31, 2002 can only be reported after the receipt of the progress reports from the field and submitted that concerted efforts have been made by the HPSEB to comply with the direction of the Commission and in case of short fall in achieving the target, the compliance shall be reported by June 30,2002.

2.13.3.5 The Chief Engineer (Commercial) vide his letter dated February 28, 2002 had also prayed for extension in time for replacement of all the defective and dead stop meters with electronic meters from April 1, 2002 to September 30, 2002 but the prayer of the HPSEB which was without merit, was rejected by the Commission vide its Order of March 13, 2002.

2.13.3.6 The Commission issued administrative direction on May 3, 2002 to ensure attendance of the Member (Op.), HPSEB to let the Commission know the status of the procurement of electronic meters and directions issued by the Board to its various field units in regard to the replacement of defective and dead stop meters with electronic meters and also the progress made for the replacement of defective and dead stop meters as on December 31, 2001.

2.13.3.7 The said direction was issued by the Commission in the larger interest of the Board as well as the consumers of the State and as the Commission was totally in dark as to the steps taken and difficulties experienced by the Board, if any in the procurement of the electronic meters and the replacement of the deadstop/defective meters and the Commission was convinced that the personal hearing of the concerned member i.e. Member (Op.) was absolutely essential.

2.13.3.8 Member (Op.) failed to attend the Commission on May 13, 2002 in person and thereby lost an opportunity of being facilitated in solving the difficulties to comply with the directions.

2.13.3.9 The status of compliance and the steps taken by the Board in this direction were also not informed by the Board to the Commission.

2.13.3.10 In the above noted matter, the Commission was prima facie satisfied from the material placed on record on behalf of HPSEB that it had contravened the above direction. The Commission, therefore, issued a *suo motu* notice to the Board on May 15, 2002 to show cause as to why action in terms of Section 45 of the ERC Act, 1998 (Now repealed) and Regulation 51 of HPERC's (Conduct of Business Regulations) be not initiated against the Board for contravening the said direction besides ordering the refund of the difference in monthly meter rentals between the rent proposed by the Board and that approved by the Commission so collected by the Board and stopping further billing & collection of enhanced rentals as per Clause 5.15 of the Tariff Order.

2.13.3.11 After due process and procedure and after giving very deep and anxious thought the Commission imposed penalty of Rs. 20,000/- with additional penalty of Rs.1200/-per day for continuing failure w.e.f. 1.4.2002 until the date of compliance to the satisfaction of the Commission.

2.13.3.12 The Board was also directed to refund the difference in monthly meter rentals between the rents proposed by the Board with effect from November 1, 2001 and that approved by the Commission, so collected by the Board through the electricity bills to all such consumers. The monthly meter rentals as proposed by the Board alone were to be collected by the Board from the consumers until all the meters becoming defective/dead stop after March 31, 2002, were replaced with electronic meters.

2.13.3.13 The Board, however, appealed against the above order of the Commission and the High Court stayed the order.

2.14 New Connections (Direction No. 7.21 of Tariff Order for FY 2001-02)

2.14.1 Directive

2.14.1.1 The Commission had directed the Board to examine the procedure for sanctioning new connections and prepare a proposal for simplification of the procedure and reduction in the delay in obtaining clearances from various departments and agencies for the purpose of approval of new applications for supply and submit the same to the Commission by March 31,2002.

2.14.2 HPSEB's response on the status of implementation

2.14.2.1 The HPSEB has submitted that the procedures already approved by the Commission in this regard are being followed.

2.14.3 Commission's view on the status of implementation

2.14.3.1 The Commission is not satisfied with the above explanation of the Board. The Consumer Satisfaction Survey conducted by A.C.Nielson ORG-MARG reveals high level of dissatisfaction of the consumers with the existing procedures.

2.15 Marginal cost pricing (Direction No 7.22 to 7.24 of Tariff Order for FY (2001-02)

2.15.1 Directive

2.15.1.1 The guidelines for "Revenue & Tariff Filing" issued by the Commission required the utility to conduct a study on marginal costs of supply, including time-differentiated marginal costs by (a) voltage levels or (b) consumer classes. A written explanation of the methods used to calculate marginal costs, along with all work papers also need to be provided. In addition, the statement shall include a comparison of the percentage of marginal costs recovered by the current and proposed tariff for each tariff category.

2.15.1.2 The Commission under Direction 7.24 of Chapter 7 of the Tariff Order dated 29th October, 2001 had directed the Respondent Board to initiate a study to assess the marginal cost and submit the report to the Commission along with the next tariff petition.

2.15.2 HPSEB's response on status of implementation

2.15.2.1 The Board has submitted that the information on this directive has been submitted to the Commission in the tariff petition for the FY 2004-05. ASCI will be conducting the study for the Board and they were awarded this work on November 5, 2003 however, they will require a period of 18 months for conducting the studies and therefore the Board can submit the plan only after this.

2.15.3 Commission's view on status of implementation

2.15.3.1 Direction 7.32 of the Tariff Order provided that in the directions where the Respondent Board was to comply with by the next tariff petition and the same was not filed within next six months, the directions should be complied with by 28th April, 2002.

2.15.3.2 The Respondent Board failed to submit the Marginal Cost Study by 28th April, 2002.

2.15.3.3 In the “ Concept Paper on Retail Supply Tariff” issued by the Commission on July 31, 2001 the mind of Commission was given as to how it would like to determine the tariffs in future. This paper highlights that there are two broad options to determine the revenue requirement of generation, transmission and distribution and these are (i) Historical cost approach and (ii) Marginal Cost approach. The primary difference between the Historical cost and marginal cost is that the marginal cost concept is forward looking while the historical cost is backward looking. Marginal cost is the system cost incurred in meeting the demand for an incremental unit of electricity (supplying one additional kWh). In supply constrained system, the cost of supplying electricity increases, whenever the existing consumers increase their demand or when the new consumers are added to the grid so the prices should reflect the economic value of the future resources. The use of marginal cost based pricing is consistent with this objective and it provides clear signals to the producers and the consumers on the value of the electricity consume. In contrast, the use of historical cost approach assumes that the future resources are as cheap as were in the past. Pricing below the marginal cost results in waste of resources since the cost of producing some units exceeds their value to the consumers. The marginal cost thus provides a good benchmark in measuring the efficiency of the existing tariffs.

2.15.3.4 The long term, marginal cost study is essential to calculate the long term incremental cost of providing electricity in contrast to the backward approach of historical and sunk costs in ‘cost of supply’ method and is based upon forward looking approach which looks at the future streams of investment in generation, transmission and distribution and the future streams of capacity and energy to be created by such investments.

2.15.3.5 The Commission arranged grant of US$ 75000 from PPIAF (A World Bank Facility) for reviewing the marginal cost study alongwith other studies to be conducted by the Board. This grant had to be surrendered because of the failure of the Board to submit the study within the prescribed time.

2.16 Wholesale Supply of Power and Malana Project (Direction No 7.25 and 7.26 of Tariff Order for FY 2001- 02)

2.16.1 Directive

2.16.1.1 The Commission directed that an appropriate proposal for determination of tariff for wholesale supply of power from the Government to the Board should be made at the earliest. The Board was also directed to make a comparison of the capital cost of the Malana plant with the capital cost of the HPSEB's plants and submit a report on this by March 31, 2002.

2.16.2 HPSEB's response on status of implementation

2.16.2.1 The HPSEB has submitted that the appropriate proposal for determination of tariff for wholesale supply of power from Government to Board has not been received. However, in the letter dated October 23, 2001, the GoHP has intimated that against 352 MU made available by Baira Suil and Chamera unit as free power, only 70 paise per unit was being charged from the Board by the State Government.

2.16.2.2 The Board has also conveyed that the information on Malana Hydel Project was submitted on April 1, 2002. However, the plan submitted was not approved by the Commission and it issued show cause notice to the HPSEB in this respect and after deliberations imposed penalties The Board in response to this filed an appeal in the High Court on which the High Court had granted stay on February 23, 2003.

2.16.3 Commission's view on status of implementation

2.16.3.1 This direction was issued with a view to carry out deep study and investigations for building up learning and skill inventories of the Board to bring down the cost per MW in the future projects as also to learn lessons from this project for future project implementation for efficient costs and project management.

2.16.3.2 The Chief Engineer (Commercial) vide his dated April 1, 2002 had stated that the comparison of the capital cost of Malana Project with the capital cost of HPSEB's plants could not be done at this stage because there were incomplete works at Malana site and also some repair and rehabilitation works were to be carried out by Malana Power Company which would inflate the capital cost of the project and, therefore, submitted that the comparison could actually be done after the completion of the Malana Project based on the actual expenditure incurred by the Malana Project Company for the completion of all works at site.

2.16.3.3 The Commission was totally in dark as to the steps taken, study conducted, investigation undertaken and the difficulties being faced by the Board in order to comply with the said direction of the Commission and, the Commission was convinced that it must hear the concerned Member (Civil) to explain the difficulties, if any, in obtaining the information from Malana Power Company for the purpose of carrying out the comparison. The personal presence was felt absolutely essential for reasons of personal knowledge that the concerned Member alone could be in possession of.

2.16.3.4 The Commission, therefore, issued an administrative direction to the Board on May 3, 2002 to ensure the attendance of Member (Civil) on May 14, 2002 so that the Commission could discuss the matter further.

2.16.3.5 Member (Civil) failed to attend the Commission on May 14, 2002 in person and thereby lost an opportunity of being facilitated in solving the difficulties to carryout the comparison as required in the said direction.

2.16.3.6 By such a study and comparison and by emulating the project management techniques of Malana Power Company, the Board could have considerably economised on its costs in establishing future power plants. It would have resulted in lower tariffs for the consumers of Himachal Pradesh.

2.16.3.7 In the above noted matter, the Commission was prima facie satisfied from the material placed on record on behalf of the HPSEB that the Board had contravened the above direction. The Commission, therefore, issued a *suo motu* notice to the Board on May 15, 2002 to show cause as to why action in terms of Section 45 of the ERC Act, 1998 (Now repealed) and Regulation 51 of the HPERC (Conduct of Business Regulation) be not initiated against the Board.

2.16.3.8 After due process and procedure and after giving very deep and anxious thought penalty of Rs.10,000/- was imposed upon the HPSEB. Additional penalty for continuing failure @ Rs.600 /- per day was further imposed on the HPSEB after March 31, 2002 until the date of compliance to the Commission's satisfaction to be so notified by the Commission. The Board appealed against the above order of the Commission and the High Court granted the stay.

2.17 Compliance with the Guidelines issued by the Commission (Direction No 7.27 of Tariff Order for FY 2001- 02)

2.17.1 Directives

2.17.1.1 In the Guidelines for revenue and tariff filing the Commission had asked the Board to submit various reports as part of the filing. The reports wherever furnished by the Board had been found unsatisfactory and did not meet the requirements of the said guidelines. Accordingly the Commission directed the Board to submit the following reports complete and comprehensive in all respects, along with the next tariff petition as required in the 'Guidelines for Revenue and Tariff filing'.

i) Service Rules and Regulations Policy
ii) Energy Audit.
iii) Distribution Planning.
iv) Demand Side Management.

2.17.2 HPSEB's response on status of implementation

2.17.2.1 The Board has solicited outsource help for the same and the work was awarded to ASCI on November 5, 2003. A period of 18 months is required for conducting the studies. The Board has stated that it will be able to submit the plan in this regard only after the studies.

2.17.3 Commission's view on the status of implementation

2.17.3.1 The Board failed to submit the information/plans on the guidelines issued by the Commission by 28th April 2002.

2.17.3.2 In this matter the Commission was prima facia satisfied from the material placed on record on behalf of the Board that the Board had contravened the above direction. The Commission, therefore, issued a *suo motu* notice to the Board to show cause as to why action in terms of Section 45 of the ERC Act, 1998 (Now repealed) be not initiated against the Board.

2.17.3.3 The Service rules and regulations policy, Energy audit programme, Distribution planning policy and Demand Side Management plan are some fundamental sine qua nons of the working of a distribution licensee without which it is not possible to plan, operate and perform economically, efficiently and competitively for sustainable development of the power sector. It would render the very objects and purposes of the Act, totally otiose.

2.17.3.4 The fact of having awarded the work to ASCI though does assuage the gravity of the contraventions to some extent, these studies and plans could have been awarded much earlier, had the Board taken the directions of the Commission seriously. The Commission has no doubt, whatsoever, that these studies would have definitely facilitated the Board in streamlining its functioning and bringing in more efficiency and economy in its operations.

2.17.3.5 After due process and procedure and after giving serious and anxious thought to the entire matter, the Commission imposed a penalty of Rs.40,000/- and additional Rs.2400/- per day w.e.f. 29.4.2002 to the date of compliance to the satisfaction of the Commission to be so notified by it.

2.17.3.6 The Commission was also forced to surrender grant of US $ 75000 arranged from PPIAF for reviewing the studies, which also included a study on Demand Side Management among others.

2.18 Materials Management (Direction No 7.28 of Tariff Order for FY 2001- 02)

2.18.1 Directive

2.18.1.1 The Commission had directed the Board to ensure that the materials management policy and practices of the Board including calendar of various actions, approvals, tendering, purchase order, delivery schedule and payments etc. are streamlined so as to provide necessary inputs of right quality at the right time to facilitate faithful implementation and compliance of the approved standards and benchmarks by the field officers. Compliance report on this direction was to be submitted latest by December 31, 2001 by the Board.

2.18.2 HPSEB's response on status of implementation

2.18.2.1 The HPSEB has stated that the required plan was submitted to the Commission on December 26, 2001.

2.18.3 Commission's view on status of implementation

2.18.3.1 The Board made three filings on this direction (vide letters of 26-12-2001, 31-1-2002 and 27-2-2002). However, these contained only the calendar of schedule of procurement and the procedure and practices being followed at that time for the procurement of material at the central and field levels. It did not say anything about streamlining the existing policy and practices. The plan submitted by the Board was completely without application of mind and due diligence in that it failed to address the very basic question of streamlining the existing polices and procedures. The Commission, thus, issued a *suo motu* notice to the HPSEB. However, after considering the whole matter consciously the objections made by the Board, it extended the benefit of doubt whether legally it would not attract clauses (g) and (h) of sub section (2) of Section 22 of the ERC Act, 1998 and discharged the notice. The discharge was on legal and technical grounds and not on merit.

2.19 Sales Manual (Direction No 7.29 of Tariff Order for FY 2001- 02)

2.19.1 Directive

2.19.1.1 The Commission had directed to the Board to incorporate in the Sales Manual changes corresponding to the directives and orders issued in the tariff order 2001-02.

2.19.2 HPSEB's response on status of implementation

2.19.2.1 The HPSEB has submitted that the compliance in this regard has already been made and reported to the Commission on December 26, 2001.

2.19.3 Commission's view on status of implementation

2.19.3.1 The Commission accepted the compliance.

2.20 Voltage wise data (Direction No 7.29 of Tariff Order for FY 2001- 02)

2.20.1 Directive

2.20.1.1 The Commission had directed the Board to provide detailed information on voltage wise assets, costs and sales with the next tariff petition so that the extent of cross subsidy could be measured precisely in future.

2.20.2 HPSEB's response on status of implementation

2.20.2.1 The Board has submitted the plan in this regard has been provided in the tariff petition for FY 2004-05. The Board has further stated that it has requested for an extension of submission of this plan in the first monitoring report submitted on February 25, 2002. However, the Commission issued a show cause notice to the HPSEB. The Board awarded the study to ASCI on November 5, 2003 and they will require a period of 18 months for conducting the studies. The Board after awarding the study to ASCI prayed to the Commission to discharge the show cause notice. The judgement on the case has been kept reserved by the Commission.

2.20.3 Commission's view on status of implementation

2.20.3.1 The Respondent Board neither submitted the information on the voltage wise data nor sought extension in time to comply with the direction by 28th April, 2002.

2.20.3.2 The Commission, was therefore, left with no alternative but to call upon the Board to show cause why proceedings under section-45 of the ERC Act, 1998 (Now repealed) be not initiated for the contravention of the above direction. *Suo motu* show cause notice was, therefore, issued on 15.2.2003.

2.20.3.3 Voltage wise data is the bottom line data required for determination of tariff by the Commission. Without this fundamental data, it is not possible to unbundle the costs of supply in various consumer classes and to calculate the cost of supply at various voltage levels. The cost of supply to various consumer categories, therefore, cannot be worked out accurately. The extent of cross-subsidy between various customer classes also cannot, therefore, be measured precisely. This would be a major handicapped for the Commission in determination of tariff in future. It was precisely for this reason that voltage wise data was asked from the Board thro' the above direction.

2.20.3.4 The fact of having awarded the work to ASCI though does assuage the gravity of the contraventions to some extent, these studies and plans could have been awarded much earlier, had the Board taken the directions of the Commission seriously. The Commission has no doubt, whatsoever, that these studies would have definitely facilitated the Board in streamlining its functioning and bringing in more efficiency and economy in its operations.

2.20.3.5 The Commission imposed, upon the Board, a penalty of Rs.25000 and additional Rs.1500 per day with effect from 29-4-2002 to the date of compliance to the satisfaction of the Commission to be so notified by it.

2.20.3.6 Further it is incorrect to say that the Commission has reserved the judgment in this case of this contravention.

2.21 Complaint Handling Mechanism (Direction No Para 7.30 of Tariff order for FY 2001-02)

2.21.1 Directive

2.21.1.1 The Commission had directed the Board to propose and submit to the Commission by Dec 31, 2001, the complaint handling mechanism and procedure for establishing the violations beyond a reasonable doubt.

2.21.2 HPSEB's response on status of implementation

2.21.2.1 The Board had submitted the plan on December 26, 2001 which was approved by the Commission and implemented by the Board w.e.f February 2, 2002.

2.21.3 Commission's view on status of implementation

2.21.3.1 The Commission accepted the Complaint Handling Mechanism and Procedure submitted by the Board and notified the same on Feb 8, 2002.

2.22 Monitoring of the Progress (Para 7.31 and 7.32)

2.22.1 Directive

2.22.1.1 The Commission would monitor the progress in complying with these directions. The Commission accordingly directed the Board to furnish the information on the milestones required in column 3 of Annexure 7.1 by December 31, 2001. Subsequent reports were to be sent every quarter providing the information required in columns 4, 5, 6 & 7. The first report should be submitted by January 15, 2002."

2.22.2 HPSEB's response on status of implementation

2.22.2.1 The HPSEB has submitted that the information on monitoring of the progress has been provided to the Commission on quarterly basis up to December 2003. Quarterly progress report for three quarters, i.e., June 2002 to

December 2002 could not be submitted due to the fact that Commission had issued show cause notices on this and matter was in the High Court, which had given the stay on the penalties imposed by the HPERC. The information on milestones to be achieved will be submitted after the receipt of Performance Evaluation and Review Technique (PERT) chart for outsourcing studies from the consultants i.e. ASCI, Hyderabad.

2.22.3 Commission's view on status of implementation

2.22.3.1 The Board did submit the first report on February 25, 2002 after it was reminded by the Commission. Perusal of this report showed that no milestones had been given and instead of showing progress, alibis, excuses and reasons had been furnished for the possible delays running into months and years in complying with the directions, in the column meant for deviations. The report failed to achieve the purpose for which it had been prescribed.

2.22.3.2 The Board thus defied the Commission by introducing expedient dimensions and distortions of its own in respect of Fixed Assets and Capital Works in progress (Direction at 7.17 of Tariff Order) and Metering, Billing and Collection Efficiency (Direction at 7.19 of Tariff Order) without permission from the Commission and without convincing justification by way of studies done by it/or got done through others to support the contrary views.

2.22.3.3 The submission of incomplete, half-hearted, misleading and unprofessional work was not only the wilful contravention of the directions of the Commission but also defiance of the said directions.

2.22.3.4 In the above noted matter, the Commission was prima facie satisfied from the material placed on record on behalf of the HPSEB that the Board had contravened the above direction. The Commission, therefore, issued a *suo motu* notice to the aforesaid persons on March 27, 2002 to show cause why action in terms of Section 45 of the ERC Act, 1998 (Now repealed) and Regulation 51 of HPERC's Conduct of Business Regulations be not initiated against the Board for contravening the above direction issued by the Commission.

2.22.3.5 This direction being of on-going nature, was again contravened by the Board. The said report was not submitted by the Board for the quarter ending September, 2002 in spite of the fact that the Commission vide its letter dated the October 30, 2002 and dated the 6th January, 2003 pointed out that the said report had not been submitted and its submission be expedited. The said progress report for quarter ending December 2002 was also overdue at the time of issue of the show cause notice i.e. 15.02.2003

2.22.3.6 The Board's plea that it did not submit the reports because of the stay order on penalties was found untenable. The stay was on penalties and not on jurisdiction of the Commission.

2.22.3.7 After due process and procedure and after serious and anxious thought, the Commission imposed, in the case of first contravention penalty of Rs.40000 and additional Rs.2400 per day with effect from 29-4-2002 to the date of compliance to the satisfaction of the Commission to be so notified by it. In respect of second contravention, however, no penalty was imposed. The Board appealed against the imposition of penalty in the H.P. High Court which granted the stay.

2.23 Contravention of Commissions Regulations

2.23.1 The Commission notified the HPERC (Guidelines for Establishment of Forum for Redressal of Grievances of the Consumers) Regulations, 2003, in exercise of powers conferred by Section 181, read with sub section (5) of Section 42 of the EA,2003, in extra-ordinary edition of Rajpatra HP on 23-10-2003, the Regulation 3 of which required the Distribution Licensee (Board) to establish within 6 months from the appointed date i.e. 10-6-2003, a Forum for redressal of grievances of the consumers in accordance with the Regulations.

2.23.2 The Board, however, filed on 3-12-2003 a review petition under sub section (1)(f) of Section 94 of the Act.

2.23.3 The review petition was dismissed with directions to the Board to show cause as to why the Board, without prejudice to any other penalty to which it may be liable under the Act, should not pay by way of penalty as provided for in Section 142 of the Act, for this very serious contravention, under Section 42 of the Act. The Commission after giving proper hearing to the parties was convinced that the Board had willfully contravened the provisions of sub section (5) of the Section 42 of the Act by not establishing the Forum for redressal of grievances of the consumers by the 10th December, 2003 in accordance with the HPERC Regulations in this behalf. The Commission ordered, that without prejudice to any other penalty to which it may be liable under the Act, the Board was liable for imposition of appropriate penalties under Section 142 of the Act.

2.23.4 The Commission observed that there was recurrent cause of action by continuing non-compliance and contravention of not only the directions and orders of the Commission but now of even the provisions of the Act. Violations after violations were being committed and there was no sign of improvement and no sign of obedience and compliance with the provisions of the Act or of the Regulations of the Commission. There is a blatant defiance which tantamount almost to contempt, one after the other, of not only the Commission's Regulations, directions and orders but also of the provisions of the very Act which governs the power sector in the Country.

2.23.5 However, before the appropriate penalty was imposed, in terms of Section 142 of the Electricity Act 2003 Act and Regulation 51(iii) of HPERC (Conduct of Business Regulations), 2001, keeping in view the principles of natural justice, the Commission, afforded an opportunity to the Board of being heard. The Board, however, filed CWP in the Hon'ble High Court which stayed further proceedings in the matter.

2.24 Non Compliance with the Provision of CHM&P

2.24.1 Section 11.6 of HPERC CHMP provides that the Board shall submit Annual Report in Form-11 in respect of the complaints received/redressed during the financial year by June 30 of the following financial year. The said Annual Report was submitted by the Board vide its letter darted 31-7-2003. The scrutiny of the said Annual Report revealed that all the complaints received during the year by the Chief Engineer (O) North and South were attended within the stipulated period and there was no violations whereas in the case of CE (O) (CZ) the number of violations reported were 2332 out of 207106 complaints received. The Commission had reasons to be not satisfied with the adequacy and accuracy of the information contained in the Annual Report so submitted. The Commission, therefore, issued notice of inquiry into the adequacy and accuracy of the said information. After hearing the parties the Commission thro' its order dated 12-12-2003/ 22-12-2003 directed as follows:

1. Commission is satisfied that the above respondents have failed to comply with the provisions of the Complaint Handling Mechanism & Procedure. In exercise of the powers vested in it under Section 28(1) of the Electricity Act, 2003, the Commission may appoint an Investigating Authority in due course to investigate the affairs of the four Offices of CEs i.e. CE (O) South/North/Central Zone & CE (Comm.) and Offices subordinate to them and report to the Commission on the investigation made by him.

   He may, wherever required, employ any auditor or any other employee for assisting him in discharging his duties of investigation. He will enjoy all the powers under Section 128 of the Act.

2. The Commission is further of the opinion that it is necessary and expedient to put in place independent Bijli Suvidha Kendras (BSK) (Call Centre Mechanism) for maintaining the efficiency in supply of electricity and equitable distribution of electricity for better service to the consumers. Therefore, in exercise of the powers vested in it under Section 23 of the Electricity Act, 2003, the Commission directs the HPSEB to establish Bijli Suvidha Kendras (BSK) at each district Headquarter within a period of six months from today.

   These BSKs shall be manned round the clock for receiving complaints directly from the consumers in person, on phone, fax or e-mail. These BSKs shall be suitably equipped with requisite hardware/software for recording the complaints, action taken for the redressal of the complaint and generating requisite MIS reports.

Further these Kendras shall have the necessary communication facility to communicate with all the local complaint centres/ JEs/ SDOs in-charge of the distribution area. HPSEB may follow the model being practiced in Haryana, Punjab, Madhya Pradesh, Andhra Pradesh or any other State.

3. Show cause before the next review hearing why proceedings under section 142 of the Act not be initiated against them jointly and severally for contravention of directions of the Commission without prejudice to any other penalty that they may be liable under the Act.

4. Show cause before the next review hearing why proceedings under Section 193 of IPC and Regulation 19(iii) of HPERC Conduct of Business Regulations, 2001 be not initiated against them for filing wrong, false incomplete and misleading deposition.

5. Affidavits of all subordinate officers be filed before 3-1-2004.

6. The Commission shall review the position of compliance of above directions on monthly basis on first Saturday of the month until Commission is satisfied that all the directions have been complied with.

7. All the respondents shall file affidavits on the latest position two days before the date of hearing

2.24.2 The Board, however, filed CWP in the Hon'ble High Court, which granted stay on the operation of the above order.

2.25 Commission's overview on compliance by Board

2.25.1 The Commission is conscious of he fact that the State Electricity Board does not enjoy the total independence in its working and has to look to the Government for everything. The working in the Electricity Board together with its bureaucratic rigidities and red tape are transplants from the government working where the decision-making is reduced to tortuous and safe decision making. The break from such entrenched working culture and system to a more efficient, responsive and dynamic decision-making cannot be expected suddenly with the coming of the Regulatory Commission. HPSEB shall, however, have to make serious and concerted efforts to break away from such a culture and system and sooner the better. The Electricity Regulatory Commission is the first step towards "arresting deteriorating condition of the State Electricity Board and to make plans for future developments" as enshrined in introduction chapter of the ERC Act, 1998 (Now Repealed) and reiterated in the Electricity Act, 2003.

2.25.2 The Board shall have to get used to and accept the existence of HPERC and to submit to its rightful and legal directions instead of using the legal processes to subvert the real objective and the gains flowing out of such directions. The right to use the legal processes is fundamental but must not be used for stalling the reforms. It could erode the Board's long-term viability and prove fatal to its very existence. The spirit behind the creation of Regulatory Commission must be respected and it should be taken seriously as a friend, guide, facilitator and above all a watchdog over the power sector. After all, the Regulator and the Utility have common good of the power sector, financial viability of the Board and the consumer at the bottom of their hearts. The Board must recognise the opportunities arising from and the inevitability of the reform measures, which could, indeed, revitalise the utility. The Commission has absolutely no doubt whatsoever, that the directions given in the Tariff Order were aimed at making HPSEB a truly efficient, responsive and dynamic organisation. The fact that instead of complying with the directions they were questioned futilely is a sad commentary on how well meaning directions of the Commission could be subverted and hijacked to nothingness.

2.25.3 There was recurrent cause of action by continuing the non-compliance and contravention of almost every important direction of the Commission. The Board was showing no sign of improvement and no sign of obedience and compliance with the orders of the Commission. On the contrary, there was blatant defiance tantamount almost to contempt, one after the other, of not only the Commission's orders and directions, but also of the Provisions of the Act.

2.25.4 As a matter of fact and record, the history and the list of non-compliance or violations on the part of the Board is much longer than that of the compliance and replete with very high incidence of non-compliance and violations. The track record of compliance of Commission's orders by the Board has been rather dismal.

2.25.5 The Board is relying very heavily on the deliverables from ASCI for most of the matters and has made its rather raison d'etre of its presentations during the public hearings. The Commission, however, remains sceptical of the timing and the implementation of ASCI's reports in the light of generalised statement of the Board that the implementation would depend upon whether the reports suit the Board or not.

2.25.6 The Commission, nevertheless, fervently hopes and wishes that all the players in the power sector shall show higher degree of maturity, co-operation and acceptance to the neo-paradigm of Regulation for the larger good of larger number of people of the State, in the coming times.

SECTION 3

SUMMARY OF PETITION

3.1 Introduction

3.1.1 The proposals of the HPSEB for determination of Annual Revenue Requirement (ARR) as well as Transmission & Bulk Supply Tariff and the Distribution & Retail Supply Tariff have been summarised in this section.

3.2 Sales projections

3.2.1 The HPSEB has projected 4302 MU of energy sales for FY 2004-05. This includes 2980 MU of sales within the state and 1322 MU outside the state. These projections have been made on the basis of past trends and anticipated growth in the future.

3.3 Sales within the state

3.3.1 The sales between different customer classes within the state as per the subsequent projection of 2980 MU are given in the table below. The Board has adopted Compound Average Growth Rate (CAGR) methodology to arrive at the projection of sale of power in each of the category. CAGR is calculated on the basis of the data for the last five years for all categories except Industrial (SMS) for which CAGR has been taken for only two years.

3.3.2 In case of Industrial category (LS), in addition to the sales estimated on the basis of CAGR, 76 MU have been added for 50 MW load likely to come up during the year in view of the Central Government incentive policy for establishment of industries in Himachal Pradesh.

Table 3.1: Consumer category wise sales in MU

Category	2001-02	2002-03	2003-04*	CAGR (%)	Projection for 2004-05
Domestic	665	705	745	5.83	788
NDNCS	-	11	13	19.58	16
Commercial (CS)	175	187	198	7.35	212
SMS	108	122	132	10.57	146
Large Power (LS)	1015	1108	1202	7.85	1372
Water Pumping (WPS)	202	224	245	7.58	263
Street Lighting (SLS)	9	9	10	4.79	10
Agriculture Pumping	18	20	22	7.34	24
Bulk Supply	140	132	140	5.80	148
Temporary Supply	--	1	1	20	1
TOTAL	2332	2519	2707		2980

**Energy sale for the year 2003-04 includes estimated 953 MU consumption for the months of December 2003 to March 2004.*

3.4 Sales outside the state

3.4.1 The Board has proposed export of 1322 MU during the FY 2004-05. The data for export of power for the FY 2002-03 & 2003-04 (actuals) and estimate for the FY 2004-05 are given in the table below: -

Table 3.2: Sales outside the State for the FY 2004-05

Financial Year	Sale of Power (MU)
2001-02	**549**
2002-03	**688**
2003-04	**1669**
2004-05	**1322**

3.5 Total sales

3.5.1 The total sales as projected by the Board within and outside the state are given in the table below.

Table 3.3: Total Sales for the FY 2004-05

Description	MU
Within the State	2980
Outside the State	1322
Total	**4302**

3.6 Transmission and distribution loss

3.6.1 The Commission in the last tariff order had set T&D loss target of 17.96% for the FY 2001-02 expressing that loss higher than this would represent unjustifiable levels of inefficiency. Also, the Government of Himachal Pradesh (GoHP) signed a Memorandum of Understanding (MoU) with the Government of India (GoI) in which it agreed to reduce the T&D loss by one percentage point every year from FY 2002-03 onwards subject to reduction of 5% in five years.

3.6.2 The Board has however submitted that the actual loss reported during the FY 2001-02 were 21.16%. According to the provisions of the MoU, 1% reduction was to be achieved from the FY 2002-03 i.e. 1% reduction each year was to be achieved during FY 2002-03, FY 2003-04 and FY 2004-05.

3.6.3 Accordingly the Board has proposed a T&D loss level of 18.16% for the FY 2004-05. The Board has, however, not submitted the bifurcation of loss during the sales within and outside the state.

3.6.4 The quantum of energy available, energy sold and corresponding loss for the FY 2004-05 is accordingly estimated as under: -

Table 3.4: Estimation of overall T&D loss for the FY 2004-05 by the Board

Description	
Total energy available for sale (MU)	5256
Total energy sold	
(i) Within State (MU)	2980

(ii) Outside the state (MU)	1322
Total (MU)	**4302**
Overall T&D losses (MU)	954
Overall T&D loss (%)	18.16%

3.6.5 The Board in response to the direction given by the Commission in the tariff order 2001-02 has also submitted a plan for reducing the T&D loss, both technical and non-technical. The details of the T&D loss reduction plan have been discussed in detail in Section 6 of this tariff order.

3.7 Total generation and power cost

3.7.1 Own generation

3.7.1.1 The actual generation data for last two years and the estimates for FY 2003-04 and FY 2004-05 are given in the table below.

Table 3.5: Generation data for FY 2001-02, 2002-03, FY 2003-04 and FY 2004-05

Power station	Installed capacity	Generation			
	(MW)	(MU)			
		2001-02	2002-03	2003-04	2004-05
		Actual	Actual	Revised estimates	Estimates
Bhaba	120	481	553	567	586
Bassi	60	259	272	297	282
Giri	60	190	168	169	200
Andhra	16.95	59	69	70	64
Baner	12	31	33	37	36
Gaj	10.5	37	40	43	39
Binwa	6	21	24	29	30
Thirot	4.5	7	7	5	8
Ghanvi	22.5	37	83	69	81
Gumma	3	9	11	10	10
Holi	3				16
Khauli	12				5
Micro's	10.75	18	18	17	15
Gross Generation	341.2	1149	1278	1313	1372

Auxiliary Consumption		3	6	4	5
Net Generation		1146	1272	1309	1367

3.8 Power purchase

3.8.1 The Board has submitted that the procurement from the central generating stations is as per the project-wise allocation made by the GoI in accordance with its power sharing formula. In case of private sector and inter-state projects, such procurement is on the basis of provisions made in the bilateral agreements as regards sharing of power benefits. For the central sector projects, the applicable rates are as determined/ notified by the Central Electricity Regulatory Commission (CERC). The Board has mentioned that as CERC is yet to issue requisite notification regarding terms & conditions of tariff for the period commencing from 1st April 2004, the rates taken for the purpose of computing the liability of power purchase are based upon the current trends. Similar approach has been adopted with regard to the wheeling charges of CTU (PGCIL).

3.8.2 The details of the projected units to be procured from identified sources and the corresponding costs involved is summarised in the table below:

Table 3.6: Power purchase details for FY 2004-05

Description of item/Source	Free Power			Purchases		
	MU	Rate	Cost	MU	Rate	Cost
		(paise /unit)	(Rs. Cr.)		(paise/ unit)	(Rs. Cr.)
Joint Sector: (a) BBMB						
(i) Old HP (10)	0.00	0.00	0.00	43.70	31.14	1.36
(ii)New HP (30.48)	0.00	0.00	0.00	142.00	21.42	3.04
(iv) Dehar (15)	0.00	0.00	0.00	78.80	25.50	2.01
(I)PSEB (Shanan Share) 45MU	2.60	82.70	0.21	45.00	41.80	1.88
(ii)PSEB (Shanan Share 1MW)	0.00	0.00	0.00	5.30	41.50	0.22

(iii)PSEB (Thien Share) FP	70.00	82.70	5.78	0.00	0.00	0.00
(i) Yamuna share 131.57	0.00	0.00	0.00	480.00	41.00	19.68
Central Sector: (a) NHPC						
(i) Baira Suil (Free Power)	88.00	82.70	7.27	0.00	0.00	0.00
(ii) Chamera - I (Free Power) 12% (64.8)	260.00	82.70	21.50	0.00	0.00	0.00
Chamera –II (Free Power)	149.20	82.70	12.33			
(iii) Chamera - I(State of Region Share)	0.00	0.00	0.00	62.80	224.58	14.10
(iv)State of Region Share 2.75% (8.25MW)				34.10	261.14	8.90
(v) Unallocated 15% during Winter				31.30	261.14	8.17
(iv) Salal –II	0.00	0.00	0.00	32.00	84.65	2.70
(v) Uri (13)	0.00	0.00	0.00	66.00	290.56	19.17
(vi) Tanak pur (3.14)	0.00	0.00	0.00	14.00	134.54	1.88
(b) NTPC: (i) Rihand - I (35)	0.00	0.00	0.00	250.00	142.07	35.51
(ii) Unchahar - I (7)	0.00	0.00	0.00	45.00	234.50	10.55
(iii) Unchahar – II(12)	0.00	0.00	0.00	74.00	210.06	15.54
(iv) Anta – I (14.2)	0.00	0.00	0.00	87.00	170.00	14.79
(v) Auria – I (22.36)	0.00	0.00	0.00	133.00	182.62	24.28
(vi) Dadri (gas) (25.39)	0.00	0.00	0.00	139.00	203.07	28.22
(vii) Dadri (Thermal)	0.00	0.00	0.00	0.00	0.00	0.00
(viii) Singrauli	0.00	0.00	0.00	0.00	0.00	0.00
(ix) Narora	0.00	0.00	0.00	76.00	240.00	18.24
Private Sector: (i) Malana (FP)(86)	55.50	82.70	4.59	_	_	_
(ii) Baspa - II	137.30	82.70	11.35	1006.00	260.00	261.56
(iii) Titang	0.00	0.00	0.00	2.00	250.00	0.50
(iv) Rasket	0.00	0.00	0.00	2.00	250.00	0.50

NJPC (State of Region 2.47%)	0.00	0.00	0.00	150.90	280.00	42.25
Mini /Micros	0.00	0.00	0.00	12.000	250.00	3.00
Other Purchases: (i) RAPP	0.00	0.00	0.00	0.00	0.00	0.00
(ii)Western Grid	0.00	0.00	0.00	0.00	0.00	0.00
(iii) Eastern Region	0.00	0.00	0.00	0.00	0.00	0.00
(vi) Grid	0.00	0.00	0.00	252.00	228.11	57.48
TOTAL	**762.60**	**82.70**	**63.06**	**3263.90**	**182.48**	**595.60**
PGCIL Liability on account of wheeling						35.00
Less Loss on purchases				-136.430		
NET PURCHASES	**762.60**	**82.70**	**63.06**	**3127.47**	**201.63**	**630.60**

3.8.3 The procurement of power from the central sector projects is regulated as per Availability Based Tariff (ABT). The HPSEB has submitted that it has established State Load Despatch Centre (SLDC) at Shimla for effective regulation, which will help in running the plants optimally and avoid purchase of power from costlier sources/unscheduled inter-exchanges under low frequency regime.

3.9 Free power

3.9.1 The Board avails free power supply from some of the NHPC and PSEB stations as well as a few new stations under the private sector. The free power supply is made available by the promoter agencies in lieu of the rights given to them for utilising the State's resources. However, the Board has to pay to the State Government for making use of the free power supply. The current payment mechanism is to pay for this as per the tariff applicable in respect of the lowest domestic tariff slab.

3.9.2 The quantum of free power @ 12% has been taken for the all the projects mentioned in this category except for Malana Hydel Project where it has been fixed @ 15% in accordance with the agreement.

3.9.3 The quantum of free power expected to be available from the various sources is as under:

Table 3.7: Free Power available from various sources

Source	**Quantum of Energy (MU)**
PSEB (Shanan)	2.60
PSEB (Thein)	70.00
Bairasuil	88.00
Chamera-I	260.00
Chamera-II	149.20
Malana (Pvt. Sector)	55.50
Baspa-II (Pvt. Sector)	137.30
Total	**762.60**

3.10 Energy requirement

3.10.1 As discussed earlier, the Board has projected 5256 MU as the requirement for FY 2004-05 based on the sales of 4302 MU comprising 2980 MU as sale within the State, 1322 MU outside the State and overall transmission & distribution loss of 18.16%.

3.10.2 This requirement of power during FY 2004-05 is proposed to be met from the following sources:

Table 3.8: Total Energy Requirement (MU) for FY 2004-05

DESCRIPTION	**MU**
Own generation	1366.26
Power purchase including free power	3890.07
Total	**5256.33**

3.11 Bulk supply cost

3.11.1 The per unit bulk supply cost as submitted by HPSEB is summarised in the table below.

Table 3.9: Bulk Supply Cost (paise/unit) for FY 2004-05

	Description	MU
1.	Total Power Available for Sale	
(i)	Own Generation	1366.26
(ii)	Power Purchase	3890.07
	Total	5256.33
2.	Cost of Generation and Power Purchase	Rs Crores
(i)	Own Generation	187.71
(ii)	Power Purchase	693.67
	Total	881.38
3.	Per unit Bulk Supply Cost (paise/unit)	167.67

3.12 Annual revenue requirement

3.12.1 The Annual Revenue Requirement as projected for the FY 2004-05 is given in the table below.

Table 3.10: Annual revenue requirement for FY 2004-05 and average per unit cost of energy

S. No	Description of item		Amount (Rs. in Crores)
A	**Revenue Expenditure**		
	A. Cost of Power		
	Power Purchase (3127MU @ 201.63 paise per unit)		630.60
	Free Power (762.600 @ 82.70paise per unit)		63.06
	Total		**693.67**
	B. O&M Expenditure:		**22.77**
	C. ESTABLISHMENT &ADMINISTRATIVE EXPENDITURE:		
	(i) Employees Cost	458.75	
	Less Capitalisation Cost	-87.60	371.15
	Net Employees Cost		
	Admn. & General Expenditure	23.85	
	Less Capitalisation Cost	-4.00	19.85
	Net Admn. & General Exp.		3.00
	Prior period Expenses		394.00

	Total - (C) (i+ ii + iii)	
1.	**TOTAL (A+B+C)**	**1110.44**
2.	D. INTEREST DUE: (a) To Financial Institutions (b) To State Government (c) To Others Total - (D) (a+ b+ c) Less Interest during construction to be capitalised **Net Interest to be charged to Revenue**	 264.31 0.90 30.00 295.21 (-) 120.00 **175.21**
	E. Depreciation	**44.25**
	F. Repayment of Loans	**0.00**
	G. 3% ROR (on fixed assets at the beginning of the year i.e. on Rs. 1205.850Crores)	**36.17**
3.	**Grand Total (1+2)** **(i.e. Total Revenue Requirement for the Year)**	 **1366.08**
4.	Total Energy Sale (MU) (i) Within State (ii) Outside the State **Total**	 2980.00 1322.00 **4302.00**
5.	**Average Cost of Energy** (in paise per unit) (3/4)	**317.55**

3.13 Employee Cost

3.13.1 The Board has proposed an employee cost of Rs. 371.15 crore for the FY 2004-05. This amounts to an increase of Rs. 46.73 crores over the employee cost approved by the HPERC for the FY 2001-02, i.e. an increase of 14.40% over the employee cost for the FY 2001-02. The Board has stated that this increase is on account of increase in Dearness Allowance to the tune of 9% during FY 2002-03 and 3% during FY 2003-04, normal annual increase and regularisation of workers.

3.13.2 The Board has further proposed capitalisation of Rs. 87.60 crores of employee cost. Thus the net employee cost proposed by HPSEB is Rs.371.15 crores as shown in the table below:

Table 3.11: Net Employee Cost for FY 2004-05

Description	Rs. Crores
Gross Employee Cost	458.75
Less Capitalisation	87.60
Net employee cost	**371.15**

3.13.3 The Board has also submitted that regularisation of workers is in response to the State Government Policy of regularising all the daily waged workers with 8 years of continuous service either on regular cadre or on work-charge cadre. The year-wise detail of the workmen regularised during FY 2002-03 and FY 2003-04 and those likely to be regularised during the FY 2004-05 is detailed below:

Table 3.12: No of daily wage workers regularised/ likely to be regularised

Financial Year	No. of daily wage workers regularised
2002-03	1251
2003-04	131
Estimated during 2004-05	510

3.14 Operations and Maintenance (O & M) expenses

3.14.1 The O&M expense as estimated by the Board is Rs.22.77 crores for the FY 2004-05. This represents an increase of 5.12% over the O&M expenses for the FY 2001-02.

3.15 Administrative and General Expenditure (A&G)

3.15.1 The Board has projected the net administrative and general expenses (after capitalisation) for the FY 2004-05 as Rs. 19.851 crores. This represents an increase of 21.78% over the A&G expenses for the FY 2001-02.

3.16 Prior Period Expenses

3.16.1 The HPSEB has submitted that it expects prior period expenses of Rs. 3.00 Crores in the FY 2004-05.

3.17 Interest due

3.17.1 The HPSEB has projected the total interest liability as Rs. 295.21 crores of which Rs. 120.00 crores has been proposed to be capitalised. Thus the net interest liability works out to be Rs. 175.21 crores.

Table 3.13: Net Interest due for FY 2004-05

Description	**Rs. Crores**
Interest due to financial institutions	264.31
To State Government	0.90
Others	30.00
Total	295.21
Less interest proposed to be capitalised	120
Net Interest	**175.21**

3.18 Depreciation

3.18.1 The Board has proposed a depreciation of Rs. 44.25 crores on adhoc basis @ 2.5% in absence of data relating to function-wise fixed assets.

3.19 Rate of return

3.19.1 The Board has projected Rs. 36.17 crores as return on the net fixed assets. The rate of return taken is 3%.

3.19.2 The Board has submitted that the rate is in accordance with the rates approved by the Commission in its tariff order 2001-02.

3.20 Capitalisation of expenses

3.20.1 The Board has proposed to capitalise a total amount of Rs. 211.60 crores as per the break-up given below:

Table 3.14: Capitalisation of Expenses for FY 2004-05

Description	Rs crores
Employee Cost	87.6
Administrative & General expenditure	4.00
Interest during construction	120.00
Total	**211.60**

3.21 Average Cost of supply

Table 3.15: Average Cost of Supply as estimated by the Board for FY 2004-05

Description	FY 2004-05
Net revenue requirement	Rs. 1366.08 crores
Estimated Energy Sale	
Within State	2980 MU
Outside the State	1322 MU
Total	4302 MU
Average per unit cost of energy	**317.55 Paise**

3.22 Unbundled revenue requirement

3.22.1 The HPSEB has submitted the revenue requirement separately for Generation, Transmission & Distribution. This is given in the table below:

Table 3.16: Unbundled Revenue Requirement (in Rs. Crores)

Head	Generation	Transmission	Distribution	Total
Repair & Maintenance	9.99	3.56	9.22	22.77
Employee Cost	75.49	40.74	342.52	458.75
Adm. & Gen. Expenses	1.4	0.86	18.92	21.18
Depreciation	18	10.04	16.21	44.25
Interest & Finance Charges	125.06	52.92	117.23	295.21
Miscellaneous	1.7	1.13	2.84	5.67
Less; Expenses to be Capitalised	58.96	54.34	98.3	211.6
Sub-Total	172.68	54.92	408.63	636.23
Power Purchase				693.67
Return on the Fix Assets	15.03	7.16	13.99	36.18
Total	187.71	62.08	422.62	1366.08

3.23 Transmission cost

The tables below give the quantity of power available for sale at transmission level, the revenue requirement, per unit cost of transmission and the cost of supply at the transmission level proposed by the Board.

