

**First Annual Performance Review Order
For 3rd MYT Control Period (FY15-FY19)
&
Determination of Tariff for FY16
For
Himachal Pradesh State Electricity Board Limited
(HPSEBL)**



**Himachal Pradesh Electricity Regulatory
Commission
April 10, 2015**

**BEFORE THE HIMACHAL PRADESH ELECTRICITY REGULATORY COMMISSION AT
SHIMLA**

CASE NO: 219/2014

CORAM

SUBHASH CHANDER NEGI

IN THE MATTER OF:

Approval of the Aggregate Revenue Requirement (ARR) for FY16 and the First Annual Performance Review (APR) of the Third MYT Order for the Control Period (FY15-FY19) under sections 62, 64 and 86 of the Electricity Act, 2003

AND

IN THE MATTER OF:

Himachal Pradesh State Electricity Board Limited

... APPLICANT

The Himachal Pradesh State Electricity Board Limited (hereinafter called the 'HPSEBL') has filed a petition with the Himachal Pradesh Electricity Regulatory Commission (hereinafter referred to as 'the Commission' or 'HPERC') for First Annual Performance Review (APR) of the Third MYT Control Period (FY15 - FY19) and approval of Aggregate Revenue Requirement (ARR) and determination of Wheeling and Retail Supply Tariff for FY16 under Sections 62, 64 and 86 of the Electricity Act, 2003 (hereinafter referred to as "the Act"), read with the HPERC (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2011 (hereinafter referred to as "The Regulations, 2011").

The Commission having heard the applicant, interveners, consumers and consumer representatives of various consumer groups on March 4, 2015 at Shimla and having had formal interactions with the officers of the HPSEBL and having considered the documents available on record, herewith accepts the applications with modifications, conditions and directions specified in the following Tariff Order.

The Commission has determined the ARR of the distribution business of HPSEBL for FY16 under Third MYT Control Period (FY15-FY19) and approved the Wheeling and Retail Supply Tariffs for FY16 in accordance with the guidelines laid down in Section 61 of the Electricity Act, 2003, the National Electricity Policy, the National Tariff Policy and the regulations framed by the Commission that stipulate that the Wheeling and Retail Supply Tariff shall be

decided every year taking into account adjustments on account of allowed variations in uncontrollable parameters.

The Commission, in exercise of the powers vested in it under Section 62 of the Electricity Act, 2003, orders that the approved Tariffs together with “Schedule of General and Service Charges” shall come into force w.e.f. 1st April, 2015.

The tariff determined by the Commission shall, within the period specified by it, be subject to compliance of the directions-cum-orders to the satisfaction of the Commission and non-compliance shall lead to such amendment, revocation, variation and alteration of the tariff as may be ordered by the Commission.

In terms of sub-regulation (6) of Regulation 3 of the Regulations, 2011, the Wheeling and Retail Supply Tariff shall, unless amended or revoked, continue to be in force up to March 31, 2016. In the event of failure on the part of the licensee to file application for true-up for FY15 and approval of Wheeling and Retail Supply Tariff for the ensuing financial year, in terms of Regulation 37 of the Regulations, 2011 on or before November 30, 2015, the tariff determined by the Commission shall cease to operate after March 31, 2016, unless allowed to be continued for further period with such variations or modifications as may be ordered by the Commission.

In terms of sub-regulation (5) of Regulation 42 of the Regulations, 2011, the consequential orders which the Commission may issue to give effect to the subsidy that the State Government may provide, shall not be construed as amendment of the notified tariff. The licensee shall, however, make appropriate adjustments in the bills to be raised on consumers for the subsidy amount in the manner as the Commission may direct.

The Commission further directs the licensee to publish the tariff in two leading newspapers, one in Hindi and the other in English, having wide circulation in the State within 7 days of the issue of the Tariff Order. The publication shall include a general description of the tariff changes and its effect on the various classes of consumers.

The HPSEBL is directed to make available the copies of the Tariff Order to all concerned officers up to AE level, and sub-divisions within two weeks of issue of this Order. The HPSEBL may file clarificatory petition in case of any doubt in the provisions of the Tariff Order, within 30 days of issue of the Tariff Order.

Shimla

Dated: April 10, 2015

Sd/-
(Subhash Chander Negi)
Chairman

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1 Introduction

Background

1.1 Himachal Pradesh Electricity Regulatory Commission

1.1.1 The Himachal Pradesh Electricity Regulatory Commission (hereinafter referred to as 'HPERC' or 'the Commission') constituted under the Electricity Regulatory Commission Act, 1998 came into being in December 2000 and started functioning with effect from 6th January, 2001. After the enactment of the Electricity Act, 2003 on 26th May, 2003, the HPERC has been functioning as statutory body with a quasi-judicial and legislative role under Electricity Act, 2003.

Functions of the Commission

1.1.2 As per Section 86 of the Electricity Act, 2003, 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 co-generation 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 licence;

- 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 Indian Electricity Grid Code specified with regard to grid standards;
- 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; and
- k) discharge such other functions as may be assigned to it under this Act.

1.1.3 The State Commission shall advise the State Government on all or any of the following matters, namely

- a) promotion of competition, efficiency and economy in activities of the electricity industry;
- b) promotion of investment in electricity industry;
- c) reorganization and restructuring of electricity industry in the State;
- d) matters concerning generation, transmission, distribution and trading of electricity or any other matter referred to the State Commission by State Government.

1.2 History of HPSEBL

1.2.1 Electricity supply at the time of formation of the State in 1948 was available only in the capital of the erstwhile princely states and the connected load at the time was less than 500 kW. First electrical division was formed in August 1953 under the Public Works Department and subsequently a Department of Multi-Purpose Projects and Power was formed in April 1964 after realizing the need for exploiting the substantial hydel potential available in the river basins.