3.24 Power availability

Table 3.17: Power available for the sale at transmission level

Description	MU
Power availability from generation and purchase	5256
Transmission losses	210
Net available for sale at transmission level	5046

The transmission loss given above has been estimated considering 4% of loss in the transmission loss.

3.24.1 The revenue requirement at transmission level is shown in given in the table below.

Table 3.18: Revenue requirement at the transmission level

Description	Rs Crore
Repair and Maintenance	3.56
Employee Cost	40.74
Admn. & Gen. Expenses	0.86
Depreciation	10.04
Interest and Finance Charges	52.92
Miscellaneous	1.13
Less expenses to be Capitalised	(-)54.34
Transmission Losses (210 MU x 168 p/unit)	35.28
Sub-Total	**90.20**
Return on the Fixed Assets (3% ROR on fixed asset at the beginning of the year i.e. on Rs.238.63)	7.16
Total	**97.36**

3.25 Per Unit Transmission cost

3.25.1 The average transmission cost as computed by the HPSEB is shown in table:

Table 3.19: Per unit Transmission cost

Particulars	
Transmission Cost	Rs.97.36 Crores
Energy/available for transmission	5046 MU
Per Unit Transmission Cost	19.29 paise

3.26 Average Cost of Supply at Transmission Level

3.26.1 The per unit cost of supply at Transmission level is computed as shown below:

Table 3.20: Cost of Supply at the transmission level

Description	Paise per unit
Bulk Supply	167.67
Transmission	19
Total	**186.67**

3.27 Distribution cost

3.27.1 This section discusses the power availability, revenue requirement, per unit cost of and cost of supply at the distribution level.

3.28 Power Availability

Table 3.21: Power available at distribution level

Description	MU
Power available at transmission level	5046
Distribution losses	744
Net energy available for distribution system	4302
Sale of energy outside the state	1322
Net available for sale at distribution level	**2980**

The revenue requirement at distribution level is shown in table

Table 3.22: Revenue Requirement at the distribution level

Description	**Rs Crore**
Repair and Maintenance	9.22
Employee Cost	342.52
Admn. & Gen. Expenses	18.92
Depreciation	16.21
Interest and Finance Charges	117.23
Miscellaneous	2.84
Less; Expenses to be Capitalised	(-)98.30
Distribution Loss (744 MU x 187 p/unit)	139.13
Sub-Total	**547.76**
Return on the Fixed Assets (3% ROR on fixed asset at the beginning of the year i.e. on Rs.466.19)	13.99
Total	**561.75**

3.29 Per Unit Distribution cost

3.29.1 The average distribution cost as estimated by the Board is the table below.

Table 3.23: Per Unit Distribution Cost

Particulars	
Distribution Cost	Rs.561.75 Crores
Energy/available for distribution	4302 MU
Per Unit Distribution Cost	131 paise

3.30 Average Cost of Supply at Distribution Level

3.30.1 The per unit cost of supply at the distribution level is computed as shown below:

Table 3.24: Cost of supply at the Distribution level

Description	**Paise per unit**
Bulk Supply	167.67
Transmission	19
Distribution	131
Total	**317.67**

3.31 Existing and Proposed Tariff

3.31.1 The table below provides a summary of comparison of the existing and tariff proposed by the Board.

Table 3.25: Comparison of Existing and Proposed Tariff

Category	**Existing Tariff**			**Proposed Tariff**		
	Energy Charges (paise/unit)	*Consumer Service Charges (Rs. /Con./Month)*	*Demand Charges (Rs./KVAh /month)*	*Energy Charges (paise/unit)*	*Consumer Service Charges (Rs. /Con./Month)*	*MMC*
Domestic Supply (DS) 1. Antodaya Ann Yojna Beneficiaries (upto 45 units /months) 2. Others: (a) 1-45 units/month (b) 46-150 units/month (c) above 150 units/month	70 85 130 240	Nil	Nil	70 85 130 240	Nil	Nil
Non-domesic-Non-Commercial Supply (NDNCS)	250	Rs. 25/-	Nil	270	Rs. 35/-	Nil
Commercial Supply (CS)	300	Rs. 25/-	Nil	320	Rs. 50/-	Rs. 100/-per kW
Small Industrial Supply (SIP) (Up to 20kW load)	235	Rs. 25/-	Nil	260	Rs. 50/-	Nil
Medium Industrial Supply MIP (Above						

20kW & up to 100kW load) LT HT	 235KWh 225KWh	 Rs. 25/-	 Nil	 295 KVAh 285KVAh	 Rs. 100/-	 Rs. 120/-per KVA
Large Industrial Supply (LS) (Above 100kW load) (a) Normal Timings (b) Peak Timings (c) Night Time	190/KVAh 235 170	Rs. 100/-	Rs. 125/- KVAh Rs. 150/- KVAh	25KVAh 430	Rs. 200/-	Rs. 170/-per KVA
Water Pumping Supply (WPS) LT HT	 235KWh 225KWh	Rs. 25/-	Nil	295/KVAh 285/KVAh	Rs. 100/-	Rs. 120/-per KVA
Agriculture Pumping Supply (APS)	50	Rs. 20/-	Nil	50	Rs.20/-	Nil
Bulk Supply -1 LT HT	 295 285	Rs. 25/-	Nil	305 295	Rs. 100/-	Rs. 100/- per KW
Bulk Supply -2 HT	285	Rs. 25/-	Nil	400/KVAh	Rs.500/-	Rs. 200/- per kW
Street Lighting	235	Rs. 25/-	Nil	260	Rs. 100/-	Nil
Temporary Supply	500	Rs. 50/-	Nil	600	Rs. 100/-	Nil

3.32 Additional revenue mobilisation

3.32.1 The Board proposes an overall increase of 29.42% in the tariff to recover Rs.861.97 crores from sale of power within the State. The revenue from sale of power from outside the State and non-tariff income has been estimated to be Rs.318.57 crores and Rs.55.00 crores respectively. HPSEB has estimated to generate total revenue of Rs.1235.54 Crores in FY 2004-05 as per details given below:

Table 3.26: Revenue Assessment with Existing and Proposed Tariff

Description	Energy Sold (MU)	Amount (Rs. Crore)
Total Revenue Requirement for the year 2004-05	-	1366.08
Revenue Receipts		
(a) At existing Tariff		
(i) Sale of power with in State (2980 MU @ 223.5)	2980.00	666.03
(ii) Sale of power outside the State (1322 MU @ 240.98)	1150.00	318.57
(iii) Non Tariff income		48.00 *
Revenue receipt with existing Tariff	**4130.00**	**1032.60**
(b) At Proposed Tariff		
(i) Sale of power with in State (2980 MU @ 289.25)	2980.00	861.97
(ii) Sale of power outside the State (1322 MU @ 240.98)	1322.00	318.57
(iii) Non Tariff income		55.00
Revenue receipt with proposed Tariff	**4302.00**	**1235.54**

** Non-tariff income for the FY 2003-04 as given by the Board*

3.32.2 Board has wrongly taken Rs. 25 Crores as non-tariff income to calculate the revenue at existing tariff in the petition. The same has been corrected to the level of FY 2003-04 i.e. Rs. 48 Crores and all calculations thereon have been made taking this value. The total revenue at existing tariff comes out to be Rs. 1032.60 Crores as compared to Rs. 1009.60 Crores given in the petition.

3.33 Revenue deficit

3.33.1 At the present tariff, the revenue generated on the projected sale within the State is Rs.714.03 Crores including non-tariff income and Rs.318.575 Crores from outside sale. This implies a shortfall in revenue requirement of Rs.333.48 Crores as given in the table below.

Table 4.27: Revenue Deficit

Description	Amount (Rs. Crore)
Revenue Requirement for the FY-2004-05	1366.08
Revenue expected at Existing Tariff (with sale of Power with in & outside the State)	1032.60
Revenue Deficit	**333.48**

3.34 Net Revenue Gap

3.34.1 The Board had proposed an additional amount of Rs.225.93 Crores from the proposed revision of tariff. However after correcting for the non-tariff income as mentioned above, the additional amount from the proposed revision of tariff comes out to be Rs. 202.94 Crores against the proposed revenue deficit of Rs.333.48 Crores. This leaves an uncovered revenue gap of Rs. 130.54 Crores.

Table 4.28: Net revenue gap

Description	Amount (Rs. Crores)
Revenue requirement for the FY 2004-05	1366.08
Revenue expected from the proposed tariff	1235.54
Net revenue gap	**130.54**

3.34.2 The Board has proposed to treat the uncovered revenue gap of Rs.130.54 Crores as a regulatory asset.

3.35 Prayers By The Board

3.35.1 The Board has made the following prayers in the Transmission and Bulk supply tariff petition: -

(a) To take the accompanying BSA of HPSEB on record.

(b) To treat the filing as complete in view of substantial compliance except for specific request for waivers with justification placed on record.

(c) To grant the waivers prayed for with respect to such filing requirements, as HPSEB is unable to comply with at this stage, as more specifically detailed and for the reasons set out there in the schedule to the FTA.

(d) To consider and approve HPSEB's FTA including all requested regulatory treatments in the FPT and associated ARR filings.

(e) To pass such order, as the Commission may deem fit and proper in the facts and circumstances of the case.

3.35.2 In regard to Distribution and Retail Supply Tariff Petition, following prayers have been made: -

(a) To take the accompanying distribution tariff application on record.

(b) To grant the waivers with respect to such filing requirements as HPSEB is unable to comply with at this stage in the FTA filing.

(c) To consider and approve the creation of “Regulatory Assets” for the shortfall/uncovered gap of Rs. 130.536 crores during the year 2004-05 to be recovered in subsequent years.

(d) To consider and approve an appropriate regulatory mechanism to carry forward the uncovered revenue gap estimated for FY 2004-05 for the recovery through tariffs.

(e) To pass such order as the Commission may deem fit and proper in the facts and circumstances of the case.

SECTION 4

CONSUMERS' OBJECTIONS/ SUGGESTIONS

In accordance with Section 64 (3) of the Act, the Commission invited suggestions and objections from the public on the tariff petition filed by the Board. The public notice in respect of this was published on March 31, 2004 in the following newspapers:

1. The Hindustan Times (Chandigarh edition).
2. The Indian Express (Chandigarh edition).
3. The Tribune (Chandigarh edition).
4. Punjab Kesri (Ambala edition).
5. Amar Ujala (Chandigarh edition).
6. Dainik Bhaskar (Chandigarh edition).

The last date for submission of the suggestions and objections was April 30, 2004. Prior to the above, the salient features of the petition were published by the HPSEB in the following newspapers:

1. The Hindustan Times (Chandigarh edition) – 24th and 29th March, 2004
2. The Indian Express (Chandigarh edition) - 24th and 29th March, 2004
3. The Tribune (Chandigarh edition) - 24th and 30th March, 2004
4. Punjab Kesri (Jalandhar edition) – 24th March, 2004
5. Amar Ujala (Chandigarh edition) - 25th and 29th March, 2004
6. Dainik Bhaskar (Chandigarh edition) -24th and 29th March, 2004
7. Divya Himachal (Chandigarh edition) - 29th March, 2004

The Commission received a total of 23 objections by the stipulated date of April 30, 2004. A copy each of the replies submitted by the Board to the suggestions and objections received was sent to the individual objectors. The objectors could submit their rejoinder, if any to the Commission with a copy to the petitioner by May 20, 2004. Subsequently, the Commission conducted a series of public hearings as per the following schedule:

Date	Venue
3rd June, 2004	Nahan
7th, 8th & 9th June, 2004	Shimla

The Commission issued a public notice informing the public of the abovementioned schedule of hearings. All the parties who had filed their objections /suggestions were informed about the date, time and venue for presenting their case in the hearings. Stakeholders, in general, were also given an opportunity to participate in the hearing held in the afternoon session of 9th June, 2004 in Shimla.

In exercise of the powers conferred by section 94 of the Act, the HPERC appointed the following persons to represent the interests of un-recognised domestic and LT consumers during the public hearings:

1. Sh. R. K. Gupta
   Seva Niwas, Engine Ghar,
   Sanjauli, Shimla – 6

2. Sh. Subhash Medapurkar
   Director, SUTRA, Jagjitnagar,
   Via Jubbar, District Solan – 173225

3. Sh. Santosh Kumar
   President, Sirmour Consumers Protection Society,
   Shivchandana Niwas, Behind ITI, Shansherpur,
   Paonta Sahib, District Sirmour – 173025

4. Ms. Mala Singh
   Councilor, Municipal Corporation
   Shimla – 171001

The issues and concerns voiced by various objectors have been carefully examined by the Commission. The major objections, including the ones raised in the public hearings, have been grouped together according to the nature of the objection and these are summarized in this section. The list of objectors is enclosed as Annexure 4.

4.1 Tariff filing process

The delay in filing the tariff petition by the Board has been objected to by the consumers. The first petition was filed in April 2001 and the tariff order issued on October 29, 2001. The Board, however, did not file petitions for the subsequent years of 2002-03 and 2003-04, even though the annual filing is statutorily required. The practice followed by other commissions has been cited in this regard; wherein the tariff filing is made by December 31 of every year and tariff revision is announced by 24th March to be made applicable from 1st April of that financial year.

4.1.1 Board's reply

The Commission had passed orders on first tariff petition for FY 2001-02 on October 29, 2001, which was filed by the Board on April 30, 2001. This order was made applicable w.e.f. November 1, 2001. In order to analyse the actual impact of the revised tariff on the revenue income of the Board, data of at least one complete financial year was required. The data for FY 2002-03 was available for review after June 2003, as the supplementary accounts are finalized in the month of May/June. Accordingly, the Board could not file tariff petitions for FY 2002-03 and FY 2003-04.

4.1.2 Response of consumer representative

Despite the fact that the licensee incurred a loss of the order of Rs.134.88 Cr (inclusive of reasonable return) during 2001-02, yet it did not feel the necessity of filing a tariff revision petition. This did not happen even during FY 2003-04. Consumers are entitled to know as to why the Board management continued to allow accumulation of losses. The inaction on the part of Board in not approaching the Commission with ARR in 2002-03 as well as 2003-04 has led to an additional burden on the consumers who are already burdened with the licensee's inefficiencies.

The Revenue Requirement should be filed annually by the licensee and clear cut instructions need to be imparted by the Regulatory Commission. This is the only manner in which the efficiencies gained by the utility can be passed on to the consumers. The process of tariff finalisation must be completed before the commencement of the next financial year.

The Licensee is entitled to a prudent revenue requirement. The manner in which the revenue requirement has to be met with is the mandate of the Regulatory Commission. Even if the Licensee felt that it was within its prerogative to submit a tariff proposal, it should have done so within the framework of the Act and the concept paper of the Commission. The tariff proposal submitted along with the ARR petition has been prepared, without bearing in mind, the provisions of the Act and/ or the concept papers issued by the Commission in 2001 and 2004.

4.1.3 The Commission's viewpoint

The Commission notes the negligence of the Board in filing the tariff petition, especially when the Board has claimed that it incurred revenue deficits in the last two financial years. The Commission had sent reminders to the Board for filing the tariff petition but the Board failed to comply. Nor did it give any reason or explanation for not filing the ARR. **The Commission directs the Board to file the petition by the end of November of each financial year as per HPERC (Terms and conditions for determination of tariff) Regulations, 2004, which have come into force on the June 10, 2004. The Commission aims to institutionalize the entire tariff determination process with the filing to be made by HPSEB on or before November 30, 2004 and revised tariff becoming applicable from the start of financial year 2005-06.**

4.2 Inconsistencies in the petition

The objectors have pointed out the inconsistencies in the tariff petition. For instance, while the A&G expenses taken for revenue requirement calculation is Rs.19.85 crores, the corresponding details in the Annexure show the amount in this respect as Rs.17.18 crores. Similarly, whereas the number of units generated taken for ARR calculation is 1367 MU, the detailed calculations reveal a figure of 2037. 48 MU. This difference of 670 MU is very substantial having huge implications on the power purchase cost and hence the revenue requirement. Similarly, the Board has claimed 1% failure rate of distribution transformers whereas the formal interactions with field officers reveal failure rate of 4.77% in Central Zone, 5.9% in North Zone and 5.74% in South Zone. Furthermore, some pages of the proposed Schedule of General and Service Charges are also missing from the petition.

4.2.1 Board's reply

The Board accepts the few typographical errors committed in the petition. Further, in the form specified by the Commission, three items have not been incorporated mainly rents, rates and taxes (other than all taxes on income and profit); legal charges; and auditors fee. This amounts to Rs. 1 crores, Rs.0.35 crores and Rs.1.32 crores respectively. Therefore, an additional amount of Rs. 2.67 crores has been added in the ARR calculation increasing the total A&G expenses to Rs.19.85 crores. With regard to generation, 2037.48 MU of generation includes generation from Larji Project, which was scheduled to be commissioned in FY 2004-05 but has now been postponed to be commissioned in FY 2005-06.

4.2.2 Response of consumer representative

Inspite of the fact that major modifications have been carried out in the submissions made in the petition, such as employees cost, interest and finance charges, expenses to be capitalized etc., the ARR has remained unaltered. This is impossible and the various components of the ARR as submitted by the licensee are a mere jugglery of figures and therefore, such major modifications after the submission of the petition is highly objectionable.

4.2.3 The Commission's viewpoint

The Commission would appreciate a careful and professional preparation and review of the petition by the Board to make sure that the petition, including various supporting annexures, is fully consistent before it is submitted to the Commission. **Further, the Board should furnish adequate explanation for postponing the commissioning of Larji project to FY 2005-06 when it was scheduled for commissioning during FY 2004-05, as mentioned in the petition.**

4.3 Tariff hike proposed by the Board

The industrial consumers have opposed the steep hike of 48.54% proposed for large industries. It has been submitted that the Board should have considered states like Uttaranchal, Jammu & Kashmir, North Eastern hilly states instead of Punjab, Haryana and Delhi for comparing the tariff rates, as the former are not only similar in topography but also in the level of industrial development. Reference has also been made to the recent reduction in power tariffs of Uttaranchal, which has similar conditions as that in Himachal Pradesh. Objectors have also cited the examples of Orissa and Rajasthan where there has been no increase in large industrial supply tariff in the last two years and States like Andhra Pradesh and Uttar Pradesh where the tariff for industries has been marginally decreased during the same period. The tariff hike has also been opposed on the ground that industrial consumers are already paying much above the average cost of supply. Objectors have also submitted that industries may have to close down if the proposed tariff hike is implemented, which in turn, would be a loss to the Board because industry constitutes 41% of the total sale of power. Suggestions have been made in this regard to freeze the industrial tariffs, for some years to come, and then marginally increase by say 2% per annum. The objectors have contended that they should not be burdened with the inefficiencies of the Board and therefore, the tariff hike proposed by the Board should not be allowed.

4.3.1 Board’s reply

The hike has been proposed in view of the increased costs. The Board has explained the basis for computation of the ARR in detail in the petition for FY 2004-05. In this regard, it is important to ensure that efficiencies could be brought into the system at a rate that is achievable. A utility would be able to provide service only if it remains viable. A faster path would only result in accumulating losses and breakdown of services. The Board, in developing the ARR petition, has striven to present the best targets on various efficiency parameters. Other factors that are responsible for increase in revenue expenditure are:

- Increase in power purchase on account of purchase from the BASPA hydel plant, Chamera – II and Nathpa Jhakri (State of the region share).
- Increase in manpower costs on account of DA increase (16% with respect to FY 2002-04), increments and regularisation of daily rated workers.
- Increase in interest costs on account of increased investments in the state (Larji project, Khauli project, Uhl-Stage III, Kashang, etc.)

4.3.2 Response of consumer representative

The three major components of the revenue requirement are the Power purchase cost, employee's cost and the interest cost. Controlling these three costs would lead to efficiencies being passed on to the consumers in a true sense.

The power purchase cost is mainly regulated by the T&D loss component. The present loss figure of the licensee's system for intra network is of the order of 23%, if the bulk sale of power out of the state is excluded. The ARR proposal indicates that the consumers of the state will have to bear a burden of loss of 954 MU when the power consumed within the state is 2980 MU. Consumers cannot be burdened with this unacceptable loss in the licensee's system. While drawing reference to the tariff order of 2001, it was pointed out that the Board stood committed to achieving 1% loss reduction annually and the loss that should be passed to the consumers should be based on this commitment made by the Board in the public hearing of 2001. Thus against the projected loss of 18.16% during 04-05, only 14.16% should be permitted to be a pass through.

As per ARR, power is being proposed to be purchased at a cost greater than Rs. 2.50/Unit from three hydro stations, viz. NJPC, Baspa and Uri. In the case of NJPC, CERC has decided an ad-hoc tariff of 218 P/Unit, which is likely to be frozen at 240 P/Unit. However, rates of 280 P/Unit have been adopted in the petition. This needs to be corrected. Government Of HP is an equity holder of 25% and entitled to 12% free power in this project. It has, without any doubt, social objectives of benefiting the consumers within the state. Therefore, to meet this social objective, the Government should be extending this cheaper power to the people of the state. If however, the Government of HP is selling this equity share and the free power, the Act provides that it has to get the tariff approved from the Central or the State Commissions. However, for the larger interests of the people of the State, the Government of HP should be prevailed upon to pass this power at bus rate to the Board.

From Baspa Stage II Project the power is proposed to be purchased at 260 P/Unit. This tariff is high especially when compared to 250 P/ Unit approved, for projects upto 5MW and 225 P/ Unit for Patikari HEP, by the Commission.

From Uri, the power is proposed to be purchased at 290 P/Unit. The Board should look into possibilities of surrendering this power and instead purchase from PTC at much cheaper rates.

Uttaranchal Jal Vidyut Nigam is also an objector in the present ARR and are asking for refixing the tariff for sale of power from Uttranchal at 64.5 P/Unit. They have submitted calculations to press their point for tariff revision. These calculations indicate a very high component of O&M expenses and separate provision for spare parts. To add to these grossly unacceptable provisions, they have added a royalty of 10 P/Unit, which is unacceptable. Based on these calculations, even the rate indicated in the ARR for power procurement from Yamuna schemes, of 41 P/Unit appears to be high. In the objections, they have also proposed a renegotiation of the agreement signed between the Government of HP and the erstwhile Government of UP. Any such renegotiation of the agreement will not be in the overall interest of the people of the State.

The State receives free power to the tune of 762 MU, as stated in the ARR. The rate for this free power has been indicated as 82.7 P/Unit. The issue of charging a price for the free power needs to be looked into by the Commission. Since the share of free power entitlement of the State Government will be very high, the Government should seriously consider the manner in which the power should be disposed for the overall benefit of the people of the state.

Overall, as per the ARR, there has been an alarming rise in the power purchase cost. An increase of 74% in power purchase has taken place between 03-04 and 02-03 while energy sold during this period has shown an increase of only 35%. It is evident that power has either been purchased at higher cost or merit order not followed or excessive UI charges have been paid on account of poor planning.

Another major reason for the high ARR requirement is the very high cost of generation in the Board's owned hydro stations. Should such stations where the generation cost is high be allowed to operate? Commission should, therefore, decide on a prudent cost of generation, which only should be a pass through to the consumers. In addition, if such plants are required to meet the social objectives, the Government of HP should be prevailed upon to extend subsidy for keeping these plants operational.

Another major component of the ARR is the high employees cost, which for 04-05 is proposed as Rs. 371 Cr, representing 34% of the ARR; having recorded an increase of Rs. 95 Cr over the 2001 figures. Justifying the high level of employee cost, it has been stated that this is due to regularization of employees as per Government instructions and the other annual increases. While the directions issued by the Government have to be carried out, such instructions, which are to meet the social objectives of the Government, cannot be permitted as a pass through to the consumers. The licensee, therefore, must look into the manner in which the employee expenses are checked and reduced. This issue was also discussed in the 2001 tariff order where certain directions were issued in this regard to look into both the short term and long term measures. The consumers can ill-afford to bear the huge burden of inefficiencies of the licensee and it is recommended that the Commission fix a benchmark for the employee cost per unit of electricity sold within the state. In regard to the current petition, the employee cost be frozen at 2001 level. Thereafter, the licensee be directed to achieve 10% reduction every year until the national average is achieved.

The interest payable by the licensee for the loans obtained from the FI/ Banks etc. for the current ARR indicates a liability of 175 Cr after capitalization. This is on account of loans taken at high rates of interest. Whilst the licensee is obtaining loans from the market, there are huge outstandings/ receivables from the Government departments. The interest on such out standings should be deducted from the ARR as it cannot be permitted as a pass through. In addition, the loans obtained by the licensee during past years do not indicate that a transparent procedure was adopted. Since such loans are a clear pass through to the consumers, investment planning of the licensee should be thoroughly scrutinized by the Commission. The licensee should also be directed to take immediate measures for debt restructuring to take advantage of the low interest regime. **This debt restructuring must be completed within a time frame as specified by the Commission, after which the interest pass through should be based on a benchmark to be fixed by the Commission. Such measures are recommended for the protection of consumer interest.**

The consumers in the state wish to see the tariff reducing and reforms should necessarily address the transfer of efficiency gains to the consumers. The consumers understand the fact that required quality of service cannot be provided through deficit in revenue, which is prudent. The licensee is, therefore, expected to take up the matter expeditiously in bringing about an overall improvement in its performance. The transfer of such improvements will translate into reduction in tariff.

4.3.3 The Commission's viewpoint

The Commission notes that the tariff increase has mainly been proposed for the industrial categories, excluding the domestic and agriculture categories, from the tariff hike. This shall further increase the cross subsidy, as has also been contended by various objectors. The Commission notes that such a proposal is against the basic tenet of the Act that envisages gradual reduction of cross subsidy and ultimate elimination. In this manner of speaking, the petition is misleading, as representation of domestic and agriculture consumers has been far from adequate in the process of this tariff fixation. The Commission would make it clear that the costs, proposed by the Board, would be passed, through subject to a careful scrutiny of their prudence. Further, it is to be appreciated that tariff for some categories, especially the subsidised ones, have to be increased as part of the rationalisation exercise. The Commission would like to make it clear that the rationalisation of tariff is not a one-shot exercise but a gradual process wherein the tariff for each consumer category would move towards its cost of supply.

4.4 Tariff petition flouts the provisions of the Electricity Act, 2003

The Act mandates elimination of cross subsidies in a time bound manner. It also requires the State government to pay in advance the subsidy in a manner as specified by the Commission. However, the petition instead of a reduction, proposes a further increase in cross subsidy. Since tariff has to be determined in consonance with provisions of Section 61 of the Act, it would be required not to put additional cross subsidy on the subsidising classes. It has been suggested that a mechanism should be institutionalized for paying the subvention amount, as has been done in states like Andhra Pradesh, Karnataka and Rajasthan. The contention of the Board that the Act states that the tariff should gradually approach the average cost of supply has been held as misleading because the Act mandates a move towards cost of supply of electricity and not average cost of supply.

4.4.1 Board's reply

It is submitted that the Board is not a mere commercial or business concern, it is a statutory public corporation with social commitments and is under obligation to promote state's welfare. Accordingly, no revision has been proposed for the domestic and agriculture categories. Further, the Board has attempted to move the tariff for most of its categories towards the cost of supply thereby balancing both the social objectives as well as its financial viability. The details with regard to the subsidy paid by the Government are given in the table below:

Year	Amount assessed	Amount realised by way of subsidy	Balance **Outstanding subsidy**
	(Rs. Crores)	(Rs. Crores)	(Rs. Crores)
2002-03	12.39	9.00	3.39
2003-04	18.09	0.00	18.09
Sub Total	30.48	9.00	21.48
Surcharge			3.52
Total			**25**

Further, the Board has stated that it shall adjust the amount receivable against the excise duty, which is collected by them and payable to the Government. The Board has further stated that the tariff petition is not misleading as the Act states "that the tariff progressively reflect the cost of supply of electricity..." and does not intend that the tariffs be equated to the voltage wise cost of supply.

4.4.2 Response of consumer representative

The petition states the average cost of supply as 318 P/Unit. Yet, the licensee in the tariff proposal submitted has left certain categories untouched. The Act provides that subsidies will be gradually eliminated from all categories without showing any undue preferences, while moving towards 'Cost to Serve' approach as worked out for each category of consumers. The Act also does not provide for average cost of supply, as stated by the licensee in the petition. The licensee has thus clearly flouted the provisions of the Act.

4.4.3 The Commission's view point

The Commission views that though the Act mandates progressive alignment of tariff towards cost of supply of electricity, it does not specify whether this is to be based on average cost of supply or cost to serve each consumer category. The Commission, however, does not see any ambiguity in the provisions of the Act and is convinced that in line with the international practices, this has to be the cost to serve each class of consumer. It further notes that tariff determined, on the basis of cost to serve a consumer category, is economically efficient and sends the proper signal. In consideration thereof , it had directed the Board in the tariff order for FY 2001-02 to undertake voltage wise cost study. However, in the interim, until a robust category wise data is put in place, the Commission is constrained to make some assumptions but the beginning has to be made. The Commission believes that in course of time, as reliable and accurate base line data, for such a concept, is developed by the Board, it would reflect the true cost to supply to each consumer class.

Regarding subsidy, as per Section 65 of the Act, the Commission would outline the manner of payment of subsidy by the Government, and directs the Board to switch over to the rates fixed by the Commission in the event of non-payment of subsidy by the Government.

4.5 Elimination of cross subsidy

The industrial consumers have prayed for elimination of cross subsidies. It has been emphasised that the proposed tariff hike is applicable mainly to large supply industrial consumers, whereas 86% of customers being mainly domestic and agricultural have been left out of the proposed tariff hike. It was pointed out that this is against the tenets laid down by the Commission while rationalizing the tariff through its first tariff order. A number of objectors have referred to the verdict of Supreme Court in the case of West Bengal Electricity Regulatory Commission Vs CESC Ltd., wherein it has held that there should be no discrimination while fixing the tariff and that industries should not be burdened with cross subsidy. It has been highlighted that in keeping with the social objectives, there might be a need to make tariffs more affordable for some categories, however, its cost should directly be borne by the state government in terms of allocating a direct subsidy, rather than burdening the industrial consumers. The objectors also pointed out that the Board should recover from the Government the deficit incurred by it on account of roll back of tariffs for domestic category to pre 2001-02 Order. Some consumers have urged the Commission to evolve a scheme of gradual reduction of cross subsidies to bring in more predictability and transparency in the process of tariff fixation.

4.5.1 Board's reply

Presently, the average cost of supply in the Board's system is Rs. 3.18 per unit. The tariff for LS Industrial Consumers has been proposed at Rs. 3.25 per unit. A small cross-subsidy element of 7 paise per unit with reference to the average cost of supply has been proposed for this category. Such a quantum is on the lower side vis-à-vis other states in the country, as can be seen below.

State	**Average Cost of Supply**	**HT Tariff**	**Cross-subsidy**	**Reference**
	Rs. Per unit			
Andhra Pradesh	2.82	4.11	1.29	Tariff Order 2004-05
Madhya Pradesh	4.30	4.83	0.53	ARR of 2003-04
Rajasthan	4.00	4.45	0.45	Tariff Order of 2003-04
Tamil Nadu	3.07	4.47	1.39	Tariff Order of 2003-04
Uttar Pradesh	3.22	4.66	1.44	Tariff Order of 2003-04

4.5.2 Response of consumer representative

The existing tariff structure is not evenly balanced but favours a few categories. This discrimination has led to heavy cross subsidies. Consumers, therefore, expect that the Regulatory Commission shall carry out the tariff formulation strictly based on the Act adopting the 'Cost to Serve' approach after defining clearly the long term goals for tariff, without extending undue benefit to any class or category of consumers, that the tariffs are just, fair and non-discriminatory while ensuring that financial viability of the licensee is preserved.

4.5.3 The Commission's viewpoint

For the Commission, the mandate of the Act, that cross subsidies shall be reduced and eliminated over a period of time, as may be specified by the

Commission, is gospel truth. It is not open to the Commission to increase the cross subsidy and then reduce and eliminate it. The Commission is seized of the need to issue its regulation on the time frame and manner in which the prevailing cross subsidies should be reduced. Meanwhile, the Board's proposal to hike the cross subsidy, goes against the very objects and purposes of the Act and the regulatory approach, as outlined by the Commission in its previous tariff order. The Commission maintains that the tariff hike has to be minimum, for subsidising categories vis-à-vis the subsidized, if cross subsidy has to be phased out gradually.

4.6 Lower industrial tariffs required to offset locational disadvantage

Industrial consumers have pleaded that cheaper power tariffs have been a major attraction for industries to come to Himachal Pradesh and contribute to its development. However, this incentive is increasingly getting eroded due to increase in power tariffs. Further, industrial consumers are already incurring higher costs with respect to their logistics for being located in a hilly area, far removed from the raw materials, skills and furnished goods markets. Therefore, any further increase in power tariff will affect their competitiveness adversely vis-à-vis their counterparts based in plains.

4.6.1 Board's reply

The tariffs for large industries compare favourably with other states in the region. Further, the Government of India / Government of Himachal Pradesh have provided a number of incentives, in terms of waivers and exemptions, to encourage industrial development. Both these benefits together should be an attractive proposition for the industry to initiate ventures in Himachal Pradesh.

4.6.2 Presentation made by Gujarat Ambuja Cement Ltd.

While highlighting the low power tariff, good quality limestone and exemption of sales tax and electricity duty as the main reasons for setting up a cement plant in HP, it has the disadvantage of high capital and freight cost. With the tariff hike proposed by the Board, which is as high as 48%, a subtle indication of future expansion plans to be put on hold has been given. As per their calculations, LS consumers are extending a cross subsidy of 39 paise/unit. Serious shortcomings in the petition have been pointed out in regard to the revenue projections. The increase in costs in 2003-04 appear abnormal when compared with the two preceding years. The Board is purchasing costly power from Baspa @ 260 P/Unit while the average realization is of the order of 240 P/Unit, causing a loss of 20 P/Unit. As per their contention, CERC is likely to revise its norms of ROE, equity ratio modified to 70:30 and abolition of developmental surcharge. With this change the purchase cost from CGS will come down by Rs. 25 Crores The employees cost as projected for 2004-05 and the interest burden proposed to be passed on to the consumers are unacceptable in a falling interest regime.

It has been prayed that the Commission reviews the power purchase, employees cost and the interest burden and allow only prudent expenses as pass through. It has also been prayed that the Commission should continue with the rationalization of tariff structures.

4.6.3 Presentation made by ACC Ltd.

Impact of tariff increase as proposed by the Board will make the industry unviable. This industry was already under pressure due to tariff increase in the past. The tariff petition needs to be rejected for the reasons that it increases cross subsidy, ignores the principles of tariff design, proposal is based on social objectives, has significant gaps and inconsistencies. There has been a steep increase in the power purchase cost which forms the biggest component of the total cost, therefore, Board should take all measures to economize on this account. The employee cost has been questioned with the recommendation that targets may be fixed to increase employee efficiency and control employee cost. The non-maintenance of asset register by the Board has been questioned and the objector has prayed for directions for its preparation within a time schedule, while demonstrating that the assets so created are useful/ beneficial. As regards the interest charges, Commission has been requested to allow only such loans that are being invested in useful assets. Inefficiencies in capital spending should not be passed on to the consumers. Regarding the directives issued to the Board by the Commission in the last tariff order, the Board has failed to satisfactorily implement most of them, on the pretext that the consultants have been appointed and have requested that the Board be asked to implement these in a time frame.

4.6.4 Response of consumer representative

The tariff structure for all consumer classes should remain encompassed within the parameters as defined in the Act. Adopting a clear goal and transparency in tariff formulation would help achieve the objectives of attracting industries to the state.

4.6.5 The Commission's viewpoint

The Commission reiterates that the tariffs would have to eventually reflect the cost to supply each category of consumers. And, sooner the voltage wise cost data is ready, earlier would the Commission be able to realign the tariffs along the category wise costs. This, in the Commission's viewpoint, should incentivise industry to continue and grow their operations in the state.

4.7 Incentives for industrial consumption

The objectors highlighted the incentives given in other states including Andhra Pradesh and Rajasthan for promoting industrial consumption, and preventing the switch over of industrial category to off-grid sources of power. It has been submitted that that there is a difference between the industrial tariff at LT/11kV supply and at 132/220 kV supply, which could be as high as 10% to 12%. Another form of incentive is a load factor based scheme that involves a stepped incentive framework starting at 30% load factor on consumption in excess of the base year level.

4.7.1 Board's reply

The Board has already proposed incentives for taking supply at higher voltages between 33 KV and 220 KV. In addition, single part tariff proposed by the Board is also based on kvAh and provide incentives for improving power factor.

4.7.2 Response of consumer representative

No specific response on the issue.

4.7.3 The Commission's viewpoint

The Commission is aware of such incentives, as highlighted by the objectors given for large industrial consumption. A detailed analysis of tariff for large industrial consumers has been discussed in Section 8 of this tariff order.

4.8 Non compliance with the directives of the Commission

The consumers pointed out that no tariff hike should be allowed as the Board has failed to comply with the directives issued by the Commission in its first tariff order. The submission of the Board that it has outsourced the studies to ASCI to comply with these directives has also been disapproved by consumers. It has been suggested that no increase in costs should be passed through where the Board has flouted the directives. It has been suggested that the Board should be directed to submit a time bound action plan to implement the directives rather than a mere status report after eighteen months.

4.8.1 Board's reply

The status of compliance on all the directions issued in the Tariff Order of 2001-02 has been detailed in an Annexure of the tariff petition submitted by the Board.

4.8.2 Response of consumer representative

There is disillusionment with the manner in which the licensee has dealt with the various directives issued in the tariff order of 2001. These directives were aimed to benefit the consumers by bringing in improvement in the Board's working. However, it is apparent that the Board thought it as an affront to its authority. Under these circumstances, consumers would continue to suffer by continuing to pay for the inefficiencies of the Board.

4.8.3 The Commission’s viewpoint

The Commission notes with anxiety that the Board has not been able to comply with almost all the directives in the last thirty two months and for many sets of information supposed to flow from these directives, it has put forward the defence of pending deliverables from ASCI. The Commission notes that even these studies were commissioned only last year while the tariff order was issued in October 2001 and no assurances are available form the Board that ASCI’s reports and recommendations shall, in effect, be implemented. The Board only contends that they shall be implemented on merits, but who decides the merit?

4.9 Voltage wise break up of costs

Many objectors have denounced the delay in carrying out the study on voltage wise cost of supply. It has been submitted by many consumers that voltage wise cost should be considered for rational fixation of tariff and not the average cost, as the latter does not reflect the true costs imposed by the consumers on the electrical system, and makes no distinction regarding the voltage of the off take point and the contribution of the consumer category towards the system peak.

4.9.1 Board’s reply

An accurate computation of cost of supply requires detailed information on segregated costs and losses at various levels. Such a computation and allocation of costs and losses requires skills and data that are not available within the Board. In view of the above, the Board has commissioned a study that is under progress to develop voltage wise data and cost of supply thereof.

4.9.2 Response of consumer representative

The tariff order of 2001 spelt out the need to supply details on different voltage levels so as to achieve the objective of tariff fixation based on ‘Cost to Serve’. Until data is based on different voltage levels, accurate determination of ‘Cost to Serve’ may not be achievable.

4.9.3 The Commission's viewpoint

Though the Commission aims to benchmark tariffs with the voltage wise cost of supply finally, it may be able to set the tariffs truly at such costs when a credible database in this regard is put in place. The Commission's view on this regard has already been discussed in detail in Para 4.4.3 above.

4.10 Inaccurate sales forecast

Sales within the state for FY 2004-05, which has been taken as 2980 MU, is about the same as that of the previous year. This is not a correct projection, as effects of the new industrial policy have not been taken into account in terms of increased sales. It has been submitted by some objectors that sales levels for FY 2004-05 should be revised upwards by at least 20-30% from the 2003-04 level. Further, the Commission should consider the Power Availability Certificates issued by the Board in the last six months, which could indicate the rate of expected growth in consumption by industry. The methodology followed by the Board for sales estimation has been held as inconsistent highlighting that the Board has followed a year-to-year trend for some categories whereas for others it has followed a long term trend. Many objectors have questioned the sudden increase in sales outside the state. Whereas this quantum was 688MU in FY 2002-03, the Board is projecting 1688MU for FY 2004-05, showing an increase of 245% approximately.

4.10.1 Board's reply

The projections for sales within the state have been developed based on the CAGR method based on the historical trends. Sales outside the state are on account of sale of surplus energy available with the Board in summer months. In view of the deficit in the country, the surplus energy is picked up by a number of states across the country. The projections are based on the surplus power available in the system. Presently, the Board has tied up sale of power to Delhi and Haryana in the summer months of FY 2004-05.

4.10.2 Response of consumer representative

No specific comments on the issue.

4.10.3 The Commission's viewpoint

The Commission has carried out its own due diligence while forecasting sales for the FY 2004-05. As for sales outside the state, the Commission notes that due to recently commissioned BASPA and Naptha Jhakri projects, the Board has surplus power to trade in summers. The Commission's views on this are discussed in Section 6 and 7 of this tariff order.

4.11 Transmission and Distribution losses

According to some objectors, the actual loss is much more than what has been estimated by the Board. It has also been pointed out that going by the target fixed by the Commission for FY 2001-02 as 17.96% and the target reduction of 1% proposed by the Board, the loss level works out to be 14.96% for FY 2004-05. Another objection relates to the non-availability of break up of losses on sales within and outside the state. The distribution losses should be worked out on the basis of sales within the state, and as per the Board's petition, these are still at 25.16%. The objectors have demanded a realistic estimation in this regard, which is essential to fix appropriate target levels. It has been pointed out that given the amount of assets to be brought into use in the FY 2004-05 (valued at Rs.996.9 Crores), the reduction in T&D losses should be significant, as a part of this investment is shown to be made towards T&D network. The objectors have desired to know the measures that are being undertaken by the Board to reduce these losses. It has been prayed that the burden of higher losses should not be passed through to the consumers. The distribution losses should be segregated from theft, and cost on account of theft should not be passed through to the consumers.

4.11.1 Board's reply

The Board has initiated measures for reducing technical losses and has planned investment of Rs. 322.78 crores in the coming years. However, the impact of these investments would only show results in the coming years. The loss for FY 2001-02 was assessed by the Board at 21.16%. In line with the commitment made under the MOU with Government of India, the Board has reduced losses by 1% each year from FY 2002-03 onwards thereby projecting a loss of 18.16% for FY 2004-05.

4.11.2 Response of consumer representative

The response is covered against 4.3.2 above.

4.11.3 The Commission's viewpoint

The contention of the Board that T&D loss for FY 2004-05 is 18.16% is misplaced, as this has been calculated by taking into account the sale outside the state also. Based on figures proposed by the Board, T&D losses are estimated to be over 25% net of the sales outside the state. Further, the Commission notes that with only 549 MU of sale outside the state, the Board has estimated 21.16% of T&D loss for FY 2001-02; and 18.16% for FY 2004-05 with 1366 MU of sale outside the state. Therefore, grossing up the sale including sale outside the state is resulting into understatement of losses, when in fact, there might not have been any reduction effected by the Board at all. The Commission maintains that the Board should be able to bring down the loss with various measures and investments being undertaken by it in this regard. This has been dealt in greater detail in Section 6 of this order.

4.12 Overestimation of total revenue expenditure by the Board

It has been highlighted that whereas the Board's proposed revenue requirement for FY2001-02 was Rs.935 crores, the actual cost for the same financial year, as per audited accounts was only Rs.799 crores. Similarly, the requirement projected for FY 2003-04 seems to be overestimated, as this is 40% higher than the FY 2002-03 audited levels. On this basis, the objectors have claimed that the Board has overestimated its costs for FY 2004-05.

4.12.1 Board's reply

The comparison outlined as above is not correct. The figures proposed in the tariff petition for FY 2001-02 as well as figures approved by the Commission in its Tariff Order for FY 2001-02 are inclusive of capitalisation, whereas in the audited results, figures have been taken after reducing the impact of capitalisation.

4.12.2 Response of consumer representative

No specific response on the issue.

4.12.3 The Commission's viewpoint

The Commission has examined the accounts of the Board and has appropriately accounted for the figures proposed in the petition.

4.13 Employee Costs

Abnormally high per unit employee cost of the Board has been unanimously objected by one and all including the consumer representative, and has been held as one of the main reasons for the proposed tariff increase, as this is one of the most important component of the ARR. The staff to consumers ratio of 1:46 has been cited as an indicator of the inefficiencies of the Board. Comparisons have been drawn with employee cost of neighbouring and other states, and it has been submitted that the Board should reduce these costs to match the national average. It has been pointed out that the Board is a statutory utility and can independently frame its recruitment policies. The increase in these costs at the rate of 9-10% is unreasonable considering the increase on account of usual annual increments and increase in DA, the latter being generally linked to inflation, which has been around 5%. Some consumers have objected to the regularization of daily rated workers in view of the high costs already being incurred by the Board. They have refuted the contention of the Board regarding regularization of workers as the reason for higher employee costs on the basis that salaries of new entrants in service are bound to be lower than those of the retiring employees. Though the Board has shown a decline in the number of working employees, this has not translated into any decrease in employee cost. Some objectors pleaded for freezing the salaries and allowances of the employees until the financial health of the Board permits any increase or merger of DA etc. The consumer representative took strong objection to the Board having not cared a fig for the Commission's directions in this regard and pleaded fervently for freezing the employee costs at FY 2001-02 level and fixing the reduction level on year to year basis.

4.13.1 Board's reply

The increase in employee cost has been marginal on account of DA increase (16% with respect to 2002-04), increments and regularisation of daily rated workmen. The DA is linked to the DA given by the central government and is increased accordingly. On an average, this cost has only increased by 4.5% over the last three years relative to the cost approved by the Commission as per the Tariff Order of 2001-02. The estimation of employee cost has also taken into account the retirement benefits provided to the retirees whose number is increasing on year-to-year basis. At the same time, the Board has merged 50% of the DA with the Basic salary, which has resulted into increase in other allowances. Further, the Board is making efforts to reduce costs on this account. It has commissioned a study for development of long-term and short-term plans for rationalization of existing manpower, improving and updating the organizational strategies and systems and skills of human resources for increased productivity.