1.2.2 Himachal Pradesh State Electricity Board was constituted in accordance with the provisions of Electricity Supply Act (1948) in the year 1971. Thereafter, all functions of the Department of Multi-Purpose Projects and Power such as generation, execution of hydroelectric projects except functions of flood control and minor

irrigation were transferred to the Board.

- 1.2.3 In accordance with provisions of the Act, the functions, assets, properties, rights, liabilities, obligations, proceedings and personnel of Himachal Pradesh State Electricity Board (HPSEB) were vested with the Government of Himachal Pradesh vide Notification No. MPP-A(3)-1/2001-IV dated 15th June, 2009. These functions, assets, properties, rights etc earlier vested with the Government of Himachal Pradesh were re-vested into corporate entities namely Himachal Pradesh State Electricity Board Limited (HPSEBL) and Himachal Pradesh Power Transmission Corporation Limited (HPPTCL) vide the 'Himachal Pradesh Power Sector Reforms Transfer Scheme in accordance with the provisions of the Act and were notified vide No. MPP-A(3)-1/2001-IV, dated 10th June, 2010. The HPSEBL, thus, came into being with effect from the date of re-vesting i.e. 10th of June, 2010. In the said transfer scheme the functions of generation, distribution and trading of electricity have been entrusted with the HPSEBL.
- 1.2.4 The Himachal Pradesh State Electricity Board Limited (hereinafter referred to as 'HPSEBL' or 'Licensee' or 'the Petitioner') is a deemed licensee under the first proviso to Section 14 of the Electricity Act, 2003 (hereinafter referred to as 'the Act') for distribution and supply of electricity in the State of Himachal Pradesh.

1.3 Overview of HPSEBL

- 1.3.1 The HPSEBL is a vertically integrated utility and is entrusted with the functions of generation, distribution and trading of power in the State of Himachal Pradesh. The HPSEBL is responsible for the development (planning, designing, and construction), operation and maintenance of power distribution system in Himachal Pradesh. Investigation & exploitation of hydro potential of the State either through State Sector or through Central, Joint and Private Sectors is also entrusted with the HPSEBL. The HPSEBL has share of power in Central Sector stations while it also imports power from neighbouring states.
- 1.3.2 Operation and maintenance of the distribution system in the HPSEBL is carried out by its Operation Wing, which has three zones - North, Central and South, each being headed by a Chief Engineer. There are 12 Operation Circles under all the above Operation Wings. The geographical area of the Circles is not strictly as per the territorial jurisdiction of districts.
- 1.3.3 The total installed capacity of generation of the HPSEBL is 481 MW and total line length (HT & LT) is approx 96300 km. Despite extreme geographical terrain and climate, with the population spread over far- flung and scattered areas, the State has achieved 100 percent electrification of towns and villages in 1988.

1.4 Multi Year Tariff Framework and Filing of First APR of 3rd MYT and Tariff Petition for FY16

- 1.4.1 The Commission has adopted Multi Year Tariff (MYT) principles for determination of tariffs, in line with the provision of Section 61 of the Act. The MYT framework is designed to provide predictability and reduce regulatory risk. This can be achieved by approval of a detailed capital investment plan for the Petitioner, considering the expected network expansion and load growth during the Control Period. The longer time span enables the Petitioner to propose its investment plan with details on the possible sources of financing and the corresponding capitalization schedule for each investment.
- 1.4.2 The HPERC notified the HPERC (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2007 and subsequently HPERC (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2011 were notified. The Commission carried out the amendments in the MYT regulations of 2011 during the month of November, 2013 to

incorporate the need based changes keeping in view the experience gained by the commission during last two control periods, Model Tariff Regulations issued by the Forum of Regulators, recommendations of the Forum of Regulators and various progressive measures adopted by other Electricity Regulatory Commissions.

- 1.4.3 The Commission had adopted three year control periods during the first and the second MYT control periods. Since the Commission had gained sufficient experience in this regard, it was considered appropriate to move towards a five-year Control Period as per the recommendations in the National Tariff Policy. Accordingly the Commission vide notification dated 1st November 2013, in exercise of the powers conferred by Clause (9) of Regulation 2 of the Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2011, fixed the period of five years starting from 1 April 2014 as the third multi-year Control Period.
- 1.4.4 In accordance with the MYT regulations, the Commission issued 3rd MYT Order for distribution business of HPSEBL on 12th June, 2015.
- 1.4.5 The HPSEBL has filed petition with the HPERC for First Annual Performance Review (APR) of the Third MYT Control Period (FY15 - FY19) and approval of Aggregate Revenue Requirement (ARR) and determination of Wheeling and Retail Supply Tariff for FY16 under Sections 62, 64 and 86 of the Electricity Act, 2003, read with the HPERC (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2011.
- 1.4.6 This is the first Annual Performance Review Order under the 3rd MYT Control Period. It relates to determination of revised Aggregate Revenue Requirement of HPSEBL for FY16 under the Third Multi Year Tariff control period based on actual values of FY14 and approval of Wheeling and the Retail Supply Tariffs for FY16 based on the updated information submitted by HPSEBL.
- 1.4.7 As per the MYT Regulations, Wheeling and Retail Supply Tariff shall be decided every year taking into account the adjustment on account of allowed variations in uncontrollable parameters based on the Annual performance review petition filed by the Licensee.

1.4.8 The Commission has reviewed the operational and financial performance of HPSEBL and has finalised this Order based on the review and analysis of past records, information submissions, necessary clarifications submitted by the licensee and views expressed by the stakeholders.

1.5 Admission of Petition and Interaction with the Petitioner

1.5.1 The HPSEBL filed the application for First Annual Performance Review (APR) of the Third MYT Control Period (FY15-FY19) along with approval of ARR and determination of Wheeling and Retail Supply Tariff for FY16, with the Commission on 28th November, 2014. On various observations/ deficiencies pointed out by Commission, HPSEBL submitted further details subsequently. The Commission admitted the petition submitted by HPSEBL vide its interim order dated 27th January, 2015. M/s Deloitte Touche Tohmatsu India Private Limited has been appointed as Consultant to assist the Commission in the assessment of the ARR and determination of the relevant tariffs during the Third MYT Control Period.

1.5.2 There have been a series of interactions between the HPSEBL and the Commission, both written and oral, wherein the Commission sought additional information/ clarification and justifications on various issues, critical for the analysis of the petition.

1.5.3 The petitioner was asked to remove various deficiencies/ provide additional information vide following HPERC communications

- (a) HPERC/MYT3APR1/HPSEBL/2014-15-2876 dated 06.12.2014.
- (b) HPERC/MYT3APR1/HPSEBL/2014-15-3366-67 dated 03.01.2015.
- (c) HPERC/MYT3APR1/HPSEBL/2014-15-3444 dated 09.01.2015.
- (d) HPERC/MYT3APR1/HPSEBL/2014-15-4109 dated 11.03.2015.

The queries raised by the Commission vide above mentioned letters were partially replied by HPSEBL. However non submission of the complete information remained a major bottleneck.

1.5.4 The submissions made by the Petitioner, to the clarifications/ information sought by the Commission from time to time, as detailed hereunder, have also been taken on record:

Table 1: Communication with the Petitioner

No	Submission of the Petitioner
1	M.A No 232/2014 dated 20 th December, 2014
2	M.A. No 8/2015 dated 23 rd January, 2015
3	M.A No 13/2015 dated 31 st January, 2015
4	M.A No 25/2015 dated 28 th February, 2015
5	M.A. No 44/2015 dated 20 th March, 2015
6	M.A. No. 52/2015 dated 2 nd April, 2015

Public Hearings

1.5.5 The Commission issued an interim order to the HPSEBL on 27th January, 2015 for publishing a summary of the salient features of the petition for the information of all the stakeholders. In compliance to the order, the HPSEBL published the salient features of the petition in the following newspapers:-

- a. The Tribune– 31st January, 2015.
- b. Amar Ujala – 31st January, 2015
- c. The Times of India – 2nd February, 2015
- d. Divya Himachal –2nd February, 2015.

1.5.6 The Commission invited suggestions and objections from the public on the tariff petition in accordance with Section 64 (3) of the Act subsequent to the publication of initial disclosure by the HPSEBL. The public notice inviting objections/ suggestions was published in the following newspapers:-

- a. The Tribune (Chandigarh, Jalandhar and Bhatinda Edition) – 3rd February, 2015.
- b. The Amar Ujala (Chandigarh and Dharamsala Edition) - 3rd February, 2015.

1.5.7 The interested parties/stakeholders were asked to file their objections and suggestions on the petition by 20th February, 2015. The date of filing replies by HPSEBL was fixed on 26th February, 2015.

1.5.8 The Commission received objections from 7 stakeholders by the stipulated date. The HPSEBL filed its replies to the objections/ suggestions set out by various objectors vide M.A No 25/2015, a copy of which was also sent to the individual objectors. The objectors were also allowed to file rejoinder, if any, to the Commission with a copy to

the Petitioner till 4th March, 2015.

- 1.5.9 The Commission issued a public notice informing the public about the scheduled date of public hearing. All the parties, who had filed their objections/ suggestions, were also informed about the date, time and venue for presenting their case in the public hearing.
- 1.5.10 Public hearing on the HPSEBL's petition was held on 04th March, 2015 at the Commission's Court Room in Shimla.
- 1.5.11 The issues and concerns voiced by various objectors have been carefully examined by the Commission. The major issues raised by the objectors in their written submission as well as those raised during the public hearing, have been summarized in Chapter 4 of this Order.

2 Interaction with Management of HPSEBL and Compliance of Decisions

2.1 Introduction

2.1.1 The Commission is having frequent interactions on continuing basis with the management of HPSEBL to understand the constraints, viewpoint and shape the strategies and future vision of HPSEBL. During the current tariff determination process, the Commission interacted with the management of HPSEBL on 17th December, 2014 and 13th February, 2015. The minutes of these meetings were circulated vide HPERC letter nos. 3244-53 dated 27.12.2014 and 4034-39 dated 07.03.2015 respectively.

2.1.2 The relevant extracts of the decisions in these interactive sessions are reproduced hereinafter.

Interactive Session held on 17th December, 2014

2.2 Power Procurement Planning for FY 16 to FY 19

2.2.1 For prudent, efficient and cost effective management of procurement and disposal of surplus power, the following consensus/ action points were arrived at:

2.2.2 Based on the actual growth pattern the sales projections for FY16 to FY 19 need to be recast. HPSEBL stated that the growth in sales during FY15 is expected to be around 7% and for the remaining years of the control period it is expected to be around 5%.

2.2.3 For purchasing power for supply within the state (including contingent surplus), HPSEBL shall follow the merit order principle. The surplus power purchased by HPSEBL is the costliest power at margin and hence should be avoided and if unavoidable due to PPA obligations, this should be disposed of in such a manner

that it does not encumber the consumers of the state as this power is not required for supply within the state. HPSEBL shall try to sell this surplus power at such a rate so that it fetches at least minimum of its power purchase cost.