4.13.2 Response of consumer representative

The high employee cost has been justified by the licensee on ground of regularization of employees based on the Government directions, stating that the Board has to discharge its social objectives. Since employee cost is a pass through, there is no obligation of full filling social objectives, which are the responsibilities of the State Government. Therefore, cost of such regularization of employees beyond the essential requirement of the Board has to be borne by the State Government

4.13.3 The Commission's viewpoint

The Commission's anxiety and concern on abnormally high employee costs are well known. However, the Commission feels that the Board has perhaps the highest employee cost per unit of sale in the country and the size of the workforce cannot be drastically slashed at once. However, sincere and earnest efforts must be made to bring this down to the national average at the earliest. This issue has been discussed in detail in Section 6 of this tariff order.

4.14 High costs of power purchase

The objectors submitted that the power purchase cost has gone up by about 74% whereas the corresponding increase in the quantum is only 28% for FY 2003-04. Since purchase rates assumed by the Board for FY 2004-05 are based on the actuals of FY 2003-04, there seems a substantial scope of reduction in this cost item of ARR. It has been put forward by many objectors that the Board has not considered the principle of merit order or least cost option, which could help minimize these costs. No power purchase for FY 2004-05 has been assumed from a relatively cheaper source, i.e., Singrauli station from where the Board purchased power in FY 2002-03 and FY 2003-04. It was cited that the terms and conditions of tariff, as issued by the CERC for the period commencing April 2004, would result in reduction in tariff from Central Generating stations, which should lead to reduction in the power purchase costs of the Board. The consumer representative was critical of the rates of Rs. 2.80 per unit taken for Naptha Jhakri, Rs. 2.60 from Baspa-II and Rs. 2.93 per unit for Uri and wondered if the consumers have to pay a heavy price for having their own projects in the state when average power purchase price from others is Rs 2.01 per unit. He also questioned the selling of free power entitlement of GoHP to outside the State at the cost of consumers of Himachal Pradesh and wanted to know if GoHP could charge any price without coming to the Commission.

Government of Himachal Pradesh has objected to the treatment of the entire free power quantum of 762 MU available to it at a cost of 70 Paise per unit and reserving the right of the GOHP to file separate petition for determination of rate of free power as per the observations made by the Commission vide its order dated 17th April,2004. The GOHP has submitted that the free power available to HPSEB from PSEB(Shanan), PSEB(Thein) Bairasuil, Chamera-I and Malana aggregating 476.1 MU will continue to be available at the rate of the lowest domestic slab as approved by the Commission to avoid any financial burden on consumers in Rural and Remote area of the State. Free power of the GOHP available to HPSEB from Projects commissioned after the Tariff order of 2001-02 i.e. Chamera –II and Baspa-II totaling 286.5 MU shall be charged at the average price per unit of power sold outside the State in power surplus scenario and average per unit cost price of power purchased from outside the State in power deficit scenario.

4.14.1 Board's reply

The Board is committed to purchase power from the new units under the PPA and "State of the Region" share from Baspa and Nathpa Jhakri respectively. After meeting the requirements within the state, the surplus power is proposed to be sold outside the state. Under a commitment made by the Board, the Board has to pay fixed charges on these plants irrespective of the purchase from them, and only the variable costs are payable on purchase. As realization from sale outside the state is far higher than the variable cost, it is beneficial for the Board to buy this power and sell it outside the state. The Board has no allocated share from Singrauli. Last year, the Board received some 9% energy from the unallocated share during the winter months. Such power is provided only on temporary basis to the needy states by the Centre. Any power from unallocated shares, including from Singrauli, cannot be planned for as it is decided at that point of time. Per unit cost of sources such as Chamera, Unchahar and NJPC has gone up on account of commissioning of new capacity. The tariffs for various power purchase sources have been assumed on the basis of CERC's orders.

In regard to the objections made by GOHP, the Board has submitted that the tariff for the free power be finalized before the Tariff Order so as to reflect the increased costs in the revenue requirement, since any change after the Tariff Order would lead to loss that would not be recoverable by the Board till the next Tariff Order.

4.14.2 Response of consumer representative

The issue has been discussed at length at 4.3.2.

4.14.3 The Commission's view point

The Commission notices the unusual spurt in power purchase volumes and costs. This increase has mainly been, as proposed by the Board, on account of commissioning of new power plants within the state such as BASPA-II and NJPC, from where the combined off take proposed for FY 2004-05 is 1157 MU. The Commission had to delink the issue of price of free power from the tariff petition in its Order of April 17, 2004 since the GOHP requested for extension in time which if allowed, would have derailed the tariff making exercise beyond the statutory 120 days. However, the Commission is approving additional interest on working capital to meet any unforeseeable expenses. The Commission has approved the power purchase quantum and costs after an in-depth analysis of all related issues and this is discussed in greater detail in Section 6 of this order.

4.15 Lower off take and higher tariff proposed for Naptha Jhakri project

The proposal of the Board to purchase only 150 MU from Naptha Jhakri project, which has an installed capacity of 1500 MW, has been objected to by the interveners. It has been contended that this is very low in consideration of the fact that the State is entitled to 12% free power and 25% of the rest on cost sharing basis from this project. The high cost of power at Rs.2.80 per unit has also been objected in light of the GoHP's free share from this project. Also, as per the provisional order of CERC, the per unit cost for FY 2003-04 is Rs.2.18 per unit, which compared with the Board's proposed rate reveals an increase of Rs. 0.62 per unit for FY 2004-05.

4.15.1 Board's reply

The Board is getting only the "State of the Region" share to the extent of 2.47% of the total annual generation from Nathpa Jhakri project. The 12% free power and 25% on account of equity participation from this project is not handled by the Board but by the Government of Himachal Pradesh itself.

4.15.2 Response of consumer representative

The State Government should be prevailed upon not to sell its share of 25% power at generation cost, but provide it to the needy consumers of the State to prevent rate shock. In addition, the issue that needs to be looked into is, if the Govt can sell its share of power from the project without getting the tariff fixed from either the CERC or the SERC.

4.15.3 The Commission's view point

The Board maintains that the entire state's share from NJPC is being handled by the Government directly. Through its affidavit dated 1June 8,2004 the GOHP has clarified that availability of power from NJHEP, both free power as well as Share on account of equity participation in the Project has been entrusted for sale upto October 31,2004 on CERC rates. This power will be made available to HPSEB after October 31, 2004. The Commission approves the figure proposed by the Board for the current financial year.

4.16 High Generation cost

The objectors have submitted that efficient cost of generation should not be more than Rs.1 per unit, as Himachal Pradesh is a total hydropower generating state. A few objectors have also highlighted the high capital cost of HPSEB projects. In this context, they have drawn a comparison with Malana power project where the cost of project has been about Rs.3.75 crores per MW as compared to the Board's owned project cost of around Rs. 5.5 to 7 crores per MW. Secondly, per unit cost of generation of few plants is very high. For instance, Rong Tong and Thirot have been proposed to be producing at Rs.30.14 and Rs.25.48 per kWh.

4.16.1 Board's reply

The capital cost of the Board's projects compares favorably with the recently commissioned hydroelectric projects in the State executed by NJPC and

NHPC. Further, it needs to be noted that the cost of hydel projects varies from project to project depending upon the geography, available discharge and head.

4.16.2 Response of consumer representative

There is concern over the unacceptably high generation cost in the Board's owned hydro stations and if such stations should be kept in operation. Therefore, there is need to fix the generation cost of each of the stations on an annual basis for the purpose of tariff making. Besides, if the social objectives desire to keep some of the stations located in remote areas, their high cost of generation should not be permitted as pass through.

4.16.3 The Commission's viewpoint

The Commission notes the high capital cost proposed by the Board, and has ordered the Board to submit relevant details w.r.t. cost and time overruns incurred in the projects being undertaken by the Board. It is imperative for the Board to undertake an assessment of the existing situation and draw up a plan of action to enhance its generation while minimizing its costs. The Commission directs the Board to submit its action plan in this regard. The Commission reiterates the directive issued by the Commission in the Tariff Order for FY 2001-02, wherein the Commission had asked the Board to furnish cost comparison of the Board's plants with that of Malana power project.

4.17 High Operation and Maintenance expenses

The consumers have objected to the high O&M expenses proposed by the Board for FY 2003-04, which indicate an increase of 37% over the actual expenditure in FY 2002-03. Similarly, the level of Rs. 22.77 crores proposed for FY 2004-05 has been held as very high. Assuming an increase of even 10%, a reasonable level of O&M would be around Rs.18 crores for FY 2004-05. The objectors have submitted that such expenses are mainly incurred on account of failures/outage of transformers, distribution lines etc, which should ideally decrease than increase as consistent endeavors to minimize these failures to improve quality of supply are made. Therefore, there should ideally be a decrease in these costs.

4.17.1 Board's reply

The increase is marginal on account of inflationary increases.

4.17.2 Response of consumer representative

The R&M cost in respect of vehicles has been indicated as Rs. 17.18 Cr. Out of a total R&M cost of Rs. 22.77. The Board was requested to make available details of vehicle O&M for study, which was never supplied.

4.17.3 The Commission's view point

The Commission has carefully scrutinized the various components of O&M expenses submitted by the Board. This has been discussed in detail in Section 6 of this tariff order.

4.18 Capital works-in-progress (CWIP)

The high cost associated with capital works in progress has been objected to highlighting gross overruns on time and cost as possible reasons. The objectors have also stated that a reason for such a high level of CWIP could be that the completed projects have not been capitalized yet. A few objectors pointed out that whereas the increase in CWIP has been phenomenal, there has not been any corresponding increase in energy available from the Board. It has been cited that CERC has held that cost on account of cost overruns would not be passed through the consumers. A review of CWIP is essential before passing through the interest cost associated with it. Though the Board has shown large investments in T&D schemes, efficiency improvements arising on this account have not been factored in the ARR.

4.18.1 Board's reply

There are a couple of generation projects being undertaken by the Board and the CWIP increase reflects the investments in these projects. However, these projects are still under construction and are scheduled to be commissioned in FY 2005-06.

4.18.2 Response of consumer representative

The CWIP indicated in the petition for ARR is very high. Details were requested for a closer scrutiny. These were never made available.

4.18.3 The Commission's viewpoint

The Commission has initiated an inquiry in this regard and has directed the Board to submit a status report on all the projects that are being undertaken by the Board with special emphasis on cost and time overruns, and increased liabilities in terms of interest and employee costs in case of each project costing Rs. 5 lakhs and above.

4.19 High Interest costs

The interest costs of the Board constitute 22% of the total expense for FY 2004-05. It has been pointed out by many objectors that the interest rates on the Board's outstanding loans range from 12.5% to 14%, which is very high in the prevailing low interest rate regime, when companies are borrowing at 6% to 7%. The Board has been asked to re-negotiate the terms and conditions of these loans or retire these loans by raising fresh loans at lower interest rates. It has been pointed out that schedule for loans for the year FY 2004-05 has not been made available by the Board and it is quite likely that the entire loan would not be raised in one go. It has also been highlighted that the Board should have explained the purpose of raising new loans, and that only such loans should be considered in the ARR as are being invested in useful assets. The break up of interest on long-term loans and on working capital has not been provided in the petition separately.

4.19.1 Board's reply

The interest costs have increased on account of new loans used for funding the investments in the Board's generation projects and T&D network. As for the value quoted with regard to interest on bank loans, the calculation is based on a certain amount of additional drawl and repayment of loans during FY 2003-04, which did not mature due to rescheduling of investments in Larji and Khauli projects from FY 2004-05 to FY 2005-06. However, the interest was computed based upon the changed circumstances wherein the opening balance for Banks for FY 2004-05 was Rs. 302.32 crores instead of Rs. 84.32 crores. Further, the Board has been taking measures to swap the expensive loans with the cheaper funds available and has succeeded in reducing the costs of both REC and PFC debts. The interest cost for FY 2004-05 has been computed assuming a full year interest payment on the opening balance at the beginning of the year. However, the impact of any additions/reductions has been computed based upon drawl in the middle of the year. The loans have been raised for undertaking investments in capital works, which result in increase in either in Fixed Assets or in CWIP. In view of the limited funds available and limited returns available to the Board, equity contribution has been minimal and investments have been funded by loans. The interest computations stated in the petition include the interest on working capital.

4.19.2 Response of consumer representative

The response on the issue has been discussed at 4.3.2.

4.19.3 The Commission's viewpoint

The Commission views that there is considerable scope in reducing the interest costs, provided projects are executed efficiently and in time, and dues are collected timely thereby minimizing the need for working capital. Additionally, the Board should make every possible effort to bring down the interest cost by undertaking appropriate debt-restructuring exercise in a time bound manner.

4.20 Depreciation

The proposal of the Board to charge depreciation at an ad-hoc rate of 2.5% has been objected. It has been submitted that an asset register should have been maintained by the Board to appropriately account for depreciation, as consumers, otherwise might be paying depreciation on already depreciated assets.

4.20.1 Board's reply

The details of various assets of the Board are not available to allow for the detailed computation and, therefore, an adhoc rate has been used to compute depreciation. The asset register preparation is in progress, under a study commissioned by the Board. Once completed, the rates as applicable under various guidelines shall be applied.

4.20.2 Response of consumer representative

No specific comment on the issue.

4.20.3 The Commission's viewpoint

The Commission's approach in approving the depreciation amount for the FY 2004-05 has been detailed in Section 6 of this tariff order. However, it might suffice to say at this point that the study referred to by the Board provides for preparation of fixed asset register based upon the data furnished by the various field units and not on the basis of physical verification of assets by an independent agency as directed by the Commission in its 2001-02 tariff order.

4.21 Prior period expenses

It has been stated that prior period expenses should be accounted for in the brought forward profit/losses of the previous years, and not be loaded on the tariff for FY 2004-05. There has not been any detail provided as to on what account these expenses are expected to arise.

4.21.1 Board's reply

This provision has been made to meet any unforeseen prior expenses such as Arrears of pay fixation, DA from retrospective dates, etc.

4.21.2 Response of consumer representative

No specific comment on the issue.

4.21.3 The Commission's viewpoint

This has been discussed in Section 6 of this tariff order.

4.22 Underestimation of revenue at existing tariff

The average realization, as calculated from the data given in the petition, is Rs. 2.71 per unit for FY 2002-03 whereas the Board has shown the same as Rs.2.24 per unit for FY 2004-05 when there has not been any change in the tariff in these two years. This should be substantiated taking into account the fact that whereas the Board is proposing an increase of 757 MU of sale within the state as compared to the FY 2002-03 level; the corresponding increase in revenue is shown as only Rs.63 crores. An appropriate estimation of revenue at existing tariff would reduce the revenue deficit proposed by the Board.

4.22.1 Board's reply

In FY 2002-03, as per the computation made by the Board, the energy sold in the state is 2519 MU with corresponding revenue of Rs. 577 crores. This amounts to an average per unit realization of Rs. 2.29. In FY 2004-05 (till February 2004), as per the calculations made by the Board, the energy sold in the state is 2479 MU with corresponding revenue of Rs. 548 crores. This yields average per unit realization of Rs. 2.21. The actual figures ending March 2004 are under finalization. It has been seen that the average tariff during FY 2001-02 to FY 2003-04 is around Rs.2.25 per unit, which is closer to Rs. 2.24 per unit as projected for FY 2004-05.

4.22.2 Response of consumer representative

No specific comment on the issue.

4.22.3 The Commission's viewpoint

The Commission has reviewed the audited accounts of the Board for FY 2001-02 and for FY 2002-03, and the provisional accounts for FY 2003-04. The average realisation from sale of power within the state for FY 2001-02 and FY 2002-03 is Rs. 2.31 per unit. This also includes the revenue from non-tariff income. As per the Commission's analysis, the average realisation (including non tariff income) for FY 2004-05 is Rs 2.38 per unit at existing tariffs.

4.23 Single part tariff

The proposal of the Board to levy a flat rate instead of the prevailing two-part tariff has been denounced as a retrograde step. The Commission's rationale of introducing two part tariff through its first tariff order was reiterated holding that under two part regime while fixed charges enable recovery of fixed liabilities in terms of employee costs, power purchase, interest etc; energy charge helps recover the cost of energy consumed. The consumers have also submitted that the introduction of two-part structure with kVAh energy tariff has led to an improvement in the power factor, thereby reducing the load current on the system of the Board.

4.23.1 Board's reply

The Board has not been able to recover its cost of supply under the existing system of two-part tariff. This has also led to a number of disputes leading to non-recovery of revenue and increase in administrative burden. The Board has further submitted that the Commission in its tariff order for FY 2001-02 had approved the two-part tariff w.e.f. November 1, 2001. Such a tight schedule did not provide the Board any time to build up the required database of contract demand. As a result, the implementation has led not only to legal complications and public disputes, but has also resulted in loss of revenue to the Board. In contrast, the Punjab Electricity Regulatory Commission had given sufficient time to the Punjab State Electricity Board to develop the required database before deciding on the introduction of two-part tariff in the state. To eliminate the problems faced by the Board and the consumers, it is, therefore, proposed to shift to single part tariff with a provision of Minimum Monthly Charge.

4.23.2 Response of consumer representative

The licensee wishes to re-establish single part tariff and has also proposed MCG for certain consumer categories. This is a retrograde step, since the MCG will certainly lead to wastage of electricity and is against the principles of demand side management.

4.23.3 The Commission's viewpoint

The Commission views that tariff has to be structured in a manner that enables the Board to recover its fixed costs through a fixed charge component and its variable costs through a variable charge component thereby ensuring the Board a certain minimum level of revenues irrespective of the consumption. With regard to lack of adequate database, the Commission views that the Board should have been able to build accurate and credible base-line data in accordance with the direction given by the Commission in its tariff order of 2001-02. The Commission also has reasons to believe that the Board, by its own acts, and conduct and misinterpretation of the tariff order created situations where the aggrieved parties have no recourse but to resort to litigation.

4.24 Re-introduction of Minimum monthly consumption (MMC)

The objectors contended that MMC was abolished by the Commission through its first tariff order in view of its acting as a disincentive for energy conservation, and since nothing has changed since the issue of this order, levy of MMC should not be reconsidered. The Board is not in a position to assure supply as per requirements of the consumers, and it restricts the supply as per its convenience and availability, especially during the winter months when there is a shortage of power. The hotel industry has severely objected to the levy of MMC holding that the occupancy is almost zero for more than ten months, in which case levy of MMC shall be highly arbitrary. Under the previous arrangement, the minimum charges were levied on the industrial consumers on month-to-month basis, which if at all MMC is introduced, should be levied on annual basis to average out the effect of interruptions and seasonal variations.

4.24.1 Board's reply

Minimum Monthly Charges have been proposed to recover the fixed charges and the system has to be designed keeping in view the total power requirement of the consumers. The same remains idle during some part of the year for which the capital investment has already been made and O&M expenses are also incurred. Hence levying of MMC is justified.

4.24.2 Response of consumer representative

The response on the issue has been discussed in Section 8.

4.24.3 The Commission's viewpoint

The Commission is of the view that MMC leads to inefficient consumption of electricity and is the very anti thesis of the essence of conservation of energy, which is also advertised by the Board at the back of its electricity bills to consumers. Similarly, the MMC is irrelevant where there is cent percent metering This has been dealt in greater detail in Section 8 of this tariff order.

4.25 Connected Load v/s Contract demand

Industrial consumers have objected to the estimation of contract demand linked to the connected load. As per the circular issued by the Board in June 2003, the minimum limit for contract demand would be 85% of connected load for industries running in three shifts and having connected load above 500 KW. This has been held as unfair, as continuous process industries generally have a large number of equipments that are standby and are never operated simultaneously to cause higher demand on the Board's system. Therefore, the industry would have to pay higher demand charges due to overstated contract demand. This has also been objected in the light of a stringent penalty of Rs. 300 per kVA, which is currently being levied for any over drawl beyond the contract demand.

4.25.1 Board's reply

The Board has already withdrawn the referred circular of June 2003 and has implemented fresh instructions as per Interim Order passed by the Commission on August 3, 2003. Moreover, with the proposed single part tariff the apprehensions of the objectors have been obviated.

4.25.2 Response of consumer representative

For the consumers what is important is the contract demand and not the connected load. Therefore, linking the demand to connected load on the basis of shift working is unacceptable, as it will lead to harassment of consumers.

4.25.3 The Commission's viewpoint

The Board's circulars linking the contract demand with number of shifts were struck down by the Commission in its Order dated 31.10.2003 and have since been withdrawn by the Board. The Commission has already made its view known on connected load in its tariff order of 2001-02, which is often used as an instrument of harassment to consumers and wishes to do away with the very concept of connected load except for inspection of installations for safety reasons.

4.26 Abolition of Peak load restriction

The current practice of peak load restrictions constrains the industry to deploy its resources, especially its manpower sub optimally. The peak load restrictions should be removed, as new projects coming up in the state become operational thereby enhancing the availability of power. This would incentives the industry, as the consumers would then not have to invest in captive plants including those in DG sets, stabilizers etc., cost of which is substantial for use during the peak hours. A suggestion submitted in this regard is to remove this restriction over a period of time, say 2-3 years, if these cannot be removed right away owing to technical constraints.

4.26.1 Board's reply

The Board has currently been allowing the industrial units to use the minimum quantity of power to run continuous process industries on a selective basis in summer and has been reviewing the power supply position in winter months to allow the industries to run during peak hours depending on the power availability. The proposals for the abolition of peak load restrictions in Himachal Pradesh will be reviewed on the commissioning of Larji Hydel Project targeted for FY 2005-06.

4.26.2 Response of consumer representative

No specific comment on the issue.

4.26.3 The Commission's viewpoint

The situation has to be viewed in the overall context of peak deficit in the country and the pricing of such energy. The stage has not arrived for even laying down a time frame for removing these restrictions.

4.27 Peak Load Exemption charges

In addition to the peak load tariff, Peak Load Exemption Charge (PLEC) is also being levied. Taking into account the effect of PLEC, the total cost during peak load hours increases to Rs.4.35 to Rs.6.35/kVAh. Due to such a high cost, consumers are unable to avail of the provision and, therefore, it does not serve any purpose. Another issue highlighted in this regard is the procedure adopted by the Board to calculate the demand. The Board multiplies the connected load mentioned in the application form by a power factor of 0.9 to estimate the demand, which works out to be higher than the actual demand of the consumer. Thus, the consumer ultimately ends up paying a very high PLEC.

4.27.1 Board's reply

The PLEC provision is necessary because of the severely constrained network during the peak hours and to ensure the grid safety and integrity.

4.27.2 Response of consumer representative

Principles of differential tariff for peak and off peak power both for generation and as well as consumers are now necessary to incentives flattening of load curve as well as creation of peaking capacity in the system.

4.27.3 The Commission's viewpoint

The price must signal the cost to the Board in supplying power during the peak load hours and, therefore, at this stage it is necessary to have the provision for PLEC. However, efforts have been made in this Tariff order to rationalize the PLEC

4.28 Peak Load Violation Charges (PLVC)

The prevailing practice of charging PLVC in terms of increased rate of energy charges as well as in the form of penalty for over drawl has been objected. It has been submitted that sometimes these violations might occur due to incorrect time reported by the energy meter or incorrect time reported in the clocks of the factory but the consumer ends up incurring huge costs. There should be a single PLVC including the penalty and this should be rationalized.

4.28.1 Board's reply

The PLVC Tariff was designed to discourage such violations and the penalties need to be adequate to ensure grid management and discipline. Therefore, the proposal proposed by the objector is not acceptable.

4.28.2 Response of consumer representative

No specific comment on the issue.

4.28.3 The Commission's viewpoint

The consumers have to exhibit better punctuality and the discipline in order to avoid payment of penalty.

4.29 Advance Consumption Deposit

Industrial consumers have objected to the linking of Advance Consumption Deposit (ACD) to the number of shifts, as proposed by the Board wherein the ACD has been proposed to be increased from Rs.500/kW to Rs.1500/kW for three shift industries. The proposed requirement of furnishing bank guarantee toward ACD is costly and would tantamount to paying 1.5 times the proposed ACD. It has been pleaded by the objectors that even the ACD should be linked to contract demand instead of connected load. Reference has been made to the Act with regard to the interest that should be paid by the Board on consumer deposits, which is not being followed by the Board currently. The provision of the Act to pay interest as per the Bank rate requiring the Commission to specify the same while fixing the tariff has been high-lighted.

4.29.1 Board's reply

ACD is collected from consumers as an advance deposit towards their liability of payment on their consumption. Consumption at similar connected load can, however, differ significantly on account of the number of shifts and, therefore, their consumption. A fixed ACD exposes the Board to a larger payment risk for the larger consumption consumers and, therefore, it is proposed to link the ACD to the number of shifts. Besides, a nominal increase in other general and service charges has been proposed to reflect the increased costs of service to the consumers. Secondly, as mentioned before, ACD is in lieu of the consequential liability to pay for each day's consumption of electricity and, therefore, is not a fixed deposit on which interest is payable. Further, new rates of ACD shall be made applicable to the new connections. However, in case of extension of load, the new rates shall be applicable for the total load required and not on the incremental load only.

4.29.2 Response of consumer representative

No specific comment on the issue.

4.29.3 The Commission's viewpoint

This has been discussed in detail in Section 9 of this tariff order.

4.30 Augmentation charges

Industrial consumers have objected to the Board's practice of sharing the cost of sub station forming a part of transmission network with the consumers. These charges are recovered at the rate of Rs. 9400 per 10 kW slab of connected load for any extension/fresh connection in Parwanoo area whereas Rs. 200/kW is being charged in other areas. Since the ARR takes into account the capital as well as the operational costs, these charges should not be collected separately. Secondly, these charges have found no mention in the revenue collected, as quoted in the petition.

4.30.1 Board's reply

The Act authorizes a distribution licensee to charge from a person requiring supply of electricity any expenses reasonably incurred in providing any electrical line or electrical plant used for the purpose of giving the supply.

4.30.2 Response of consumer representative

To avoid harassment to the consumers, formalities required for load sanction along with various charges such as infrastructure, development and departmental charges need to be identified and approved by the Commission. Commission should review all practices, which require the consumers to pay or comply with instructions of the licensee.

4.30.3 The Commission's viewpoint

Section 46 of the act, read with section 181 of the Act requires the Commission to make regulations in this regard. Commission is already seized of the matter and hopes to notify these regulations in due course.

4.31 Increased rebate for high voltage supply

The objectors have pointed out that the current rebate provided for usage of high voltage supply is less in comparison with the savings arising on account of less line losses and economic use of fixed assets of the Board. Some objectors have also put forward a proposal in this regard. This is given in the table below.

Supply Voltage	Rebate
132 KV & above	5%
66 KV	4%
33 KV	3%

4.31.1 Board's reply

The Board has proposed the following rebate structure for the supply voltages between 33KV to 220 KV:

Supply Voltage	Rebate
33 KV	1.5%
66 KV	2%
132 KV	2.5%
220 KV	3%

The single part tariff proposed by the Board is also based on kVAH and provides incentives for improving the power factor.

4.31.2 Response of consumer representative

No specific comment on the issue.

4.31.3 The Commission's viewpoint

The Commission has taken steps in this tariff order to rationalize the rebates provided for supply at high voltages. These are discussed in detail in Sections 7 and 8 of this order.

4.32 Night time concession

The proposal of the Board to allow night time concession to only those industries which run in day shifts and plan to run in the night shift only has been objected to by the objectors and the consumer representative. It has been asserted that this provision should be applicable for all shift industries, and the prevailing rate of 20 paise per unit should be increased to 50 paise per unit.

4.32.1 Board's reply

In order to bring in demand side management, the Board is trying to incentives consumers to shift to night usage and, therefore, is offering this incentive.

4.32.2 Response of consumer representative

No specific comment on the issue.

4.32.3 The Commission's viewpoint

Restricting the concession only to such industries so as to shift the day consumption to night hours is inconsistent with the Board's own logic of better demand side management by incentivising them to shift to night usage only. The Commission does not subscribe to such a view point and logic and shall continue to provide night hour incentive until near flat load curve is achieved on daily basis.

4.33 Kvah tariff

Since electronic meters have been installed for almost every SIP, MIS and APC consumer, a Kvah based tariff should be introduced for these consumers as has been done for large industries. This would eliminate a potential source of nuisance without any loss of revenue to the Board.

4.33.1 Board's reply

The Board has already proposed Kvah tariff for all industrial consumers having load above 20 KW in the proposed tariff application, since tri-vector meters are being installed for releasing such connections.

4.33.2 Response of consumer representative

The proposal to change tariff from Kwh to Kvah is a welcome step of the licensee.

4.33.3 The Commission's viewpoint

The Commission intends to extend two part Kvah based tariff (KVA based demand charge and Kvah based energy charge) to all consumers of connected load above 20 kW irrespective of the class with the exception of domestic category for more efficient energy management at the consumer end.

4.34 Consumer categories in the tariff schedule

Whereas some objectors have opposed the proposed splitting of existing SMS schedule holding that this would complicate the tariff structure, some have proposed that this schedule can be bifurcated, however, with the following description:

SIP	:	load up to 50 KW
MIS	:	load 51 to 100 KW

Further, the following category structure has also been suggested by objectors:

SMS	:	up to 200 kVA
Large Supply	:	above 200 kVA

4.34.1 Board's reply

The Board would like to retain the proposed tariff categories.

4.34.2 Response of consumer representative

No comments on the issue.

4.34.3 The Commission's viewpoint

The Commission does not wish to significantly alter the structure except where the connected load above 20 kW requires a different tariff structure.

4.35 Underestimation of non-tariff income

The non-tariff income considered by the Board as Rs. 25 crores for FY 2003-04 to arrive at the revenue deficit is not correct, especially when compared with the approved level of Rs. 40.69 crores for FY 2001-02 and the proposed estimate of Rs.55 crores for FY 2004-05.

4.35.1 Board's reply

The non-tariff income has been computed based upon revenue from the rentals of meters and other apparatus hired to the consumers.

4.35.2 Response of consumer representative

No specific comment on the issue.

4.35.3 The Commission's viewpoint

The Commission has estimated the non-tariff income for FY 2004-05 taking into consideration the non-tariff income of Rs 48 crore in FY 2003-04 and the proposed non tariff income of Rs 55 Crore for FY 2004-05. This is discussed in detail along with the component wise description of non-tariff income in Section 7 of this tariff order.

4.36 Bulk supply tariff

As per the Act, the Board should file a separate tariff petition for bulk consumers, co-operative societies, distribution licensees who wish to make direct purchases from generators or traders and use only the T&D network of the Board.

4.36.1 Board's reply

The Board understands that these queries relate to the Bulk Supply consumers in context of open access. The Board would abide by the principles and regulations, as would be set out by the Commission.

4.36.2 Response of consumer representative

No comment on the issue.

4.36.3 The Commission's viewpoint

The Commission is in the process of developing open access regulations as provided in the sub section (2) of the section 42 of the Act along with the allied regulations relating to cross subsidies, surcharge, and additional surcharge etc. The Commission shall notify the same after prior publication by the end of August 2004.

4.37 Bulk Supply to Military Engineering Services (MES)

The MES have objected to the current practice of the Board charging them at a commercial rate. It has been stated by the MES that it purchases bulk power from the Board, and the entire take over points, stepping down arrangements and distribution has been created and is being maintained by the MES themselves. Since the electricity purchased is used mainly for day-to-day living, MES is predominantly a domestic consumer. Therefore, it is unfair to treat MES as a commercial consumer. The MES have also objected to the monthly minimum charge (MMC) being imposed by the Board on the ground that their consumption varies due to deployment of troops etc. MES has held that their job is more like that of a licensee without making any profit from sale of electricity. In this backdrop, the MES have appealed for a separate category and a rationalized tariff structure or an independent license to distribute electricity.

4.37.1 Board's reply

MES is categorized under the Bulk Supply-I in the proposed petition. As they have general as well as mixed loads wherein further distribution to various residential and non-residential buildings is being undertaken by the MES themselves, the proposed categorization is correct and does not need to be changed.

4.37.2 Response of consumer representative

No specific comment on the issue.

4.37.3 The Commission's viewpoint

Section 184 of the Act states that the provisions of the act shall not apply to ministry or departments of central government dealing with defense or other similar departments or undertakings or Boards or institutions under the control of such ministries or departments as may be notified by the Central Government. A reference has been made to the Ministry of Power, Government of India for appropriate clarification. However, the MES can hand over the distribution system of their establishments to the Board to enable it to meter the consumers individually when the individual consumers can avail of the appropriate tariff applicable to them.

4.38 Tariff for public lighting

The Municipal Corporation, Shimla has objected to the tariff hike proposed by the Board for public lighting. The objector has contended that as per the lease agreement between the objector and the Board, the latter is not allowed to increase the rates from those prevailing on December 31, 1973. Not only the proposed hike is illegal in view of the lease agreement, it is also unreasonable and on higher side given that it is the statutory duty of the Municipal Corporation to provide for street lighting and the activity is undertaken for public benefit without any charge being levied. The objector referred to the supply of electricity at a considerably low rate to other sectors where element of profit is involved. He supported the objection by citing an example of agriculture sector wherein the existing and proposed tariff is Rs.0.50 per unit.

4.38.1 Board's reply

The contention of the Municipal Corporation cannot be considered based upon the proposed lease agreement between the Objector and the Board. The Municipal Corporation is a consumer of the Board and, therefore, will be governed by the tariffs applicable, as fixed by the Commission, to the consumer category to which it belongs.

4.38.2 Response of consumer representative

No specific comment on the issue.

4.38.3 The Commission's viewpoint

The objector should take up the matter in regard to the provision of subsidy to this category with the State Government in accordance with section 65 of the Act.

4.39 Tariff proposal for agriculture consumers

Agriculture consumers have submitted that penal provisions in terms of PLVC, PLEC, MRI, power factor surcharge etc should not be applied to them, as supply to them is erratic and of poor quality. Secondly, these provisions would tend to benefit the line staff without any revenue benefit to the Board.

4.39.1 Board's reply

The Board would look into the matter.

4.39.2 Response of consumer representative

In our society, the rich who can afford to pay must subsidise the poor who are unable to pay for the electricity charges, until such time the society thinks it proper.

4.39.3 The Commission's viewpoint

The Commission shall pass appropriate directions in this regard.

4.40 Quality of supply and service

The issue of poor quality has been raised by many objectors highlighting poor quality in terms of tripping, voltage dips, interruptions etc. results in higher costs to the industry. It has been mentioned that in the case of continuous process industries, the losses on account of these factors are heavy including the cost of energy wasted for restart operations. Indices like CAIFI (Consumers Average Interruption Frequency Index) and CAIDI (Consumers Average Interruption Duration Index) have been computed to evaluate the quality of supply provided by the Board, comparing these with international norms. It has been suggested that a minimum standard with provision of penal action in case of default should be fixed, and the Board, as per the Commission's directives, should compensate the consumers affected by lack of quality of supply. A few consumers contended that the number of accidents is going up without any correctives measures being undertaken by the Board to stop them. Further, there are delays for releasing new connections with number of days going beyond the stipulated time period of 30 days.

4.40.1 Board’s reply

The Board would manage the system in line with standards of performance to be specified by the Commission. The accidents are not occurring on account of any lapses on part of the Board. The Board is diligently following the prescribed safety measures. Further the monitoring of these accidents is done regularly by the Government through the Chief Electrical Inspector. All out efforts are being made to release connections within the stipulated period. However, there have been delays on account of unavoidable circumstances beyond the control of the Board.

4.40.2 Response of consumer representative

There are many instances where it has been established that the services to be rendered by the licensee are not up to the mark and sometimes deficient. There is another general complaint that the Board’s employees are not consumer friendly. The Commission had appointed A.C.Nielson ORG-MARG to asses the level of consumer satisfaction. The survey included quality of supply and to obtain a feed back on the quality of services being provided by the licensee.

Survey indicated critical need to address the following issues

- Delay in meter replacement
- Enforcement of public safety.
- Bill accuracy and not being received timely
- Abnormal delay in meter replacement
- Transformer capacity as required not available
- Proper upkeep and maintenance of wires not being done
- Voltage fluctuations is a major issue
- Staff not receptive to consumer complaints

- Staff to attend faults are not available leading to delays in attending to faults
- No notification issued prior to shut downs
- Scarcity of materials-Consumers required to pay extra for cables and wires
- Fluctuations due to sparking
- Consumers are ready for privatization as there shall be more than one company, which shall give rise to competition

4.40.3 The Commission's viewpoint

The Commission has conducted a survey with regard to consumer satisfaction on quality of service being provided by the Board through AC Nielsen ORG-MARG Pvt. Ltd. Given the results of the survey and as pointed out by some objectors, there is a need to improve the quality of service in the state. The Commission has already issued Complaint Handling Mechanism and Procedure on February 8, 2002, and HPERC's Complaint Handling Procedure 2002 as notified on February 8, 2002 which has been saved in HPERC (Guidelines for establishment of Forum for Redressal of Grievances of Consumers) Regulations 2003, until the standards of performance of licensee are specified by the Commission under section 57 of the Act.

4.41 Determination of generation tariff of UJVNL stations

Under an agreement between the States of Uttaranchal and Himachal Pradesh, the Uttaranchal Jal Vidyut Nigam Limited (UJVNL), a generation utility owned by the Government of Uttaranchal, supplies to the Board a certain proportion of the energy generated from stations that come under the Yamuna Hydel Scheme, namely Kulhal, Chibro, Khodri, Dhalipur and Dhakrani. The objector has submitted a copy of the agreement between the two States on this sale of energy. As per the agreement, the Government of HP would ensure continued flow of water in the River Tons, for which it would be entitled to some proportion of power generated under this scheme as per terms and conditions laid down in the agreement. Accordingly, the UJVNL is supposed to sell 20-25% of the energy generated through these stations to the Board purely on cost recovery basis, wherein there would be no element of return in the tariff. With the coming into force of the Electricity Act, 2003 those provisions of the agreement that relate to determination of the tariff stand superseded. And, the tariff for supply of energy from UJVNL to the Board has to be determined by the Commission, as it has the jurisdiction in respect of the Board who distributes the energy purchased and makes the payment thereof. The UJVNL has questioned the power purchase rate, as proposed by the Board in the petition, and has prayed to the Commission to fix the tariff for this supply of energy. The UJVNL has proposed an average tariff of 64.51 paise without including any margin for profit; and contends that this would adequately compensate the HP government for ensuring the flow of water. The UJVNL has further contended that the agreement has outlived its life and has urged the Commission to direct it and the Board to re-negotiate the terms and conditions and enter into a new agreement. The UJVNL also pleaded for spinning out a contingency reserve to absorb the mid term revision in their tariff, if any.

4.41.1 Board's reply

The Board would abide by the principles of the Agreement of 1972, which had been entered into between the Government of Himachal Pradesh and the Government of Uttar Pradesh. HPSEB had no locus standii in the matter.

4.41.2 Response of consumer representative

While it is in the purview of the State Government to consider reviewing the agreement between the two Governments, the fixation of tariff is well within the powers of the Commission. Other issues relating to this are as per 4.3.2.

4.41.3 The Commission's viewpoint

The Commission has directed the UJVNL to file a separate petition for determining the tariff for inter-state supply to the Board. However, until the tariff is determined by the Commission, it may allow additional interest on working capital to factor in the mid year revision of UJVNL power and any other unforeseeable situation. The tariff of power sourced from Yamuna Hydel Scheme by the Board for FY 2004-05 has been discussed in detail in Section 6 on ARR analysis.

4.42 Financial losses in selling outside the state

There has been a significant increase in energy sold outside the state, which rose from 688 MU in FY2002-03 to 1688 MU in FY2003-04 i.e. an increase of 245%. As compared to this, the sales within the state have increased by only 151 MU in 2003-04 as compared to 1000 MU outside the state. A similar level of outside sale has been proposed at 1322 MU for FY2004-05 at the rate of Rs.2.40 per unit. It is inferred that increase in energy purchases from Baspa (Rs.2.60 proposed for 2004-05) and Naptha Jhakri (Rs.2.80 proposed for 2004-05) has been proposed mainly to meet the outside sales, where the average realization is lower than the purchase rates from the above stations.

4.42.1 Board's reply

Both the purchase cost of the Board (Rs. 201.635 per unit) and the tariff for sale of power outside the state (Rs. 240.98 per unit) are costs at the periphery of the State and can be compared as such. As can be seen, each unit sold provides an income of 39 paise to the Board.

4.42.2 Response of consumer representative

No specific comment on the issue.

4.42.3 The Commission's viewpoint

The Commission has directed the Board to submit the entire set of details including quantity and price of sale to each buyer. The Commission further underscores that cheaper power should first be utilized within the State rather than selling outside, and the Board should undertake necessary due diligence to make sure that the power outside the State is sold at the best available market price.

4.43 Non-recovery of outstanding dues from Government departments

A heavy amount of Rs. 247 Crores remains outstanding from the state government departments, which has increased significantly from the last year's level. This imposes increased interest costs on the Board. The objectors wanted to know the initiatives that have been undertaken by the Board to recover these dues except for writing letters to the Government.

4.43.1 Boards reply

The Board is continuously trying to recover the outstanding dues from all consumers, including Government and its various departments. The Board has actually recovered a large portion in the recent months. With regard to dues outstanding against government departments, the current status vis-à-vis the last year is as follows:

	(in Rs. crores)
Outstanding dues (on March 31, 2003)	190.080
Assessment during 2003-04	140.189
Realized during 2003-04	220.003
Balance due (on March 31, 2004)	110.266

4.43.2 Response of consumer representative

It is a matter of great concern that there exist huge outstanding arrears from the Government departments on account of electricity charges. To cover up this shortfall, the Board has been taking loans from the market at exorbitant interest rates. This is objectionable, since the expenditure is a pass through. The Commission may consider the manner in which outstanding arrears are to be recovered from Government departments who have been defaulting. Should such defaulters be meted a special treatment vis-à-vis other similarly defaulting consumers?

4.43.3 The Commission's viewpoint

The overall collection efficiency of the Board is 92%, as presented in the public hearings. Though the Board has not proposed any separate expenditure being incurred on account of non collection of dues from the Government Departments, the Commission believes that this must be getting reflected in terms of increased working capital, and hence in increased interest cost. **The Commission, therefore, directs the Board to improve its collection efficiency to not less than 99%.** The Commission maintains that no such inefficient costs shall be allowed to be pass through to the consumers.

4.44 Tariff for domestic consumers

The two specific objectors who made special presentations on behalf of the domestic category of consumers supported the contention of the Board in not proposing any tariff hike for domestic category.

4.44.1 Submissions made by Prof. R.K. Gupta

Emphasis was laid on maintenance of austerity in view of the very poor financial health of the Board with special reference to picking up high cost loans from the market, allowing higher salaries and allowances to the employees, high power purchase cost, low employee productivity etc. He questioned the comparison with poor performing States. He was also critical of preferential treatment given to Government offices in the matter of disconnections. Loans should be allowed only for capital investments and not for meeting the staff burden, which do not create any assets. The repayment of loans, therefore, shall not be possible and the Board can be caught in the debt trap.

4.44.2 Submissions made by Sh. Ashok Mahajan

The presentation made is for the sole purpose of pleading for the approach, the Commission should adopt to determine fair, just and non discriminatory tariff and elimination of cross subsidy for domestic consumers while factoring the free power provided by the Government There was misconception in the minds of consumers that domestic consumers are heavily cross subsidized by industry and the tariff petition has not been made as per the Act since no increase in domestic tariff has been proposed. Therefore, the action of the Board has political motivations.

Due to lack of proper and accurate data, many Regulatory Commissions have been forced to adopt the average cost of supply for the determination of tariff. It was recommended that this Commission, too, should adopt the 'average cost of serving the consumers for tariff determination.

Reference was made to the objections and suggestions received from the Government of HP where in the State Government has stated that the free power to the extent of 476 MU shall be available at the lowest domestic rate to avoid financial burden to the rural consumers and those living in remote areas and this should be treated as indirect subsidy for this class of consumers. The balance energy of 286 MU shall be available at the market rate. However, in the petition, the Board while working out the cost of purchase has passed the benefit of free power to all the consumers, which is against the spirit and intention of Government of H.P.

The approach to be adopted for fixation of tariff of domestic consumers was highlighted based on the manner of determination of cross subsidy. The manner in which the cross subsidy should be brought down and benefit passed on to the targeted category was also discussed.

Two specific models for determination of domestic tariff were presented. In case the indirect subsidy given by the Government for the domestic consumers is the lowest domestic rate for energy up to 476 MU and the balance free power at market rates, the subsidy provided by the State Government works out to 80 P/Unit and calls for a reduction in domestic tariff to the extent of 13%.

In case the entire free power is to be treated at a cost of 70 P/Unit, the tariff can be reduced by 29%.

The submissions were concluded with the view that the proposal of the Board not to allow increase in domestic tariff was in order.

4.44.3 Response of consumer representative

No specific comment on the issue except that the proposal is based on the assumption of average cost to serve. The Act states that it shall be the Cost to Serve.

4.44.4 The Commission's viewpoint

The Commission's view has already been articulated in 4.4.3

4.45 Additional amount collected for installing electronic meters

It has been mentioned that the Board had been authorized to collect meter rentals at the rate of Rs.10 per month in order to replace all the defective electro-mechanical meters with electronic meters. The objectors and the consumer representative desired to know the number of such meters replaced. Besides, they inquired about the status of refund in case the amount has been collected but the meters have not been replaced.

4.45.1 The Board's reply

The implementation plan of the Board for replacement of dead stop and defective meters, provision of new connections has been elaborated in the tariff filing for the FY 2004-05 against the directive No: 7.18 on the issue of metering.

4.45.2 Response of consumer representative

The Board was authorized to collect meter rental @ Rs. 10 per month from the domestic consumers as per tariff order of 2001 with the directions that electronic meters shall replace all existing and defective electro-mechanical meters. If the Board has been unable to comply with the instructions, what action has been initiated by the Board to refund the excess meter rent collected from the consumers.

4.45.3 The Commission's viewpoint

In the Revenue and tariff filing made by the Board for FY 2003-04, the Board proposed rent for single-phase meter at Rs.8.00 per month. The Commission, however, allowed higher rental of Rs. 10/- with the clear mandate that the increased rental shall be used to provide electronic replacements for the defective and dead stop electromechanical meters w.e.f April 1, 2002. The Board, however, failed to comply with this direction and *suo motu* notice was issued by the Commission. Penalty was imposed besides additional penalty per day for continued failure to comply with the direction until the date of compliance to the Commission's satisfaction besides ordering that the excess meter rental so charged should be refunded to the consumers through their electricity bills. The Board, however, appealed against this order of the Commission and High Court granted stay on the penalty imposed by the Commission. This has been discussed more in detail in Section 2.

4.46 Regulatory asset

The objectors have questioned the creation of regulatory asset, as proposed by the Board for the uncovered revenue gap. The necessity of this provision should be critically evaluated, and should be created only in exceptional circumstances. Reference has been made to the NK Singh Task Force report, which underlines the same principle. Also, a time bound plan should be formed for retiring this asset. Other issues that should be addressed in this regard are the categories of consumers to be targeted for recovery of this asset, and the sources to finance it in the interim.

4.46.1 The Board's reply

The Board has suggested the formation of a regulatory asset to avoid extreme tariff increase. The phasing out of the same would need to be recovered through tariffs in future, and therefore would be addressed by the Commission.

4.46.2 Response of consumer representative

The prayer made by the Board to allow the uncovered revenue gap to be converted into regulatory asset is unacceptable.