- 2.2.4 HPSEBL informed that it has surrendered its SOR share to the extent of 342 MUs in costly hydel plants such as Koldam, Parvati-III, Chamera-III, Tehri and Koteshwar and is trying to surrender the SOR share to the tune of 350 MUs from costly thermal stations from Anta, Auriya and Dadri from 01.04.2015 onwards without any liability.
- 2.2.5 HPSEBL shall take a call whether it will be prudent to pay the capacity charges for the costly thermal power in case it is not able to surrender the SOR share from these stations. To offset the effect of this, HPSEBL shall make efforts to buy cheaper RE, GoHP free Power and also cover the losses due to capacity charges by sale of cheaper power on higher rates.
- 2.2.6 The SOR share surrendered by HPSEBL in various stations shall be balanced out by reduced energy requirement due to revised lower projections of sales and higher purchase of power quantum from SHPs. HPSEBL informed that it also plans to buy additional GoHP free power from Bairasuil, Chamera-I and Chamera-II HEPs. However, if required, HPSEBL shall procure GoHP free power on long term basis throughout the year and decision to this effect shall be taken after taking in to consideration the effective cost of free power after considering the losses and PGCIL & other charges.
- 2.2.7 The green power purchase estimate are almost in line with the actual trend observed barring Nathpa Jhakari HEP for which the cost is expected to be higher due to revised capital cost determined by the CERC. However the power purchase from most of the thermal stations is expected to be much higher due to higher fuel cost. This reinforces the repeated advice given by the Commission that the purchase of thermal power should be avoided to the maximum possible extent and for future PPAs, only green power generated in the State should be the source.
- 2.2.8 HPSEBL shall work out the strategy to avoid double payment of transmission charges for long term capacity as well as short term OA charges for banking and interstate sales transactions of seasonal surpluses.

2.2.9 HPSEBL informed that it has institutionalized the process of review of monthly/ fortnightly forecasting of power requirement as well as procurement and trading strategies to economize the power purchase cost and optimize revenue from sale of surplus power. HPSEBL was requested to furnish the details/ copy of the constitution of Committee and endorse the copy of proceedings of all meetings to the Commission.

2.3 Solar Power Generation in the State

2.3.1 The issue regarding the setting up of Solar Roof Top and other installations for net metering purposes was discussed in detail and the following decisions were taken.

2.3.2 It was advised that HPSEBL should also avail the benefit of Institutional Subsidy available from GOI. Chief Engineer (Generation), HPSEBL informed that 4 to 5 MW capacity has been identified for which action should be taken parallelly i.e. approvals in coordination with HIMURJA, from GOI as wells as calling tenders for reverse bidding to save time.

2.3.3 The tariff for Solar Generation upto 1 MW Capacity shall be at regulated tariff as determined by the Commission and above 1 MW Capacity the tariff shall be through Competitive Reverse Bidding. However, initially for demonstrative purposes regulated tariff may be upto 5 MW. Presently the Solar Tariff as per Solar Corporation of India is Rs. 5.50/ unit and as per CERC is about Rs. 7.00/unit. However, HPSEBL has to take prudent call to whether to go for Solar Generation or to consider the REC Certificate, for which the Floor Price is presently Rs. 3.50/ unit till solar technology rates become competitive. It should also be taken into account by HPSEBL that by 2022, about 250 MW Solar Generation Capacity is to be installed for meeting the RPPO.

2.3.4 HPERC has initiated the process for identifying the sites by requesting the Field Superintending Engineers of HPSEBL and taking the services of NITs for creating feasibility for the large Solar Capacities. Primarily it was emphasized that the sites shall be near the Load Centers to facilitate the evacuation facilities with least cost and reduced losses etc. HPSEBL supported action initiated by the Commission.

2.3.5 To start with, net metering will be implemented with HT & EHT consumers. The consumers falling under item LT connection could be covered in a different formulation as small capacities may not be viable in the net metering concept.

MNRE/ FOR adjustments formulation should be evolved keeping in view of MNRE subsidies for institutions and private individuals.

- 2.3.6 In case of LT consumers, it was decided that the HPSEBL shall prepare a proposal for the remote areas like Pangti, Dodrakwar, Lahaul & Spiti and other Tribal & Backward areas classified by the H. P. Govt. where grid is available but is not reliable because of weather conditions, so as to ensure 24x7 supply.
- 2.3.7 The installation of small rooftop system of 1kW or Home Lighting Systems shall be considered in coordination with HIMURJA in the above areas and shall be further supplemented by LED lighting due to limited generation capacity by using demand side management. All such factors shall be considered for preparing such proposal and HPERC shall give adequate regulatory support for this.
- 2.3.8 HIMURJA has also given the details of some installed Solar Plants and sanctioned Solar Plants:

Solar Plants Installed:

1. Badu Sahib (Sirmaur) = 200 kWp
2. DC Offices in H. P. = 48 kWp
3. Police Stations/ Posts = 432 kWp
4. HP Sectt. Shimla = 6.5 kWp
5. Rancer Island (Pong Dam) = 10 kWp
6. Kibber (Lahaul & Spiti) = 10 kWp

Solar Power Plants Sanctioned:

1. HP Sectt. Shimla = 100kWp
2. HIPA Shimla = 100kWp
3. HP High Court = 100 kWp
4. HP University = 50 kWp
5. HP Vidhan Sabha = 20 kWp
6. The Ridge = 20 kWp
7. HRTC Bus Stand = 20 kWp
8. Panchayat Bhawan Shimla = 15 kWp

2.4 Customer Care and grievances redressal

- 2.4.1 The first and foremost requirement for effective customer care is that the procedures laid down by the distribution licensee should be transparent, simple and objective so as to doing the business is easy. To ensure quality of service to the customers, the standards of performance have to be laid down and the distribution licensee has to abide by these standards.

2.4.2 To ensure that the grievances of customers are timely and effectively addressed, a robust grievances redressal system has to be there. All the institution as mandated in the Electricity Act, 2003 such as FRGC and Electricity Ombudsman are in place. However, these institutions have not been able to achieve their desired results as it has been noticed that:

- a) The number of customers approaching FRGC and EO are very small.
- b) Most of the grievances are only related to billing.
- c) Mostly industrial customers are approaching FRGC and EO.

2.4.3 However, a large number of customer complaints are reported in the media which are related to low voltage, frequent trippings, power failures etc. It was decided that following steps need to be taken for effective customer care:

- a) Continuous network improvement and up gradation to comply with the standards of performance.
- b) The customer complaints should be welcomed as feedback on performance of HPSEBL and should be effectively handled on priority within the time frame as specified in the SOP Regulations.
- c) Forum for Redressal of Grievances of Consumers (FRGC) is an internal statutory mechanism for redressal of customer complaints. HPSEBL shall optimally utilize the FRGC by delegating it other functions such as creating customer and employee's awareness through field visits by interaction programmes.
- d) HPSEBL shall transfer the control and responsibility of 24x7 customer call centre to FRGC who shall be responsible for effective monitoring of customer complaints.
- e) Office of FRGC should be in the Board Head Quarters, directly under the control and co-ordination of management.

2.5 24x7 Supply

- 2.5.1 HPSEBL shall simplify the procedures for procurement of material and execution of works through contracts.
- 2.5.2 HPSEBL shall delegate administrative and financial powers to field officers for speedy execution of works. HPSEBL shall try to take umbrella approval for works on generic and normative basis, c/o 33 kV sub-station such as procurement of power transformers, DTRs, electronic meters, wires, poles etc. from the financial institutions and the field officers need not seek repeated approvals from management for executing these works once AA & ES for group of schemes on lump-sum basis is given.
- 2.5.3 HPSEBL informed that there were still about 6 lac electro-mechanical meters in the whole state for replacement. It was decided that HPSEBL shall take immediate necessary steps for procurement and replacement of these meters, so that people pay the real price and losses are reduced.

2.6 Issues related to HIMURJA

- 2.6.1 Himurja has done very good job in developing various micro hydel projects in the remote areas of the State. Most of these projects have been installed with aid from tribal funds and subsidies from State/ Central Govt. These projects were installed for demonstrative and development purposes and after successful commissioning of these; the role of Himurja is over. Since HPSEBL has its own generation wing looking after the operation and maintenance of hydro-electric projects, these projects can be managed more efficiently by HPSEBL. It was decided that these projects shall be transferred by Himurja to HPSEBL, after taking necessary approvals from the Principal Secretary (Power), at a cost of net investment made by Himurja after deducting the grants/ subsidies plus interest minus depreciation. The mode of payouts shall be worked out by HPSEBL and Himurja and the exercise of transfer of these projects shall be completed by 31st March, 2015. This arrangement is ideal and desirable for both the institutions and is in the ultimate benefit of the consumers of the area for which these are meant for.
- 2.6.2 It was agreed that HPSEBL and HIMURA will come to an agreed modality within a month and seek the approval of power department if required and thereafter obtain

Commissions approval so that transfer of agreed projects are operationalised w.e.f. 01.04.2015.

Interactive Session held on 13th February, 2015

2.7 Efficiency in release of New Connection and enhancement of loads:-

- 2.7.1 For early release of new connections within the time specified by the Electricity Act, the following steps shall be taken by HPSEBL/HPSERC:-
- 2.7.2 A mechanism shall be evolved for recovery of cost of service connection at normative rates for single-phase LT consumers of all categories whose service length is up to 30 meters. In such cases the applicable IDC, security deposit and cost of service connection shall be deposited by the consumers in one go.
- 2.7.3 For the consumers with service length more than 30 meters, the cost estimate of balance portion of service line (above 30 meters) shall be immediately intimated to the consumer and connection shall be released simultaneously. An undertaking shall be taken from the consumer along with A&A form for depositing the balance cost of the service connection for which the consumer shall be given grace time period till he is served first energy bill.
- 2.7.4 The requirement of NOC's for release of new connections to the owner/occupier of premises shall be studied by the Commission and necessary regulations, if not in place, shall be prepared, in accordance with the Act of 2003.
- 2.7.5 Surplus inventory of up to 20% of material purchased at Chief Engineer (MM) level such as energy meters, PVC wires, GI wire etc. shall be made available with field units at Sub-divisional level at all the times so as to minimize the delay in release of new connections. Instructions shall be issued by HPSEBL to the field units for local purchase of petty items such as wooden boards, kit kat etc.
- 2.7.6 The delegation of financial powers to Executive Engineers, Assistant Engineers and Junior Engineers shall be suitably amended by HPSEBL so that there is no delay in release of new connections due to shortage of material to be procured by such field officers. HPSEBL shall issue instructions to the field units that no material should be accepted/asked for from the consumers.

2.8 Vacancies and rationalisation of certain posts/cadres:-

- 2.8.1 Filling up posts by direct recruitment and allocation of posts to be filled up.
- 2.8.2 HPSEBL informed that process for post of 80 JEs, 80 Linemen, 50 SSAs, 20 Electricians and 677 Junior T-Mates is in process.
- 2.8.3 Since the posts of Junior T-mates are to be filled by Board itself, these shall be done expeditiously.
- 2.8.4 As against 1800 posts of Jr.T-mates to be filled in 3 yrs @ 600 per year, huge delay has taken place to complete the process even of 1st batch of 600 and hence the management will be sensitive to need for efficient recruitment process and fill up 1200 post in one go by clubbing balance sanctions.
- 2.8.5 These 1200 posts of Jr.T-mates shall be allocated Division wise, to the respective Divisions in proportion to the total sanctioned strength and not in proportion to actual vacancies so that young and trained staff are available equitably in all the Divisions. Any consequent surplus can be deployed, because most of the surplus will be where C.Ls from projects are redeployed in the field Divisions.
- 2.8.6 Commission had been repeatedly asking the Board to fill up direct recruitment posts particularly of AEs and Technical staff in Generation, E.S. and Operation Wings for efficiency and quality of service. Cost of such staff is easily recovered by way of better service quality, increase in volume of business by greater availability of supply, reduction in losses, efficiency gains etc. Hence, for the next 3 years recruitment of AEs, Jr-T-mates, ALMs, Jr. Electricians, power house and sub-station technical staff should be increased and expedited.