4.46.3 The Commission's viewpoint

The Commission is of the view the regulatory assets shall only be allowed to take care of force majeure or cost variations due to uncontrollable factors or major tariff shocks and not to avoid the progressive tariff increases and no such provision would be made unless the Board proposes the future trajectory of amortization and financing rules of retiring such asset. Such a view point finds articulation in the Commission's (Terms and Conditions for Determination of Tariff) Regulations 2004 which has come into force on June 10, 2004.

4.47 Effective date of revised tariff

Concerns have been raised by few consumers with regard to implementation of revised tariff with retrospective effect, which should not be allowed, as the industry would not be in a position to recover any arrears on account of tariff increase from the customers for the past period.

4.47.1 The Board's reply

The Board would like to plead that in the event that a retrospective tariff hike is not provided, the Board needs to be compensated for the loss in the preceding months, as the ARR has been computed based on the increased revenue available for the entire year. The Board does not have any other avenue to recover this loss.

4.47.2 Response of consumer representative

It was on account of the Board's own internal working that it took almost three years to come with a petition seeking revision in tariff. The question of compensating the Board retrospectively therefore is not acceptable.

4.47.3 The Commission's viewpoint

Any financial instrumentality or order can have only prospective effect. If there is any loss to the Board it is entirely on its own acts of omission and commission by first not filing the ARR for FY 2002-03 and FY 2003-04 and then by filing the ARR for FY 2004-05 effectively only on March 4, 2004.

4.48 Sales manual

The consumers cited that though some changes have been brought about in the last few years, the Board has not been able to update its sales manual. Therefore, the Board should furnish a revised copy of sales manual, applicable instructions in respect of compliant handling mechanism and quality standards.

4.48.1 The Board's reply

The Board did not provide any reply to this objection.

4.48.2 Response of consumer representative

No specific comment on the issue.

4.48.3 The Commission's viewpoint

The Board should revise and update its Sales Manual on regular basis. However, immediate revision may be undertaken to incorporate the changes ordered in this tariff order and compliance reported within two months but not later than August 31, 2004.

SECTION-5

INTERACTION WITH OFFICERS AND MEMBERS OF HPSEB AND GOVERNMENT OF HIMACHAL PRADESH

5.1 The Commission vide its letter dated May 13, 2004 addressed to the Chairman, HPSEB, Shimla requested him to direct the officers and Members of the Board, as per the schedule, to attend the Commission for formal interactions to enable it to understand the strategies, systems & the working procedures of the department as well as the problems & difficulties being faced by them, if any. The Commission also decided to make use of such interactions with regard to the segment wise satisfaction level with respect to micro level parameters as brought out in the Consumer Satisfaction Study conducted through AC Neilson-ORG MARG (P) Ltd. New Delhi. The Commission also wrote to the Principal Secretary (MPP & Power) to the H.P. Government Shimla for similar interaction to understand the policies & programme of the State Government with regard to the power sector in the State & the provisions of subsidy by the State Government to any consumer or class of consumers required under Section 65 of the Electricity Act, 2003.

5.2 During the formal interactions with the officers of the Board, some glaring incongruities & inconsistencies were discovered & queries directed at them for response in a time bound manner. The responses to the queries given by the various officers are on record of the Commission.

5.3 The interactive meetings with the officers of the Board concluded with the final meeting with all the Members of the Board on June 21, 2004. Some of the highlights of such formal meetings are given hereunder: -

5.4 Data Base

5.4.1 It was pointed out to the Members of the Board that the tariff petition had been put up in an un-professional manner with glaring inconsistencies, errors and waivers. So much so that even the base-line data suffered from deficiencies. For the cost to serve method of determination of tariff, the sine-qua-non was the reliable and accurate 'data base' which can also help the Board in taking appropriate decisions at the appropriate time. The Board Members assured of more professional and accurate petition, which is to be filed by November 30, 2004 for FY 2005-2006.

5.5 Difficulties – Date of Implementation

5.5.1 Possible difficulties and date of implementation of the tariff order to be issued by the Commission were discussed. Chief Engineer (Commercial) informed that there would be absolutely no difficulty in implementing the tariff order w.e.f. July 5, 2004 for which the preparations shall have been made in time. He, however, pleaded for allowing some 3 months time for the contract demand-linked maximum demand and time of the day (TOD), should the Commission determine two-part kVAh based tariffs for some other categories with connected load of 20 KW and above.

5.6 Free Power

5.6.1 The Commission invited the attention of the Members of the Board to Clause (g) of Section 61 & Section 65 of the Electricity Act, 2003 to make a point that the Electricity Act, 2003 requires the tariffs to progressively reflect the cost of supply of electricity and that the Commission is mandated to reduce and eliminate the cross subsidies within the period to be specified by it. Further, if the State Government requires the grant of subsidy to any consumers or class of consumers, the State Government shall pay in advance and in such manner as may be specified by the Commission, the amount to compensate the Board, affected by grant of subsidy. The Board Members were apprised of the need for Government support and subsidy during the reform transition period to avoid the rate shock and to enable the Commission to progressively align the tariffs to cost of supply.

5.6.2 The Government of H.P. is entitled to 1516.6 MU of free power from the various hydro-electric projects in the State. Perhaps, the HPSEB can consider taking up the issue of giving this power, at the tariff to be determined by the Commission, for targeting the same towards the consumer classes such as Domestic, Agriculture, Water & Irrigation Pumping & Street Lighting as indirect subsidy. These classes are currently heavily cross subsidised by some other customer classes.

5.7 Generation Cost of Board's Own Projects

5.7.1 The generation cost in respect of some of the Board's own projects was unusually high. The Commission requires the Board, to get the generation costs of various projects determined from the Commission for 2005-06 for which the necessary details should be submitted by October 31, 2004.

5.8 Storage Capacity

5.8.1 Possibilities should be explored for creating storage capacity at Gaj, Baner and other projects for use during peak periods to meet the peak deficit and to avail of the advantage of higher per unit rate during low frequency regime.

5.9 HP Jal Vidyut Vitran Nigam (HPJVVN)

5.9.1 HPJVVN should be made fully functional & operational with rules of business & delegation of powers designed to impart independence in day-to-day working of the Nigam. Staffing on dynamic basis rather than on the normative basis may be considered for this Nigam.

5.10 Merit Order Dispatch & Scheduling

5.10.1 Difficulties were expressed with regard to scheduling & disciplining of private sector Projects, which were not online with SLDC. This can upset the internal scheduling for the purpose of ABT. The scheduling is being done in respect of Baspa Stage-II on telephone only. However, the Board is obliged to provide the communication facility between Baspa Stage-II and SLDC. The Board should undertake the work without losing any time.

5.11 Justification For 400 KV Sub-station at Kunihar

5.11.1 As per the information provided by the HPSEB officers, the Himachal Pradesh State Electricity Board is entitled to only 2.47% of power generated from NJHEP as 'State of the Region share' and H.P. Government is selling its share outside the State. In this scenario, the Board officers were queried about any justification for providing a 400 KV Sub-Station & line at Kunihar, for drawing this 2.47% of power from NJHEP. The Board officers agreed to look into the matter. In the reply of the Board dated 19.6.04, it has been mentioned that the 400 KV sub-station at Kunihar is being established for drawl of power from Power Grid system to meet the future requirements of the state.

5.11.2 The Commission is not convinced with the above justification & urges the Board to get the matter re-examined at the level of CEA & the Power Grid Corporation of India Ltd., before committing this massive investment.

5.12 Debt Restructuring

5.12.1 The Commission urged the Board to immediately undertake debt restructuring exercise to bring down its cost of capital in line with the present day low interest regime in a time bound manner, to say not more than 4 months to 10.5%.

5.13 T&D Loss

5.13.1 The Commission pointed out the T&D loss within the State, after taking out inter-state sale, was as high as 30-40% in some areas. By giving Kvah based tariff for FY 01-02 in respect of LS consumers, it should have brought down the loss by atleast 2%. Instead, the losses had increased as per the Board's filing. The Commission hinted that it may determine KVAh based tariff in respect of all categories except Domestic, Agriculture and Street Lighting, with the connected loads of 20 KW and above which should further reduce the loss. Massive investments on APDRP Schemes should also result in reduction of loss to the level fixed by the Commission.

5.14 Sundries & Allowances

5.14.1 Sundries and allowances, on account of audit paras or inspection reports by Flying Squad etc., contributed to the revenue of the Board. The same in terms of energy was not getting reflected in the losses. The Commission suggests that the net sundries and allowances collected on account of assessment of energy and demand should be converted into energy for the purpose of computation of losses.

5.15 Capital Works in Progress (CWIP)

5.15.1 The Commission pointed out that the CWIP, at a high of Rs. 1654 crores, appears wholly incongruous considering that the gross fixed assets of the Board aggregated only Rs. 1770 crores, as per the filing. The Commission expressed the fear that this was perhaps due to non-submission of MAS accounts & the completion reports, even though the works may have been completed long time back. This deprives the Board of corresponding depreciation, return on fixed assets, repair & maintenance etc. The Commission suggested evolving some adhoc mechanism for transferring all completed works to the fixed assets register, notwithstanding the codal formalities.

5.16 Fixed Assets

5.16.1 The Commission expressed its alarm and concern with regard to the fixed assets register, depreciated cost, revenue potential and fair value of such assets without which the transfer scheme envisaged under Section 131 of the Electricity Act, 2003, if prepared, on the prevalent sketchy, incorrect and incredible data, can land both the transferor and the transferee into serious financial, administrative and legal problems. The Commission highlighted the importance of physical verification of assets, its depreciated cost, revenue potential and fair value of such assets through an independent agency, who can also be asked to develop Geographical Facilities Information System (GFIS) for the Board to aid in design & planning of the power system. The Commission assured the Members of the Board that should a specific request come from the Board, the Commission would consider allowing the cost of such exercise to be passed through in ARR of FY 2004-05.

5.17 Idle/Un-productive Assets

5.17.1 The Commission suggested dis-investment of idle assets including surplus lands or obsolete stores to generate funds for the Board

5.18 Employee Cost

5.18.1 The Commission reiterated its oft-repeated anxiety over abnormally high employee cost, which perhaps is the highest in the country at Rs. 1.53 per unit compared with the best 16 paise per unit sold in Andhra Pradesh. It seemed that the employee cost is showing no sign of decline. The Commission suggested measures like VRS, deputation, increased deployment in capital projects and scientific engineering resource management for increased productivity. The Commission urged strict financial discipline & austerity in the matter of employee cost per unit. The Commission is also issuing necessary directions in this regard.

5.19 Rationalisation of Staffing

5.19.1 The Members of the Board were apprised of the difficulties & the concerns expressed by almost all the Chief Engineers with regard to severe imbalances in the staffing and deployment of some critical categories of staff viz. AEs (particularly graduate engineers), JEs, MLCs, Meter Readers, Bill Distributors etc. The field officers also complained of high average age and the female staff, recruited on compassionate grounds, which was affecting adversely the standards and the quality of service. The transfer on considerations other than public interest had further compounded the problem, resulting in skewed deployment of staff.

5.20 Succession Planning

5.20.1 Almost all the Chief Engineers complained of total absence of succession planning with the result that the average age per employee, in the Board, had gone up very high and the situation was not very far when the Board shall be left with no skill inventories, physical abilities and stamina to cater to the challenges ahead of it. Whilst they complained of shortages of some categories, they were very skeptical of huge surpluses of some other categories.

5.21 Mobility of Men and Materials

5.21.1 Severe constraint in the mobility of men and materials was cited as a predominant reason for not ensuring prompt and efficient services to the consumers. The vehicles were very old with high repair and maintenance cost. They were rather hazards on the roads. The Commission urged the Board Members to improve mobility ratio by innovative financing and allowing use of private vehicles on Board's business.

5.22 Training

5.22.1 Some Chief Engineers lamented the neglect of training in the Board. The Commission cannot over-emphasize the importance of training, re-training, re-tooling and re-deployment, in the present day situation of flux, where the employee productivity was falling and the employee cost rising.

5.23 Unmanned Sub-Stations

5.23.1 APDRP schemes have provisions for some un-manned 33/11 KV Sub-stations below 5 MVA capacity. The Commission, however, suggests a phased programme of converting all the existing manned sub-stations into un-manned sub-stations regardless of the voltage level and not to have any new manned sub-stations in future.

5.24 Materials Management

5.24.1 The Commission raised with the Members of the Board the difficulties expressed by the most of the Chief Engineers that the supply of materials was very erratic and un-coordinated with the result that the field staff were idle for the first 6-8 months of the year with the peak coming in the last quarter of the year. Again, all the materials were not available at the same time, resulting in either waiting-in periods or sub-standard or over-standard works getting executed. Some field officers complained of shortage of meters, which forced them to give priority to the new connections over the replacement of dead stop or defective meters. The slow pace of progress on APDRP Schemes was attributed to dis-coordinated flow and shortage of materials and qualified staff.

5.24.2 The Commission suggested streamlining of the materials management policies and practices including calendar of various actions, tendering, purchase order, delivery schedule and payment etc. besides short listing the vendors, ordering minimum order quantities without waiting for the requisition from the field officers & bench mark prices and rate contracts for the decentralized purchases, besides fixing the responsibility for excess and avoidable purchases.

5.24.3 The Commission was informed by some field officers that the Board was contemplating to award turn key packages in respect of APDRP schemes. The Commission fears that it shall further erode already abysmally low employee productivity and feels that a judicious mix of turnkey packages "with and without" labour component could be considered for quality execution of the APDRP works.

5.24.4 There were as many as 30 cases pending before the courts or the arbitrators and it had been suggested that the Board should update its purchase orders/contract agreements to be legally sound. The Board did not have any inspection manual for regulating the inspections of materials. The Commission suggests third party inspections for quality inspections of materials.

5.25 Installation of Electronic Meters

5.25.1 The officers of the Board informed that replacement of dead stop/defective meters with electronic meters is being done only in urban/semi urban areas. Further, the installation of electronic meters for connections above 20 KW was being done on priority.

5.26 Pre-Paid Metering

5.26.1 The Commission suggested pre-paid metering as a major solution to all the problems of metering, meter reading, billing and collection & suggested some pilot/demonstration projects. The installation of bill payment machines in problem areas could also be thought of.

5.27 Failure rate of transformers

5.27.1 Contrary to the claims of Board, in the presentation made during the public hearings, that the failure rate of the transformers during 2003-2004 was only 1%, it was revealed that the failure rate ranged between 4.77% - 5.9% in different zones. Efforts should be made to bring down this failure rate.

5.28 Computerised Billing

5.28.1 Contrary to the Board's claim of having done computerised billing, it was disclosed that this was being done only in Shimla and in some 3 other sub-divisions of the Board. The Commission feels that with such massive investments on computerization in the Board, it should have been possible not only to produce the bills all over the State but also to develop exception reports & management information system for timely action in case of any doubt of malpractice at consumer's end.

5.29 Low Revenue Consumer Billing

5.29.1 In view of the shortage of meter reading staff, there is need to focus on high revenue consumers. The low frequency meter readings of low revenue yield consumers could be considered by corresponding increase in ACD or advance payment in rural areas.

5.30 APDRP & REC Schemes

5.30.1 APDRP programme is on 90% grant while REC programme is on high cost loan. When all the districts are covered under APDRP schemes, the Board may consider discontinuing the REC Schemes by pre-mature closing. There should not be any necessity of continuing with the REC funded schemes after the Accelerated Rural Electrification Programme (AREP) is launched by the Government of India. Otherwise also, there does not appear to be much justification considering that the State had already achieved 100% village electrification & only couple of hundred of hamlets remain to be electrified for which the State Government should provide funds until AREP is launched.

5.31 Public Safety Norms

5.31.1 Houses had been constructed under the power lines, which posed safety problems. Commission feels that the Board may consider disconnecting electricity supplies to such houses, which had been raised in violation of the rules.

5.32 Computerised Call Centres

5.32.1 The Board should consider establishing computerised call centers for better complaint handling response.

5.33 Consumer Satisfaction Survey

5.33.1 The results of Consumer Satisfaction Survey conducted by A.C.Nielson – ORG MARG during June & August, 2003 were discussed with the Chief Engineers (Operations) of North, South & Central Zones. They were asked to focus on key concerns and issues raised in the survey in respect of their areas.

5.34 Interaction with Department of MPP & Power Government of H.P.

5.34.1 Principal Secretary MPP & Power was unable to attend the meeting on June 21, 2004 due to the sad demise of his father. The Commission was requested for another date in the first week of July 2004 but since the Tariff Order has to be statutorily issued before July 3, 2004, Commission requested for deputing a representative who was fully conversant with the facts. The Joint Secretary MPP & Power attended the Commission on June 25, 2004 and provided necessary clarifications and replies to the Commission's queries on matters of policies and subsidy.

SECTION 6

THE COMMISSION'S ANALYSIS ON THE ANNUAL REVENUE REQUIREMENT (ARR) OF THE HPSEB

6.1.1 The Commission has assessed the ARR of the Board for FY 2004-05 based on the first and the revised petitions submitted, additional information received from the Board, and discussions held with the Board's staff during May 21 and 22, 2004, May 31, 2004 and June 1, 2004, June 5, 2004 and during June 15, 2004 to June 18, 2004. During the proceedings in the matter of tariff determination, the Commission interacted orally as well as in writing with the licensee (HPSEB). Besides, other stakeholders such as CEA, UJVNL, SJVNL, and NRLDC were also consulted to further refine the quality of information filed by the petitioner.

6.1.2 At the outset, the Commission would like to point out the severe constraints under which the Commission has analysed the tariff petition submitted by the Board:

6.1.2.1 Non-availability of Fixed Asset Register has constrained proper analysis of generation, transmission and distribution businesses.

6.1.2.2 Despite repeated reminders, the Board did not provide underlying principles/assumptions for certain estimates proposed in the tariff petition. For instance, basis for T&D loss estimate (both within and outside the State) is not very clear. Similarly, the Board did not provide voltage-wise losses.

6.1.2.3 Details of the project costing 5 lakhs and above with interest liability on account of time and cost overrun was also not provided despite interim order in this regard during the public hearings.

6.1.2.4 Absence of clarity with regard to the power purchase price from certain plants.

6.1.3 The Commission has considered the impact of data uncertainty on tariff and has assessed the authenticity of information submitted by the Board through the HPSEB's audited accounts for FY 2002-03; provisional accounts of the Board for FY 2003-04 and provisional budget of the Board for FY 2004-05. The Commission is concerned about uncertainties with regard to non-finalisation of power purchase price of certain plants as well as absence of Fixed Asset Register. The Commission notes that as and when data sets improve it may, subject to analysis of prudence, allow the expense for meeting liabilities arising in this regard. The Commission will adjust this change in the subsequent tariff order and would direct the Board to expedite on these pending issues, so that proper analysis of the petition could be done.

6.1.4 The Commission acknowledges the objections related to inefficient costs, wherein the consumers have questioned the fairness of passing these costs in terms of higher tariff. Some of the major objections related to revenue requirement are listed below:

1) Non-availability of break-up of losses on sales within and outside the state.
2) The efficient cost of generation should not be more than Rs.1 per unit
3) The power purchase cost has been jacked up by 74%, whereas corresponding increase in the quantum is only 28% for FY 2003-04. Mention was made about CERC's new terms and condition for tariff that will reduce the PPC of the Board.
4) The employee cost of the Board (is among the highest in India), represents inefficiency of the Board and therefore, should not be passed on to the consumers.
5) The interest rates on the Board's outstanding loans range from 12.5% to 14%, which is very high in the prevailing low interest rate regime when companies are borrowing at 6% to 7%.

6.1.5 The Commission has considered the consumers' views while approving the revenue requirement. The following paragraphs discuss the Commission's detailed analysis along with the ruling on each element of the revenue requirement.

Sales Projection

6.2.1 HPSEB has projected the sales to different consumer categories for the FY 2004-05 based on the Compounded Annual Growth Rate (CAGR) for the last five years. In addition to that, the Board has estimated additional sales of 76 MU during the FY 2004-05 in view of the Central Government's incentive policy for establishment of industries in Himachal Pradesh. Accordingly, the Board has projected total sales of 4302 MU, which consist of 2980 MU within the state and 1322 MU outside the state.

Sales within the State

6.2.2 The Commission has carefully scrutinised the sales projected by the Board by applying both the time-trend model as well as CAGR methodology. The Commission was also guided by the interim report submitted by ASCI on load forecast study.

6.2.3 The analysis done by the Commission's staff was more or less nearer to the projection made by the Board. The Commission has, therefore, approved the sales as projected by the Board. The table below shows the sales proposed by the Board as well as approved by the Commission for each consumer category.

Table 6.1:Sales within the state (Proposed/Approved)

S. NO.	CATEGORY	2001-02	2002-04	2003-04	CAGR (%)	2004-05	
		Actual (MU)				Proposed (MU)	Approved (MU)
1	Domestic	665	704	769	5.83	788	788
2	NDNCS	--	11	15	19.58	16	16
3	Commercial (CS)	175	187	206	7.35	212	212
4	SMS	108	122	127	10.57	146	146
5	Large Power (LS)	1015	1108	1211	7.85	1372	1372
6	Water Pumping (WPS)	202	224	250	7.58	263	263
7	Street Lighting (SLS)	9	9	10	4.79	10	10
8	Agriculture Pumping	18	20	19	7.34	24	24
9	Bulk Supply	140	132	116	5.80	148	148

10	Temporary Supply	--	1	1.6	20	1	1
11	**TOTAL**	**2332**	**2519**	**2724.6**		**2980**	**2980**

Sales outside the State

6.2.4 The Board has proposed export of 1322 MU during FY 2004-05. The data for export of power for FY 2002-03 & 2003-04 (actuals) and estimate for FY 2004-05 are given in the table below: -

Table 6.2: Sales outside the State for the FY 2004-05

Financial Year	**Sale of Power (MU)**
2001-02	549
2002-03	688
2003-04	1669
2004-05	1322

6.2.5 During discussions with the Board, it was submitted that the actual sale during the FY 2003-04 was 1303 MU instead of 1699 MU. For the FY 2004-05, the Commission approves the projection made by the Board.

Total sales

6.2.6 The approved sales both within and outside the State are given in the table below.

Table 6.3: Total Sales for the FY 2004-05

Description	MU
Within the State	2980
Outside the State	1322
Total	**4302**

Transmission & Distribution (T&D) Loss

6.3.1 The Board had proposed an overall loss of 18.16% for FY 2004-05. The Board has however, not provided the bifurcation of losses on sales within and outside the state. Also, the break-up between the technical and commercial losses has not been provided.

6.3.2 The Commission in its tariff order 2001-02 had approved a loss level of 17.96% as against 18.96% proposed by the Board for FY 2001-02. This included losses incurred during sales within and outside the State. The approved level of loss on sales within the state was 23.5%. The Commission in its order had noted that the loss level higher than this represents high level of inefficiencies and, therefore, would not be allowed by the Commission.

6.3.3 Further, the Commission had mentioned in its order that if the Board was unable to achieve the level of losses approved by the Commission, the balance would be borne by the Board. However, the Board in its tariff petition for FY 2004-05 has submitted that the actual T&D loss occurring in the state in the FY 2001-02 was 21.16%. This included loss level of 26.61% within the state as against the loss of 23.5% approved by the Commission. This is inspite of the fact that the Commission in its first tariff order had introduced KVAh tariff, which automatically resulted in some reduction of losses.

6.3.4 The Board has, thus, failed to meet even the proposed targets. The Commission would like to reiterate that such non-compliance and casualness by the Board would not be passed onto the consumers. The Commission shall, therefore, move according to level approved in FY 2001-02.

Directions given by the Commission

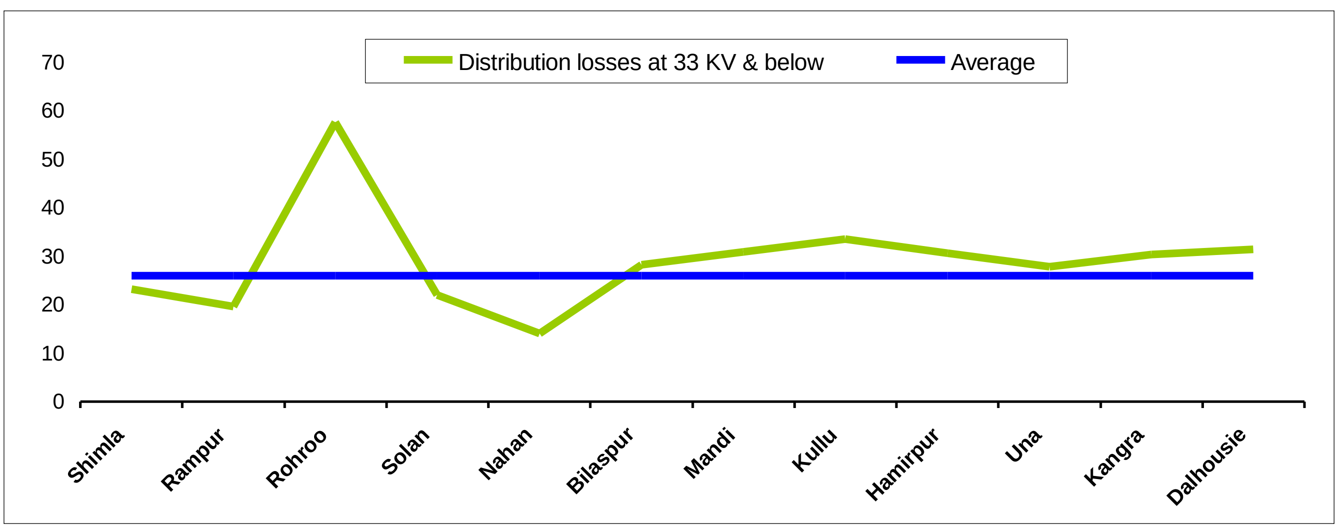
6.3.5 The Commission had directed the Board to submit a plan for reducing losses, both technical and non-technical together with relevant load flow studies and details of investment requirement to achieve the planned reductions. It was also observed that the investments must aim at reducing the T&D losses and better quality of supply and service to the consumers. Although the Board had submitted the T&D loss reduction plan in April 2002, the relevant load flow studies and details of investment requirement to achieve the reduction in T&D loss was not submitted.

6.3.6 The Commission, in its first order, had also directed the Board to submit a plan for introducing competitive conditions between various circles in the generation, transmission and distribution departments of the utility together with the implementation program for the same.

6.3.7 The Board although had submitted the plan but no information on the benchmarks was submitted. The Board further requested for extension of time for the submission of the plan. The Commission is upset by such casual attitude of the Board in implementation of this direction.

6.3.8 The Commission would like to reiterate the importance of bringing efficiency in the system through internal benchmarking and competition. The Commission has carried out an internal exercise based on the data provided by the Board on circle-wise losses at 33 KV and below. The same is reproduced below in the graph.

Figure 1: Circle-wise distribution losses at 33 kV & below for the FY 2003-04



6.3.9 It is observed that the losses (at 33kV and below) for the FY 2003-04 in certain circles are considerably higher than that of other circles. In case of Rohroo, the loss level is 57.63% whereas; in case of Nahan it is 14.03%. This clearly highlights an area where there is huge scope of improvement.

6.3.10 The Commission, thus, feels that there is urgent need to promote competition among the various circles so that higher levels of efficiency in the operations can be achieved. Such improvements will automatically result in reduction in the losses.

Commission's Approach

6.3.11 The Commission observes that expressing the T&D losses on total sales (including outside sales) tends to understate the gloomy picture. Since the sales outside the state (through the Board's transmission system) are approximately 44% of the total sales, it undermines the gravity of the overall problem. The Commission, thus, recommends that the Board should clearly come up with correct methodology for the estimation of T&D loss, which conveys more accurate picture of actual loss occurring within the State. The Commission shall not allow such masking of losses and has, therefore, considered the loss occurring within the State for comparing and setting benchmarks for the ensuing year.

6.3.12 The Commission also pointed out the T&D loss within the State, after taking out inter-state sale, was as high as 30-40% in some areas. By giving the KVAh based tariff for FY 2001-02 in respect of LS consumers, it should have brought down the loss by atleast 2%. Instead, the loss had increased as per the Board's tariff filing. The Commission hinted that it might determine KVAh based tariff in respect of categories except Domestic, Agriculture and Street Lighting with the connected loads above 20 KW, which should futher, reduce the loss. Massive investments on APDRP schemes should also result in reduction of loss to the level fixed by the Commission.

6.3.13 For FY 2004-05, the Commission is guided by the loss level approved in the last tariff order and by the Memorandum of Understanding (MoU) signed between Government of Himachal Pradesh (GoHP) and the Government of India (GoI) in which it agreed to reduce the T & D loss by one percentage point every year from FY 2002-03 onwards subject to a reduction of 5% in five years.

6.3.14 Accordingly, the Commission approves a T&D loss in respect of sale within the state at 20.5% for FY 2004-05. This represents a reduction of one-percentage point every year from the level approved in FY 2001-02 i.e. 23.5%.

6.3.15 The Commission, after critically reviewing the T&D loss pattern in the last few years, approves a loss level of 3% on the sale outside the State. The overall T&D loss level for FY 2004-05, therefore, comes out to 15.83%.

Table 6.4: Commission's analysis on the T&D loss

Description	**Loss (%)**
Within the State	20.5
Outside the State	3
Overall	15.83

Segregation of losses

6.3.16 The Commission, in its first tariff order and in the concept note on the "Cost of Supply Methodology" issued in May 2004 had clearly given its mind to move towards tariffs that are reflective of the cost of supply to each consumer category and gradual elimination of cross subsidies. In view of the above, during the proceedings in the matter of tariff petition, the Commission has directed the Board to submit details of loss at each voltage level along with sample studies conducted by the Board for identifying the losses below 11 KV. The Commission also had several rounds of discussions with the Chief Engineers and Members of the Board to fill the information gaps and rectify the inconsistencies in the data provided in the tariff petition.

6.3.17 Despite several attempts made by the Commission to obtain semblance of near accurate data, several inconsistencies were identified. For example, the sample studies on 11kV feeders at Nahan, Bilaspur and Una provided by the Board to identify the losses were unreliable. The Commission remains skeptical with regard to credibility of such data. Reasonable assumptions have, therefore, been made to round off inconsistencies.

6.3.18 In view of the above, **the Commission directs the Board to appoint consultants to carry out a study with regard to complete and accurate data of T&D losses at various voltage levels and between various**

consumer classes as well as the break up of technical and non-technical losses. The study must be completed and report submitted to the Commission by November 31, 2004 with the next filing. The study shall also include the quantum of reduction in T&D losses as a result of introduction of KVAh tariff.

6.3.19 The Commission's analysis on segregation of the approved level of loss is as given below.

Table 6.5: Segregation of losses (within the State) at various voltage levels

	Extra High Voltage (Above 66 kV)	**High Voltage (Below 66 kV)**	**Low Voltage (Below 11kV)**	**Overall**
Loss (%)	3.97	7.99	22	20.5

Energy Requirement

6.3.20 Based on the sale of 2980 MU within the State and 1322 MU outside the State and the transmission and distribution loss of 20.5% and 3% respectively, as approved by the Commission, the total energy requirement works to 5111 MU. This energy requirement has to be met partly from own generation and partly from purchase from various stations.

Table 6.6: Sales, T&D and energy requirement for FY 2004-05

Description	**Commission approved**
Sales within the State (MU)	2980
Losses (%)	20.50%
Energy requirement (MU)	3748
Sales outside the State (MU)	1322
Losses (%)	3%
Energy requirement (MU)	1363
Total Energy requirement (MU)	5111

Energy generation by the Board's own stations

6.4.1 The Board had proposed a gross generation of 1372 MU from its hydel power stations in view of favourable hydrological forecasts. Taking into account auxiliary consumption of 6 MU, as proposed by the Board, the net generation proposed is 1366 MU. The Board had also provided in the petition, the generation figures for the last five years along with station-wise projections for the FY 2004-05. These are reproduced as below:

Table 6.7: Generation data for last 5 years and estimated for FY 2003-04 and FY 2004-05

S. No.	Power Station	Installed Capacity	Generation in MU						
			1998-99	1999-2k	2000-01	2001-02	2002-03	2003-04	2004-05
		(MW)	(Act.)	(Act.)	(Act.)	(Act.)	(Act.)	(RE)	(Est.)
1	Bhaba	120	698	570	496	481	553	567	586
2	Basssi	60	333	260	262	259	272	297	282
3	Giri	60	280	203	201	190	168	169	200
4	Andhra	16.95	28	41	38	59	69	70	64
5	Baner	12	47	33	35	31	33	37	36
6	Gaj	10.5	43	41	47	37	40	43	39
7	Binwa	6	37	26	30	21	24	29	30
8	Thirot	4.5	3	9	9	7	7	5	8
9	Ghanvi	22.5			11	37	83	69	81
10	Gumma	3			4	9	11	10	10
11	Holi	3							16
12	Khauli	12							5
13	Micro's	10.75	15	18	18	18	18	17	15
	Gross Gen.	341.2	1484	1201	1151	1149	1278	1313	1372
	Aux. Consumption		4	3	3	3	6	4	6
	Net Gen.		**1480**	**1198**	**1148**	**1146**	**1272**	**1309**	**1366**

6.4.2 During meeting with the Board on June 5, 2004, the Board submitted its actual generation for the FY 2003-04, which was found to be 41 MU higher than the estimate proposed in the petition for the same year.

6.4.3 In order to ascertain the availability from various stations owned by the Board for the FY 2004-05, the Commission has taken into account average generation of last five years including the actual generation for FY 2003-04. The Commission has also considered the projection by the Central Electricity Authority (CEA) with respect to the Board's generation.

6.4.4 The Commission notes that projections made by the Board are higher than the five-year average due to favourable hydrological conditions anticipated during the FY 2004-05. With regard to auxiliary consumption, the Commission notes that it has generally been in the range of 3-4% with 5% recorded in the FY 2003-04. The Commission, therefore, approves auxiliary consumption at the previous year 's level of 5%. With gross generation of 1372 MU and auxiliary consumption of 5 MU the net generation estimated by the Commission for FY 2004-05 comes to 1367 MU. Remaining 3744 MU (5111-1367) of energy requirement will be met through power purchase.

6.5 Power Purchase Volumes

6.5.1 Besides own generation to meet its energy requirements, the Board purchases power from Central Sector Generating stations (CGS), inter-state projects and private power producers. Procurement from CGS is made depending upon the allocated share of the State in a particular generating station. In case of inter state projects and private entities, the procurement is guided by the provisions of bilateral agreements entered into by the Board.

6.5.2 The Board has proposed to buy 3889 MU of energy at a total cost of Rs. 693.62 crores. Of the total power purchase proposed by the Board, free power accounts for 762 MU. The proposed 3889 MU is estimated net of the external losses incurred by the Board while purchasing power from outside sources.

6.5.3 The free power is made available by the promoter agencies to the State in lieu of the rights given to them for utilising State's resources. However, the Board has to pay to the Government for use of the free power supply within the State, and currently, this is being compensated at the rate of tariff that's applicable to the lowest slab of the domestic tariff. As for cost of other sources of power and also the wheeling charges, the Board has computed the liability for FY 2004-05 based upon the current trends. The Board's proposal with respect to the volume and cost of power purchase from each station is tabulated as below:

Table 6.8: Power purchase details for the FY 2004-05 (Proposed)

S. No.	Source	MU	Rate (paise/kWh)	Cost (Rs.Cr.)
A	N.H.P.C.			
1	Baira Siul HEP(FP)	88	82.7	7.278
2	Chamera-I HEP(FP)	260	82.7	21.502
	Chamera-I (AC)	63	224.58	14.104
3	Salal	32	84.65	2.709
4	Tanakpur	14	134.54	1.884
5	Uri	66	290.56	19.177
6	Chamera-II (FP)	149	82.7	12.339
	Chamera-II (AC)	34	261.14	8.905
7	Unallocated 15% during winter	31	261.14	8.174
B.	N.T.P.C.			
1	Anta GPP	87	170	14.790
2	Auriya	133	182.62	24.288
4	Dadri GPP	139	203.07	28.227
5	Unchhar I	45	234.5	10.553
6	Unchhar II	74	210.06	15.544
8	Rihand	250	142.02	35.505
C.	NAPP	76	240	18.240
D.	NJPC	151	280	42.252
E.	IPP			
1	Malana(FP)	56	82.7	4.590
2	Baspa(FP)	137	82.7	11.355
3	Baspa(AC)	1006	260	261.560
4	Mini micros	16	250	4.000
F.	Shared projects			0.000
1	Bhakra Old	43.7	31.14	1.361
2	Bhakra New	142	21.42	3.042
3	Dehar	78.8	25.5	2.009
4	Shanan 500KW(FP)	2.6	82.7	0.215
6	Shanan Share	50.26	41.5	2.086
7	RS.D(FP)	70	82.7	5.789
8	Yamuna Share	480	41	19.680
G	Grid Energy	252	228.11	57.484
H	Power Purchase cost	4026	1.64	658.639
I	PGCIL charges			35.000
	Total Power Purchase cost (H+I)	**4026.46**	**1.72**	**693.63**

6.5.4 The Board has proposed a total of 136 MU of loss on this purchase. Net purchase to be made and effective cost to be borne by the Board therefore, works out as follows:

Table 6.9: Net power purchase (Proposed)

Source	MU	Rate (paise /kWh)	Cost (Rs.Cr.)
Total Power Purchase	4026		
Loss	136		
Net Power Purchase	3890	1.78	693.63

The Commission's approach

6.5.5 The Commission has scrutinised the power purchase details submitted by the Board in the petition and the subsequent information submitted in response to various queries raised by the Commission. The Commission has assessed the power purchase cost by determining separately, the volume of power purchase and per unit cost of power sourced from each station.

6.5.6 The Commission has determined the energy availability from each source for the FY 2004-05. For hydro power, the Commission has considered the average total availability from each station in the last three years, which has further been apportioned for State's share. Further, for new hydro stations that have come up in the recent past, as past data is not available, the Commission has taken into account the estimates of an outside agency, particularly the projections made by the CEA for FY 2004-05. For thermal power, sourced from CSGS, the Commission has considered CEA's projections for FY 2004-05, which has further been apportioned as per the State's share.

6.5.7 The cost of power purchase is based upon power purchase agreements with the various generators and on CERC tariffs. During the meeting with the Board on June 5, 2004, the Board had clarified the costs of power purchase proposed in the petition, especially with respect to those sources wherein steep hike has been proposed from the previous year's level. The

Commission notes that the terms and conditions of generation tariff have been issued by the Central Electricity Regulatory Commission (CERC) on March 29, 2004. Based on these conditions, the tariff rates for various Central Sector Generating stations and inter state projects are pending revision. It is envisaged that these rates are likely to go down as return on equity along with the proportion of equity in the total capital of a power plant has been brought down. However, the Commission would go by the final orders of the CERC notwithstanding the likely impact of these terms and conditions on generation tariff. The Commission has determined the fixed and variable charges for these stations and has considered the bills raised by generation utilities for power purchased by the Board during April 2004. The rates approved by the Commission have been adjusted for losses incurred by the Board on these purchases.

6.5.8 Further, the Commission has followed the principle of merit order dispatch for determining the cost of power purchase. The Commission notes that fixed liability of hydro power is relatively higher compared to the thermal power being purchased by the Board. The Commission has, therefore, approved the entire hydel generation available to the Board for meeting its power purchase requirements. As for thermal plants, the Commission has applied the merit order principle in terms of variable costs of NTPC stations allowing simultaneously the fixed liability of stations that are outside the merit order list. To the cost of power purchase, wheeling charges payable to PGCIL have been added to determine the total cost.

Energy availability from various sources

NHPC

6.5.9 As energy generated from hydel stations is subject to climatic excursions, the Commission has considered a three-year average of the total availability from various NHPC sources that supply power to the Board. This has also been crosschecked with the CEA’s projections for the 2004-05. As for stations other than Chamera-II, which has been operationalised in FY 2003-04 only, the Commission has approved the Board’s projections, as these have been found to be comparable to the estimates arising out of the aforesaid benchmarks.

6.5.10 For Chamera-II, the Commission has taken into account, the CEA's projection for this station for FY 2004-05. Further, the Board is entitled to draw the entire free power share of 12% from hydro stations of NHPC viz. Baira Sul and Chamera-I which are located in the State. The energy availability from NHPC stations, as estimated by the Commission is tabulated as below:

Table 6.10: Energy availability from NHPC stations (Proposed/Approved)

S. No.	Source	Capacity	HP share	Proposed	Approved
		MW	%	MU	MU
1	Baira Siul (FP)	180	12.0	88	88
2	Chamera-I (FP)	540	12.0	260	260
	Chamera-I (AC)	540	2.9	63	63
3	Salal	690	1.0	32	32
4	Tanakpur	94	3.8	14	14
5	Uri	480	2.7	66	66
6	Chamera-II (FP)	300	12.0	149	168
	Chamera-II (AC)	300	2.8	34	39
	Total			706	729

FP: Free Power; AC: At Cost

NTPC

6.5.11 With regard to energy availability from NTPC stations, the Commission has considered the projections made by the CEA for each of these stations for FY 2004-05. The total availability has further been apportioned for the Board as per the State's share in each of these plants. The energy availability from NTPC stations, as estimated by the Commission is tabulated as follows:

Table 6.11: Energy availability from NTPC stations (Proposed/Approved)

S. No.	Source	Capacity	HP share	Proposed	Approved
		MW	%	MU	MU
1	Anta GPP	419	3.5	87	94
2	Auriya	663	3.3	133	145
4	Dadri GPP	830	3.0	139	154
5	Unchhar I	420	1.7	45	105
6	Unchhar II	420	2.9	74	180
7	Rihand	1000	3.5	250	266

	Total			728	944

NAPS

6.5.12 The state has a 3.2% share in the energy generated by Narora Atomic Power Stations (NAPS) of Nuclear Power Corporation of India Limited. The CEA projects 2570 MU of energy generation by this station implying 82 MU of energy available to the Board. The proposed and approved estimates in this regard are tabulated below:

Table 6.12: Energy availability from NAPS stations (Proposed/Approved)

Source	Capacity	HP share	Proposed	Approved
	MW		MU	MU
NAPS	440	3.2%	76	82

Naptha Jhakri project

6.5.13 The Board is entitled to 2.47% as state of the region share in the recently commissioned 1500 MW Naptha Jhakri hydro power station, which is a joint venture of Government of India and Government of HP. The Board contends that unlike other hydro projects situated in the state from where the Board is entitled to draw free power to the tune of 12 to 15%, in the case of Naptha Jhakri, the entire 12% free power is being handled by the State Government itself. The Commission has considered the CEA projection for FY 2004-05 for Naptha Jhakri generation, which by taking into account the 2.47% share provides 154 MU of energy available to the Board.

Table 6.13: Energy Availability from NJPC

Source	Capacity	HP share	Proposed	Approved
	MW		MU	MU
Naptha Jhakri	1500	2.5%	151	154

Independent Power Producers

6.5.14 The GoHP is entitled to 15% free power from the Malana project. The Commission accepts the Board's proposed estimate of 56 MU of free power from Malana, as it falls in line with the CEA's projections. As for Baspa stage II, the Board is entitled to 100 % energy available from this station. The Commission has taken into account CEA's projection for estimating the energy availability.

Table 6.14: Energy availability from IPP stations (Proposed/Approved)

S. No.	Source	Capacity	HP share	Proposed	Approved
		MW	%	MU	MU
1	Malana(FP)	86	15.0	56	56
2	Baspa(FP)	300	12.0	137	167
	Baspa(AC)	300	88.0	1006	1225
	Total			1199	1448

Shared projects

6.5.15 The Commission has approved the proposed energy availability from various shared projects, as these conform to the past trends. The project wise energy availability for FY 2004-05 is tabulated as below:

Table 6.15: Energy availability from various shared projects (Proposed/Approved)

S. No.	Source	Capacity	HP share	Proposed	Approved
		MW		MU	MU
1	Bhakra Old*	1493		44	44
2	Bhakra New	1493	2.1%	142	142
3	Dehar**	990		79	79
4	Shanan 500KW(FP)			3	3
5	Shanan Share	110		50	50
6	RSD(FP)	600	4.60%	70	70
7	Yamuna Share***	547		481	481
	Total			869	869

*HP has 10 MW fixed share at 0.6 PLF

**HP has 15 MW adhoc share at 0.6 PLF

*** There are six hydel plants under this scheme wherein HP has 20% share in two plants and 25% in the rest four.

Banking arrangement with Punjab

6.5.16 The Board has entered into banking arrangement with Punjab State Electricity Board (PSEB) for banking surplus power during the summer months and drawing from Punjab during the winter months, when demand in the State is high. The Board has proposed to draw 252 MU of power during FY 2004-05 under this arrangement, which has been approved by the Commission.

Total Energy Availability

6.5.17 Out of total availability of 4226 MU, the approved power purchase requirement of 3744 MU will be drawn through merit order dispatch. This has been discussed in para 6.7.

Table 6.16: Total energy availability (Proposed/Approved)

Source	**Proposed**	**Approved**
	MU	MU
NHPC	706	729
NTPC	728	944
NAPS	76	82
Naptha Jhakri	151	154
IPP	1199	1448
Shared projects	869	869
Total	3729	4226

6.6 Power Purchase cost

Cost of free power entitlement of GoHP

6.6.1 The Commission notes the increase in the cost of free power proposed by the Board, which shows an increase of 18% from the previous year's level of 70 paise. The Board contends that it incurs Transmission and Distribution (T&D) loss while supplying this power. Therefore, it should be adequately compensated and, the additional 12 paise imposed, is on account of this loss.

6.6.2 The Commission clarifies that T&D losses have been appropriately accounted for while determining the total energy requirement within the State, and the Board is not incurring any special losses while supplying this energy. It is further noted that free power is actually not free of cost to the Board but the Board has to pay a power purchase price equivalent to the tariff rate of lowest domestic slab to the state Government. Therefore, instead of the proposed 82 paise, the Commission fixes 70 paise, as cost of free power made available by GoHP to the Board.

NHPC

6.6.3 The Board has proposed a hike of 51% and 17% in the cost of power purchase from Chamera –I (AC) and Salal respectively. However, during its presentation in the public hearing, the Board proposed a reduced rate of 150 paise as compared to 224 paise mentioned in the petition for Chamera –I (AC) and a rate of 73 paise as compared to 84 paise mentioned in the petition for Salal.