2.9 Rationalisation of certain Direct Recruitment of Technical cadres and dedicated cadres for power houses and sub-stations:-

- 2.9.1 Board has large number of cadres in Technical category of posts; in different wings i.e. Operations, Power houses, Sub-Stations etc. and these carry different pay scale, promotion conditions; even where eligible qualifications levels are same or similar. Hence there is a need to review all such R&P Rules to provide for equity and experience. Also certain nature of job is specific even where qualification requirements are same hence continuity of incumbent to benefit from the expertise is required. Some of the possible options to be examined and executed are:-

- 2.9.2 Direct recruitment requiring minimum I.T.I qualification at entry level should be in the same pay scale and grade pay of the lowest level. For example where for the post in class-III level having I.T.I. qualification, all direct recruitment should be in the common minimum pay scale. If any category has direct recruitment quota in the higher scale, such number of posts, excluding these posts to be filled up by promotion if any, should be converted in the lower minimum class-III scale. e.g. all the direct recruitment post of electricians, lineman, SSA etc. could be in the scale of Assistant Lineman by re-designating them as Asstt. Electrician, Asstt. SSA etc.
- 2.9.3 Line technical qualified staff, after certain promotion level and after certain age could be made feeder category for promotion to appreciate posts in power houses, sub-stations in Sub-Divisions, commercial and office work with due training and aptitude assessment. Similarly line non-qualified staff could be transferred to the posts of chowkidars, watchman, office attendants in their own pay scales.
- 2.9.4 Board should examine creation of dedicated engineering cadres for generation wing and sub-station (E.S. wing) including for 33KV sub-stations. 100% of sanctioned strength of JEs and 75% of sanctioned strength of AEEs in generation and E.S. wing should be filled in by these wings only as common cadre and all the posts up to XEN level in these wings should be filled by promotion from JE/AE of these cadres only. 25% of direct recruitment posts will be from operations wing, to be promoted to XENs in operations wing. After the level of XEN these should be common cadre of SEs and CEs to be filled from all XENs based on seniority drawn on pro rata rotation of quota basis. In situ promotion of XEN to SE should also be given in these two wings. Minimum tenure of Chiefs in these wings should not be less than 2 years with past experience in these wings, which can be done by framing separate R&P Rules for Chief Engineers for E.S. and Generation wing each respectively.
- 2.9.5 To meet shortage of clerical and commercial staff at Sub-Divisions, posts should not be designation based, e.g. posts in the sub-Division shall be manned on first priority by officials of Sr. Asstt. or Supdt. Level.
- 2.9.6 To meet emergent or scarcity situations, we could consider use of the pool of Home Guard personnel, after due training, on the lines they are used for fire and security duties, to assist line staff to do line duties. Certain percentage of posts of T-mate or A.L.M, subject to meeting normal criteria, should be reserved to be filled from Home Guards with training and experience in O&M of lines/network.

2.9.7 Similarly we can have village level user groups, to be used on payment of wages, for setting up and restoration of lines, instead engaging daily wage labourers.

2.10 Decentralization and delegation of powers

2.10.1 It was agreed that HPSEBL needs to delegate Administrative/ Financial/ Managerial powers to the field units.

2.10.2 Planning of EHV schemes (above 33 kV) level should be done at HPSEBL level.

2.10.3 The planning, formulation and execution of schemes up to 33 KV level should be done by respective Chief Engineers and overseen by Director (Operations). The block approval for schemes (Administrative approval and Expenditure sanction) for a specified period should be accorded by the Management of HPSEBL. The management of individual schemes; including execution of works (inviting and processing tenders and awarding works), pre-audits of schemes, payments for the works executed, reimbursement claims etc. should be done by field Chief Engineers with full financial authority within such block approvals, accompanied by transfer of posts/staff from H.Qtrs. for such jobs.

2.10.4 HPSEBL informed that the material for carrying out various capital works was being procured from revenue receipts, whereas the claim from the funding agencies was being filed at a subsequent stage. At present there was no mechanism by which the carrying cost on the material procured for capital works from revenue receipts could be charged and HPSEBL was losing on this front as well as due to liquidity problem, often there was delay in procurement of material. It was agreed that HPSEBL shall evolve an accounting system for charging carrying cost, on the material purchased, for the period till the schemes are sent for reimbursement to the funding agencies. HPSEBL also propose HPERC to provide a revolving advance for procurement of material for carrying out capital works.

2.10.5 The financial powers delegated to Assistant Engineers shall be suitably enhanced to avoid delay in execution of works.

2.10.6 It was also agreed that the administrative and financial powers for carrying out civil works relating to the field offices of JEs and AEs shall be delegated to the respective field Chief Engineers. However, in case of civil works relating to higher offices the approval of Management shall be required.

2.11 Financial Matters

2.11.1 Billing of all the consumers above 100 kVA contract demand should be centralized. The pre-audit of all such consumers to be done.

2.11.2 Concern was raised for decline in collection efficiency due to which the AT&C losses had increased to 20% (figures up to 30.09.2014). It was agreed that continuous revenue monitoring shall be done by Director (Finance).

2.11.3 It was agreed that HPSEBL shall take up the matter for issue of bonds for the entire 50% of total amount of Financial Restructuring Plan (FRP) which was a pre-condition for availing incentive for reduction in AT&C losses and for capital reimbursement support of 25% of principal repayment by the State Government on the liability taken over by the State Government under the scheme.

2.12 Power Procurement

2.12.1 In the backdrop of breakdown of Bhaba HEP, HPSEBL was requested to submit futures plans to meet the short fall and to neutralize the financial impact without increase in tariff.

2.12.2 It was agreed that HPSEBL shall study the requirement of availing additional GoHP Free Power and accordingly take up the matter with the State Government immediately.

2.13 Availing Incentive Grants:-

2.13.1 HPSEBL shall take up the matter with the State Government for the release of entire amount of Rs. 132.99 crores as incentive grant on the recommendation of 13th Finance Commission for renewable owing to following reasons:-

- a. This amount can be used by HPSEBL to purchase Solar REC/power.
- b. HPSEBL be incentivized for procuring renewable hydel energy more than its RPO, which is high cost.
- c. HPSEBL is continuously augmenting its distribution network to evacuate power from hydel renewable generators and the said amount can be used for further up-gradation of the distribution network.

2.13.2 Avail the incentives under FRP and R-APDRP early.

2.13.3 For the renewable energy purchase over and above RPO for FY 2013-14, HPSEBL shall get RECs issued before 31st March, 2015.

2.14 Organisational structure reforms in Board Headquarters

2.14.1 Consequent upon reorganization of erstwhile HPSEB, distribution function is assigned to HPSEBL, along with generation, project and S&I wings as other business of the Distribution Company. Since, construction of new projects, transmission and load despatch functions are no longer with HPSEBL, the H.Qtrs functions require restructuring to give renewed focus and priority.

2.14.2 The core function of HPSEBL now is:-

- a. Network management that essentially involve efficiencies in construction and maintenance of network and sub stations, procurement of works and goods, contract administration, capex, investments/financing, availing State and Centre funds/incentives.
- b. Electricity supply involving efficient power procurement, trading of surplus power, commercial operation, revenue realisations, use of technology to reduce cost of operations.
- c. Customer service and efficient tariff with competitive cost items including O&MS costs.
- d. Other business to supplement and strengthen the distribution functions in the benefit of consumers as well as HPSEBL and not encumber them.

2.14.3 Hence Board should look at:-

- a. Decentralisation including decentralisation of staff to field function.
- b. Set up new functional centre for power planning, forecasting and procurement with professional functions outsourced or professionals hired.
- c. Set up trading cell to make best money from surplus power.

- d. Project finance and centralised procurements including monitoring and availing various central funds and incentives.
- e. Monitoring of other businesses for improving revenues.

2.15 Follow-up and Compliance of Decisions

2.15.1 All the decisions taken in these two interactive meetings, as a part of tariff determination process, are consensus decisions aimed at reforms to enhance efficacy of the institutions in discharge of their functions efficiently and with high standards of performance, i.e. all related institutions including the Commission. Therefore, these need to be followed up faithfully for timely and total compliance. Accordingly, the Commission expects the licensee to carry out the follow-up action and inform the Commission on quarterly basis for review.

3 Summary of the APR Petition

3.1 Introduction

- 3.1.1 This chapter summarizes the highlights of the Annual Performance Review (APR) Petition filed by the HPSEBL for review of Aggregate Revenue Requirement (ARR) approved for FY16 in the MYT Order for the 3rd Control Period.
- 3.1.2 HPSEBL had filed the APR application on 28th November, 2014 and appropriate clarifications were submitted in response to the deficiency notes issued by the Commission.
- 3.1.3 The Annual Performance Review (APR) petition filed by HPSEBL constitutes revised estimates of HPSEBL distribution business for FY15 based on six months actual and revised projections for FY16 to FY19 for the purpose of determination of the Aggregate Revenue Requirement (ARR), Distribution & Retail Supply Tariff for the remaining period of the third MYT Control Period (FY15 to FY19).

3.2 Sales Projections

Projections for category-wise Sales

- 3.2.1 The petitioner has used the Compounded Average Growth Rate (CAGR) as recorded over the last few years to project the category-wise sales for the future years. The petitioner has taken into account the first six months sales as a basis for projecting the sales over the balance period of FY 2014-15. The breakup of the category-wise sales for the first six months of the current years, as submitted by the petitioner is summarized below:

Table 2: Actual Monthly Category-wise Sales (MUs) for 6 months of FY 15

Consumer Category	Apr	May	Jun	Jul	Aug	Sep	Total
Domestic	127.81	136.80	148.98	158.06	166.27	164.94	902.88
Antodya	0.13	0.16	0.15	0.16	0.21	0.16	0.96
Non Domestic Non Comm	11.69	9.21	8.62	8.73	8.88	9.18	56.31

Consumer Category	Apr	May	Jun	Jul	Aug	Sep	Total
Commercial	35.66	39.86	38.34	42.53	41.57	40.29	238.25
Temporary	2.40	2.07	1.90	2.35	1.89	1.95	12.56
Small Industries	4.31	7.59	5.29	4.82	4.68	4.96	31.66
Medium Industries	11.25	12.50	12.02	12.70	12.60	11.69	72.75
Large Industries (LT/HT)	195.46	226.70	212.98	216.19	215.56	228.50	1295.38
Large Industries (EHT)	159.92	165.39	174.25	159.37	176.37	170.31	1005.60
Govt., Irrigation & Water Supply	25.89	30.78	34.82	33.74	33.04	31.64	189.89
Public Lighting	1.17	1.01	1.66	0.95	0.84	1.01	6.63
Agricultural	2.01	3.27	3.10	3.06	4.60	5.13	21.17
Bulk Supply	15.38	11.77	11.16	10.50	9.93	9.05	67.80
Total	593.07	647.11	653.28	653.14	676.44	678.81	3901.85

3.2.2 Based on the above sales figures the estimated sales for the full year has been assessed as 7900 MU by the petitioner. On this, the CAGR as per the below tables have been applied to arrive at the sales growth over the entire control period.