6.6.4 Further, the Board has proposed 261.15 paise/unit as power purchase price of Chamera-II (AC) plant. The Commission has checked the rate of power purchase from CERC. As per the CERC's interim order dated 12.8.2003, the provisional rate for power purchase is 228 paise/unit. The Commission, therefore, would go by the interim order of the CERC. The per unit rate as proposed by the Board in the petition and as approved are tabulated below:

Table 6.17: Per unit rate of power from NHPC stations (Proposed/Approved)

S. No.	Source	Proposed	Approved*
		paise./kWh	paise./kWh
	N.H.P.C.L		
1	Baira Siul (FP)	82.70	70.00
2	Chamera-I(FP)	82.70	70.00
	Chamera-I (AC)	224.59	148.57
3	Salal	84.65	73.00
4	Tanakpur	134.54	134.54
5	Uri	290.57	290.57

6	Chamera-II (FP)	82.70	70.00
	Chamera-II (AC)	261.15	228.00

*Power purchase cost is excluding of 4% common pooled losses incurred in CTU

NTPC

6.6.5 The Board had proposed an increase of 37% and 40% in per unit cost of power off-take from Unchahar-I and Unchahar-II respectively, which was revised downwards in the presentation given by the Board during the public hearings. The Commission has validated the costs proposed by the Board with the recent monthly bills raised by the NTPC and has considered the cost as per the bill of April, 2004. The per unit rate as proposed by the Board in the petition and as approved are tabulated as below:

Table 6.18: Per unit rate of power from NTPC stations (Proposed/Approved)

S. No.	Source	Proposed	Approved*
		paise./kWh	paise./kWh
	N.T.P.C.L		
1	Anta GPP	170.00	171.72
2	Auriya	182.62	191.05
4	Dadri GPP	203.08	199.81
5	Unchhar I	234.50	171.25
6	Unchhar II	210.06	160.68
7	Rihand	142.08	139.56

*Power purchase cost is excluding of 4% common pooled losses incurred in CTU

NAPS

6.6.6 The Board has proposed 240.99 paise as per unit cost of power purchased from NAPS. The tariff of NAPS is single part, and only variable charge is levied. Based on the variable rate mentioned in the bill raised by NPC for March 2004, the Commission has calculated the cost of power off take from NAPS.

6.6.7 The per unit rate of NAPS power, as proposed by the Board in the petition and as approved are tabulated as below:

Table 6.19: Per unit rate of power from NAPS stations (Proposed/Approved)

Source	Proposed	Approved
	paise./kWh	paise./kWh
NAPS	240.99	230.56

*Power purchase cost is excluding of 4% common pooled losses incurred in CTU

Naptha Jhakri project

6.6.8 The Board had proposed an increase of 34% in the cost of power purchase from the Naptha Jhakri project. Many objections have been raised against the hike proposed, especially in the backdrop of an announcement made by the CMD of this project in May 2004 that the generation cost of this project would be 248 paise per unit. The Commission notes that it would consider only the CERC's order in this regard, with whom finalisation of tariff is still pending though it had issued an interim order approving 218 paise per unit as cost of this power.

6.6.9 The per unit rate, as proposed by the Board in the petition and as approved are tabulated as below:

Table 6.20: Per unit rate of power from Naptha Jhakti (Proposed/Approved)

Source	**Proposed**	**Approved***
	paise./kWh	paise./kWh
Naptha Jhakri	280.00	218.00

*Power purchase cost is excluding of 4% common pooled losses incurred in CTU

Independent Power Producers

6.6.10 The Board has proposed 18% increase in the cost of free power from Malana and Baspa stage II, and 22% increase in the cost of power from Baspa (At Cost). As for the cost of free power, the Commission has approved 70 paise, basis for which has already been discussed above. Objections have also been raised against the costly power of Baspa, as this forms a major proportion of the overall increase in the power purchase cost.

6.6.11 The Commission had issued an interim order dated September 6, 2003 under which both the parties have been directed to file a modified supplementary Power Purchase Agreement (PPA) with the Commission. Pending the approval of this agreement the Board has been directed to reimburse the producer on the basis of revenue realised from sale of Baspa power. Therefore, the Commission has considered this interim order for calculating the cost of Baspa (At cost) power.

6.6.12 The per unit rate, as proposed by the Board in the petition and as approved by the Commission are tabulated as below:

Table 6.21: Per unit rate of power from IPP (Approved)

S. No.	Source	Proposed	Approved*
		paise./kWh	paise./kWh
	IPP		
1	Malana(FP)	82.70	70.00
2	Baspa(FP)	82.70	70.00
	Baspa(AC)	260.00	231.00

*Power purchase cost is excluding of 4% common pooled losses incurred in CTU

Shared projects

6.6.13 The Board has proposed a marginal increase for the cost of power purchase from shared projects. The Commission has considered the multi year tariff notification issued by the Bhakra Beas Management Board (BBMB) for Common pool consumers of Bhakra Nangal project viz. old HP for the period

January 2002 to December 2006. The UJVNL has objected to the proposed 41 paise as average cost of power purchase from Yamuna hydel scheme, and has proposed a rate of 64.51 paise in this regard for consideration of the Commission.

6.6.14 **The Commission directs the UJVNL to submit a separate petition for determining the tariff for inter state supply to the Board.** Since the pooled generation cost of this project is yet to be finalised, the Commission accepts the provisional tariff, as proposed by the Board during its presentation in the public hearing.

6.6.15 The per unit rate, as proposed by the Board in the petition and as approved by the Commission are tabulated as below:

Table 6.22: Per unit rate of power from shared projects (Proposed/Approved)

S. No.	Source	Proposed	Approved*
		paise./kWh	Paise./kWh
	Shared projects		
1	Bhakra Old	31.14	35.00
2	Bhakra New	21.42	21.42
3	Dehar	25.51	25.51
4	Shanan 500KW(FP)	82.70	70.00
5	Shanan Share	41.50	41.50
6	RS.D(FP)	82.70	70.00
7	Yamuna Share	41.00	35.00

*Power purchase cost is excluding of 4% common pooled losses incurred in CTU

Loss external to the Board's system

6.6.16 The Board has proposed a loss level of 4% on the power purchase from all the sources except for Malana, Shanan and Yamuna scheme share, which has been approved by the Commission. The loss has been duly accounted for in the 'per unit cost' of power purchase from each source.

6.7 Merit order despatch

6.7.1 Having determined the energy availability and per unit cost from various sources, the final step in determining the power purchase cost is application of yearly merit order process. While drawing up the merit order, due consideration has been given to the fixed and variable costs associated with various sources. The Commission has approved the entire hydel generation available to the Board while for thermal generation, wherein the variable liability is relatively higher, a schedule has been drawn based on the variable charge.

6.7.2 Taking into account the total power purchase requirement of the Board for FY 2004-05 as 3744 MU, the Commission approves the following schedule and the cost of power purchase.

Table 6.23: Power purchase schedule for the FY 2004-05 (Approved)

S. No.	Source	Energy	Rate*	Total cost
		MU	paise./kWh	Rs.Cr.
	HYDRO POWER			
1	Bhakra New	142	22	3.17
2	Dehar	79	27	2.10
3	Yamuna Share	481	35	16.84
4	Bhakra Old	44	36	1.60
5	Shanan Share	50	42	2.09
6	RS.D(FP)	70	70	4.90
7	Shanan 500KW(FP)	3	70	0.18
8	Malana(FP)	56	70	3.89
9	Baira Siul (FP)	88	73	6.42
10	Chamera-I(FP)	260	73	18.96
11	Chamera-II (FP)	168	73	12.25
12	Baspa(FP)	167	73	12.18
13	Salal	32	76	2.43
14	Tanakpur	14	140	1.96
15	Chamera-I (AC)	63	155	9.72
16	NJPC	154	227	34.97
17	Chamera-II (AC)	39	238	9.14
18	Baspa(AC)	1225	241	294.76
19	Uri	66	303	19.98
	Total (A)	3199		457.52

* The rate is inclusive of the losses on power purchase

Table 6.24: Power purchase schedule for the FY 2004-05 (Approved)

	THERMAL POWER		Fixed cost	Variable cost	Total cost	Total cost
		MU	paise/kWh	Paise/kWh	paise/kWh	Rs.Cr.
20	Rihand	266	74.70	70.67	145.37	38.67
21	Unchhar II	180	67.29	100.08	167.38	30.16
22	Unchhar I	99	75.93	102.45	178.38	17.62
	Total (B)	545				86.45

6.7.3 Besides, the Commission has passed through the cost of fixed liability associated with plants, which are out of the merit order schedule.

Table 6.25: Fixed liability associated with the plants

Source	Energy	Fixed cost	Total cost
	MU	paise./kWh	Rs.Cr.
Unchhar I	6	75.93	0.47
Anta GPP	94	48.61	4.57
Auriya	145	41.78	6.05
Dadri GPP	154	52.11	8.00
Total (C)			19.09

6.7.4 The total cost of power purchase is tabulated as below:

Table 6.26: Total Power Purchase Requirement for FY 2004-05 (Approved)

	Energy	Total
	MU	Rs.Cr.
Hydro power (A)	3199	457.52
Thermal power (B)	545	86.45
Additional fixed liability (C)		19.09
Total (A+B)	3744	563.06

6.7.5 The Commission acknowledges the fact that there is uncertainty in the power purchase rate of plants particularly Baspa, Naptha Jhakri, UJVNL (Yamuna share) and GoHP free power. Accordingly, the Commission has created a contingency reserve of Rs. 30 Crores and the interest on the same is being allowed in the ARR for FY 2004-05. However, this will be subject to the prudence check by Commission. This has been dealt with in para 6.11.30.

Transmission charges

6.7.6 The Board is required to pay transmission charges to the Power Grid Corporation of India Limited (PGCIL) for evacuating its quota of power from various sources. The Board has proposed per unit cost of 22.71 paise, which has been approved by the Commission. The total transmission charges, as proposed by the Board and as approved by the Commission are tabulated as follows:

Table 6.27: Total transmission charges (Proposed/Approved)

Description	**Proposed**	**Approved**
	Rs.Cr.	Rs.Cr.
Transmission charges	35	28.39

6.7.7 The total cost of power purchase including the transmission charges approved by the Commission is therefore Rs. 591.5 Crores.

6.8 Employee Cost

6.8.1 The Board has proposed employee cost of Rs. 458.75 Crores for FY 2004-05. It excludes the capitalisation of employee cost of Rs. 87.6 Crores. The employee costs allocable to the generation, transmission and distribution business are Rs. 75.49 Crores, Rs. 40.74 Crores and Rs. 342.52 Crores respectively,

6.8.2 The reasons submitted by the Board for the increase in employee cost are as follows: -

a) Normal annual increments to the workers.
b) Increase in Dearness Allowance of 9% during the FY 2002-03 and 3% during the FY 2003-04.
c) Regularisation of daily rated workers.

6.8.3 A large number of consumers have objected to the tariff increase on the ground that the employee costs of the Board are very high. According to them, this reflects inefficiency of the Board and it is incorrect to pass on the burden of this cost to the consumers. The objectors have stated that regularisation of employees over the previous years is unjustifiable and the finances and operations of the Board do not allow this luxury at the expense of consumers.

6.8.4 The Commission has analysed the employee cost structure of the Board and notes that the employee cost of the Board is extremely high. The table below provides a comparison of employee cost per unit of electricity sold, as approved by a number of State Electricity Regulatory Commissions.

Table 6.28: Employee Cost approved by the various Commissions

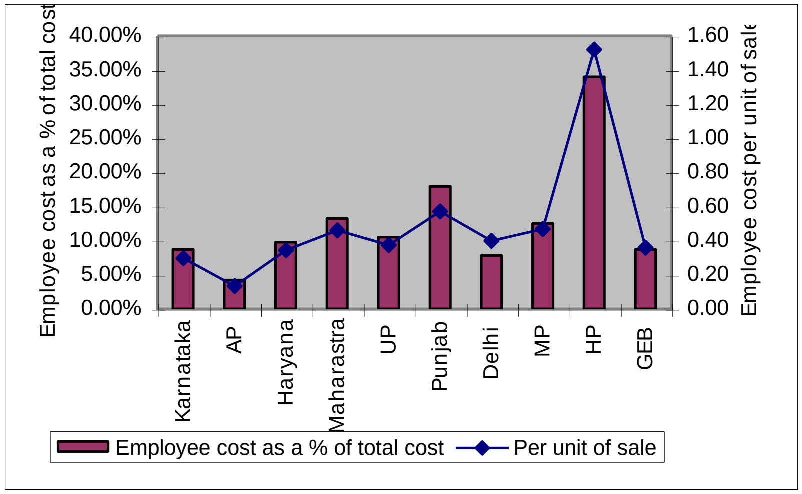
Boards	**Uttaranchal[4]**	**AP[4]**	**Delhi [2]**	**Gujarat[1]**	**Punjab [3]**	**Maharastra[2]**	**Himachal Pradesh***
Employee cost (Paise/Unit)	13	16	39.75	25.16	57.15	46.05	153.00

[1] Employee cost for the FY 2000-01; [2] Employee cost for the FY 2001-02 ; [3] Employee cost for the FY 2002-03; [4] Employee cost for T&D for the FY 2003-04 ; *Employee cost and sale in FY 2003-04

6.8.5 To a certain extent, the reason for high employee cost per unit is lesser quantity of energy sold per employee and if the sale is increased, the per unit employee cost will reduce. But even if the number of employees per consumer is considered, the ratio in Himachal Pradesh is high. Whereas the employee cost per unit sold is the highest in the country; the number of consumers served per employee is very low. The comparison is given here below:

Table 6.29: Comparison of various states (FY 2000-01)

	Sales (MU)	**No. of Consumers**	**No. of Employees**	**Consumer per employee**	**Number of Employees per MU of sale**
Gujarat	31435	7100000	47782	149	2
MP	25571	8140000	88572	92	3
Delhi	9154	3200000	24700	130	3
Maharastra	41598	12980000	111724	116	3



Uttaranchal**	11210	800000	6808	118	1
WB	10000	3570000	36217	99	4
HP*	2726	1678948	27743	61	10

Source: "Annual Report on the working of SEB & ED, May 2002", Planning Commission

*For FY 2003-04; **As per FY 2003-04 order and includes T&D business only

6.8.6 Though the comparison may not be wholly relevant, the aforementioned table focuses on the severity of employee inefficiency. The Commission considers that this problem needs to be approached from both ends - reducing employee costs and increasing sales per employee. At the same time there is need to identify the surplus manpower and to take measures to reduce the salary burden.

6.8.7 The Commission, in its last tariff order had severely criticised the burgeoning employee cost of the Board. This becomes all the more alarming because it represents more than 30% of the total revenue requirement of the Board and is the highest fixed cost compared with other utilities in the country.

Source: TERI - FOIR report on Compilation and analysis of tariff orders

6.8.8 The Commission shudders with the very thought of passing this ever-increasing cost to the consumers. The Commission would like to provoke public debate on the following areas of concern:

a) Is it justified to regularise the daily rated workmen without judicial orders considering already very high level of revenue commitment on account of staff burden. The Commission in its last order has criticised this and recommended ban on further regularisation.
b) Can the licensee afford the luxury of increasing DA and other allowances knowing the pathetic situation of the Board's finances? The shocking revelation that the DA was increased by about 22% in FY 2002-03 is enough to sound the alarm bells.
c) Should the consumers pay for this wastrel attitude of the licensee?

6.8.9 The Commission would again reiterate its emphasis on the directions passed in the last order and would appreciate if the Board and the Government make earnest endeavours to curtail this exorbitantly high cost.

6.8.10 For the FY 2004-05, the Commission approves employee cost of Rs.391.32 crore. Following analysis has been done while approving this cost:

Regularisation of employees

6.8.11 The Commission asked the Board to provide details on regularisation of daily-wage workers in the last 12 years. During the discussion with the Board's staff, it was discovered that the approximate additional burden on account of regularisation of one daily worker is Rs. 0.60 lakh per year, which is equivalent to around Rs.79 crore for 13118 additional employees since 1992. Further, if we assume an inflation of 3.5% per annum, the additional financial burden on account of this regularisation is around Rs. 100 crore.

Table 6.30: Additional financial burden due to regularisation

Regularised employees		Approximate additional burden imposed on the Board	Inflation	Adjusted for inflation

	Number	Rs.Crore	(%)	Rs.Crore
1992-93	1000	6.00		
1994-95	464	2.78	8.78	
1995-96	1442	8.65	17.65	8.994
1996-97	1836	11.02	29.28	18.26
1997-98	5127	30.76	61.07	30.30
1998-99	456	2.74	65.94	63.20
1999-00	615	3.69	71.94	68.25
2000-01	244	1.46	75.92	74.46
2001-02	20	0.12	78.70	78.58
2002-03	1251	7.51	88.96	81.45
2003-04	153	0.92	92.99	92.07
2004-05	510	3.06	99.30	96.24
Total	13118	78.71		
Additional financial implication			99.30	

6.8.12 The Commission, in its last order, has severely criticised the additional burden imposed through regularisation of employees. The same is reproduced hereunder:

"The Commission is of the thoughtful view that the additional burden imposed by the decision of the Government cannot be borne by the consumers who are already groaning under the unbearable burden of burgeoning employee cost of the Board. Further, the cost of executing works would have been lower if they were carried out by the daily rated workmen. The additional cost of regularisation of these workmen who cannot be demonstrably justified towards carrying out the works and services for the consumers and, be allowed to be pass through, it would only be fair and just to expect that the cost of regularisation be borne by the Government. This would be in keeping with the commercial principles of functioning of the Board as well as the principles of tariff based upon efficient costs. The Commission, however, has taken a more pragmatic view by considering that some of these workmen would have been required otherwise also and has hence allowed approximately two-third of the additional burden i.e. Rs. 24.12 crores out of a total of Rs. 36 crores to be passed on to the consumers as one time pay out. This estimation has been made by the Commission without availability of any data and ***hence should not be quoted as precedent for future.*** *In future, the Commission would not allow pass through of any cost that cannot be demonstrated to have been*

incurred in a prudent and efficient manner. For the balance Rs. 11.88 crores, the HPSEB can approach the Government of Himachal Pradesh or make it up through efficiency gains."

6.8.13 The Memorandum of Understanding (Himachal Pradesh Medium Term Fiscal Reform Program) signed between Ministry of Finance, GoI and GoHP provides that the GOHP agrees to undertake certain measures in line with the targets specified against each indicator (as mentioned in the MoU), in order to compress revenue expenditure as well as enhance revenue and non-debt receipts and thereby contain debt levels. These measures shall be applicable to HPSEB also, since the consolidated revenue deficit of the State dealt within the MoU includes power sector deficit of the State. HPSEB is advised to follow the MoU in letter and spirit to achieve the objects and purposes of this MoU.

6.8.14 Following the approach followed in the first order, the Commission does not approve the additional cost arising out of the regularisation of employees in the last three years and Rs. 11.88 crores which was not passed on to consumers in FY 2001-02 tariff order. Therefore, the Commission disapproves Rs. 25.36 crore from the proposed employee cost. For this, the Board can either approach the Government or can curtail its overall cost through efficiency improvements.

Table 6.31: Regularised amount not allowed by the Commission

Description	**Rs.Crore***
Regularised amount not allowed in FY 02	11.88
Regularised amount that should not be allowed in FY 03	19.93
Regularised amount that should not be allowed in FY 04	21.54
Regularised amount that should not be allowed in FY 05	25.36

*Annual increase of 3.5% is assumed in the employee cost

Components of employee cost

6.8.15 The Commission holds that increase of 10.5% in Dearness Allowance does not reflect the ground reality of the current low inflation levels and is much on the higher side. The Commission has, therefore, permitted an inflationary increase (as projected by RBI) of 3.5% in the DA. The basic salary is increased by 1.43% from FY 2003-04 levels. It corresponds with the actual increase incurred in the FY 2003-04 over FY 2002-03.

6.8.16 Considering the precarious financial health of the Board, the Commission does not allow any cost towards overtime, bonus and LTC for the current year. Further, all other components have been frozen at FY 2003-04 levels.

6.8.17 The employee cost as calculated by using the approved hike is shown in the table below.

Table 6.32 Employee Cost (Commission Approved)

	2001-02	**2002-03**	**Increase**	**2003-04**	**Increase**	**2004-05(p)**	**2004-05(A)**
	Rs.Crore	Rs.Crore	Percent	Rs.Crore	Percent	Rs.Crore	Rs. Crores
Salaries	187.28	193.90	3.5%	196.67	1.43%	217.31	199.48
Overtime	0.81	0.86	6.3%	0.96	12.15%	1.06	0.00
DA	80.24	97.99	22.1%	108.98	11.21%	120.42	112.79
Other allowances	30.04	30.53	1.6%	32.16	5.34%	35.54	32.16
Bonus	0.00	0.01		0.23		0.25	0.00
Fee & Honorarium	0.02	0.01	-50.7%	0.06		0.07	0.06
Medical	4.14	5.12	23.6%	6.28	22.64%	6.94	6.28
LTC	0.10	0.04	-53.1%	0.48		0.53	0.00
Earned Leave	4.79	5.48	14.3%	7.14	30.31%	7.89	7.14
Workmen	0.34	0.68	103.0%	0.72	5.85%	0.80	0.72
Leave Salary	0.69	0.60	-13.1%	0.63	5.21%	0.70	0.63
Staff welfare	2.25	1.65	-26.8%	1.41	-14.40%	1.56	1.41
Terminal Benefits	40.07	45.99	14.8%	59.45	29.27%	65.69	59.45
Total	350.76	382.85	9.1%	415.17	8.44%	458.75	**420.12**

6.8.18 The approved employee cost after deducting the additional cost of Rs.25.36 crore incurred due to the regularization of employees in last three years (as discussed in para 6.8.14) is Rs.394.77 crore.

6.9 Repair and Maintenance (R&M) Cost

6.9.1 The Board has proposed Rs.22.71 for FY 2004-05 towards R&M cost with break-up of Rs.9.99 Crores, Rs.3.51 Crores and Rs. 9.22 Crores respectively for generation, transmission and distribution. The Commission finds this cost to be reasonable and hence approves the same.

6.10 Administration & General (A&G) Cost

6.10.1 The Board has proposed A&G cost of Rs. 21.18 Crores with a break-up of Rs. 1.40 Crores, Rs. 0.86 Crores, and Rs. 18.92 crores respectively for generation, transmission and distribution.

6.10.2 The Commission has scrutinised the A&G cost and approves an amount of Rs. 20.08 Crores. Details are given below:

Table 6.33: Administration & General (A&G) Cost (Proposed/Approved)

Sl. No	Particulars	Pre-preceding year 2001-02	Preceding year 2002-03	Current year 2003-04	Proposed 2004-05	Approved 2004-05
		Rs. Crores				
1	Insurance of Employees, Assets etc.	0.01	0.01	0.01	0.01	0.01
2	Telephone, postage, telegram, internet charges	1.79	1.8	2.11	2.40	2.18
3	Constancy charges	0.07	0.03	0.08	0.09	0.08
4	Technical fees	-	-	-	-	-
5	Other professional charge	-	-	-	-	-
6	Service charges for computerization	-	-	-	-	-
7	Conveyance and Travelling expense (vehicle running, hiring)	10.36	10.03	11.40	11.95	10.03
8	Printing and stationery	1.05	0.87	1.12	1.25	1.16
9	Advertising	0.12	0.17	0.15	0.17	0.16
10	Electricity and water charges	1.74	1.55	1.80	2.10	1.86
11	Freight	-	0.16	-	-	-

12	Miscellaneous	3.21	3.16	4.44	3.21	4.60
	Total	18.35	17.78	21.11	21.18	20.08

6.10.3 This has been calculated by providing 3.5% increase on the A&G cost for FY 2003-04, which is the projected annual inflation rate (Consumer Price Index-Industrial workers) for FY 2004-05 by RBI. However, the conveyance and traveling expenses, which form a part of A&G costs, has been capped to FY 2002-03 level i.e. Rs. 10.03 Crores.

6.11 Interest and Financial Charges

6.11.1 The Board in its tariff petition for FY 2004-05 has proposed total interest and financial charges of Rs. 295.21 Crores. However, subsequently during the hearings the Board revised its total interest and financing costs to Rs. 267.03. The Board stated that the decrease was attributed to the restructuring of loans taken from PFC and REC. The details of these loans and the corresponding rates of interest are given below:

Table 6.34: Domestic Loans/ Debentures (Proposed)

Sr. No.	Institution	Balance at the beginning of the year*	Amount received during the year*	Amount redeemed during the year	Balance outstanding at the ending of the year*	Rate of interest (indicative range incase of several loans per institution)	Interest paid during the year
1	LIC	33.66	0.00	5.00	28.66	14%	4.63
2	REC	143.93	45.00	32.00	136.83	7.25 to10.50%	17.74
3	Bonds	1098.50	400.00	82.00	1416.50	8.75 to 13.50%	84.66
4	Bank/Working capital	302.00	360.00	94.00	568.00	8.5%, 12.5 to 13%	54.38
5	PFC	768.47	234.00	60.00	942.47	9.50 to 10.75%	89.00
	Total	2346.56	1019.00	273.00	3092.56		267.03

** All values are in Rs. Crores*

6.11.2 The Board has submitted that it has restructured the loans taken from the PFC and REC at 9.5% to 10.75% and 7.25% to 10.5% respectively and shall restructure the loans that are on a high interest rate by the end of the current financial year.

Commission's Approach

6.11.3 The Commission analysed the details of loans provided by the Board in the tariff petition for FY 2004-05 and noticed several inconsistencies. Several rounds of discussion were held with the Chief Accounts Officer and other officers of the Board to rectify the inconsistencies that existed in the details of loans provided in tariff petition so as to arrive at the accurate and updated data.

6.11.4 The Commission examined the pattern of the loan and is of the view that interest rate at which loans are taken is high according to the current market conditions. According to the existing market scenario the loans above rate of interest of 10.5% are unjustifiable and, therefore, shall not be allowed by the Commission.

6.11.5 The Commission in its interim order dated June 7, 2004 directed the Board to furnish a time frame for re-structuring the high costs debt after consultations. In the affidavit dated June 9, 2004, the Board informed that it had approved the time frame up to March 31 2005 for re-structuring the high costs debts with current lending rates of interest. In Commission's subsequent formal interaction with the Members of the Board on June 21, 2004, a time frame of 4 months was agreed for bringing down the rate of interest to 10.5%.

6.11.6 The Commission, therefore, directs the Board to make efforts to reduce the cost of outstanding loans to 10.5% in 4 months but not later than October 31, 2004. Efforts shall continue to be made for further reduction in the interest rates.

6.11.7 The Commission emphasises the importance of restructuring the loan portfolio in ensuring the long-term sustainability and financial viability of the Board and appreciates the efforts of the Board in this direction. However, at the same time, it must be realised that a lot more needs to be done on this front as significant amount of loans are still at unjustified rates of interest.

6.11.8 The Commission has scrutinised the details of the loans provided by the Board and rationalised the entire loan portfolio by allowing the existing rate of interest for the first 7 months and the approved rate of interest of 10.5% for the remaining months of FY 2004-05. This provides a measure of the approximate saving that the Board could achieve in this year.

Commission's view on each of the loans

LIC

6.11.9 The Commission is of the opinion that the interest rate of 14% at which the loan has been taken is exorbitantly high. Thus, the loans need to be restructured as soon as possible so as to reduce the interest liability to minimum.

REC

6.11.10 The interest amount proposed by the Board is Rs. 17.74 Crores. The Board has also submitted that it has restructured its loans under this category. The interest rate as submitted by the Board ranges from 7.25% to 10.5%.

6.11.11 The Commission has analysed the details submitted by the Board and has identified inconsistency in the interest amount as given by the Board. By taking the rate of interest as given by the Board, the total interest liability should not exceed Rs. 14.38 Crores.

6.11.12 The Commission, thus, directs the Board to carefully review the details submitted so as to avoid any such anomaly in future. For FY 2004-05, the Commission approves an interest liability of Rs. 14.38 Crores only.

Bonds

6.11.13 HPSEB has submitted the details of bonds which include two categories viz. market bonds and N SLR bonds. The interest rate on the former ranges from 11.5% to 13.5% while on the latter it ranges from 10.22% to 17.5%. Also the new loan of Rs. 400 Crores proposed by the Board is @ 8.75%.

6.11.14 The Commission during the analysis discovered that the total interest amount was not in conformity with the rates of interest submitted by the Board. On being asked for an explanation, the Board submitted that the total loan amount of Rs. 1098.50 Crores (as indicated in case of bond) contains an amount of Rs. 498.08 Crores, which accounts for the loan given by the Board to the State Government. The interest for the same is paid by the Government and not included in the total interest paid i.e. Rs. 84.66 Crores as given by the Board.

6.11.15 The Commission, after rectifying the inconsistencies and scrutinizing the loans under this category, is of the view that the interest rate in some case is exorbitantly high. The Commission shall, therefore not allow such unjustified rates of interests and directs the Board to restructure these loans within the period of 4 months from the date of issue of this order.

6.11.16 The rate of interest of the new loans proposed by the Board is below 10.5% and, therefore, is approved. However, the Commission recommends the Board to carefully evaluate the need of such borrowings and the rate at which these are raised.

Banks / Working Capital

6.11.17 The Commission examined the details and the purpose of these loans and found that the total amount of Rs. 302 Crores as submitted by the Board contains an amount of Rs. 90 Crores (Rs. 50 Crores @ 7% and Rs. 40 Crores@ 7.95%) as short-term loans taken by the Board to meet the revenue deficit in last two years.

6.11.18 The Commission disapproves interest on such loans as such loans arise mainly due to inefficiencies in the commercial operations of the Board and also negligence on the part of the Board in timely submission of the tariff petition. Accordingly, the interest amount corresponding to these loans shall not be allowed by the Commission.

6.11.19 The interest rates of other loans under this category range from 12.5% to 13% which are higher than that approved by the Commission. The Commission, thus, directs the Board to restructure these loans within 4 months from the date of issue of this order.

6.11.20 The new loan of Rs. 360 Crores as submitted by the Board is @8.5% and hence is in accordance with the approved rate of interest. The Commission thus approves this loan but at the same time advises the Board to carry out proper assessment to identify the need and the rate of interest of such loans.

PFC

6.11.21 The Board has submitted that the range of interest lies between 9.50% and 10.75%.

6.11.22 The Commission in its discussion with the Board discovered that an amount of Rs. 57 Crores was taken at interest rate of 10.75%. The remaining loans are below this and hence in accordance with the approved rates of interest.

6.11.23 The Commission appreciates the efforts made by the Board to restructure the loans in this category but at the same time directs the Board to extend this restructuring exercise to the remaining amount of Rs. 57 Crores that is borrowed above the approved rate of interest.

Other finance charges

6.11.24 This includes charges like interest to suppliers/contractors (Capital and O&M), interest on fixed deposits, provident fund, discount on issue of bonds/debentures, premium on redemption of bonds/debentures, interest on sum paid by State Government under guarantees etc

6.11.25 The Commission, after careful analysis is of the view that these charges are justified and hence approves the same.

Commission's Analysis

6.11.26 The Commission's analysis of the total interest and financial cost is summarised below:

Table 6.35:Total interest liability (Proposed/Revised); approximate savings for FY 2004-05

	Interest Amount (Rs. Crores)		
Institution	**Proposed**	**Revised**	**Approximate Saving**
LIC	4.63	4.13	0.50
REC	17.74	14.38	3.36
Bonds	84.66	69.69	14.97
Banks/Working Capital	54.38	53.81	.0566
PFC	89.00	88.941	0.059
Other financial charges	16.62	16.62	0.00
Total	267.03	247.58	19.45

* The revised interest liability is calculated by allowing the existing RoI for first 7 months and at the 10.50% for the remaining months of the FY 2004-05.

6.11.27 The total interest saving comes out to Rs. 19.45 Crores approximately. The Commission recognises that these estimates are crude estimates since they do not carry a life cycle analysis of debt repayment by considering Net Present Values of these loans. The Commission also acknowledges that for restructuring these loans, the Board would incur a refinancing cost that has not been incorporated in the above analysis. Nevertheless, the above estimates do provide an indicative saving that the Board could achieve. As a starting point, the Board should at least endeavour to achieve 50% of the suggested savings in FY 2004-05. The Commission, therefore, approves Rs. 257 Crore as Interest and finance charges for FY 2004-05.

6.11.28 The MoU referred under the caption 'Employee Cost' also stipulates that GoI will assist the State in swapping its high cost debt from LIC and other similar financial institutions as per OM dated September 3, 2003. The Board can seek such assistance in respect of LIC, PFC, REC and other FIs.

Interest on working capital

6.11.29 The Commission observes that certain working capital requirement might arise due to change in power purchase rate of certain plants. The Commission, therefore, approves Rs.30 crore for the same, subject to prudence check by the Commission. This would have an impact of Rs.3.74 crore on the revenue requirement assuming a rate of interest of 12.5%. Therefore, the total interest amount approved for FY 2004-05 is Rs.260.74 crore.

6.12 Expenses Capitalised

6.12.1 The Commission approves the capitilisation of expenses in the same proportion of approved level of costs and proposed level of expenses capitalised. The Commission, therefore, approves Rs.198.73 crore as expenses capitalised for FY 2004-05.

Table 6.36: Expenses Capitalised (Approved)

	Capitalisation of expenses (Rs. Crores)
Employee Cost	75
Interest	120
A&G	3.35
	198.73

6.13 <u>Gross Block of Assets</u>

6.13.1 The Commission has scrutinised the gross fixed block of assets as appeared in the annual accounts for FY 2002-03. The Commission notes that there are many unproductive assets that should not draw depreciation or rate of return. The Commission during the interaction with Officers and Members of the Board and the Government has suggested disinvestment of idle assets including surplus lands or obsolete stores to generate funds for the Board.

The Commission, therefore, for the purpose of tariff determination approves Rs. 1757.79 crore as gross block of assets as against proposed Rs.1770.05 crore for FY 2004-05.

Table 6.37: Unproductive assets as per annual accounts of FY 2002-03

Description	(Rs. Crores)
Washed in flood	0.31
Unserviceable	0.87
Not in use	0.14
REC Dalhousie	0.63
Not belonging to Board	10.30
Total (Rs.Crore)	12.26
Gross Assets (Prop)	1770.05
Gross Assets (App)	1757.79

6.13.2 The Commission further directs that the licensee shall get the physical verification of the assets carried out together with the revenue potential, the fair market value and the depreciated value of such assets through an independent agency. The licensee shall ensure appropriate & expert counter-parting with the independent agency in successful completion of the above task.

6.14 Depreciation

6.14.1 The Board has proposed depreciation of Rs. 44.25 crores on adhoc basis @ 2.5% in absence of data relating to function-wise fixed assets. The Commission, in its last order, had directed the Board to maintain circle-wise Fixed Assets Register along with relevant details and accurate break-up of the fixed assets. Till now, the Board has not been able to submit the same and had requested for extension of time for complying with the direction. The Commission strongly believes that function-wise classification of fixed assets is paramount for calculation of depreciation.

6.14.2 For FY 2004-05, the Commission has applied weighted average rate of depreciation as prescribed by CERC for calculating depreciation amount for FY 2004-05.

Table 6.38: Depreciation for FY 2004-05 (Approved)

	Gross block at the end of the year 2002-03	2004-05 (Approved)	Rate as per CERC norms	Depreciation (Approved)
	(Rs. Crores)	(Rs. Crores)		(Rs. Crores)
Land	33.02	34.20	0.00%	0.00
Buildings	161.1	166.84	1.80%	3.00
Hydraulic works	339.7	351.81	1.80%	6.33
Other civil works	124.59	129.03	1.80%	2.32
Plant & Machinery	484.86	502.14	2.57%	12.91
Lines & Cable network	520.78	539.34	3.60%	19.42
Vehicles	17.9	18.54	6.00%	1.11
Furniture and fixture	13.57	14.05	6.00%	0.84
Office equipment	1.78	1.84	6.00%	0.11
	1697.30	1757.79		46.05

6.15 Return on Assets

6.15.1 The Commission approves a return of 3% on the net assets of Rs. 1193.98 crore. This works out to Rs.35.82 crore and hence is approved for the FY 2004-05.

Table 6.39: Commission approved Rate of return for FY 2004-05

	Net assets (Rs Crore)	Rate of return (3%)
Generation	488.77	14.66
Transmission	238.63	7.16
Distribution	466.58	14.00
	1193.98	35.82

6.16 Provision for consultancy assignments, secretariat of Electricity Ombudsman and Consumer Grievances Redressal Forum

6.16.1 Sub regulation (9) of Regulation 7 of the Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2004 allows the Commission to pass through certain costs in the

ARR of the licensee. This sub regulation states that "where the Commission is satisfied that the appointment of Consultant is essential in order to arrive at just and fair conclusion in any matter before it and so appoints consultant as per its "Appointment of Consultant regulation" it may, require the generating company or licensee to pay for the same and same shall be pass through in the Annual Revenue Requirement."

6.16.2 In view of the above, the Commission has tentatively assessed an expenditure of Rs. 1 crore on account of the above for consultancy assignments and studies like tariff determination, making of regulations, T&D loss study, review of studies to be done by the licensee etc.

6.16.3 As already mentioned in Section 1 of this tariff order, the Commission has tentatively assessed the amount involved on account of setting up the secretariat of the Electricity Ombudsman as Rs. 38,11,233 (one time expenditure of Rs. 14,31,750 and recurring expenditure of Rs. 23,79,483 for a period of nine months). A corresponding provision of Rs. 32,82,459 on pro rata basis for seven months has been made in the approved ARR for FY 2004-05. This has been done in accordance with the Himachal Pradesh Electricity Regulatory Commission (Electricity Ombudsman) Regulations, 2004 and the Himachal Pradesh Electricity Ombudsman (terms and conditions of service of officer and employee) Regulations, 2004 issued in April 2004 by the HPERC. A provision for an equal amount has also been made for the establishment of the Forum for Redressal of Consumer Grievances.

6.16.4 Accordingly, a provision of Rs. 1.66 Crore has thus been made on account of the above, which has been approved by the Commission to be passed through in the ARR for FY 2004-05.

6.17 Revenue Requirement

6.17.1 The Commission herewith approves the Annual Revenue Requirement (ARR) after incorporating the above changes, including the return on assets, at Rs. 1174.60 Crores as against Rs. 1363.10 Crores proposed by the Board for FY

2004-05. The detailed break up of various components of ARR is shown below.

Table 6.40: Annual revenue requirement for FY 2004-05 (Approved)

	2003-04 (Estimated)	Per unit	2004-05 (Proposed)	Per unit	Commission's analysis and approval	Approved Per Unit cost
	(Rs. Crores)	Paise per kWh	(Rs. Crores)	Paise per kWh	(Rs. Crores)	Paise per kWh
Repair & Maintenance	20.68	7.6	22.77	7.64	22.77	7.64
Employee Cost	415.17	153.4	458.8	153.94	394.77	132.47
Admn & Gen Expenses	21.11	7.8	24.00	8.05	20.08	6.74
Depreciation	42.50	15.7	44.3	14.85	46.05	15.45
Interest and finance charges	242.03	89.4	267.0	89.60	260.74	87.50
Miscellaneous	5.00	1.8	3.0	1.01	0.00	0.00
prior period expenses	0.35	0.1	3.0	1.01	0.00	0.00
Less : Expense to be Capitalised	-195.35	-72.2	-211.6	-71.01	-198.73	-66.69
Net revenue expenses	551.49	203.7	611.17	205.09	545.67	183.11
Return on net fixed assets	36.15	13.4	36.18	12.14	35.82	12.02
Power purchase	643.58	237.7	689.0	231.21	591.45	198.47
Regulatory charges				0.00	1.66	0.56
Total cost	1231.22	454.8	1336.35	448.44	1174.60	394.16

Unbundled Revenue Requirement

6.17.2 The approved unbundled revenue requirement vis-à-vis proposed requirement is shown in the table below. However, in absence of Fixed Asset Register and proper segregation of various cost components, the break up is subject to change with the availability of more reliable data and information.

Table 6.41: Unbundled revenue requirement (Proposed/Approved)

Head	Generation		Transmission		Distribution		Total	
All figures in Rs.Crores	Proposed	Approved	Proposed	Approved	Proposed	Approved	Proposed	Approved
Repair & Maintenance	9.99	9.99	3.56	3.56	9.22	9.22	22.77	22.77

Employee Cost	75.49	64.96	40.74	35.06	342.52	294.75	458.75	394.77
Admn & Gen Expenses	1.59	1.33	0.97	0.82	21.44	17.94	24.00	20.08
Depreciation related to Generation Business	18.00	17.90	10.04	10.33	16.21	17.81	44.25	46.05
Interest and finance related to Generation Business	113.11	110.46	47.86	46.74	106.03	103.54	267.00	260.74
Miscellaneous	1.70	0.00	1.13	0.00	2.84	0.00	5.67	0.00
Less : Expense to be Capitalised	58.96	55.37	54.34	51.03	98.30	92.32	211.60	198.73
Sub – Total	**160.92**	**149.27**	**49.97**	**45.47**	**399.96**	**350.94**	**610.84**	**545.67**
Gross Assets at the beginning of the year	695.78	683.52	394.30	394.30	679.97	679.97	1770.05	1757.79
Net Fixed Assets at the beginning of the year	501.03	488.77	238.63	238.63	466.19	466.58	1205.85	1193.98
Return on the Net Fixed Assets	15.03	14.66	7.16	7.16	13.99	14.00	36.18	35.82
Regulatory charges	0.00	0.55	0.00	0.55	0.00	0.55	0.00	1.66
Total costs	**175.95**	**164.48**	**57.13**	**53.18**	**413.94**	**365.49**	**647.02**	**583.15**

6.18 Revenue Gap

6.18.1 The revenue gap, at the level of existing tariffs and non-tariff income is Rs. 167.86 Crores, is given in the table below.

Table 6.42 Revenue gap at level of existing tariff for FY 2004-05

	Description	**Existing (Rs. crores)**
(1)	Revenue requirement	1174.60
(2)	Income	
(a)	Sale of power within the State	640.16
(b)	Outside the State	318.58
(c)	Other income	48.00
	Total of 2	1006.74
	Net Gap (1-2)	**167.86**

SECTION 7

COST OF SUPPLY (COS) AT DIFFERENT VOLTAGE LEVELS

The Commission circulated a concept note on the Cost of Supply methodology in May 2004. The object of the concept note was to communicate to all the key stakeholders, the policies and procedures, which the Commission plans to adopt with regard to retail supply tariff for consumers of Himachal Pradesh.

7.1 Background

7.1.1 The Commission draws its powers to determine tariff through the Electricity Act, 2003 (36 of 2003). The relevant provisions of this Act are as follows:

"62(3) The Appropriate Commission shall not, while determining the tariff under this Act, show undue preference to any consumer of electricity but may differentiate according to the consumer's load factor, power factor, voltage, total consumption of electricity during any specified period or the time at which the supply is required or the geographical position of any area, the nature of supply and the purpose for which the supply is required."

7.1.2 The existing tariff structure in the State reveals that the tariffs are below the average cost of supply for some consumer categories and significantly higher than the average cost for other categories. The Commission had recognised this distortion and had taken suitable steps in its first order by reducing cross subsidies.

7.1.3 In this order, the Commission has moved a step further and has attempted to align the tariffs with the cost of supply at various voltage levels. In attempting this, the Commission acknowledges the fact that while there is urgent need for ensuring recovery of the cost of supply from the consumers to ensure fiscal sustainability of the Board, at the same time, it should not send tariff shocks to any class of consumers.

7.1.4 The Commission also recognises that 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 exercise on its own. Nevertheless, the Commission has endeavoured to arrive at some estimates by making certain assumptions.

7.2 <u>Cost of supply and its acceptability</u>

7.2.1 COS is the disaggregation of the total cost (joint) into each consumer categories. The Cost-of-service (CoS) model is used world over to allocate the joint costs of generation, transmission and distribution of electricity to different consumer categories on the basis of the voltage-wise system costs and losses.

7.3 <u>Approach to CoS</u>

7.3.1 Broadly, there are two approaches to determining the cost of supply: The Embedded Cost Approach and the Marginal Cost Pricing Approach. The Embedded Cost Approach seeks to identify and assign the historical, or accounting costs that make up a utility's revenue requirement. Marginal cost approach seeks to determine the incremental (marginal) change in total costs imposed on the system by a change in output (whether measured by Kwh., customer, customer group or other relevant cost driver). While being a forward-looking approach, marginal cost studies are data intensive and are, therefore, contingent upon the accuracy of data. Embedded Cost Model can be easily implemented and understood and data is readily available and verifiable. The Commission has followed the embedded cost model for the reasons stated.

Assumptions

7.3.2 In the case of average cost methodology, it is assumed that all consumer categories are allocated the costs equally. The cost causation is ignored in average cost as it assumes that every consumer category contributes uniformly to the total system cost and losses.

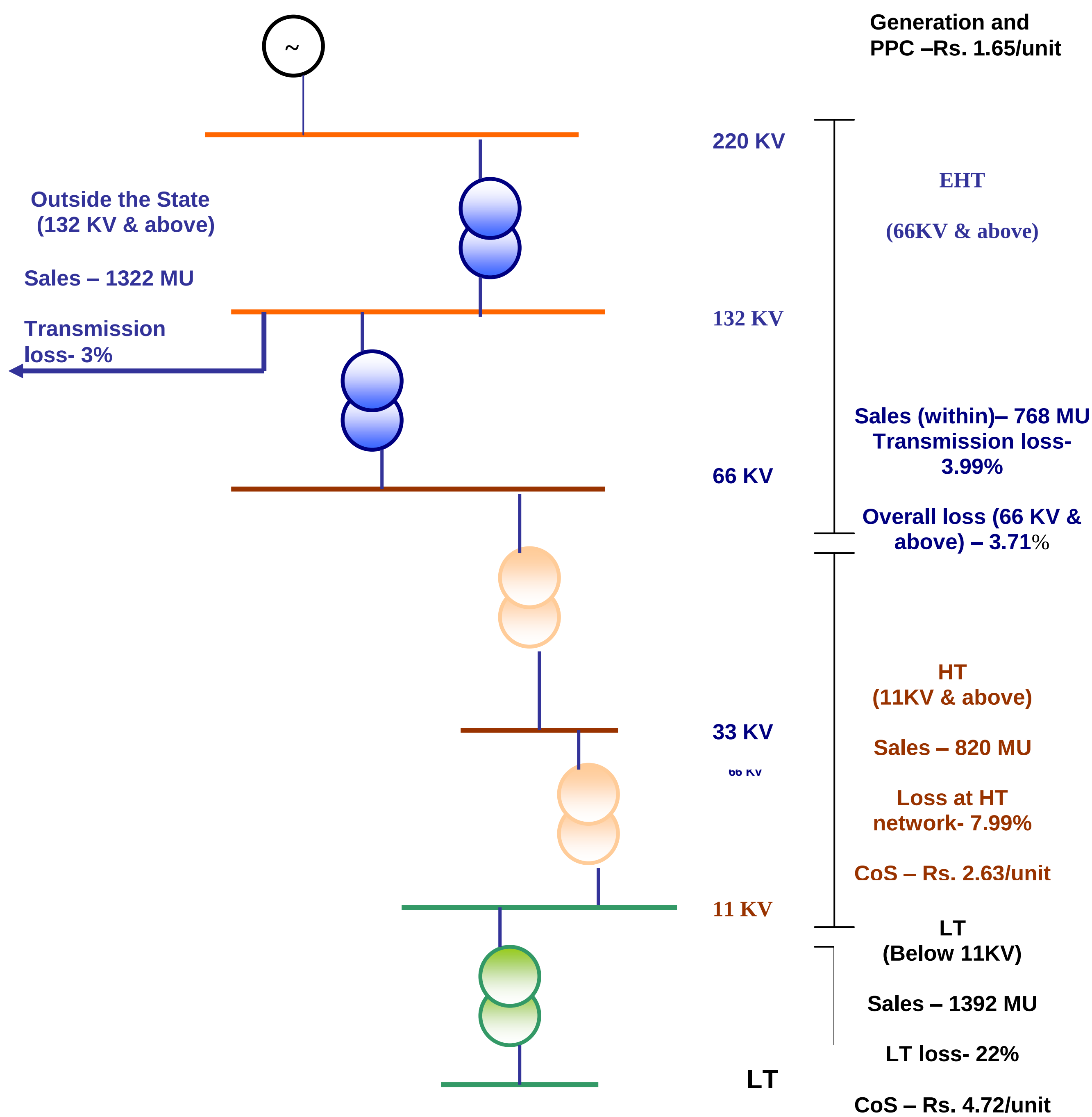
7.3.3 The Classical CoS approach is based on estimating the voltage-wise cost, losses and coincident demand factor i.e. the extent to which each consumer category contributes to the peak demand. In absence of data on daily load curves of various consumer categories, the Commission has slightly deviated from this approach. However, the Commission observes that the current analysis will not be affected much because of absence of such information. This is particularly true in case of Himachal Pradesh, where the state is in surplus during the summer, when most of the country faces peak demand and cost of power purchase is high. Conversely, in Himachal Pradesh the peak occurs in winters when the country does not face any deficit, power purchase price is lower than average and therefore coincident demand will not have any perceptible impact on CoS.

7.3.4 The Commission has designed the CoS model on the 'basic assumption' that power in HP network flows through each voltage levels to reach Low-Tension (LT) consumer. For instance, power to reach at LT network will wheel through 220 KV, 132 KV, 66 KV, 33 KV, 22 KV and 11 KV.

The Commission has also used certain assumptions to arrive at the following: -

a) Losses at various voltage levels
b) Network cost at various voltage levels

Schematic chart
depicting the COS approach



7.4 Segregation of Sales at various voltage levels

7.4.1 During the proceedings in the matter of the tariff petition, the Commission had asked the Board to provide voltage-wise and category wise sales. The Board was able to provide the same. The same is reproduced in the table below.

Table 7.1: Sales at different voltage (FY 2004-05)

	Sales
132 KV and above	1322
66 KV above (EHT)	768
11 KV and above (HT)	820
Below 11 KV (LT)	1392
Total	4302

7.4.2 The above sale includes sale outside the state of 1322 MU (sale at 132 KV and above).

7.4.3 Segregation of losses

7.4.4 Broadly there are three groups of consumers in terms of voltage levels – EHT, HT & LT. Within these three groups, the customers served by the utility are separated into several homogenous groups based on nature of service provided and load characteristics. Segregation of voltage wise loss is a crucial step in this regard.

7.4.5 In view of the above, during the proceedings, the Commission inquired from the Board to submit details of loss at each voltage level along with the sample studies conducted by the Board for identifying the losses below 11 KV. The Commission also had several rounds of discussions with the Chief Engineers and other officers of the Board to fill the information gaps and rectify the inconsistencies in the data provided in the tariff petition.

7.4.6 Accordingly, the Commission has adopted following segregation of loss at different voltage levels. The Commission has adjusted the losses at EHT level by considering both the sale and loss at 132 KV (and above) and 66 KV. Accordingly, the loss at EHT system has been adjusted to 3.71%.

Table 7.2: Segregation of losses (within the state) at various voltage levels

	Sales	**T&D losses**
132 KV and above	1322	3%
66 KV above	768	3.97%
Weighted average loss at EHT		**3.71%**
11 KV and above (HT)	**820**	**7.99%**
Below 11 KV (LT)	**1392**	**22.00%**

7.5 Segregation of costs

7.5.1 For arriving at the Aggregate Revenue Requirement (ARR) all the costs are divided into Generation, Transmission, and Distribution. The cost functions of the Board have been allocated in the following manner.

7.5.2 Generation and power purchase cost: The Commission has considered the approved generation and power purchase cost. However, for arriving at the cost of supply, the power purchase cost has been adjusted for the cost of free power, since it is specifically targeted at the domestic consumers and its benefit, therefore, cannot be extended to other consumer classes. Instead of considering cost of free power, the Commission has considered average cost of power purchase for the same units purchased under free power. Later, for comparison, this indirect subsidy (Rs.1.82-Rs.0.70=Rs.1.12/unit) is added to the domestic tariff. Table below shows adjusted generation and power purchase cost for the purpose of cost of supply.

Table 7.3: Adjusted Generation and power purchase cost

	Power purchase	**Cost**	**Cost**
	MU	Paise per unit	Rs. Crore
Free power	811	72	59
Total Power Purchase	3744	158	592
Power purchase without free power	2933	182	533
Adjusted cost of free power			147
Revised PPC for COS			680
Generation cost			163
Adjusted Generation and PPC for the purpose of COS			843

7.5.3 Transmission Cost: The Commission has approved transmission cost of Rs. 53.18 crore. However, this cost does not include the cost towards metering, billing and collection and is reflected in the distribution cost. The Commission has done some internal exercise to estimate this cost by ascertaining the staff and other costs that need to be allocated to the consumers at 66 KV and above. The Commission believes that approximately Rs.5 crore needs to be added in overall transmission cost and hence, it needs to be deducted from the distribution cost. The adjusted transmission cost assumed to arrive at COS is Rs.58.18 crore. This cost has been apportioned to the sale to industrial consumers, the power wheeled through this system and loss incurred in this network. The sale in transmission system (above 66 KV) also includes the outside sale, since it is wheeled through 132 and 220 KV systems of the Board.

7.5.4 Distribution Cost: For arriving at the COS, the Commission has considered the distribution cost of Rs. 360 crore (Rs.365 crore-Rs.5 crore, i.e. approved distribution cost minus 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. The Commission has segregated the distribution cost according to the proportion of sales in these networks. It is assumed that each network (or circle) operates with a profit centre approach and hence the sale at each voltage level will reflect the cost of that system. This approach is also in line with the fact that creation of circle is dependent on the number and type of consumers in that area. For instance, one EHT consumer can be assumed to be equivalent to 5000 domestic consumers and, therefore, creation of circle would depend on the number and type of consumers, which is indirectly reflective of sale (or revenue in that circle).

7.5.5 Following this approach segregated sales; losses and cost at different voltage levels are given below in the table.

Table 7.4: Segregated sales, losses and cost at different voltage levels

Head			**Cost at different levels (Rs.Crore)**
Generation and PPC			843
	Sales	Losses	

Transmission system			58.18
132 KV and above	1322	3%	
66 KV above	768	3.97%	
Weighted average loss		3.71%	
Distribution system			
11 KV and above (HT)	820	7.99%	133.67
Below 11 KV (LT)	1392	22.00%	226.82
Total	4302	20.50%	1263.14

7.6 Allocation of costs to arrive at the COS

Following methodology has been adopted to ascertain the cost of supply at different voltage levels.

7.6.1 Step 1: The per unit cost of generation and power purchase has been arrived at by dividing the generation and power purchase cost with the total energy input in the system.

Table 7.5: Generation and PP C

Energy Input (MU)	**MU**	**5111**
Generation and PPC*	Rs. Crore	843
Cost of generation and PPC	Rs./unit	1.65

*Generation and PPC excludes the benefit of free power

7.6.2 Step 2: The per unit transmission cost has been ascertained by allocating the losses and cost according to the sales in this network and power wheeled through this network to reach at the lower voltage level. The Commission would like to highlight that it is important to allocate this cost also to the power wheeled through this network. Similarly, the losses also have been apportioned according to the sale at this system and the power wheeled through this system.

Table 7.6: Cost of Supply for EHT consumers (66 KV and above)

Energy input (MU)	5111

Percentage loss	3.71%
Losses (MU)	190
Sales (MU)	2090
Units wheeled to reach next level (MU)	2831
System cost that needs to be proportionally allocated (Rs.Crore)	58.18
Allocated Cost at 66 KV and above (Rs. Per unit)	1.86

7.6.3 Step 3: The Cost of supply to consumers at High Tension (11 KV and above) has been estimated by allocating the costs and the losses according to the sales (HT consumers) and power wheeled to reach the LT network. It also includes proportionally the cost (and losses) incurred during the wheeling of power at 66 KV and above network.

Table 7.7: Cost of Supply for HT consumers (11 KV and above –till 66 KV)

Energy input at below 66 KV (MU)	2831
Percentage loss at 11 KV and above (till 66 KV)	7.99%
Losses (MU) at 11 KV and above (till 66 KV)	226
Sales (MU) at 11 KV and above (till 66 KV)	820
Units wheeled to reach LT network (below 11 KV)	1785
System cost that needs to be proportionally allocated (Rs.Crore)	133.67
Allocated Cost for High Tension consumers (11 KV till 66 KV)	2.63

7.6.4 Step 4: The 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 during the wheeling of power at higher voltage levels (11 KV to 220 KV).

Table 7.8: Cost of Supply for LT consumers (Below 11 KV)

Energy input below 11 KV (MU)	1785
Percentage loss	22.00%
Losses (MU)	393
Sales (MU)	1392
Units wheeled to reach next level	NA
System cost that needs to be allocated (Rs.Crore)	226.82
Allocated Cost for LT consumer	4.73

7.6.5 The Commission, to certain extent, does agree that the above methodology does not factor in the impact of additional cost incurred due to the coincident demand and the COS is based upon certain assumptions which might change with the availability of more reliable data and information. Nevertheless, as explained earlier, the Commission firmly believes that current methodology and assumptions made are close to reality and make a good beginning to carry forward this approach further in future. For ascertaining tariff and estimating cross-subsidy, the approved COS at different voltage level is shown in the following table.

Table 7.9: COS at different voltage levels (FY 2004-05)

	EHT consumer	**HT consumer**	**LT consumer**
Energy input at different voltage level (MU)	5111	2831	1785
Percentage loss	3.71%	7.99%	22.00%
Losses at different voltage level (MU)	190	226	393
Sales at different voltage level (MU)	2090	820	1392
Units wheeled in each voltage level	2831	1785	NA
System cost that needs to be allocated (Rs.Crore)	58.18	133.67	226.82
Allocated Cost at different voltage level (Rs./unit)	1.86	2.63	4.73

SECTION 8

DESIGN OF TARIFF STRUCTURE AND ANALYSIS OF TARIFF

8.1 The Commission intends to deal with this tariff petition and the related issues, in a scientific, methodical and transparent manner. While the basic position on most issues remains fairly close to the approach described at length in the Tariff Order for FY 2001-02, some adjustments are proposed in the light of experience garnered over the past two years.

8.2 The Commission is guided by 'the Act' and the Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2004 came into force w.e.f. June 10, 2004. Section 5 of Part-II of the Regulations provides for the guiding factors for determination of tariff. This section states the following:

Quote

5. Guiding Factors for Determination of Tariff. *-The Commission shall, while determining the tariff, keep in view the factors, namely:*

(a) the principles that will –

(1). reward performance ;

(2). stress commercial aspects;

(3). encourage efficiency, economy, competition and reduction of losses and costs;

(4). promote cogeneration and generation of electricity from renewable sources of energy;

(b) the guidelines and the procedure, as may be laid down under sub-section (5) of section 62, for calculating the expected revenues from the tariff and charges and tariff filing;

(c) multi year tariff principles;

(d) broader tariff principles based upon performance based regulatory regime to improve efficiency of operations and ensure predictability in regulatory action;

(e) safeguarding of consumer's interests;

(f) recovery of cost of electricity in a reasonable manner ;

(g) reduction and elimination of cross subsidies;

(h) productivity of investments including the need to link tariff adjustments in the productivity of capital employed, manpower resources and improvements in efficiency of capital and resources;

(i) the need to rationalize tariffs on the basis of bench-marked and performance based costs of generation, transmission and distribution .

Unquote

8.3 The salient features of the petition have already been discussed in Section 3 of this Order. The issues and concerns raised by the interveners in regard to the petition have also been discussed in detail in Section 4 of this order. However, it would do well to reiterate the major objections and suggestions received on the tariff structure and the tariff schedule proposed by the Board before discussing its analysis of the same.

(i) The industrial consumers have opposed the steep hike of 48.54% proposed for large industries and it has been submitted that the industrial consumers are already paying much above the average cost of supply. It has also been stated that industries may have to close down if the proposed tariff hike is implemented.

(ii) Industrial consumers have pleaded that cheaper power tariffs have been a major attraction for industries to come to Himachal Pradesh and contribute to its development. However, this incentive is increasingly getting eroded due to increase in power tariffs. Further, industrial consumers are already incurring higher costs with respect to their logistics for being located in a hilly area far removed from the raw materials, skills and furnished goods markets. Therefore, any further increase in power tariff will affect their competitiveness adversely vis-à-vis their counterparts based in plains.

(iii) The objectors submitted that incentives like rebate for supply at high voltage and load factor rebate need to be given for promoting industrial consumption in the State and for preventing the switch over of industrial units to off-grid sources of power.

(iv) It was submitted that the petition flouts the provision of the Act, which mandates elimination of cross subsidies in a time bound manner. The petition, instead, of reduction, proposes further increase in cross subsidies. Since tariff has to be determined in conformity with the provisions of Section 61 of the Act, it would be required not to put additional cross subsidy on the subsidising classes.

(v) The objectors have denounced the proposal of the Board to levy a flat rate instead of the prevailing two-part tariff. The consumers have also submitted that the introduction of two-part structure with kVAh energy tariff has led to an improvement in the power factor, thereby reducing the load current on the system of the Board.

(vi) The objectors have opposed the proposal of the Board of reintroducing the MMC that was abolished by the Commission through its first tariff order in view of its acting as a disincentive for energy conservation, and since nothing has changed since the issue of this order, levy of MMC should not be reconsidered.

(vii) The consumers have pleaded that the peak load restrictions should be removed, as new projects coming up in the state become operational thereby enhancing the availability of power. This would incentivise the industry, as the consumers would then not have to invest in captive plants including those in DG sets, stabilizers etc., costs of which is substantial for use during the peak hours.

(viii) The objectors have submitted that in addition to the peak load tariff, Peak Load Exemption Charge (PLEC) is also being levied. Taking into account the effect of PLEC, the total cost during peak load hours increases to Rs.4.35 to Rs.6.35/kVAh. Due to such a high cost, consumers are unable to avail of the provision and, therefore, it does not serve any purpose. Another issue highlighted in this regard is the procedure adopted by the Board to calculate the demand. The Board multiplies the connected load mentioned in the application form by a power factor of 0.9 to estimate the demand, which works out to be higher than the actual demand of the consumer. Thus, the consumer ultimately ends up paying a very high PLEC.

(ix) The prevailing practice of charging PLVC in terms of increased rate of energy charges as well as in the form of penalty for over drawl has been objected. It has been submitted that sometimes these violations might occur due to incorrect time reported by the energy meter or incorrect time reported in the clocks of the factory but the consumer ends up incurring huge costs. There should be a single PLVC including the penalty and this should be rationalized.

(x) The proposal of the Board to allow night time concession to only those industries which run in day shifts and plan to run in the night shift only has been objected to by the objectors and the consumer representative. It has been asserted that this provision should be applicable for all shift industries, and the prevailing rate of 20 paise per unit should be increased to 50 paise per unit.

(xi) It has been submitted that since electronic meters have been installed for almost every SIP, MIS and APC consumer, kVAh based tariff should be introduced for these consumers as has been done for large industries. This would eliminate a potential source of nuisance without any loss of revenue to the Board.

(xii) The MES has objected to the current practice of the Board charging them at a commercial rate. It has been stated by the MES that it purchases bulk power from the Board, and the entire take over points, stepping down arrangements and distribution has been created and is being maintained by the MES themselves. Since the electricity purchased is used mainly for day-to-day living, MES is predominantly a domestic consumer and therefore, it is unfair to treat it as a commercial consumer. The MES have appealed for a separate category and a rationalised tariff structure or an independent license to distribute electricity.

8.4 The Commission in its Tariff Order for FY 2001-02 had deliberated upon a number of conceptual issues related to tariff design and structure. These are:

(i) Cost based tariff and reduction of cross subsidies
(ii) kVAh based tariff
(iii) Two part tariff structure and minimum guarantee charges
(iv) Time of use tariff
(v) Rebate for supply at higher voltage

Above conceptual issues were discussed in great detail by the Commission in the first tariff order and, the Commission considers these to be critical in designing the tariff structure for this year also. The Commission is of the view that the time is ripe enough to extend the application of these concepts and principles further in the tariff structure of the State as the power sector has developed and progressed significantly since the last tariff order was issued in October 2001. The Commission, thus, finds it apposite to deliberate briefly on these issues in this order also for the ready reference of all the consumers.

8.5 **Cost based tariff and reduction of cross subsidies**

8.5.1 The concept of cost of supply has been discussed at length in Section 7 of this tariff order. The Commission has rationalised the tariff for various consumer categories on the basis of the cost of supply estimated for various consumer categories. However, it has taken every effort to keep in consideration the interest of all the consumers in the tariff determination process and the need to avoid sudden tariff shocks especially for the subsidised categories like domestic and agriculture.

8.5.2 The cost recovery for various consumer categories in FY 2001-02 at the tariffs approved by the Commission in its first tariff order issued in October 2001 are given in the table below.

Table 8.1: Consumer category wise cost recovery (FY 2001-02)

Consumer Categories	Cost of Supply (RS./kWh)	Average Realisation (RS./kWh)	Cost Recovery (%)
Domestic*	3.86	1.87	48%
NDNCS	3.86	2.63	68%
Commercial	3.86	3.27	85%
Agricultural	3.86	0.59	15%
Street Light	3.86	2.37	61%
Industry (EHT)	1.42	2.36	166%
Industry (HT)	2.07	2.49	120%
Industry (LT)	3.86	2.41	62%
WPS (LT	3.86	2.35	61%
WPS(HT)	2.07	2.25	109%
Bulk Supply (HT)	2.07	2.85	138%
Bulk Supply (LT)	3.86	2.95	76%

* The average realisation for domestic consumers includes the indirect subsidy of Rs. 0.72/Kwh arising on account of free power.

8.5.3 The above table clearly brings out the fact that the Large Industries (EHT and HT industries), Water and Pumping Supply (HT) and Bulk Supply (HT) are cross subsidising all other consumer categories in the state with the EHT industrial consumers paying as high as 166% of their cost of supply.

8.5.4 The Commission's approach towards rationalisation of tariff has been to ensure that the cost recovery of all consumer categories gradually approaches 100%. In this process, the need to ensure that the life- line consumers, especially in domestic and agriculture categories are not given any tariff shock.

8.5.5 The Commission is of the view that with the efficiency improvement targets set by it for the Board, especially on T&D loss, employee cost and other items, it should be able to control the financial losses considerably. Since there is also a need to bring predictability in consumer tariffs by restricting the tariff adjustments to known indicators such as fuel price and inflation indices, **the Commission directs the Board to submit a proposal for introducing a Multi Year Tariff framework that would allow it to better serve the public interest through economic efficiency, least cost service and improved service quality.**

8.6 kVAh based tariff

8.6.1 The Commission in the tariff order for FY 2001-02 had introduced kVAh-based tariff for all large industrial consumers as tri vector meters were already installed in this category. The Commission had restricted this concept to large industrial consumers only as it was a relatively new concept at that time and there were special metering requirements. However, it has expressed its desire to extend it to other categories in the subsequent years.

8.6.2 The Commission had examined the issue of introducing kVAh based tariff in detail and found that this tariff not only provides incentives to induce consumers to operate their equipment at a higher power factor, it also provides benefits to the Board through lower losses and better voltage profile. KVAh-based tariff charges the consumers for the total energy consumed by them, i.e., the active part as well as the reactive part of the energy supplied. The Commission restates the following benefits drawn out of this tariff as follows.

(i) KVAh-based system is more transparent because it charges for the actual kVAh recorded on the meter of the consumer instead of recording kWh and separately providing rebate/penalty for high/low power factor.

(ii) It reduces the possibility of mistakes as well as that of malpractices.

(iii) It reduces the administrative burden through elimination of the need for calculating power factor.

8.6.3 The Commission has also examined The Electricity Act, 2003 which also permits introduction of such a tariff. Section 62 (3) of the Act states the following:

62(3) The Appropriate Commission shall not, while determining the tariff under this Act, show undue preference to any consumer of electricity but may differentiate according to the consumer's load factor, power factor, voltage, total consumption of electricity during any specified period or the time at which the supply is required or the geographical position of any area, the nature of supply and the purpose for which supply is required.

8.6.4 In view of the above discussion, the Commission has decided to continue with its approach of adopting a phased introduction of this concept for all consumers having connected load of 20 kW and above. The reason for introducing it only for consumers with connected load of 20 kW and above is that electronic meters have by and large been installed in these consumer premises. The Board has itself, proposed to introduce kVAh-based tariff for Medium Industrial Supply, Water Pumping Supply and Bulk Supply-II (hydro electric projects/other projects with mixed load) where tri-vectors meters have been provided. However, the Commission has extended this proposal to cover commercial and NDNCS consumers with connected load of 20 kW and above as well. The Commission would consider putting more consumers across other categories in its fold in future and broadening its scope in these categories.

The Commission is also conscious of the fact that the HPSEB may require some time to be able to apply this tariff proficiently and competently. **The Commission directs that the two-part tariff structure in respect of Commercial, Non Domestic Non Commercial Supply, Water Pumping**

Supply, Small & Medium Supply and Bulk Supply shall come into force on October 1, 2004. Till then, the single part kWh tariff and the corresponding consumer service charge shall be levied. The Board shall enter into fresh agreements with the consumers in respect of their contract demand within three months but not later than September 30, 2004.

The Commission also recognises that the equivalent kVAh tariff for the categories of Commercial, Non Domestic Non Commercial Supply, Water Pumping Supply, Small & Medium Supply and Bulk Supply have been estimated on the basis of certain assumptions made regarding the load factor an demand factor for these consumer categories. **In view of this, the Commission would review the position regarding this tariff after 3 months from the issue of this order. The Commission also directs the Board to submit data regarding the load factor, demand factor power factor, Kvah, kwh in respect of the Commercial, Non Domestic Non Commercial Supply, Water Pumping Supply, Small & Medium Supply categories, with connected load above 20 KW, and Bulk Supply by September 30, 2004.**

8.7 Monthly Minimum Charges (MMC) and Two-part tariff

8.7.1 The Commission has dealt with this issue in detail in the tariff order for FY 2001-02, in which it had abolished the minimum charges for all consumer categories. This is because minimum charge acts as disincentive for the consumers to conserve energy. The Board in its tariff petition had proposed to reintroduce MMC for the categories of Commercial Supply, Medium Industrial Power Supply, Large Industrial Power Supply, Agricultural Pumping Supply and Bulk Supply.

8.7.2 This is an issue on which several objections have also been received. The objectors have submitted that MMC was abolished by the Commission through its first tariff order in view of its acting as a disincentive for energy conservation, and since nothing has changed since the issue of this order, levy of MMC should not be reconsidered.

8.7.3 The Board has argued that minimum charges assures it of some minimum guaranteed payment and provides for the capital investment incurred by it for setting up the infrastructure for proving services to the consumers.

8.7.4 The Commission holds that this argument of the Board is unreasonable, especially, when the Commission had introduced the 'consumer service charge' for all categories except domestic in the last tariff order and 'demand charge' for large industrial consumers. The entire objective and rationale for introducing these two charges was that these would defray the fixed liabilities of the Board along with the cost of providing services such as metering, billing and collection. This step of the Commission was based on the premise that a rational tariff structure requires a two-part tariff structure incorporating fixed charges to reflect the fixed liabilities on account of power purchase, employee costs, interest etc.

8.7.5 The Commission has disapproved the proposal of the Board for reintroducing the minimum charges as it is of the view that MMC leads to inefficient consumption of electricity and is the very anti-thesis of the essence of conservation of energy which is also advertised by the Board at the back of its electricity bills to consumers and in the Energy Conservation Act. Similarly, the MMC is irrelevant where there is cent percent metering and the Board should focus its efforts in reducing thefts and malpractices to protect its revenue stream.

8.7.6 In line with the approach adopted in the last tariff order, the Commission has introduced demand charge based on contract demand for the consumers with connected load of 20 kW and above for whom kVAh based energy charges have also been introduced.

8.7.7 The Commission in the last tariff order had also introduces Consumer Service Charge for all consumer categories except domestic to limit the tariff shock to domestic consumers. At the same time, it had expressed the need to consider extension of this charge to domestic consumers also in the future. Keeping in line with this, the Commission has introduced a nominal consumer service charge of Rs.11/month/consumer for all consumers of the domestic category except the Antodaya Anna Yojna Beneficiaries.

8.7.8 Thus, the demand charge along with the consumer service charge shall assist the Board in recovering its prudent costs incurred on fixed liabilities to some extent.

8.8 **Time of use tariff**

8.8.1 Time differentiated tariffs are important tools in aligning revenue and costs structures. The Commission, in the last tariff order, had recognised the importance and the need of including a time of use charge in the tariff structure so as to provide correct signals to the consumers and also help the utility in maintaining a better system profile. The Commission had rationalised the Peak Load Exemption Charge (PLEC) and the Peak Load Violation Charge and, had also introduced a 'night time' concessional tariff for industrial consumers. However, the Commission was not able to introduce a generic time of use charge that would permit use of electricity without regulation by the consumers during the peak load hours due to the physical constraints in the system.

8.8.2 A number of objectors have pleaded that the current practice of peak load restrictions should be removed, as new projects coming up in the state become operational thereby enhancing the availability of power. This would incentivise the industry, as the consumers would then not have to invest in captive plants including those in DG sets, stabilizers etc., cost of which is substantial for use during the peak hours. The Commission is of the view that the situation has to be viewed in the overall context of peak deficit in the country and the pricing of such energy and the stage has not yet arrived for even laying down a time frame for removing these restrictions. The need for physical control and regulation of supply would, thus, continue in the interim and a consumer wishing to operate during the peak load hours would require a specific exemption and those who do not have the exemption but are found using electricity during peak load hours have to pay a penalty for violation of the restriction. The Commission, thus, intends to continue with the levy of PLEC and PLVC for the categories of Small and Medium Industrial Power Supply, Large Industrial Power Supply, Water Pumping Supply and Agricultural Pumping Supply.

8.8.3 The Commission also feels that the TOD charge for consumption during the peak load hours and a rebate during off peak hours should be a part of the tariff structure for all consumers. Therefore, in this order, the Commission has approved application of concessional 'night time' tariff for commercial consumers with connected load above 100 kW as part of their tariff structure. These consumers mainly comprise of the hotel industry in Himachal Pradesh who can utilize this incentive by shifting their consumption for heating purposes to 'night time' and help flatten the load curve. The Commission proposed to extend PLEC and PLVC levies as well as concessional night time tariff to other consumer classes also in its next tariff order as the Time of Day metering is installed in and adequate number of Meter Reading Instruments are available with the licensee.

8.9 Rebate for supply at higher voltage

8.9.1 In the existing tariff, there is a provision for consumers of the categories of Domestic Supply and Non Domestic Non Commercial Supply to avail supply at 11 kV or above. However, no corresponding rebate is provided to these consumers. The Commission is of the view that HT consumers should have a tariff lower than the LT consumers because the cost of supply for HT consumers is evidently lower than that for LT consumers as also discussed in detail in the previous section of this order. The Commission has, thus, introduced a rebate in these categories for availing supply at higher voltage and has also rationalised the rebates in other categories. These are discussed further in the analysis for each category separately.

8.10 The major changes introduced by the Commission in the approved tariff structure for the FY 2004-05 are listed below:

(i) Gradual movement towards the cost of supply based tariff regime.

(ii) Introduction of consumer service charge for all domestic consumers except Antodaya Anna Yojana beneficiaries.

(iii) Introduction of KVAh based energy charge and demand charge based on contract demand for consumers with connected load above 20 KW in the categories of Commercial Supply, NDNCS, Small and Medium Industrial Supply, Water Pumping Supply and Bulk Supply consumers with connected load of 20 kW and above with effect from October 1, 2004.

(iv) Bifurcation of Large Supply Consumers into EHT and HT consumer categories.

(v) Introduction of 'night time' concession tariff for Commercial consumers with connected load above 100 kW.

8.11 Revenue estimates from sale of power within the state at existing tariffs

8.11.1 Before the Commission's analysis of tariff and revenue from different consumer categories, it will do well to point out that there are variations in the revenue as estimated by the Board and that estimated by the Commission. The Board had provided the category wise revenue estimates at existing and proposed tariff for various categories for FY 2004-05. **The Commission directs the Board that in the next tariff petition, it should provide details on sale, number of consumers, connected load and demand differentiated for time-of-day tariff slabs and at different voltage levels for each consumer category. ASCI should be requested to indicate these details in their load forecast studies for 10 years, as already ordered by the Commission.**

8.11.2 A detailed scrutiny of the calculations submitted by the Board reveals that the Board has overestimated the revenue from existing tariff. This is mainly because of incorrect estimates for the categories of Water Pumping Supply and Medium Industrial Power Supply. The Board has estimated the revenue from sale of power at existing tariff as Rs. 666.03 Crore. However, the Commission has correctly estimated the revenue at existing tariffs as Rs. 640.16 Crore for FY 2004-05 after taking into account the peak load charges and voltage rebate given to Large Industrial (HT and EHT) consumers.

8.12 **Overall revenue –expenditure position of the Licensee at existing tariff**

Before moving further with its analysis, it is appropriate to estimate the overall revenue-expenditure position and the net revenue gap of the HPSEB at existing tariff. The details of this are given in the table below.

Table 8.2: Overall revenue -expenditure position (at existing tariff)

DESCRIPTION	**RS. CRORE**
Total Revenue requirement	1174.60
Revenue from sale of power within the state	640.16
Revenue from sale of power outside the state	318.58
Non-tariff income	48.00
Total Revenue	1006.73
Net revenue gap	167.86

8.13 The tariff schedule proposed by the HPSEB and the Commission's approval is discussed in the following paragraphs. The approved tariff notification and tariff schedule is attached as Annexure 2 to this Order.

8.14 The changes made in the schedule of tariff for various consumer categories are described in the following sections. The tariff given in the following section for various categories does not take into account the subsidy that may be provided by the Government and hence the consumers will be charged on the basis of this tariff.

8.15 Domestic supply

8.15.1 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.

8.15.2 The Board has proposed to change the applicability of this schedule to include religious places such as Mandir, Masjids, Gurudawaras churches etc. and Panchayat Ghars/Patwar Khanas under it.

8.15.3 The Commission in the tariff order for FY 2001-02 had shifted these very consumers from the domestic category to category of Non-Domestic Non Commercial Supply. This category was specially created due to the distinct nature of service provided by certain consumers and it had, therefore, taken out consumers like Mandirs, Masjids, Gurudwaras churches etc. and Panchayat Ghars/Patwar Khanas from the domestic category. The very basis of taking this step was that the domestic category should comprise purely of domestic consumers. The Commission, however, approves the proposal of the Board in respect of religious places consuming upto 150 KWh per month only, in view of religious sentiments of the people

8.15.4 The Board has not proposed any tariff increase for domestic category. However, it has submitted that the H.P. Government has to give subsidy amounting to Rs.21 Crores annually on account of roll back of tariff to pre-revised tariff applicable before November 1, 2001 as given in the table below.

Table 8.3: Tariff for Domestic Supply (Existing/Subsidised)

DESCRIPTION	**ENERGY CHARGE (RS./UNIT)**	
Units/month	Existing	Subsidised
Antodaya Anna Yojna Beneficiaries (Up to 45 units per month	0.70	0.70
0-45	0.85	0.70
46-150	1.30	1.05
151-300	2.40	1.50
Above 300	2.40	2.25

8.15.5 Since the Board has not received the subsidy for FY 2003-04 on account of roll-back of domestic tariff, the Commission has rationalised the domestic tariff on the premise that the tariff as approved by it in the last tariff order is the legally applicable existing tariff.

8.15.6 The present tariff structure includes four slabs in the domestic category. These are the Antodaya Anna Yojana beneficiaries (0-45 units), 0-45 units, 46-150 units and above 150 units. The Commission had expressed its view in the last tariff order that while the tariff for domestic consumers needs to reflect the cost of supply in a progressive manner, the marginal consumers need to be protected. The Commission has, therefore, retained these slabs in the approved tariff structure. The benefit of the concessional tariff under the slab for Antodaya Anna Yojana beneficiaries will be available for use of electricity by these families upto a maximum of 45 units per month. In case this limit is exceeded, the normal domestic tariff will apply for the entire consumption.

8.15.7 The recovery of the domestic category in FY 2001-02 was 48.45% of the cost of supply to this category at tariffs approved in the tariff order for FY 2001-02 if the indirect subsidy of 72 paise/kWh is also included in the average realisation of Rs.1.15/kWh. However, if the indirect subsidy is not included, the recovery falls to only 29.79%. This implies that the consumer is ultimately paying only 29.79% of the cost and the balance is being compensated either through indirect subsidy or through cross subsidies from other categories.

Table 8.4: Recovery of domestic category in FY 2001-02

Description	**Year**
Rs./kWh	**2001-02**
Average realisation (Rs./kWh)	1.15
Indirect subsidy (Rs./kWh)	0.72
Average realisation including indirect subsidy (Rs./kWh)	1.87
Cost of supply (Rs./kWh)	3.86
% recovery (including indirect subsidy)	48.45%
% recovery (without indirect subsidy)	29.79%

8.15.8 The existing cost recovery is grossly inadequate and is not sustainable in the long run and has strong implications on the financial viability of the Board. The proposal of the Board for not increasing the tariff for the domestic consumers at all goes against the very principle of gradual reduction of cross subsidy and the movement towards the cost to serve concept. The Commission has, thus, not accepted the proposal of the Board.

8.15.9 The Commission has approved a consumer service charge of Rs 11 per consumer per month for all domestic consumers except Antodaya Anna Yojana beneficiaries due to reasons explained earlier. However, the Commission, has not approved any increase in the energy charges to avoid tariff shock to this category and thus, the tariffs that were applicable as per the tariff order issued by the Commission FY 2001-02 shall remain valid.

8.15.10 The tariff approved by the Commission for the domestic category is given in the table below.

Table 8.5: Approved Tariff for Domestic Supply

DESCRIPTION	ENERGY CHARGE (RS/UNIT)	CONSUMER SERVICE CHARGE
Units/month	Rs./kWh	Rs/consumer/month
Antodaya Anna Yojna Beneficiaries (Up to 45 units per month	0.70	Nil
Other consumers		11
0-45	0.85	
46-150	1.30	
Above 150	2.40	

8.15.11 The Commission has also introduced a rebate of 7.5% on the energy charge if supply is taken at 11 kV or above.

8.15.12 The approved tariff will generate additional revenue of Rs. 19.01 Crore in a full year and this represents an increase of 21.33% for the domestic category. The Commission appreciates that tariff rationalisation has to be a continuing process and this tariff order of the Commission reflects the intent of the Commission without casing a tariff shock. After rationalisation of tariff, the cost recovery for domestic category has increased from 48.45% 2001-02 to 53.18% in FY 2004-05 after taking into account the indirect subsidy of Rs.1.12/kWh. However, if the indirect subsidy is not taken into account, the cost recovery declines from 29.79% to 29.45%, implying that the contribution of the domestic consumer towards meeting the cost of supply to it has fallen.

Table 8.6: Recovery of domestic category in FY 2004-05

Rs./kWh	**2004-05**
Average realisation (Rs./kWh)	1.39
Indirect subsidy (Rs./kWh)	1.12
Average realisation including indirect subsidy (Rs./kWh)	2.51
Cost of supply (Rs./kWh)	4.73
% recovery (including indirect subsidy)	53.18%
% recovery (without indirect subsidy)	29.45%

8.15.13 The Commission refers to sub-regulation (2) of regulation 34 of Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2004 and directs the Board that the bills to the consumers shall distinctively display the per unit cost of supply of electricity to the class of consumer as determined by the Commission, direct and indirect subsidy, if any, given by the State Government applicable to such class of consumers and per unit amount of such subsidy, the bill amount payable by the consumer and the cross subsidization of the class of the consumer in the tariff made applicable without taking into account the subsidy from the Sate Government. The bills shall be prepared on the basis of tariff approved by the Commission, stabilization surcharge added to the amount of the bill and then the direct subsidy subtracted showing the net amount payable by the consumers

8.16 Non Domestic Non Commercial Supply

8.16.1 The existing schedule is applicable to Government/ Government recognized Educational Institutions viz. Schools, Universities; I.T.Is, Hostels and residential quarters attached to the educational institutions; Religious places such as Temples, Gurudwaras, Mosques, Churches, Orphanages, Sainik Rest Houses, Working Women Hostels, Anganwari workers training centres and houses for destitute and old people; free Hospitals and Leprosy Homes run by charity and un-aided by the Government; Sarais and Dharamsalas run by Panchayats and Municipal Committees or on donations and those attached with religious places.

8.16.2 The Board has proposed to change the applicability of this to exclude religious places such as Temples, Gurudwaras, Mosques, Churches etc. This has not been approved by the Commission due to reasons already discussed above in the applicability of the domestic category.

8.16.3 The applicability of this schedule as approved by the Commission is as follows.

"This schedule is applicable to Govt and semi Government offices, Government. 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 consuming more than 150 KWh per month, Orphanages, Sainik and Government Rest Houses, Working Women Hostels, Anganwari workers training centres and houses for destitute and old people; Government Hospitals and Leprosy Homes run by charity and un-aided by the Government; Sarais and Dharamsalas run by Panchayats and Municipal Committees or on donations and those attached with religious places; Panchayat ghar and Patwar Khana."

NOTE: In the case of residences attached to the Government 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.

8.16.4 The existing and proposed tariff for NDNCS category is given in the table below.

Table 8.7: Tariff for NDNCS (Existing/Proposed)

Existing Tariff			Proposed Tariff	
Energy Charge	Consumer Service Charge	Demand Charge	Energy Charge	Consumer Service Charges
Rs/kWh	Rs./con./month	Rs./kVA/month	Rs./kWh	Rs./con./Month
2.50	25	NIL	2.70	35

The proposed tariff represents an increase of 7.61% over the existing tariff.

8.16.5 As per the existing tariff, the cost recovery of the NDNCS category is only 70% for FY 2001-02. Keeping in line with the principle, that the Commission has been following, of gradual movement towards cost of supply, the Commission has approved the following tariff for this category.

Table 8.8: Approved tariff for NDNCS

DESCRIPTION	ALL CONSUMERS
Energy Charge (Rs/kWh)	3.50
Consumer Service Charge (Rs/month/consumer	
Upto 20 kW	50
Above 20 kW	100

8.16.6 The Commission has also approved an equivalent kVAh based tariff for consumers with connected load above 20 kW as discussed earlier in this section. The tariff approved in this regard is given in the table below.

Table 8.9: KVAh based equivalent approved tariff

DESCRIPTION	ALL CONSUMERS
Energy Charge (Rs/kVAh)	2.30
Demand Charge (Rs./kVA/month)	50
Consumer Service Charge (Rs/month/consumer	100

8.16.7 The Commission has also introduced a rebate of 7.5% on the energy charge if supply is taken at 11 kV or above.

8.16.8 The cost recovery from this category increases to 84% after the above tariff changes approved by the Commission. The new tariff will generate additional revenue of Rs. 1.60 Crore in a full year and represents an increase of 38.04% over the revenue of Rs. 4.21 Crore from existing tariff.

8.17 Commercial Supply

8.17.1 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, offices, hospitals, petrol pumps, hotels/motels, servicing stations, nursing homes, rest/guest houses, research institutions, coaching institutions, museums, dry cleaning, garages and auditoriums, departmental stores, restaurants, lodging and boarding houses, private un-recognized educational institutions, Panchayat ghar and Patwar Khanna etc.

8.17.2 The Board has proposed to delete the applicability of tariff to Panchayat Ghars and Patwar Khanas from this category and to include the same in domestic supply category.

8.17.3 The Commission is of the view that this tariff should be applicable to consumers where electricity is used for purely commercial purposes. It has approved the following applicability for this category

"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, servicing 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 and private educational institutions."

8.17.4 The tariff proposed by the Board as compared to the existing tariff for the commercial consumers is given in the table below.

Table 8.10: Tariff for Commercial Supply (Existing/Proposed)

Existing Tariff			**Proposed Tariff**		
Energy Charge	Consumer Service Charge	Demand Charge	Energy charge	Consumer Service Charge	MMC
(Rs./kWh)	(Rs./Con/Month)	(Rs./kVA/Month)	(Rs./unit)	(Rs./Con./Month)	Rs./kW
300	25	NIL	320	50	100

8.17.5 The proposed revenue will generate additional revenue of Rs. 9.99 Crore, i.e. an increase of 14.40% over the existing revenue base of Rs. 69.35 Crore.

8.17.6 The Commission has not approved the reintroduction of MMC due to reasons explained earlier and hence no minimum charges shall be applicable.

8.17.7 The existing tariff recovers only 87% of the cost to supply to this category and hence the Commission finds it imperative to revise the tariffs upwards for these consumers as these consumers are driven by profit motive and should, therefore, progressively be charged a tariff equivalent to the cost to serve them. There is no reason for this category to be cross-subsidised by other categories.

8.17.8 The Commission has approved different consumer service charges based on the connected load of consumers for this category as the cost to provide consumer services like metering, billing and collection are higher for these consumers. In view of this, the Commission has approved the following tariff for this category.

Table 8.11: Approved tariff for Commercial Supply

DESCRIPTION	ALL CONSUMERS
Energy Charge (Rs/kWh)	3.50
Consumer Service Charge (Rs/month/consumer	
Upto 20 kW	50
20-100 kW	100
Above 100 kW	200

8.17.9 The Commission has also introduced a rebate of 7.5% on the energy charge if supply is taken at 11 kV or above.

8.17.10 The Commission has also approved an equivalent kVAh based tariff for consumers with connected load above 20 kW as discussed earlier in this section. The tariff approved in this regard is given in the table below.

Table 8.12: KVAh based equivalent approved tariff

DESCRIPTION	ALL CONSUMERS
Energy Charge (Rs/kVAh)	
20-100 kW	2.40
Above 100 kW	2.10
Demand Charge (Rs./kVA/month)	
20-100 kW	50
Above 100 kW	100
Consumer Service Charge (Rs/month/consumer	
20-100 kW	100
Above 100 kW	200

8.17.11 The Commission has also approved night time concession of 20 paise per kVAh for commercial consumers with connected load above 20 kW for reasons discussed earlier.

8.17.12 The above tariff represents an increase of 23.57% over the existing tariff and the cost recovered from this category accordingly increases to 93% at the approved tariffs. The Commission intends to achieve 100% cost recovery form this category in the subsequent tariff rationalisation process.

8.18 **Small and Medium Industrial Power Supply, SMS**

8.18.1 The existing schedule is applicable to Industrial consumers with connected load not exceeding 100 kW including pumps (other than irrigation pumping) wheat threshers, tokas, poultry farms and sheds, cane crushers, Atta Chakkies, Welding sets and also for suply 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 "APS" shall also be charged under this schedule.

8.18.2 The HPSEB has proposed to bifurcate this existing category into Small Power Supply (upto 20 KW) and above 20 to 100 KW as Medium Power Supply, because it has provided electronic meters for all industrial consumers above 20 KW connected loads and has also proposed to apply 'KVAh based' tariff on Medium Industrial Power Supply consumers.

8.18.3 The existing and proposed tariff for this category is given in the table below.

Table 8.13: Tariff for SMS (Existing/Proposed tariff)

CATEGORY	EXISTING TARIFF			PROPOSED TARIFF		
	Energy Charge	Consumer Service Charges	Demand Charge	Energy charge	Consumer Service Charge	MMC
	(Rs./kWh)	(Rs./Con. /Month)	(Rs./kVA/ month)	(Rs./unit)	(Rs./Con./ Month)	Rs./kVA
Small Industrial Power Supply	2.35	25	Nil	2.60/kWh	50	Nil
Medium Industrial Supply (Above 20 kW & Up to 100 kW Load) LT HT	 2.35 2.25	25	Nil	Rs./kVAh 2.95 2.85	100	120

8.18.4 The existing tariff also has a component of two-part Peak Load Exemption Charge and a Peak Load Violation Charge. The Board has proposed to replace the two-part PLEC and PLVC charges by a single part tariff. The Commission has approved this proposal of the Board, however, it reiterates that the Board should accurately estimate the contract demand of the industrial consumers. As directed by the Commission earlier also, the Board should enter into fresh agreements for the purpose of contract demand. In such cases, where the demand charge has not been contracted, the demand charge shall be levied based upon the maximum- recorded demand during the month.

8.18.5 The Commission approves the proposal of the Board to apply 'kVAh based' tariff to consumers with connected load above 20 kW. However, it does not find any merit in the proposal of the Board to bifurcate this category. In fact, the very reason of merging small and medium industries in the last tariff order was that the character of use of both these categories is similar and the Commission had, therefore, decided to merge these two categories in line with the principles of tariff reflecting the cost of supply. The two-part tariff structure for consumers with connected load above 20 kW shall be applicable with effect from October 1, 2004.

8.18.6 The Commission has also not approved the application of MMC due to reason explained earlier.

8.18.7 The Commission reemphasises its view that in future all industrial consumers should be merged into a single category and charged on the basis of the difference in the cost of supply at different voltage levels. The Commission has attempted to move in this direction in this tariff order also.

8.18.8 The tariff approved for this category is as follows.

Table 8.14: Approved tariff for SMS

CATEGORY	APPROVED TARIFF		
	Energy Charge	Consumer Service Charge	Demand Charge
	(Rs./kWh)	(Rs./Con./Month)	(Rs./kVA/ month)
Upto 20 kW load	3.10	50	Nil
(Above 20 kW & Up to 100 kW Load)	3.10	100	Nil

8.18.9 The existing rebate of 10 paise per kWh on the energy charges has been retained for consumers drawing energy at 11kV to encourage consumers to move towards using electricity at higher voltage.

8.18.10 The following PLEC is approved by the Commission, which would be applicable for consumption during peak load hours only:

Table 8.15: Approved PLEC for peak time consumption for SMS

DESCRIPTION	PLEC
	Rs./kWh
(Above 20 kW & Up to 100 kW Load)	6.20

8.18.11 The existing rebate of 20 paise per kWh on the PLEC has been retained for consumers drawing energy at 11Kv.

8.18.12 For consumers who do not have the exemption but are found using the electricity during peak load hours will have to pay the Peak Load Violation Charge as specified in the table below.

Table 8.16: Approved Peak Load Violation Charges for SMS

DESCRIPTION	PLVC
	Rs./kWh
Above 20 kW & Up to 100 kW Load	9.30

8.18.13 PLEC as well as PLVC will be levied on the consumption recorded during the peak load hours. In case consumers without a meter capable of recording energy during different time are found violating the peak load exemption, one half of the consumption for the month shall be billed at the PLVC rate. In case a consumer violates the peak time restriction five times, the connection would be disconnected. It is expected that these penal provisions will help in bringing in better discipline.

8.18.14 As discussed above, the Commission has also approved an equivalent two-part tariff for consumers with connected load above 20 kW. This is given in the tables below:

Table 8.17: kVAh based equivalent two part approved tariff for SMS

Category	Approved Tariff		
	Energy Charge	Consumer Service Charge	Demand Charge
	(Rs./kVAh)	(Rs./Con./Month)	(Rs./kVA/ month)
20-100 kW	2.40	100	50

8.18.15 A rebate of 10 paise per kVAh shall be given to consumers drawing energy at 11kV.

8.18.16 The following PLEC is approved by the Commission in regard to the approved kVAh based tariff given above.

Table 8.18: Approved PLEC for peak time consumption for SMS

DESCRIPTION	PLEC
	Rs./kVAh
20-100 kW	4.80

8.18.17 A rebate of 20 paise per kVAh on PLEC shall be given to consumers drawing energy at 11kV.

8.18.18 For consumers who do not have the exemption but are found using the electricity during peak load hours will have to pay the Peak Load Violation Charge as specified in the table below.

Table 8.19: Approved Peak Load Violation Charges for SMS

DESCRIPTION	PLVC
	Rs./kVAh
20-100 kW	7.20

8.18.19 A rebate of 30 paise per kVAh on PLVC shall be given to consumers drawing energy at 11kV.

8.18.20 The Commission has also approved the continuation of the existing ‘night time’ concession of 20 paise/kWh (till October 1, 2004) and 20paise/kVAh after October 1, 2004. **The ‘night time’ concession shall be made**

available to the consumers who have tri-vector meters capable of recording consumption during the specified night hours. This option shall be available only till March 31, 2005 after which all consumers in this category should necessarily have tri-vector meters installed in the premises. The concession shall be applicable only on consumption during the night hours as defined in the Part-1 of the tariff schedule. The Commission has not been able to estimate the revenue implication of the application of PLEC, PLVC and 'night time' concessional tariff due to lack of requisite data on consumption during peak, normal and night hours. The Commission has, therefore, accounted for these in the non-tariff income on the basis of data provided by the Board for PLEC, PLVC and other surcharge and rebates for FY 2003-04 and FY 2004-05.

8.18.21 The above tariff will generate total revenue of Rs. 47.30 Crore from this category, representing an overall increase of 34.25% over revenue from existing tariffs. The cost recovery improves from 64% at existing tariff to 75% at approved tariffs.

8.19 Large Industrial Power Supply

8.19.1 This schedule is applicable to all industrial power consumers with connected load exceeding 100 kW including mini steel mills/steel rolling and re-rolling mills/calcium carbide/ferro silicon units and arc/induction furnaces and also the Information Technology industry, limited only to IT parks recognized by the State/Central Government and all industrial consumers not covered by schedule "WPS" or schedule "APS".

8.19.2 The existing tariff schedule has a two-part tariff comprising of 'kVAh based' energy charge and contract based demand charge and the consumer service charge. The Board has proposed to reintroduce the single part tariff instead of two-part tariff that was introduced by the Commission in the tariff order for FY 2001-02. The existing and proposed tariffs are given below.

Table 8.20: Tariff for LS category (Existing/Proposed)

Description	Existing Tariff			Proposed Tariff		
	Energy Charge	Consumer Service Charge	Demand Charge	Energy charge	Consumer Service Charge	MMC
	Rs./kVAh	Rs./Con./Month	Rs./kVA/ month	Rs./kVAh	Rs/Con/M onth	Rs/kVA
Normal Timings	1.90	100	125	3.25	200	170
Peak Timings	2.35	100	150	4.30	200	

8.19.3 The increase in tariff as proposed by the Board will bring in additional revenue of Rs.162.64 Crore per annum, representing an increase of 48.85% in revenue for this category. The proposed increase is very high and the average realisation from this category will become almost twice the cost of supply to these consumers. This proposal of the Board has not been approved by the Commission.

8.19.4 The Commission has not approved the above proposal of the Board. The Commission would like to restate the approach it adopted and the reason for it.

Tariff Order 2001-02

Quote

*" 5.1. **Two- part tariff and Minimum Guarantee Charges***

The existing tariff structure in Himachal Pradesh has no provision for fixed charges in any of the consumer categories. There is, however, a provision for a minimum charge in most of the categories. A rational tariff structure requires a two-part tariff structure incorporating fixed charges to reflect the fixed liabilities on account of power purchase, employee costs, interest etc. Out of the cost of Rs.332.39 Crores approved for purchase of power, Rs. 64.1 Crores is on account of fixed cost. Further, employee costs can also be treated as fixed in the short term. It is, therefore, essential that these costs are reflected as fixed charges recovered from the consumers. Ideally, this should be done in proportion to the demand placed by an individual consumer on the system. This is so because the connected load provides a signal of the consumer's load profile and the maximum demand *to arrive at the estimates of the consumption. It thus facilitates designing of the system to cater to the supply needs of a consumer and is thus a just and fair mechanism for recovering fixed liabilities of the system. Over the years, however, it lost its true meaning and became a potential instrument of harassment to the consumers. The existing 'data base' on the connected load is also distorted due to these inefficiencies. The Commission has thus not used the criteria of connected load for determining the demand charge except for large industrial consumers where a demand charge based on contract demand has been approved"*

Unquote

8.19.5 The Commission has, thus, not approved the proposal of the Board to abolish two- part tariff structure and reintroduce the single part tariff.

8.19.6 The Commission has approved separate tariff for EHT and HT industrial consumers keeping in mind the difference in the cost of supply to these two categories. The existing cost recovery for EHT consumers is 166% and that of HT consumers is 120%.

8.19.7 The Commission recognises that the tariff applicable to this category is already significantly above the cost of supply with a significant level of cross subsidy. Any increase in the cross subsidy and cost recovery from this category would further aggravate this distortion.

8.19.8 The Commission has, thus, revised the tariff for HT and EHT industrial consumers in a manner that the cost recovery from these two categories comes closer to 100% and the level of cross subsidy declines. However, the tariffs cannot be realigned to the cost of supply in one step and this process has to be graduated overtime so as to avoid tariff shocks to the subsidised categories. The tariff approved by the Commission is given in the tables below.

Table 8.21: Approved tariff for LS Category

Category	Approved Tariff		
	Energy Charge	Consumer Service Charge	Demand Charge
	Rs./kVAh	Rs./Con//Month	Rs./kVA/month
EHT	2.15	300	150
HT	2.22	200	150

8.19.9 The Commission has also approved the continuation of the existing 'night-time' concession of 20 paise/kVAh. This concession shall be made available to the consumers who have tri-vector meters capable of recording consumption during the specified night hours. **The 'night time' concession shall be made available to the consumers who have tri-vector meters capable of recording consumption during the specified night hours. This option shall be available only till March 31, 2005 after which all consumers in this category should necessarily have tri-vector meters installed in the premises.** The concession shall be applicable only on consumption during the night hours as defined in the Part-1 of the tariff schedule.

8.19.10 The following PLEC is approved by the Commission, which would be applicable for consumption during peak load hours only:

Table 8.22: Approved PLEC for peak time consumption for LS

DESCRIPTION	PLEC
	Rs./kVAh
EHT	4.30
HT	4.45

8.19.11 For consumers who do not have the exemption but are found using the electricity during peak load hours will have to pay the Peak Load Violation Charge as specified in the table below.

Table 8.23: Approved Peak Load Violation Charges for LS

DESCRIPTION	PLVC
	Rs./kVAh
EHT	6.45
HT	6.70

8.19.12 PLEC as well as PLVC will be levied on the consumption recorded during the peak load hours. In case consumers without a meter capable of recording energy during different time are found violating the peak exemption, one half of the consumption for the month shall be billed at the PLVC rate. In case a consumer violates the peak time restriction five times, the connection would be disconnected.

8.19.13 The above changes will generate additional revenue of Rs.23.83 Crore, in a full year, an increase of 15.56% over the revenue from existing tariff for the EHT industrial consumers. Their corresponding cost recovery reduces to 147% from 166% in FY 2001-02.

8.19.14 Rs. 29.74 Crore of additional revenue will be generated from the HT industrial consumers from the above tariff. This represents an increase of 16.55% over the revenue from their existing tariff. Their corresponding cost recovery reduces to 110% from 120% in FY 2001-02.

8.20 Water Pumping Supply

8.20.1 The existing schedule is applicable to Government connections for water and irrigation pumping. The schedule also covers all consumption for bonafide Pump House lighting.

8.20.2 The existing and proposed tariff for this category is given in the table below.

Table 8.24: Tariff for Water Pumping Supply (Existing/Proposed)

Description	**Existing Tariff**			**Proposed Tariff**		
	Energy Charge	Consumer Service Charge	Demand Charge	Energy Charge	Consumer Service Charge	MMC
	Rs,/kWh	Rs/con/month	Rs./kVA/ month	Rs./kVAh	Rs/con/m onth	Rs/kVA/ month
Supply at less	2.35	25	NIL	2.95	100	120

than11kV (LT)						
Supply at 11kV & above (HT)	2.25	25	NIL	2.85	100	120

8.20.3 The existing tariff also has a component of two-part Peak Load Exemption Charge and a Peak Load Violation Charge. The Board has proposed to replace the two-part PLEC and PLVC charges by a single part tariff. The Commission has not approved this proposal of the Board due to reasons explained earlier.

8.20.4 The tariff proposed by the Board represents an increase of Rs. 24.51 Crore, i.e., an increase of 40.18% in a full year.

8.20.5 The existing tariff for WPS-LT is recovering only 61% of the cost of supply and WPS–HT is recovering 109% of the cost of supply. There is thus a need to realign the tariff to ensure a movement towards cost based tariffs. However, as mentioned earlier also, the need to avoid tariff shocks to any category of consumer cannot be cast off.

8.20.6 The Commission has approved the following tariff for the WPS category.

Table 8.25: Approved tariff for WPS

Description	**Approved Tariff**	
	Energy Charge	Consumer Service Charges
	Rs./kWh	Rs./Con//Month
Supply at less than11kV (LT)	3.10	100
Supply at 11kV & above (HT)	2.70	100

8.20.7 Consumers opting to avail of exemption during peak load restriction shall have to install tri-vector electronic meters. The following PLEC is approved by the Commission, which would be applicable for consumption during peak load hours only:

Table 8.26: Approved PLEC for peak time consumption for WPS

DESCRIPTION	**PLEC**
	Rs./kWh
Supply at less than11kV (LT)	6.20
Supply at 11kV & above (HT)	5.40

8.20.8 For consumers who do not have the exemption but are found using the electricity during peak load hours will have to pay the Peak Load Violation Charge as specified in the table below.

Table 8.27: Approved Peak load violation charges for WPS

DESCRIPTION	Plvc
	Rs./kWh
Supply at less than 11kV	9.30
Supply at 11kV & above	8.10

The PLEC as well as PLVC will be levied only on the consumption recorded during the peak hours. In case consumers without a meter capable of recording energy during different times are found violating the peak exemption, one half of the consumption for the month shall be billed at the PLVC rate. In case a consumer violates the peak time restriction five times, the connection would be disconnected.

8.20.9 The Commission has also approved an equivalent kVAh based tariff for consumers with connected load above 20 kW as discussed earlier in this section. The tariff approved in this regard is given in the table below.

Table 8.28: KVAh based equivalent approved tariff for WPS

DESCRIPTION	ALL CONSUMERS
Energy Charge (Rs/kVAh)	
Supply at less than 11kV	2.20
Supply at 11kV & above	1.85
Demand Charge (Rs./kVA/month)	
Supply at less than 11kV	125
Supply at 11kV & above	125
Consumer Service Charge (Rs/month/consumer	
Supply at less than 11kV	100
Supply at 11kV & above	100

8.20.10 The following PLEC is approved by the Commission in regard to the kVAh tariff given above:

Table 8.29: Approved PLEC for peak time consumption for WPS

DESCRIPTION	PLEC
	Rs./kVAh
Supply at less than 11kV	4.40
Supply at 11kV & above	3.70

8.20.11 For consumers who do not have the exemption but are found using the electricity during peak load hours will have to pay the Peak Load Violation Charge as specified in the table below.

Table 8.30: Approved Peak Load Violation Charges for WPS

DESCRIPTION	PLVC
	Rs./kVAh
Supply at 230/400 volts	6.60
Supply at 11 kV	5.50

8.20.12 The Commission has also approved the continuation of the existing night-time concession of 20 paise/kWh (till October 1, 2004) and 20 paise/kVAh after October 1, 2004. The 'night time' concession shall be made available to the consumers who have tri-vector meters capable of recording consumption during the specified night hours. **This option shall be available only till March 31, 2005 after which all consumers in this category should necessarily have tri-vector meters installed in the premises.** The concession shall be applicable only on consumption during the night hours as defined in the Part-1 of the tariff schedule.

8.21 Agriculture Pumping Supply

8.21.1 This schedule shall be applicable to 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.

8.21.2 The Board has proposed that Private Irrigation loads in Co-operative societies should also be covered under this tariff.

8.21.3 The Board has not proposed any tariff increase for the agricultural pumping supply category.

8.21.4 The Commission has accepted the proposal of the Board for this category for maintaining status quo with respect to the existing tariff except for PLEC and PLVC levies. The Commission is aware that the cost recovery of this category is at the approved tariffs will be as low as 13%. However, the Commission has not revised the tariff for this category keeping in view the socio-economic status of the consumers of this category and the need to avoid tariff shocks.

8.21.5 The existing tariff also has a component of two-part Peak Load Exemption Charge and a Peak Load Violation Charge. The Board has proposed to replace the 'two part' PLEC and PLVC charges by a single part tariff. The Commission has not approved this proposal of the Board due to reasons explained earlier.

8.21.6 In view of the above discussion, the tariff approved by the Commission for APS is given below.

Table 8.31: Approved tariff for APS

Category	**Approved Tariff**		
	Energy Charge	Consumer Service Charges	Demand Charge
	(Rs./kWh)	(Rs./Con. /Month)	(Rs./kVA/ month)
	0.50	20	NIL

8.21.7 Consumers opting to avail of exemption during peak load restriction shall have to install tri-vector electronic meters. The following two part PLEC is approved by the Commission. The PLEC would be applicable for consumption during peak load hours only.

Table 8.32: Approved PLEC for peak time consumption for APS

DESCRIPTION	PLEC	
	Demand charge*	Energy charge
	Rs./kVA/month	Rs./kWh
	85	1.00

*Demand charge shall be levied on the maximum-recorded demand during the peak hours or 80% of the contract demand for peak load hours, whichever is higher.

8.21.8 For consumers who do not have the exemption but are found using the electricity during peak hours will have to pay the two-part Peak Load Violation Charge as specified in the table below.

Table 8.33: Approved Peak load violation charges for APS

DESCRIPTION	PLVC	
	Demand charge*	Energy charge
	Rs./kVA/month	Rs./kWh
Agricultural pumping	85	1.50

*Demand charge shall be levied on the maximum-recorded demand during the peak hours or 80% of the contract demand for peak load hours, whichever is higher.

The PLEC as well as PLVC will be levied only on the consumption recorded during the peak hours. In case consumers without a meter capable of recording energy during different time are found violating the peak exemption, one half of the consumption for the month shall be billed at the PLVC rate. In case a consumer violates the peak time restriction five times, the connection would be disconnected.

8.21.9 The Commission also approves the continuation of night-time concession of 20 paise/kWh. This concession shall be made available to the consumers who have tri-vector meters capable of recording consumption during the specified night hours. The concession shall be applicable only on consumption during the night hours as defined in the Part-1 of the tariff schedule.

8.21.10 The above tariff will generate revenue of Rs. 1.42 Crore in a full year.

8.22 Bulk Supply

8.22.1 This schedule is applicable to general or mixed loads exceeding 20 kW to M.E.S and other Military establishments, Railways, Central PWD Institutions, Construction power for Hydro Electric Projects, Hospitals, Departmental colonies, A.I.R Installations, Aerodromes and other similar establishments where further distribution to various residential and non-residential buildings is to be undertaken by the consumer.

8.22.2 The Board has proposed to bifurcate these into two sub categories- Bulk Supply-I and II where the Bulk Supply-II schedule will be applicable for construction power for Hydro electric projects/other power projects having general or mixed loads, where further distribution to various residential/non-residential premises, workshop etc. is to be undertaken by the consumer. The Board has proposed the following tariff for this category as compared to the existing tariff.

Table 8.34: Tariff for Bulk Supply (Existing/Proposed)

Description	**Existing Tariff**			**Proposed Tariff**		
	Energy Charge	Consumer Service Charge	Demand Charge	Energy charge	Consumer Service Charge	MMC
	Rs./kWh	Rs/Con. /Month	Rs./kVA/ month	Rs./kWh Rs./kVAh	Rs./Con./ Month	Rs./kW
Bulk Supply–1 LT HT	 2.95 2.85	25	Nil	 3.05 2.95	100	100
Bulk supply–2 HT	2.85	25	Nil	4.00 /Kvah	500	200

8.22.3 The Commission has not approved this bifurcation as the nature of supply to all these consumers is similar and there is no justification for charging them different tariffs.

8.22.4 There has been objection by the MES that it purchases bulk power from the Board, and the entire take over point, stepping down arrangements and distribution have been created and being maintained by the MES themselves. Since the electricity purchased is used mainly for day-to-day living, MES is predominantly a domestic consumer and, therefore, it is unfair to treat it as a commercial consumer. The MES has appealed for a separate category and a rationalised tariff structure or an independent license to distribute electricity.

8.22.5 The Commission is of the view that a separate tariff for any specific class of consumers like the MES is not justified. The bulk supply schedule shall continue to be applicable where distribution to various residential/non-residential premises, workshop etc. is undertaken by the consumer. However, if the bulk supply consumer hands over the same to the Board and the Board meters individual consumers, applicant consumers shall be charged tariffs as per the schedule applicable to them.

8.22.6 The existing cost recovery of Bulk Supply-LT consumers is 79% and Bulk Supply HT consumers is 128% of their respective costs to supply. The Commission is conscious of the fact that the Bulk Supply -HT consumers are cross subsidising other consumers and their tariff needs to be realigned to the cost of supply. The Commission has made an attempt in this direction through this tariff order. However, it is not possible to do this is in one go and, therefore, has to be graduated overtime. Following the concept cost of supply and reduction of cross subsidy discussed earlier, the Commission has rationalised the tariff for Bulk Supply consumers as given in the table below.

8.22.7 The Commission has not approved MMC due to reasons explained earlier.

8.22.8 The tariff as approved by the Commission for Bulk Supply category is given in the table below.

Table 8.35: Approved tariff for Bulk Supply Category

Description	**Approved Tariff**	
	Energy Charge	Consumer Service Charges
	(Rs./kWh)	(Rs./Con/Month)
LT	3.50	100
HT	3.15	100

8.22.9 The Commission has also approved an equivalent kVAh based two part tariff for Bulk Supply consumers with connected load above 20 kW as discussed earlier in this section. The tariff approved in this regard is given in the table below.

Table 8.36: KVAh based equivalent approved tariff

Description	**Approved Tariff**		
	Energy Charge	Consumer Service Charge	Demand Charge
Bulk Supply (Above 20 kW)	(Rs.kVAh)	(Rs./Con/Month)	(Rs./kVA/ month)
LT	2.50	100	40
HT	2.10	100	50

8.22.10 The above tariff will generate total revenue of Rs. 48.42 Crore from the Bulk supply category, representing an overall increase of 13.41% over revenue from existing tariff. Of this, the increase in Bulk Supply LT will be 18.66% and in Bulk Supply HT will be 10.55%. The corresponding cost recoveries will be 74% and 120% as compared to the recoveries of 76% and 138% at existing tariffs for FY 2001-02.

8.23 Street Lighting Supply

8.23.1 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.

Table 8.37: Tariff for Street Lighting (Existing/Proposed)

Existing Tariff			**Proposed Tariff**		
Energy Charge	Consumer Service Charge	Demand Charge	Energy Charge	Consumer Service Charge	MMC
Rs./kWh	Rs./Con./Month	Rs./kVA/ Month	Rs./kWh	Rs./Con/Month	
235	25	NIL	260	100-	NIL

8.23.2 The proposed tariff represents an increase of 12.61% over the revenue from existing tariffs.

8.23.3 The Commission is of the view that it is not justified to increase the tariff for this category corresponding to its cost of supply as this is a public service and it may lead to huge tariff shock. However, the Commission has increased the tariff to maintain the existing level of cost recovery at 61%. The tariff approved by the Commission for Street Lighting Supply is given below.

Table 8.38: Approved tariff for Street Lighting Supply

Description	**Approved Tariff**	
	Energy Charge	Consumer Service Charge
	(Rs.kWh)	(Rs./Con./Month)
All consumption	2.85	50

8.23.4 The above tariff will generate additional revenue of Rs. 0.52 Crore in a full year representing an increase of 21.81%.

8.24 Temporary Metered Supply

8.24.1 This schedule is applicable to all loads of temporary nature including exhibitions, touring talkies, circuses, fairs, melas, marriages, festivals, temporary agricultural loads such as wheat thrashers, paddy thrashers, temporary supply for construction purposes including civil works by Government departments and other similar purposes for temporary needs only.

8.24.2 The Board has not proposed any change in the applicability of this schedule. The tariff proposed by the Board is given in the table below.

Table 8.39: Tariff for Temporary Supply (Existing/Proposed)

Existing Tariff			**Proposed Tariff**	
Energy Charge	Consumer Service Charge	Demand Charge	Energy Charge	Consumer Service Charge
(Rs/unit)	(Rs./con./month)	(Rs./kVA/month)	(Rs./Unit)	(Rs./con./Month)
5.00	50	NIL	6.00	100

8.24.3 With the proposed tariff, increase in average assessment for this category as compared to average assessment at the existing level of tariff, works out to approximately 25.13%.

8.24.4 The Commission approves the above proposal of the Board as the nature of use by all consumers in this category is of temporary nature and the tariff for this category needs to compensate the Board for the special provision it has to make to provide supply on a temporary basis. The tariff approved by the Commission is given in the table below.

Table 8.40: Approved tariff for Temporary Metered Supply

Description	**Approved Tariff**		
	Energy Charge	Consumer Service Charges	Demand Charge
	Rs./kWh	Rs./Con//Month	Rs./kVA/month
All consumers	6.00	100	NIL

8.24.5 The approved tariff will generate revenue of Rs. 0.67 Crore in a full year.

8.25 Other changes proposed by the HPSEB in the tariff schedule

8.25.1 The HPSEB has submitted a number of changes in the existing tariff schedule. Of these, the Commission has already addressed the issues of minimum charges, peak load exemption charges, peak load violation charges and kVAh tariff. The Board has also proposed changes in the existing delayed payment surcharge and night hour concessions. The Commission's views on these are discussed in the following paragraphs.

8.25.2 Night hour concession

The existing tariff has the provision for a 'night-time' concession of 20 paise/unit for the categories of Small & Medium Industrial Power Supply, Large Industrial Power Supply and Water Pumping. The Board has submitted that the concession for off-peak consumption should be applicable only to industries willing to shift their load to off-peak hours as against a general applicability to all industrial users consuming during off-peak hours. The Board has given the reason that as most of the large industries in the State are operating in three shifts, there is likely to be little effect on the load curve through the provision, while leading to significant revenue leakage. At the same time, the Board is exposed to the risk of under recovery of its costs in the event of significant shift of consumption of the load to the night hours causing the Board to resort to power purchase from more expensive sources. Thus, the idea of shifting the demand to flatten the load curve is not achieved meaningfully. The Board has, therefore, proposed to make provision of this concession only to the industries willing to shift their load to off peak hours, i.e., from day to night. The Board has also proposed to enhance the existing 'night time' concession to 30 paise from 20 paise per kVAh.

The Commission does not agree with this proposal of the Board of restricting the concession only to such industries so as to shift the day consumption to night hours. The Commission is of the view that this is inconsistent with the Board's own logic of better demand side management by incentivising them to shift to night usage only. The Commission does not subscribe to such a viewpoint and logic and shall continue to provide night hour incentive until near flat load curve is achieved on daily basis. The Commission is of the view that the present level of 20 paise per kVAh shall continue to be applicable till it is possible to exactly estimate the difference in the cost of supply during the night and day hours as any major change in the night time concession tariff may adversely affect the revenue stream of the Board.

8.25.3 **Surcharge for delayed payment**

The existing provision with regard to late payment surcharge is as follows:

"Surcharge for late payment shall be applied at a uniform rate of 2% per month proportionately for the number of days for which the payment is delayed beyond the due date specified in the bill and levied on the unpaid amount of the bill (excluding electricity duty/taxes etc) for all categories."

The Board has proposed to modify this provision as follows:

"If the bill is not paid in full within the time specified on the bill, a surcharge @ 2% on the unpaid amount of the bill for a month or part thereof (excluding electricity duty and taxes) starting from the date of issue of bill until the amount is paid in full shall be levied. This surcharge will be applicable to all consumer categories and is without prejudice to the right of the HPSEB to disconnect the supply".

The Commission is of the view that the existing surcharge @ 2% is relatively higher given the interest rate scenario in the country and the Commission has thus reduced this to 1%. The Board has also expressed administrative difficulties in calculating the surcharge proportionately for the number of days of delay. The provision for delayed payment surcharge as approved by the Commission is given below.

"Surcharge for late payment shall be applied at the rate of 1% per month or part thereof on the outstanding amount specified in the bill and levied on the unpaid amount of the bill (excluding electricity duty/taxes etc) for all categories."

8.26 Non tariff income

8.26.1 The HPSEB has proposed revenue of Rs. 55 Crore as non-tariff income for FY 2004-05. The non-tariff income in FY 2003-04 was Rs. 48 Crore. The Board has proposed a revision in the Schedule of General and Service Charges and has subsequent increase in income from rental of meters and other apparatus hired to consumers of Rs. 2.60 Crore.

8.26.2 The Commission has revised the general and service charges, and the same is attached as Annexure 3 of this order. The revised charges will generate additional revenue of Rs.3.70 Crore through rental of meters.

8.26.3 In view of the change made in the levy of surcharge for delayed payment, the Commission expects a minor decline in the income from delayed payment surcharge. The GoHP owes Rs. 3.52 crore on account of interest on subsidy amount due from it for FY 2002-03. This has also been taken as part of the non-tariff income of the HPSEB. Further, as discussed and clarified with the Board officials, the non tariff income proposed does not take into account the PLEC and PLVC charges (except for large industrial consumers), power factor surcharge, surcharge levied for supply at lower voltage and rebate for supply at higher voltage (except for large industrial consumers). If taken at FY 2003-04 level as per the information submitted by the Board, this amounts to Rs. 9.41 Crore. The Commission, thus, approves non-tariff income of Rs. 66.18 Crore for FY 2004-05.

The sources of this are given in the following table:

Table 8.41: Non Tariff income

	FY 2003-04	FY 2004-05	FY 2004-05
	Un-Audited	Proposed	Approved
Rental of meters and other apparatus hired to consumers	22.40	25.00	26.10
Sale and repair of lamps and apparatus	-	-	-
Rents less outgoing not otherwise provided for	-	-	-
Transfer fees	-	-	-
Investments fixed and call deposits and bank balances	0.70	0.45	0.45

Other general receipts accountable for income tax and arising from on ancillary or incidental to business of electricity supply.	19.90	22.95	22.95
Revenue from surcharges for late payment	5.00	6.60	5.00
PLEC and PLVC	-	-	10.59
Surcharge for supply at lower voltage	-	-	0.06
Power factor surcharge	-	-	1.06
Surcharge on non payment of subsidy by GoHP	-	-	3.52
Less Rebate for supply at higher voltage	-	-	(3.55)
Total - Non-tariff income	**48.00**	**55.00**	**66.18**

8.27 Stabilisation Surcharge

8.27.1 As already mentioned in Section 1 of this order, the Board did not submit the tariff petitions for FY 2002-03 and FY 2003-04. As a consequence there has been no revision and rationalisation of the tariff structure and rates in the State since the first tariff order was issued by the Commission on October 29, 2001. At the same time, there is no denying the fact that there have been significant increases in the costs being incurred by the Board for providing service to the consumers in the state, especially on account of power purchase costs. Though, the Commission is also of the view that it was a lapse on part of the Board for not filing the tariff petition, it is also aware of the fact that the tariffs need to be revised to enable the Board to be able to continue providing services to the consumers efficiently. The Consumer Price Index based (overall) inflation rate in the country in the last two years has been 6.92% approximately. Moreover, the entire financial sustainability of the Board has been impaired due to the non-filing of the petitions for FY 2002-03 and FY 2003-04 and there is a real danger of irretrievable deterioration in its financial sustainability in the short term. This can destabilise the very existence of the Board.

8.27.2 In view of this, the Commission approves the levy of the 'Stabilisation Surcharge' @ 3% of the amount of bill (excluding electricity duties/taxes etc.) for all consumer categories, except Antodaya Anna Yojna beneficiaries, to enable the Board to recover at least a part of the increased costs incurred by it in the last two years.

8.27.3 The application of this surcharge will yield additional revenue of approximately Rs 23.00 Crores when applied on the total revenue from sale of power within the state during FY 2004-05. **This surcharge shall be levied during the current tariff period and shall cease on March 31, 2005.**

8.28 Overall revenue –expenditure position of the HPSEB

The overall revenue–expenditure position of the HPSEB after the revision in tariff is given in the table below:

Table 8.42: Overall revenue -expenditure position (as per approved tariff)

DESCRIPTION	RS. CRORE
Total Revenue requirement	1174.60
Revenue from sale of power within the state	766.84
Revenue from sale of power outside the state	318.58
Non-tariff income	66.18
Stabilization Surcharge	23.01
Total Revenue	1174.60
Net revenue gap	Nil

8.29 The Commission has thus not approved the creation of a regulatory asset as proposed by the Board.

8.30 The break-up of revenue generated from the existing and approved tariff is presented in the table below:

Table 8.43: Revenue breakup for FY 2004-05 (Existing/Approved)

Description	Existing	Approved	Difference	Difference
	(Rs. Crores)	(Rs. Crores)	(Rs. Crores)	%
Domestic	90.45	109.74	19.29	21.33%
NDNCS	4.21	5.81	1.60	38.04%
CS	69.35	85.70	16.35	23.57%

SMS	35.24	47.30	12.07	34.25%
LS				
EHT	153.19	177.02	23.83	15.56%
HT	179.72	209.46	29.74	16.55%
LS Total	332.91	386.48	53.58	16.09%
APS	1.42	1.42	0.00	0.00%
WPS	61.00	78.42	17.42	28.56%
SLS	2.37	2.88	0.52	21.81%
Bulk Supply	42.69	48.42	5.73	13.41%
Temporary Supply	0.53	0.67	0.13	25.13%
Stabilisation Surcharge	0	23.00	23.00	
Revenue from sale of power within the state	640.16	766.84	126.68	19.79%
Income from sale of power outside the state	318.58	318.58	0.00	0.00%
Sub Total	958.73	1108.42	149.69	15.61%
Non-tariff income	48.00	66.18	18.18	37.87%
Total	**1006.73**	**1174.60**	**167.85**	**16.67%**

8.31 Reduction in cross subsidy

8.31.1 *The cost recovery for various categories as per the approved cost of supply and tariffs for FY 2004-05 is given in the table below.*

Table 8.44: Consumer category wise cost recovery at approved tariff (FY 2004-05)

Consumer categories	Cost of Supply (RS./kWh)	Average Realisation (RS./kWh)	Cost Recovery (%)
Domestic	4.73	2.62	53%
NDNCS	4.73	3.63	77%
Commercial	4.73	4.04	86%
Agricultural	4.73	0.59	13%
Street Light	4.73	2.88	61%
Industry (EHT)	1.86	2.73	147%
Industry (HT)	2.63	2.91	111%
Industry (LT)	4.73	3.24	69%
WPS (LT)	4.73	3.11	66%
WPS (HT)	2.63	2.71	103%
Bulk Supply (HT)	2.63	3.15	120%
Bulk Supply (LT)	4.73	3.50	74%

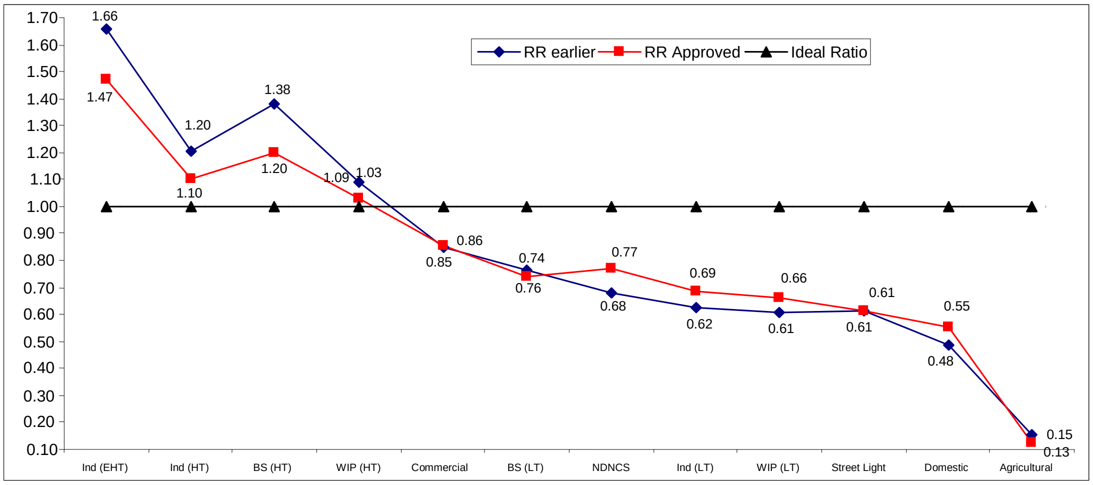
8.31.2 *The above table sharply focuses on the tariff rationalisation exercise undertaken by the Commission, which has led to a movement towards category wise cost recovery. The table below gives a comparison of the cost recovery at FY 2001-02 and FY 2004-05 (approved) tariffs:*

Table 8.45: Comparison of category wise cost recovery in FY 2001-02 and FY 2004-05

Consumer categories	Cost Recovery (%) FY 2001-02	Cost Recovery (%) FY 2004-05
Domestic	48%	53%
NDNCS	68%	77%
Commercial	85%	86%
Agricultural	15%	13%
Street Light	61%	61%
Industry (EHT)	166%	147%
Industry (HT)	120%	110%
Industry (LT)	62%	69%
WPS (LT)	61%	66%
WPS(HT)	109%	103%
Bulk Supply (HT)	138%	120%
Bulk Supply (LT)	76%	74%

8.31.3 *The figure below gives a graphical representation of the change in cost recovery form FY 2001-02 to FY 2004-05*

Figure 1: Change in cost of recovery from FY 2001-02 to FY 2004-05



8.32 Recovery Ratio Index

8.32.1 *The above category wise increases in tariff have been designed so that the average realization from each category converges towards their respective cost of supply. To measure the extent to which this has been done the following index has been used:*

$$RRI = \sqrt{\{\Sigma[(AR_c/AC_c)-1]^2\}/\Sigma N_c}$$

Where RRI = Recovery Ratio Index

AR_c = Average realization of each category

AC_c = Cost of supply of each category

N_c = Number of categories

The above index ideally should converge to Zero over the years. The convergence towards zero would reflect alignment of average realisation of each category with overall average realisation.

The Recovery Ratio Index has been calculated at the existing tariffs and also at the revised tariffs approved by the Commission. The results are given in table below.

Table 8.46: Recovery Ratio Index

DESCRIPTION	
RRI at existing tariffs	0.43
RRI at revised tariffs	0.38
Improvement (%)	11.19%

The above table shows that the cross subsidy in the state has reduced by 11.19% at the tariffs approved by the Commission.

SECTION 9

DIRECTIONS-CUM-ORDERS

9.1 The Commission has given a number of directions to the licensee both during the public hearings and in the preceding sections of this Order. These have been compiled and reproduced in this section for easy reference. The tariff determined by the Commission and the directions given in the tariff order shall be quid-pro-quo and mutually inclusive. The tariff determined shall, within the period specified by it, be subject to the compliance of the directions to the satisfaction of the Commission and the non-compliance shall lead to such amendments, revocation, variations and alterations as may be ordered by the Commission.

9.2 The licensee shall not charge the tariff in excess or short of the tariff determined by the Commission in this Tariff Order and if the licensee recovers the price or charge exceeding or lower than the tariff determined by the Commission, without prejudice to any other liability incurred by the licensee -

a) the excess amount shall be recoverable from the person who was paid such price or charge alongwith the interest at 11.5% compounded half yearly;

b) the person who has paid less price or charge shall pay the difference alongwith interest at 11.5% compounded half yearly, and

c) the licensee shall be liable to penalties as provided under Sections 142 and 146 of the Act.

9.3 The State Government of Himachal Pradesh shall pay, in advance to HPSEB, by way of subsidy, a sum of Rs.3.36 crore per month. The Government should open a revolving irrevocable Letter of Credit (LOC) for Rs 3.36 crore in favour of the HPSEB within one month of the date of issue of this Order. If no LOC is opened, and the subsidy amount not received, the Board shall, immediately, restore the Domestic tariff to the rates approved by the Commission.

9.4 Sub-regulation (3) of Regulation 32 of HPERC (General Conditions of Distribution License) Regulations 2004 which have come into force on June 10, 2004 saves the directions given both at the public hearings and in the tariff order in Chapter 7 of the Tariff Order 2001-02 issued under Electricity Regulatory Commissions Act, 1998 which shall, therefore, remain alive until complied with to the satisfaction of the Commission.

Sub-regulation (2) of Regulation 14 of HPERC (Guidelines for Establishment of Forum for Redressal of Grievances of the Consumers) Regulations 2003 saves the Complaint Handling Mechanism and Procedure as notified by the Commission on February 8, 2002 and HPERC's Complaint Handling Procedure, 2002 notified on February 8, 2002 which shall, therefore, remain alive until the standards of performance of licensee are specified by the Commission under Section 57 of the Act.

PART-I

9.4.1 Debt Restructuring

9.4.1.1 The Commission in its interim order dated June 7, 2004 directed the Board to furnish a time frame for re-structuring the high costs debts after consultations. In the affidavit dated June 9, 2004, the Board informed that it had approved the time frame upto March 31, 2005 for re-structuring the high costs debts with current lending rates of interest. In Commission's subsequent formal interaction with the Members of the Board on June 21, 2004, a time frame of 4 months was agreed for bringing down the rate of interest to 10.5%.

9.4.1.2 The Commission, therefore, directs the Board to make efforts to reduce the cost of outstanding loans to 10.5% in 4 months but not later than October 31, 2004. Efforts shall continue to be made after October 31, 2004 for further reduction in the interest rates.

9.1.4.3 No fresh loans shall be taken in the year 2004-2005 beyond the limits approved in the ARR and the annual investment plan will not exceed the projections so approved. In case the investment falls below the projections, the borrowings will be scaled down, pari passu. In order to redeem high cost debt falling due for repayment in the tariff period, the disinvestment exercise of idle, unproductive and un-remunerative assets including the lands and the surplus stores shall be initiated by the licensee and completed by December 31, 2004.

9.4.1.4 Clear identification of the remaining assets to be disinvested must be completed by August 31, 2004 and the valuation of assets to be completed in the next round by December 31, 2004. Assistance of the Government of India will be taken through Government of H.P. in swapping high cost debts from LIC, REC, PFC and other financial institutions.

9.4.1.5 Priortisation of Deliverables from ASCI

9.4.1.6 The Commission in its interim order on June 8, 2004 directed the Board to clarify its stand on the implementation of ASCI's report on re-organisation and re-structuring of the Board as required under Section 131 of Electricity Act, 2003 together with the re-deployment, re-tooling and re-training of the staff. The Board in its affidavit dated June 15, 2004 informed that the Board shall examine and decide on the implementation of the report only after submission of the draft report by the ASCI.

9.4.1.7 The Commission directs the Board to negotiate prioritisation of this report alongwith the reports relating to T&D Loss, Fixed Assets, Financial Restructuring, Employee's Cost etc. for submission by December 31, 2004.

9.4.1.8 Valuation of Assets

9.4.1.9 The licensee shall get the physical verification of the assets carried out together with the revenue potential, fair value and the depreciated value of such assets through an independent agency. The licensee shall ensure appropriate & expert counter-parting with the independent agency in successful completion of the above task.

9.4.2 T&D Losses

9.4.2.1 The Commission on June 7, 2004 directed the Board to submit the present level of T&D losses at each voltage level with reasonable and plausible assumptions. The Board in its affidavit of 9.6.2004 submitted the information but the complete break up at various voltage levels was not provided. The Commission as per Clause (g) of Section 61 of Electricity Act, 2003 is to ensure that the tariffs progressively reflect the cost of supply of electricity and the Commission is to reduce and eliminate the cross subsidies within the period to be specified by the Commission.

9.4.2.2 The Board, therefore, is directed to appoint consultants if not already done to carry out a study with regard to complete and accurate data on T&D losses at various voltage levels and between various consumer classes as well as the break up of technical and non-technical losses highlighting the assumptions made, if any. The study must be completed and report submitted to the Commission by November 30, 2004 with the next tariff filing. The study shall also include the quantum of reduction in T&D losses as a result of introduction of kVAh tariff in 2001-02.

9.4.3 Capital Works In Progress (CWIP)

9.4.3.1 The Commission in its interim order dated June 7, 2004 directed the Board to supply the details of capital works in progress as on date including the proportion of employee cost capitalized and also inform on further scope of capitalization of employee cost. The Board submitted an affidavit on June 9, 2004 and from this information, the Commission observes that the CWIP of Rs. 1654 crores is unbelievable high considering that gross fixed assets of the Board aggregated to Rs.1770 crores only. The Commission directs the Board to immediately transfer the completed works to the fixed assets but not later than October 31, 2004 so as to include the same in ARR filing for 2005-06.

9.4.4 Capital Projects

9.4.4.1 The Commission in its interim order dated June 7, 2004 directed the Board to submit information on all on-going capital projects exceeding Rs. 5 lacs and above including the T&D projects showing cost and time over-runs and the interest liability arising on account of these over-runs. The Board in its affidavit dated June 9, 2004 prayed for a period of 10 days for submission of this information. The information has still not been furnished at the time of issuing the tariff order.

9.4.4.2 The Commission directs the Board to prepare a comprehensive plan to curtail time and cost over-runs and submit the same by November 15, 2004. The interest liability on account of such over-runs shall not be allowed to be pass through to the consumers.

9.4.5 Advance Consumption Deposit/Security

9.4.5.1 The Commission directed the Board through its interim order dated June 8, 2004 to create a fund for separate accounting in respect of amount received by way of ACD/Security and interest thereupon to avoid utilisation for other purposes. The Board in its affidavit dated June 15, 2004 prayed for granting 3 months time for the same.

9.4.5.2 The Commission, therefore, directs the Board to create a fund by September 30, 2004 and include the interest cost on ACD/Security on all ARR filings in future.

PART-II

9.4.6 Multi year tariff

9.4.6.1 The Commission directs the Board to submit a proposal for introducing a Multi Year Tariff framework that would allow it to better serve the public interest through economic efficiency, least cost service and improved service quality.

9.4.7 Date of Applicability of kVAh based tariff

9.4.71. The Commission directs that the 'two part' tariff structure in respect of Commercial, Non Domestic Non Commercial Supply, Water Pumping Supply, Small & Medium Supply and Bulk Supply shall come into force on October 1, 2004. Till then, the single part kWh tariff and the corresponding consumer service charge shall be levied. The Board shall enter into fresh agreements with the consumers in respect of their contract demand within three months but not later than September 30, 2004. The Commission would review the position regarding this tariff after 3 months from the issue of this Order. The Commission also directs the Board to submit data regarding the load factor, demand factor power factor, kVAh, kWh in respect of the Commercial, Non Domestic Non Commercial Supply, Water Pumping Supply, Small & Medium Supply and Bulk Supply categories with connected load above 20 KW by September 30, 2004.

9.4.8 Category-wise detail of Sales etc.

9.4.8.1 The Commission directs the Board that in the next tariff petition, it should provide details on sale, number of consumers, connected load and demand differentiated for time-of-day tariff slabs and at different voltage levels for each consumer category. ASCI should be requested to include these details in their load forecast studies for 10 years as already ordered by the Commission.

9.4.9 Billing details

9.4.9.1 The Commission refers to sub regulation (2) of regulation 34 of Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2004 and directs the Board that the bills to the consumers shall distinctively display the per unit cost of supply of electricity to the class of consumer as determined by the Commission, direct and indirect subsidy, if any, given by the State Government applicable to such class of consumers and per unit amount of such subsidy, the bill amount payable by the consumer and the cross subsidization of the class of the consumer in the tariff, made applicable without taking into account the subsidy from the Sate Government. The bill shall be prepared on the basis of tariff approved by the Commission, stabilization surcharge added to the amount of the bill and then the direct subsidy subtracted showing the net amount payable by the consumers.

9.4.10 Night time concession

9.4.10.1 The 'night time' concession shall be made available to the consumers who have tri-vector meters capable of recording consumption during the specified night hours. This option shall be available only till March 31, 2005 after which all consumers in this category should necessarily have tri-vector meters installed in the premises.

9.4.11 **Cost and time overruns**

9.4.11.1 The Commission notes the high capital cost proposed by the Board, and has ordered the Board to submit relevant details w.r.t. cost and time overruns incurred in the projects being undertaken by the Board. It is imperative for the Board to undertake an assessment of the existing situation and draw up a plan of action to enhance its generation while minimizing its costs. The Commission directs the Board to submit its action plan in this regard.

9.4.12 Sales Manual

9.4.12.1 The Board should revise and update its Sales Manual on regular basis, however, immediate revision may be undertaken to incorporate the changes ordered in this tariff order and compliance reported within two months but not later than August 31, 2004.

9.4.13 Outstanding Dues From Government Departments

9.4.13.1 The Commission feels that the low collection efficiency of the Board is predominantly due to huge outstandings from the Government Departments. The

Commission feels that there is no justification for treating the Government connections differently and the provisions of the Act must apply uniformally to all to allow a level playing field. The Commission, therefore, directs the Board to issue final notices of 30 days to all the Government Departments to pay off or face the disconnections. The supplies must be disconnected after the expiry of the notice period.

9.4.14 **Employee Cost**

9.4.14.1 The Commission in its formal interaction with the Members of the Board expressed its anxiety and concern for the burgeoning employee cost which had touched Rs. 1.33 per unit of sale of electricity. Given the precarious state of Board's finances, such prohibitive employee cost is wholly unjustified and shall do incalculable harm to the long-term fiscal health of the Board. Borrowing to finance the current expenditure is a sure invitation to disaster when corresponding assets are not being created to service the loans. This prevented the Board from attaining the fiscal sustainability in the medium term. If the Board is to begin approaching fiscal sustainability in the medium term, it would be essential to reduce the burden of employee cost. The Government of H.P and Government of India have signed an MOU in which it has been agreed that the parameter of consolidated revenue deficit, as percentage of revenue receipts would be used as the benchmark for the reforms programme. The consolidated revenue deficit would be inclusive of power sector deficit of the State. The Government of H.P. has agreed to undertake certain measures in line with the targets specified against each, in order to compress revenue expenditure as well as enhance revenue and non-debt capital receipts and thereby contain debt levels. In order to reduce the burden of the salaries GoHP has to endeavor to bring down the number of Government and parastatal employees by 2% annually and to that end has to take some measures.

9.4.14.2The Commission, therefore, directs that the licensee HPSEB shall also take steps in this direction, since the power sector deficit shall contribute to the consolidated revenue deficit of the State. These steps are enumerated as under:-

- to bring down the number of employees by 2% annually, and, to this end the Board:

-shall create no new posts leading to fresh recruitments.

-all new recruitments, at any level and however, essential shall be made through re-deployment of existing personnel. Blanket ban on the recruitments shall not be applicable on certain functional posts.

-the Board shall abolish all those posts, which have been lying vacant for the last 3 years.

-shall not fill any vacancy falling vacant at Class III or IV level.

-all vacancies shall be filled either by way of re-deployment or where essential preferably on contract.

-the policy of compassionate employment of kith & kin shall be amended to provide for one time compensation and enhanced family pension.

-policy to regularize all daily rated workmen shall be strictly in conformity with judicial orders and whenever these persons retire, the posts will be deemed to have been abolished forthwith.

-a comprehensive review of all the existing allowances shall be carried out in the next financial year and the report on existing allowances shall be prepared by 31st August, 2004.

-an appropriate VRS scheme for the Board's employees on the analogy of Government of India scheme shall be evolved for posing to Government of India through Government of H.P. for assistance from the Center and possible external donors.

9.4.15 Material Management

9.4.15.1 In order to enhance the employee productivity on capital works, the Board may consider ordering the packages of all materials required for the project in a judicious mix of "with and without" labour component. This shall ensure coordinated supply of materials.

9.4.15.2 The Commission would advise the Board that the minimum order quantities for the next financial year should be ordered without waiting for the requirement of materials from the field units to ensure the deliveries commencing from the April 1, 2005. The quantities to be ordered should be so phased as to ensure regular flow of materials throughout the year to keep the employees gainfully employed throughout the year and ensure high inventory turn over ratio. The calendar of actions such as approvals, tendering, purchase order, delivery schedule and payments etc. must therefore, be aligned to ensure the above. The benchmark prices and rate contracts should be put in position for decentralized purchases, which should not exceed 15% of the total capital budget. Any materials ordered in excess of the requirement and lying unused for six months should be automatically recoverable from the person ordering such materials.

9.4.15.3 An Inspection Manual should be developed and the standard purchase order should be modified and up-dated to make the same legally sound, tenable, equitable, fair and just.

9.4.16 Metering, Billing and Collection efficiency

9.4.16.1 The Commission suggests to the Board to make efforts to find a sponsor for a pilot/demonstration project for pre-paid metering as well as bill payment machine by November 15, 2004. The Commission further directs the Board to improve its collection efficiency from the current 92% to atleast 99% during FY 2004-05.

9.4.17 Consumer satisfaction survey

9.4.17.1 The Board should critically evaluate the results of the study on Consumer Satisfaction Survey conducted by A.C.Nielson – ORG MARG and focus on the key issues and concerns perceived by the consumers not only in respect of six Districts so surveyed but also contiguous Districts for similar concerns.

9.4.18 **Mobility of field staff**

9.4.18.1 The Commission requires the Board to submit a plan for the phased replacement of old and low fuel efficiency vehicles with high repair & maintenance costs by November 15, 2004 as well as use of private vehicles on official business. This is to ensure that the R&M cost of vehicles is contained within the efficiency levels.

9.4.19 400 KV Line from Nalagarh to Kunihar and 400 KV Sub Station at Kunihar

9.4.19.1 The Commission directs the Board to review the justification for 400 KV transmission line from Nalagarh to Kunihar and 400 KV Sub-Station at Kunihar in view of the fact that the 25% share of power under NJPC together with some proportion of free power shall be exported out of the State and does not belong to the licensee. Besides PGCIL has established 400 KV sub-station at Nalagarh which could be used for meeting additional load on the existing 220 KV sub-station at Kunihar in future. The Board is entitled to only the State of the Region Share of 2.47%, which does not justify the established of a 400 KV sub-station at Kunihar. The justification should be got examined in collaboration with the CEA and the Power Grid Corporation of India Ltd. and, submitted to the Commission for its approval by November 30, 2004. In the meantime, there shall be a stay on further actions in regard to tendering, award of the work etc. in respect of these works.

9.4.20 Justification of REC funded schemes

9.4.20.1 Since all the 12 districts of Himachal Pradesh are covered under APDRP Schemes, there does not appear much justification for carrying out the REC funded schemes in view of 100% high cost loan from REC in comparison with 90% grant in respect of the APDRP Schemes. Justification, if any, to the Commission be submitted by September 30, 2004.

9.4.21 Himachal Pradesh Jal Vidyut Vitran Nigam Ltd (HPJVVNL)

9.4.21.1 HPJVVNL shall be made fully functional with clear rules of business and delegation of financial power to make it truly independent in respect of its day-to-day matters. The staffing of this Corporation shall be on dynamic need-based basis.

9.4.22 Departmental Charges

9.4.22.1 The Commission directs the Board to rationalize the departmental charges, which vary from one set of scheme to the other and submit the report by September 30, 2004.

9.4.23 Larji Project

9.4.23.1 The Commission directs the Board to carry out investigation into the very high per MW cost in respect of the Larji Project and submit the report by September 30, 2004.

9.4.24 Generation Cost of Board's Own Projects

9.4.24.1 The applications for fixing the cost of generation in respect of Board's own projects shall be submitted to the Commission for the FY 05-06 by October 31, 2004.

9.4.25 Harmonic Distortions

9.4.25.1 The Commission observes that severe harmonics, induced by non-linear loads, are effecting system operation and life of the equipments connected to the system. Commission, therefore, directs the Board to ensure that the loads connected at the inter-connection points do not induce any harmonic voltage and distort the supply waveform beyond the specified limits. Further, the Board shall monitor the harmonic levels at the supply points to the users and other strategic locations on the transmission system, which it considers as harmonic prone, at regular intervals of six months, to ensure proper quality of power supply. These measurements shall conform to IEEE Standard. 519.

9.4.26 Review & Monitoring

9.4.26.1 In order to monitor and review the progress and the status of compliance of various direction of the Commission, it shall hold review hearings on 1st Saturday of every month till the compliance is made to the satisfaction of the Commission. The Board shall submit the status report through affidavit on the day prior to the date of hearing. The first review hearing shall be held on September 4, 2004. All orders of the Commission following the review hearings shall be put on HPERC's website.

Annexure 2

HIMACHAL PRADESH STATE ELECTRICITY BOARD

*NOTIFICATION *

NO. DATED: -

In pursuance of the tariff order dated July 2, 2004 issued by the Himachal Pradesh Electricity Regulatory Commission, the Himachal Pradesh State Electricity Board is pleased to notify the following Schedule of Tariff and the general conditions of tariff for supply of electricity to various categories of consumers in Himachal Pradesh with effect from july 5, 2004.

PART - I GENERAL

A. This schedule may be called the Himachal Pradesh State Electricity Board schedule of electricity tariff, 2004.

B. This schedule of tariff shall come into force with effect from July 5, 2004 and will be applicable through out the state of Himachal Pradesh.

C. The rates mentioned in this schedule of tariff are exclusive of electricity duty, taxes and other charges already levied or as may be levied by the government of Himachal Pradesh from time to time.

D. The various rates mentioned in this tariff are net. “Surcharge for late payment shall be applied at the rate of 1% per month or part thereof on the outstanding amount specified in the bill and levied on the unpaid amount of the bill (excluding electricity duty/taxes etc) for all categories.”

E. This tariff will automatically supersede the existing tariff that was in force with effect from October 29, 2001, except where special agreements have otherwise been entered into for a fixed period. Street light agreements will however, not be considered as special agreements for the purpose and the revised tariff as per schedule "SL" shall be applicable.

F. This schedule of tariff is subject to the provisions of the "abridged conditions of supply" and schedule of "general and service charges".

G. Single point supply - the various tariffs referred to in this schedule are based on the supply being given through a single delivery and metering point and a single voltage. Supply at other points or at other voltages, if any, shall be separately metered and billed.

H. Force majeure clause - in the event of lockout, fire or any other circumstances considered by the board beyond the control of the consumer, he shall be entitled to proportionate reduction in consumer service charge, demand charge or any other fixed charge, if applicable, provided he serves at least 3 days notice on the supplier for shut down of not less than 15 days duration.

I. Peak load hours supply - Supplies under schedule "Agricultural Pumping" (APS), "Small and Medium Industrial Power Supply" (SMS), and "Large Industrial Power supply" (LS) and "Water Pumping Supply" (WPS) shall not be available during the peak load hours. The duration of peak load hours in summer and winter shall be as under;

a)	Summer	(April to October)	6.00 pm to 9.00 pm
b)	Winter	(November to March)	5.30 pm to 8.30 pm

However, where the above categories of consumers want to avail exemption during the peak load hours for any special reason, a separate sanction of the Board is necessary, which shall be issued at the request of the consumer and subject to availability of power in the area. Consumers requesting for peak load exemption must get the tri vector electronic meters installed that are capable of recording the maximum demand as well as the energy consumption in every 30 minute block for all twenty four (24) hours of the day. Where sanction for running of unit during peak load hours is already issued, no further sanction is required. However, any consumer having a sanction but without tri-vector meter would also need to get it installed within three months of issue of this notification. All consumers who have been given exemption during the peak load hours shall be billed for additional charge as specified in the relevant schedule of tariff.

J. Night hours supply – the duration of night hour supply for the purpose of night time concession, wherever applicable, shall be from 00.00 hours to 06.00 hours.

K. Seasonal industries - In this schedule, unless the context otherwise provides, seasonal industries mean the industries which by virtue of their nature of production can work only during a part of the year, continuously or intermittently up to a maximum period of 7.5 months in a year, such as atta chakkies, saw mills, tea factories, cane crushers, irrigation water pumping, rice husking/hullers, ice factories, ice candy plants and such other factories as may be approved and declared as seasonal by the board from time to time. Seasonal industries shall be governed under the following conditions: -

i) The consumer shall intimate in writing to the concerned Sub-Divisional officer of the Board one month in advance, the months or the period of off-season during which he will close down his plant(s).

ii) The minimum working period for a seasonal industry in a year shall be taken as 4 (four) months.

iii) During the off-season, the entire energy consumption and the power utilised for maintenance and overhauling of the plant and the factory lighting will be charged at "commercial supply" tariff.

iv) The consumer service charge, demand charge or any other fixed charge shall be leviable for the seasonal period only.

v) All the seasonal industrial consumers shall be required to deposit the Advance Consumption Deposit at the time of release of connection at double the normal rates for different categories of industrial consumers. In case the consumer fails to clear his energy bill at the time of start of "OFF-SEASON", the Advance Consumption Deposit shall further be doubled before he is allowed to run his industry at the time of start of next season.

L. Metering on LT side - in respect of HT consumers (11kv and above) where the maximum demand and energy consumption are recorded on lower voltage side of the consumer's transformer instead of higher voltage side on account of non-availability of HT meter or its unhealthy operation, the energy consumed for the purpose of billing should be computed by adding 2% extra to the energy consumption recorded by the LT meter.

M. Stabilisation Surcharge – A stabilization charge @ 3% of the amount of bill (excluding electricity duties/taxes etc.) shall be levied on all consumers except Antodaya Anna Yojna beneficiaries. **This surcharge shall be levied during the current tariff period and shall cease on March 31, 2005.**

N. Power factor surcharge -

i) The Agricultural, Small and Medium Industry and Water Pumping Consumers shall maintain an average power factor of not less than 0.90 in respect of their installations. If the monthly average power factor falls below 0.90, the consumer shall pay a surcharge of 10% on the amount of energy charges of the bill.

ii) The monthly average power factor will be calculated on readings of Tri-Vector Meter/Bi-Vector Meter/Two Part Tariff Meters as per formula given below and shall be rounded up to two decimal places.

POWER FACTOR = KWH / KVAH

In case of defective tri-vector meter/bi-vector meter/two part tariff meter, power factor will be assessed on the basis of average power factor recorded during last three consecutive months when the meter was in order. In case no such readings are available then the monthly average power factor of three months obtained after installation of correct tri-vector meter/bi-vector meter/two part tariff meter shall be taken for the purpose of power factor surcharge during the period the tri-vector meter/bi-vector meter/ two part tariff meter remained defective.

iii) In respect of consumers where tri-vector meter/bi-vector meter/two part tariff meter is not installed, if at any time power factor is checked by any means and found to be lower than 0.90 lagging, a surcharge @ 10% on the amount of energy charges irrespective of voltage of supply shall be charged from the consumer from the month of checking and will continue to be levied till such time the consumer has improved his power factor at least to 0.90 lagging by suitable means under intimation to the concerned Sub Divisional Officer who shall immediately get it checked.

iv) Should the monthly power factor falls below 0.85, it must be brought up to minimum of 0.90 by consumer by suitable means with in a period of three months, failing which, without prejudice to right to collect surcharge, the connection shall be disconnected unless monthly average power factor is improved to 0.90 by the consumer to the satisfaction of the Board.

v) For the improvement of the power factor the consumer shall install shunt capacitors manufactured by the standard manufacturers and duly marked with I.S.I specifications

vi) The said power factor surcharge shall be irrespective of voltage of supply.

vii) The above clauses with respect to power factor surcharge will be applicable for Water Pumping Supply and Small and Medium Supply with connected load above 20 kW only till September 30, 2004 after which the kVAh based energy charge and kVA based demand charge as approved by the Commission will come into force.

viii) The consumer service charge, demand charge or any other fixed charge shall not be taken into account for working out the amount of power factor surcharge, which shall be levied on the amount of energy charges only.

ix) No new supply to L.T. installations with induction motor(s) of capacity above 3 H.P and/or welding transformers above 2.0 KVA shall be given unless shunt capacitors of appropriate ratings are installed to the entire satisfaction of the Board.

O. Replacement of Defective/Missing/damaged Shunt Capacitors -

i) It will be obligatory on the part of the consumer to maintain capacitors in healthy conditions and in the event of its becoming burnt/damaged he shall have to inform the Sub Divisional Officer concerned immediately in writing and also to get the defect rectified within a maximum period of one month from the date the capacitor has gone defective.

ii) In case shunt capacitor(s) is/are found to be missing or inoperative or damaged, 15 days notice shall be issued to the consumer for rectification of the defect and setting right the same. In case the defective capacitor(s) is/are not replaced / rectified within one month of the issue of the notice, a surcharge @ 10% per month on bill amount shall be levied w.e.f the date of inspection to the date of replacement of defective/damaged missing capacitors.

p) These tariff rates do not take into account any liability on account of interest on security deposits/advance consumption deposits. In case any liability accrues to the Board on this account at any stage due to any reasons whatsoever, the corresponding amount of liability shall be recovered from the consumer as a part of tariff in addition to these tariff rates.

q) In case any dispute regarding interpretation of this tariff order and/or applicability of this tariff arises, the decision of the Commission will be final and binding on the consumers.

DEFINITIONS

1. **Act: The Act shall mean The Electricity Act, 2003** as amended from time to time.

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

3. **Board:** means the Himachal Pradesh State Electricity Board.

4. **Commission:** shall mean the Himachal Pradesh State Electricity Regulatory Commission.

5. **Connected Load:** shall mean the sum of all the rated capacities of all the energy consuming devices/apparatus at the consumer’s installation. This shall not include the stand by or spare energy consuming apparatus installed through the changeover switch provided the competent authority has accorded the requisite prior permission.

6. **Consumer Service Charges:** shall mean the fixed amount to be paid by the consumer as defined in the respective tariff schedule.

7. **Contract demand:** shall mean the maximum demand for which the consumer has entered into an agreement with the Board.

8. **Demand Charges:** shall mean the amount chargeable based upon the billing demand in kVA as defined in the relevant tariff schedule.

9. **Energy Charges:** shall mean the charges for energy actually taken by the consumer and is applicable to the units consumed in the relevant billing period.

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

11. **Rules:** shall mean Indian Electricity Rules, 1956 as amended from time to time.

12. **Sanctioned Load:** shall mean load for which the Board has agreed to supply from time to time subject to the governing terms and conditions. The total connected load is required to be sanctioned from the competent authority.

13. **Schedule:** shall mean this Tariff Schedule.

14. **Supplier:** shall mean the Himachal Pradesh State Electricity Board.

PART – II - SCHEDULE OF TARIFF

SCHEDULE -DOMESTIC SUPPLY (DS)

1. **Applicability**

This 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 as well as religious places consuming not more than 150 kWh per month.

Notes:

(i) Where a portion of the dwelling is used regularly for the conduct of a business, the consumption in that portion shall be separately metered and billed under the appropriate Commercial or Industrial power tariff whichever is applicable. If separate circuits are not provided, the entire supply will be classified under "Commercial Supply."

(ii) Resale and sub-metering of supply to tenants, other flats etc. is strictly prohibited.

(iii) No compounding will be permissible. For residential societies who wish to take a single point supply, this would be permitted, and the energy charges would be divided by the number of such units to determine the relevant slab. Thus if there are 10 dwelling units in a society and the energy consumption in a month is 3000 units, the first 450 (45*10) units would be charged at Rs 0. 85 per kWh, the next 1050 (105*10) units at Rs.1.30 per kWh unit and the remaining 1500 units at Rs. 2.40 per kWh. Consumer service charge shall be Rs. (11x10).

2. **Character of service**

(a) A.C 50 C/S, single phase, 230 volts or three phase 400 volts.

(b) In case of large loads, supply may, at the discretion of the supplier, be given at 11 kV or above.

3. **Tariff**

Consumer Service Charge (Part-I)

Description	Consumer Service Charge (Rs./Consumer/Month)
Antyodya Anna Yojna beneficiaries* (upto 45 units per month)	Nil
Other consumers	11

Energy Charge (Part-2)

Description	Energy Charge (Rs. /kWh)
KWh per month	
Antyodya Anna Yojna beneficiaries* (upto 45 units per month)	70
Other consumers	
0-45	85
46-150	130
Above 150	240

*In the case of Antyodya Anna Yojana beneficiaries the concessional tariff will be available for use of electricity by these families upto a maximum of 45 units per month. In case this limit is exceeded, the normal domestic tariff will apply for the entire consumption.

4. Rebate

A rebate of 7.5%, on the energy charges will be allowed if the supply, at the discretion of the supplier, is given at 11 kV or above.

SCHEDULE - NON -DOMESTIC NON-COMMERCIAL SUPPLY (NDNCS)

1. Applicability

This schedule is applicable to the following consumers:

a) Government and semi Government offices

b) Government Educational Institutions viz. Schools, Universities, I.T.Is, Colleges, Government Sports Institutions, Government Mountaineering Institutions and allied sports and Government Libraries Hostels and residential quarters attached to the educational institutions if supply is given at single point.

c) Religious places such as Temples, Gurudwaras, Mosques, Churches etc. consuming more than 150 kWh per month.

d) Orphanages, Sainik and Govt. Rest Houses, Working Women Hostels, Anganwari workers training centres and houses for destitute and old people.

e) Government Hospitals and Leprosy Homes run by charity and un-aided by the Government.

f) Panchayat Ghars and Partwar Khanas

g) Sarais and Dharamsalas run by Panchayats and Municipal Committees or on donations and those attached with religious places, subject to the condition that only nominal and token amount to meet the bare cost of upkeep and maintenance of the building etc. is being recovered and no rent as such is charged.

NOTE: In the case of residences attached to the Government Institutions, as at (b) above, 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.

2. Character of service

a) A.C 50 C/S, single phase, 230 volts or three phase 400 volts.

b) In case of large loads, supply may, at the discretion of the supplier, be given at 11 kV or above.

3. Tariff

Consumer Service Charge (Part-1)

Description	Consumer Service Charge (Rs/month/consumer)
0-20 kW	50
Above 20 kW	100

Energy Charge (Part-2)

Description	Energy Charge (Rs./kWh)
All consumption	3.50

4. Equivalent two part tariff (applicable from 1st October, 2004 for consumers with connected load above 20 kW)

Consumer Service Charge (Part-1)

Description	Consumer Service Charge (Rs/month/consumer)
Above 20 kW	100

Energy Charge (Part-2)

Description	Energy Charge (Rs./kVAh)
All consumption	2.30

Demand Charge (Part-3)

Description	Demand Charge (Rs/kVA/month)
Above 20 kW	50

4. Rebate

A rebate of 7.5%, on the energy charges will be allowed if the supply, at the discretion of the supplier, is given at 11 kV or above.

SCHEDULE – COMMERCIAL SUPPLY (CS)

1. Applicability

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, servicing 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, private educational institutions.

This schedule will also include all other categories, which are not covered by any other tariff schedule.

NOTE: - Resale and sub-metering to tenants, adjoining houses and to other parties is strictly prohibited.

2. Character of service

a) A.C, 50 C/S, single phase, 230 volts or 3 phase 400 volts.
b) In case of large loads, supply may at the discretion of the supplier, be given at 11 kV or above.

3. Tariff

Consumer Service Charge (Part-1)

Description	Consumer Service Charge (Rs/month/consumer)
0-20 kW	50
20-100 kW	100
Above 100 kW	200

Energy Charge (Part-2)

Description	**Energy Charge (Rs./kWh)**
All consumption	3.50

4. Equivalent two part tariff (applicable from October 1, 2004 for consumes with connected load above 20 kW)

Consumer Service Charge (Part-1)

Description	Consumer Service Charge (Rs/month/consumer)
20-100 kW	100
Above 100 kW	200

Energy Charge (Part-2)

Description	**Energy Charge (Rs./kVAh)**
20-100 kW	2.40
Above 100 kW	2.10

Demand Charge (Part-3)

Description	**Demand Charge (Rs./kVA/month)**
20-100 kW	50
Above 100 kW	100

5. **Rebate**

A rebate of 7.5%, on the energy charges will be allowed if the supply, at the discretion of the supplier, is given at 11 kV or above.

SCHEDULE -SMALL AND MEDIUM INDUSTRIAL POWER SUPPLY (SMS)

1. Applicability

This schedule is applicable to Industrial consumers with connected load not exceeding 100 kW including pumps (other than irrigation pumping) wheat threshers, tokas, poultry farms and sheds, cane crushers, Atta Chakkies, Welding sets and also for suply 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 abovementioned range and not covered by Schedule "APS" shall also be charged under this schedule.

2. Character of service

A.C, 50 C/S, 1 phase, 230 volts or 3 phase, 400 volts or 11000 volts at the discretion of the supplier.

3. Tariff

Consumer Service Charge (Part-1)

Description	Consumer Service Charge (Rs/month/consumer)
0-20 kW	50
20-100 kW	100

Energy Charge (Part-2)

Description	Energy Charge (Rs/kWh)
0-20 kW	3.10
20-100 kW	3.10

4. Rebate of 10 paise per kWh on the energy charges for consumers drawing energy at 11kV.

5. Peak load exemption charges (PLEC) and peak load violation charges (PLVC)

Peak Load Exemption Charge

DESCRIPTION	PLEC
	Rs./kWh
ABOVE 20 KW & UP TO 100 KW LOAD	6.20

PLEC would be applicable for consumption during peak load hours only.

6. Rebate of 20 paise per kWh on the PLEC for consumers drawing energy at 11Kv.

7. Consumers who do not have the exemption but are found using the electricity during peak load hours will have to pay the Peak Load Violation Charge.

Peak Load Violation Charges

DESCRIPTION	PLVC
	Rs./kWh
(ABOVE 20 KW & UP TO 100 KW LOAD)	9.30

8. PLEC as well as PLVC will be levied on the consumption recorded during the peak load hours. In case consumers without a meter capable of recording energy during different time are found violating the peak load exemption, one half of the consumption for the month shall be billed at the PLVC rate. In case a consumer violates the peak time restriction five times, the connection would be disconnected.

9. Equivalent two part tariff for consumers with connected load above 20 kW.

kVAh based equivalent two part tariff

CATEGORY	**ppro ved Tarif f**

	ENERGY CHARGE	CONSUMER SERVICE CHARGE	DEMAND CHARGE
	(Rs./Kvah)	(Rs./Con./Month)	(Rs./Kva/ Month)
20-100 kW	2.40	100	50

10. A rebate of 10 paise per kVAh shall be given to consumers drawing energy at 11kV.

11. PLEC in regard to the approved kVAh based tariff given above.

PLEC for peak time consumption

DESCRIPTION	PLEC
	Rs./kVAh
20-100 Kw	4.80

12. A REBATE OF 20 PAISE PER KVAH ON PLEC SHALL BE GIVEN TO CONSUMERS DRAWING ENERGY AT 11KV.

13. PEAK LOAD VIOLATION CHARGE

Peak Load Violation Charges

DESCRIPTION	Plvc
	Rs./kVAh
20-100 kW	7.20

14. A REBATE OF 30 PAISE PER KVAH ON PLVC SHALL BE GIVEN TO CONSUMERS DRAWING ENERGY AT 11KV.

15. NIGHT-TIME CONCESSION OF 20 PAISE/KWH (TILL 1ST OCTOBER 2004) AND 20PAISE/KVAH AFTER 1ST OCTOBER, 2004. **THE NIGHT TIME CONCESSION SHALL BE MADE AVAILABLE TO THE CONSUMERS WHO HAVE TRI-VECTOR METERS CAPABLE OF RECORDING CONSUMPTION DURING THE SPECIFIED NIGHT HOURS. THIS OPTION SHALL BE AVAILABLE ONLY TILL 31ST MARCH, 2005 AFTER WHICH ALL**

CONSUMERS IN THIS CATEGORY SHOULD NECESSARILY HAVE TRI-VECTOR METERS INSTALLED IN THE PREMISES. THE CONCESSION SHALL BE APPLICABLE ONLY ON CONSUMPTION DURING THE NIGHT HOURS AS DEFINED IN THE PART-1 OF THE TARIFF SCHEDULE.

16. SURCHARGE FOR L.T. SUPPLY TO STEEL ROLLING MILLS

Steel Rolling and Re-rolling Mills given supply at L.T. under this tariff shall be charged a surcharge @ 10% on the amount of energy charges.

17. Power factor

Power factor surcharge is applicable and shall be levied as per the provisions under "Part-I-General" of this notification.

18. Factory lighting & colony supply

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. 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:

i) During normal times : normal rate
ii) During peak times : the PLEC rate
iii) During night time : the night time rate

SCHEDULE - LARGE INDUSTRIAL POWER SUPPLY INCLUDING MINI STEEL MILLS (LS)

1. Applicability

This schedule is applicable to all industrial power consumers with connected load exceeding 100 kW including mini steel mills/steel rolling and re-rolling mills/calcium carbide/ferro silicon units and arc/induction furnaces and also the Information Technology industry, limited only to IT parks recognized by the State/Central Govt. and all industrial consumers not covered by schedule "WPS" or schedule "APS".

2. Character of service

A.C, 50 C/S, three phase, 11000 volts or above at the discretion of supplier.

3. Tariff

Consumer Service Charge (Part-1)

Description	Consumer Service Charge (Rs/month/consumer)
EHT	300
HT	200

Energy charge (Part-2)

Description	Energy Charge (Rs./kVAh)
EHT	2.15
HT	2.22

Demand charge (Part-3) *

Description	Demand Charge (Rs/kVA/month)
EHT	150
HT	150

*Demand charge would be levied on the actual maximum-recorded demand in a month in any 30-minute interval in a month or 80% of the contract demand whichever is higher.

4. Peak load exemption charges (PLEC) and peak load violation charges (PLVC)

PLEC peak time consumption

Description	PLEC (Rs./kVAh)
EHT	4.30
HT	4.45

For consumers who do not have the exemption but are found using the electricity during peak hours will have to pay the following Peak Load Violation Charge. This penal rate shall be applicable to the consumption during the peak load hours only. In case a consumer violates the peak time restriction five times, the connection would be disconnected.

Peak load violation charges

Description	PLVC (Rs. /kVAh)
EHT	6.45
HT	6.70

Note:

(i) Consumers having supply at 400 volts shall be charged 15 paise per kVAh over and above the energy charges prescribed above.

5. Penalty for over drawl

If a consumer exceeds the contract demand a penalty of Rs. 300 per kVA per month shall be levied on the part of the demand in excess of the contract demand.

6. **Night time concession**

A nighttime concession of 20 paise/kVAh on consumption of energy between 00.00 hours to 06.00 hours shall be given. This concession will be available only where electronic tri-vector meters have been installed.

7. Rebate for supply at higher voltages

The consumers who take supply under this Schedule at voltage higher than 11/22 kV but below 66 kV shall get the rebate at the following percentage on the amount of energy charges of LS-HT consumers. No rebate shall, however, be given on the Consumer Service charge or Demand Charge.

Supply Voltage	Rebate
33 kV	1.5%

8. Factory lighting and colony supply

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 centres and factory yard lighting shall be charged under this tariff schedule. The consumption for bonafide use of residential/staff quarters and street lighting of colony shall also be charged under this tariff schedule. 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:

During normal times: normal rate
During peak times: the PLEC rate
During night-time: the night time rate

SCHEDULE - WATER PUMPING SUPPLY (WPS)

1. **Applicability**

This schedule is applicable to Government connections for water and irrigation pumping.

2. Character of service

a) A.C, 50 C/S, 3-phase, 400 Volts or 11000 volts or above at the discretion of the supplier.
b) Supply shall be given normally at 400 volts for loads up to 100 kW.

3. Tariff

Consumer Service Charge (Part-1)

Description	Consumer Service Charge (Rs/month/consumer)
All consumers	100

Energy Charge (Part-2)

Description	Energy Charge (Rs./kWh)
Supply at less than 11kV	3.10
Supply at 11 kV and above	2.70

4. Peak load exemption charges (PLEC) and peak load violation charges (PLVC)

Consumers who wish to avail this facility will have to get the tri-vector meters installed, if not already installed, capable of recording consumption at 30 minutes interval. The following PLEC would be applicable for consumption during peak load hours only.

PLEC for consumption during peak load hours

Description	PLEC (Rs./kWh)

Supply at less than 11kV	6.20
Supply at 11 kV and above	5.40

For consumers who do not have the exemption but are found using the electricity during peak load hours will have to pay the following Peak Load Violation Charge. The penal rate shall be applicable only to the consumption during peak load hours. Consumers violating the peak load hour restriction and not having meters capable of distinguishing between peak time and other consumption will be charged the penal rate for 50 % of the entire consumption for the month. In case a consumer violates the peak time restriction five times, the connection would be disconnected.

Peak load violation charges

Description	PLVC (Rs./kWh)
Supply at less than 11kV	9.30
Supply at 11 kV and above	8.10

5. kVAh based equivalent approved tariff for WPS

DESCRIPTION	ALL CONSUMERS
Energy Charge (Rs/kVAh)	
Supply at less than 11kV	2.20
Supply at 11 kV and above	1.85
Demand Charge (Rs./kVA/month)	
Supply at less than 11kV	125
Supply at 11 kV and above	125
Consumer Service Charge (Rs/month/consumer	
Supply at less than 11kV	100
Supply at 11 kV and above	100

6. PLEC in regard to the kVAh tariff

PLEC for peak time consumption

DESCRIPTION	PLEC
	Rs./kVAh
Supply at less than 11kV	4.40
Supply at 11 kV and above	3.70

7. PLVC IN REGARD TO THE KVAH TARIFF

Peak Load Violation Charges

DESCRIPTION	Plvc
	Rs./kVAh
Supply at less than 11kV	6.60
Supply at 11 kV and above	5.50

8. Night time concession

A night-time concession of 20 paise/kVAh on consumption of energy between 00.00 hours to 06.00 hours shall be given. This concession will be available only where electronic tri-vector meters have been installed.

9. Pump house lighting

All consumption for bonafide Pump House lighting shall be included for charge under the above tariff.

10. Power factor surcharge

Power factor surcharge shall be applicable as per the provisions under "Part-I-General" of this notification.

11. Rebate for supply at higher voltage

The consumers who take supply under this Schedule at voltage higher than 11/22 kV shall get the rebate at the following percentages on the amount of energy charges. No rebate shall, however, be given on the Consumer Service charge or Demand Charge.

Supply Voltage	Rebate
33 kV	1.5%
66 kV	2%
132 kV	2.5%
220 kV	3%

SCHEDULE - AGRICULTURAL PUMPING SUPPLY (APS)

1. **Applicability**

This schedule is applicable to Irrigation Pumping loads with connected load not exceeding 20 kW. Private Irrigation loads in individual/ society's names above 20 kW shall also be covered under this tariff.

NOTE

i) For other Industrial type of Agricultural loads such as Air Conditioning for growing of mushrooms etc., threshers, heaters for defrosting in orchards or providing flood lights for scaring away the birds and animals and spraying etc. in the field, the relevant industrial tariff shall apply.

ii) Agricultural pumping consumers in rural areas are allowed to run chaff cutters, threshers and cane crushers on their motors under this schedule subject to the condition that the total connected load does not exceed 20 kW. However, in case of separate connection for the above purpose the relevant industrial tariff shall be applicable. Also in case of any other industrial load being run along with the "AP" supply, the entire supply will be billed under relevant industrial tariff.

2. Character of service

A.C, 50 C/S, single phase, 230 Volts or 3 - phase 400 volts.

3. **Tariff**

Consumer Service Charge (Part-1)

Description	Consumer Service Charge (Rs/month/consumer)
All consumers	20

Energy Charge (Part-2)

Description	Energy Charge (Rs./kWh)
All consumption	0.50

4. Peak load exemption charges (PLEC) and peak load violation charges (PLVC)

Consumers who wish to avail of this facility will have to get tri-vector meters installed that are capable of recording energy consumption at 30 minutes interval. The following PLEC would be applicable for consumption during peak load hours only.

Part–1: Demand charge of Rs 85/kVA/month to be levied on the maximum-recorded demand or 80% of the contract demand, for peak load hours, whichever is higher.

Part –2: Energy Charge for consumption during peal load hours

Description	PLEC (Rs. /kWh)
AP Supply	1.00

For consumers who do not have the exemption but are found using the electricity during the peak load hours will have to pay the following Peak Load Violation Charge. This penal rate will be applicable to the consumption during the peak load hours only. Consumers violating the peak hour restriction and not having meters capable of distinguishing between peak time and other consumption will be charged the penal rate for 50 % of the entire consumption for the month. In case a consumer violates the peak time restriction five times, the connection would be disconnected.

Part–1: Demand charge of Rs 85/kVA/month to be levied on the maximum-recorded demand or 80% of the contract demand, for peak load hours, whichever is higher.

Part –2: Energy Charge for Peak load violation

Description	PLVC

	Rs./kWh
AP Supply	1.50

5. Pump house lighting

Only one bulb of not more than 100 watts shall be allowed for pump house lighting and consumption for lighting shall also be charged at the above agricultural tariff but will be metered separately.

6. Power factor surcharge

Power factor surcharge shall be applicable as per the provisions under "Part-I-General" of this notification.

SCHEDULE - BULK SUPPLY (BS)

1. **Applicability**

This schedule is applicable to general or mixed loads exceeding 20 kW to M.E.S and other Military establishments, Railways, Central PWD Institutions, Construction power for Hydro-Electric projects, Hospitals, Departmental colonies, A.I.R Installations, Aerodromes and other similar establishments/institutions where further distribution to various residential and non-residential buildings is to be undertaken by the consumer.

2. **Character of service**

A.C, 50 C/S, 3-phase, 400 Volts or 11000 volts or above as may be given at the discretion of the supplier.

3. **Tariff**

Consumer Service Charge (Part-1)

Description	Consumer Service Charge (Rs/month/consumer)
All consumers	100

Energy Charge (Part-2)

Description	Energy Charge (Rs./kWh)
Supply at less than 11kV	3.50
Supply at 11kV and above	3.15

4. **Equivalent kVAh based tariff**

DESCRIPTION	EQUIVALENT KVAH BASED TARIFF		
	ENERGY CHARGE	CONSUMER SERVICE CHARGE	DEMAND CHARGE
BULK SUPPLY (ABOVE 20 KW)	RS.KVAH	RS./CON//MONTH	RS./KVA/ MONTH
LT	2.50	100	40
HT	2.10	100	50

5. **Rebate for supply at higher voltage**

The consumers who take supply under this Schedule at voltage higher than 11 kV shall get the rebate at the following percentages on the amount of energy charges. No rebate shall however be given on the Consumer Service charge or Demand Charge.

Supply Voltage	Rebate
33 kV	1.5%
66 kV	2%
132 kV	2.5%
220 kV	3%

SCHEDULE - STREET LIGHTING SUPPLY (SLS)

1. **Applicability**

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.

2. **Character of service**

AC, 50 C/S, single phase, 230 volts or 3 phase, 400 volts.

3. **Tariff**

Consumer Service Charge (Part-1)

Description	**Consumer Service Charge (Rs/month/consumer)**
All consumers	50

Energy Charge (Part-2)

Description	**Energy Charge (Rs./kWh)**
All consumption	2.85

4. **Line maintenance and lamp renewal charges**

Line Maintenance and lamp renewal charges shall be charged in addition to the energy charges. These charges shall be charged at the following rates:

(A) Where the bulbs, tubes etc. are to be provided and replaced at the cost of the Board, the line maintenance and renewal charges shall be levied as under:

Description	**Charge**
	Rs./point/month
(a) Bulbs all wattage	14
(b) Mercury vapour lamps up to 125 watt	40

(c) Mercury vapour lamps 126 watt to 400 watt	95
(d) Fluorescent 2 ft. 20 watt single tube fixture	21
(e) Fluorescent 2 ft. 20 watt double tube fixture	35
(f) Fluorescent 4 ft. single tube fixture	35
(g) Fluorescent 4 ft. double tube fixture	48

Note:

(a) For special type of fixtures like sodium and neon vapour lamps, fittings or any other fixtures not covered above, the material for maintenance of the fixtures and the lamps for replacement shall be provided by the Public Lighting consumers themselves and only replacement charges shall be levied.

(b) When the bulbs/Mercury vapour lamps/tubes and other accessories are provided by the Public Lighting consumers and only replacement is to be done by the Board, Line Maintenance and lamp renewal charges shall be as under:

Description	**Charge**
	Rs./point/month
Bulbs	7
Tubes and MVL etc	12
Sodium/Neon Vapour lamps or any other special fixture not covered above	18

SCHEDULE - TEMPORARY METERED SUPPLY (TM)

1. Applicability

This schedule is applicable to all loads of temporary nature including exhibitions, touring talkies, circuses, fairs, melas, marriages, festivals, temporary agricultural loads such as wheat thrashers, paddy thrashers, temporary supply for construction purposes including civil works by Government departments and other similar purposes for temporary needs only.

2. **Character of service**

AC, 50 C/S, single phase, 230 volts or 3 phase, 400 volts or 11 kV and above.

3. **Tariff**

Consumer Service Charge (Part-1)

Description	**Consumer Service Charge (Rs/month/consumer)**
All consumers	100

Energy Charge (Part-2)

Description	**Energy Charge (Rs./kWh)**
All consumption	6

Note

i) Temporary supply shall be distinctly wired on a separate circuit and measured with a separate meter in all cases.

4. Service and meter rentals etc.

In case the meter and service is provided by the supplier, the consumer shall be charged rate as prescribed in the schedule of general and service charges.

5. Erection and dismantling charges

Actual labour charges (i.e. erection & dismantling charges) plus 50% departmental charges on the cost of labour charges, shall be recoverable from the consumers in addition to the rentals on service & meter etc. irrespective of the fact whether material is provided by the consumer or by the Board.

6. Advance consumption deposit

Advance consumption deposit will be charged at Rs 400 per kW of connected load or part thereof of the connected load.

7. **Power factor surcharge**

Power factor surcharge shall be levied as per provisions under "Part-I-General" of this notification.

ANNEXURE-3

Govt. of H.P. letters dated May 29, 2002 and June 28, 2004

FAX NO: 2627162 Most Immediate

No. MPP-C(3)-1/89-I-loose
Government of Himachal Pradesh,
Department of MPP & Power.

From

The Chief Secretary-cum-Secy.(Power) to the
Government of Himachal Pradesh, Shimla-2.

To

The Secretary,
H.P. Electricity Regulatory Commission,
Keonthal Estate, Khalini, Shimla-171 002.

Dated: Shimla-2, the 28-06-2004.

Subject: - Provision of Subsidy by State Govt.

Sir,

I am directed to refer to your letter No. HPERC/CHM/452/NKV-03-5912 dated 15th June, 2004 on the subject above cited and to say that the Govt. has already conveyed its decision, to Hon'ble Commission vide this office letter/endorsement No. MPP-C(3)-3/90-IV dated 29th May, 2002. The Govt. decision and the present rates of domestic tariffs with Govt. subsidy has to continue.

Yours faithfully,
Sd/-
Joint Secretary(Power)
to the Govt. of H.P.

Endst.No. Even No.   Dated Shimla-2 the,

1. Copy forwarded for information to the Chief Engineer (Commercial), HPSEB, Vidyut Bhawan, Shimla-4 for information please.

Sd/-
Joint Secretary(Power)
to the Govt. of H.P.

FAX NO: 203600 OUT TODAY

No. MPP-C(3)-3/90-IV CONFIDENTIAL

Government of Himachal Pradesh,

Department of MPP & Power.

From

The Principal Secretary(Power) to the
Government of Himachal Pradesh.

To

The Chairman,
H.P. State Electricity Board,
Vidyut Bhawan, Shimla-171 004.

Dated: Shimla-2, the May 2002.

Subject: - Decision regarding restoration of old rates for the domestic consumers as were prevalent before the hike in tariff on 1-11-2001.

Sir,

I am directed to inform you that the matter regarding charging of domestic power tariff was placed before the Cabinet for consideration on 27-5-2002 who have decided as under:-

"The Cabinet deliberated the proposal in detail and approved that directions be issued to HPSEB to restore status quo ante in the matter of charging tariff from the domestic consumers which were prevalent before 1-11-2001 i.e. before the date the domestic tariff was hiked by the HPERC. This decision will be effective from 1st June, 2002. Further while taking the above decision the Cabinet observed that the Government shall compensate the losses on this account to HPSEB. The Cabinet also directed that HPSEB should improve its efficiency to reduce its losses."

2. You are, therefore, requested to take further necessary action in the matter within stipulated period and compliance be sent to this Department, immediately.

Yours faithfully,
Sd/-
Secretary(Power)
to the Govt. of H.P.

Endst.No. MPP-C(3)-3/90-IV dated 29th May, 2002.

1. Copy forwarded for information to the Chairman, HPERC, Keonthal Estate, Khalini, Shimla-2.

2. Copy to Additional Secretary(GAD) to the Government of Himachal Pradesh, Shimla-2, for information please.

Sd/-
Secretary(Power)
to the Govt. of H.P.

Annexure 4

List of objectors and Representatives of Unorganized Domestic Consumer Groups

Sr. No.	Name and address of the Objector
1.	Ms Veena Sharma, W/O Sh. Roop Lal Sharma, Vill. & P.O.: **Talyana**, Distt. Bilaspur (H. P.)
2.	Sh. L. B. Khatri, AE (E&M), O/O Commander Works Engineer, Shimla Hills, Jutogh-171008, Shimla
3	Sh. M. S. Kalra, Secretary, Sirmaur Consumers Protection Society, Shivchandra Niwas, Behind I.T. I, Shamsehrpur, Paonta Sahib-173025 (H.P.).
4	Sh. J. N. Singh, Executive Director, Ruchira Papers Limited, Trilokpur Road, Kala-Amb-173030 Distt. Sirmaur.
5	Sh. Umesh Garg, President, Kala-Amb Chamber of Commerce and Industry, Triolkpur Road, Kala-Amb-173030. District Sirmaur.
6	Sh. Sunil Taneja, Chairman CII, Sector 31-A, Dakshin Marg, Chandigarh-160030.
7	Sh. Rakesh Bansal, General Secretary, Parwanoo Industries Association, Sector-6 (Rotary Vocational & Community Centre) Parwanoo-173220.
8	Sh. Mohan Chauhan, Commissioner, Municipal Corporation, Shimla.
9	Sh. Daljeet Singh Ghai, ACC Gagal Cement Works, P.O. Barmana, Distt. Bilaspur.
10	Sh. Vinod Kumar Aggarwal, Secretary, Sri Sanatan Dharam Sabha (regd.) Radha Krishan Mandir, Ganj, Shimla171002.
11	Arun Goyal, General Secretay Himachal Chamber of Commerce and Industry, Regency Complex, River View Lane, Shamsherpur, Paonta Sahib-173025.
12	Dr. B. P. Dhaka, Secretary General, PHD Chamber of Commerce and Industry, PHD House, 4/2, Siri Institutional Area, August Kranti Marg New Delhi110016.
13	Sh. Bhushan Gulati, President, LS Consumers Forum, Venkateshwari Ferro Alloys Pvt. Ltd. Gondpur Industrial Area, Paonta Sahib.
14	J.C. Toshniwal, Jt. President, Gujrat Ambuja Cements Ltd. PO Darlaghat-171102 The Arki, distt. Solan.
15	Sh. Balram Chandel, President, Mehatpur Industries Association, Mehatpur, Distt. Una.
16	Sh. J. K. Kapoor, Managing Director, Himachal Special Steels (India) Pvt. Ltd., 91-92, Industrial Area, Paonta Sahib, Distt. Sirmaur.
17	Sh. Deepak Bhandari, Sr. Vice President, BBN Industries Association, Nalagarh, Distt. Solan

18	Sh. Hans Raj Sharma, Joint Secretary (Power) to the Govt. of Himachal Pradesh, Shimla-2.
19	Sh. M. K. Seth, Hotel Lords Grey, Near Victory Tunnel, Shimla
20	Sh. Arun Kuthiala, General Secretary, Co-ordination Committee, Himachal Pradesh Beopar Mandal, 3 M. C. Complex (Near Tunnel) Lower Bazar, Shimla.
21	Secretary, Sood Sabha Shimla, Shri Ram Mandir Complex, Ram Bazar, Shimla-171001.
22	Sh. Ajay Garg, DGM (F&B), UJVNL, Ujjwal Maharani Bag, GMS Road, Dehradun.
Representatives of Unorganized Domestic Consumer Groups	
1	Sh. R. K. Gupta, Seva Niwas, Engine Ghar, Sanjauli, Shimla-6.
2	Ms Mala Singh, Councilor, Municipal Corporation, Shimla-171001
3	Sh. Ashok Mahajan, Arya Niwas, Khalini, Shimla-2
Consumer Representative appointed by the Commission under section 94 (3) of the Electricity Act, 2003	
1	Sh. P. N. Bhardwaj, ARCADIA, PO: Dharampur-173209, Distt. Solan.