Table 3: CAGR Considered versus other CAGRs

Consumer Category	CAGR	CAGR	CAGR	MYT Projection
	5 years	3 years	1 years	
Domestic	10.26%	11.43%	9.64%	8.00%
Non Domestic Non Commercial	7.85%	9.51%	10.08%	6.00%
Commercial	10.42%	8.15%	10.33%	7.00%
Temporary	3.45%	2.96%	3.84%	2.05%
Small & Medium Industrial Power Supply				
<i>Small Industrial Power Supply</i>	-0.08%	-0.22%	-2.86%	2.00%
<i>Medium Industrial Power Supply</i>	3.43%	0.36%	-0.91%	5.43%
Large Industrial Power Supply				
<i>LT/HT</i>	3.92%	-0.91%	-8.54%	3.50%
<i>EHT</i>	8.28%	6.07%	16.70%	6.00%
Govt., Irrigation & Water Supply	3.87%	4.72%	3.69%	5.00%
Public Lighting	-0.87%	-0.25%	-10.47%	2.00%
Agricultural	7.53%	5.55%	-11.37%	8.00%
Bulk Supply	-3.17%	-13.84%	-11.24%	2.00%

3.2.3 The revised estimate for category-wise sales is therefore as follows:

Table 4: Sales Projections for 3rd Control Period (MUs)

Consumer Category	FY 15	FY 16	FY 17	FY 18	FY 19
MUs	R.E.	Proj.	Proj.	Proj.	Proj.
Domestic	1875	2025	2187	2361	2550
Non Domestic Non Commercial	128	135	143	152	161

Consumer Category	FY 15	FY 16	FY 17	FY 18	FY 19
MUs	R.E.	Proj.	Proj.	Proj.	Proj.
Commercial	482	516	552	591	632
Temporary	27	27	28	28	29
Small & Medium Industrial Power Supply	208	217	226	235	245
<i>Small Industrial Power Supply</i>	62	63	64	65	67
<i>Medium Industrial Power Supply</i>	147	154	162	170	179
Large Industrial Power Supply	4531	4738	4955	5182	5421
<i>LT/HT</i>	2589	2684	2781	2883	2988
<i>EHT</i>	1942	2054	2173	2299	2433
Govt., Irrigation & Water Supply	443	466	489	514	540
Public Lighting	13	14	14	14	15
Agricultural	42	45	49	52	56
Bulk Supply	153	157	161	165	170
Total	7902	8339	8803	9296	9820

3.3 Power Purchase

3.3.1 The petitioner has stated that the assessment of power purchase requirement is in accordance with the past approvals of the Commission. It has also taken into account the actual supply/generation from various sources in the first half of the current year for projecting the source-wise power purchase from the various sources. The commissioning of a few own plants is also taken into account while making the projections. The details of projected source-wise power purchase from the various sources are provided in subsequent tables.

3.3.2 As per the submission of the petitioner, the revised estimates of power procurement from own generating stations is as follows:

Table 5: Revised estimated of power procurement from own Generating Stations (MUs)

	Stations	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19
		R.E	Proj.	Proj.	Proj.	Proj.
1	Bhaba	591.1	540.0	540.0	540.0	540.0
2	Bassi	328.2	345.3	345.3	345.3	345.3
3	Giri	229.0	218.9	218.9	218.9	218.9
4	Andhra	77.1	86.4	86.4	86.4	86.4
5	Ghanvi	97.4	81.2	81.2	81.2	81.2
6	Baner	43.5	52.9	52.9	52.9	52.9
7	Gaj	54.5	33.4	33.4	33.4	33.4
8	Larji	635.0	500.6	500.6	500.6	500.6
9	Khauli	54.5	45.4	45.4	45.4	45.4

	Stations	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19
		R.E	Proj.	Proj.	Proj.	Proj.
10	Binwa	27.2	29.1	29.1	29.1	29.1
11	Thirot	7.0	17.6	17.6	17.6	17.6
12	Gumma	0.0	11.7	11.7	11.7	11.7
13	Holi	8.4	11.7	11.7	11.7	11.7
14	Bhaba Aug	0.0	17.6	17.6	17.6	17.6
15	Nogli	6.2	9.8	9.8	9.8	9.8
16	Rongtong	0.7	7.6	7.6	7.6	7.6
17	Sal-II	5.8	7.8	7.8	7.8	7.8
18	Chaba	10.3	7.6	7.6	7.6	7.6
19	Rukti	0.3	6.5	6.5	6.5	6.5
20	Chamba	1.8	1.8	1.8	1.8	1.8
21	Killar	0.4	1.2	1.2	1.2	1.2
22	Uhl III - BVPCL	0.0	235.8	343.1	343.1	343.1
23	Ghanvi II	38.2	45.8	45.8	45.8	45.8
Total		2216.6	2315.2	2422.5	2422.5	2422.5

Revised Estimates for Power Purchase from GoHP free power

3.3.3 The petitioner has also revised the power availability from GoHP free power based on the actual power purchase till FY 2014 and in the first six months of FY 15. The same is summarized in the table below:

Table 6: Revised estimated of power procurement from GoHP free power (MUs)

Stations MUs	Plant capacity MW	Share %	14-15 R.E	15-16 Proj.	16-17 Proj.	17-18 Proj.	18-19 Proj.
Baira Siul	180	12%	0.0	0.0	0.0	0.0	0.0
Chamera-I	540	12%	0.1	0.0	0.0	0.0	0.0
Chamera-II	300	12%	0.1	0.0	0.0	0.0	0.0
Chamera-III	231	12%	15.2	0.0	0.0	0.0	0.0
Shanan Share	0.5	Fixed	2.6	2.6	2.6	2.6	2.6
Ranjeet Sagar Dam Share	600	5%	79.8	69.4	69.4	69.4	69.4
Malana	86	20%	70.3	73.3	73.3	73.3	73.3
Baspa (Primary & Sec.)	300	12%	157.8	153.7	153.7	153.7	153.7
Nathpa Jhakri HEP	1500	12%	29.6	0.0	0.0	0.0	0.0
Ghanvi	22.5	12%	4.7	11.1	11.1	11.1	11.1
Baner	12	12%	1.6	7.2	7.2	7.2	7.2
Gaj	10.5	12%	2.5	4.6	4.6	4.6	4.6
Larji	126	12%	78.2	68.3	68.3	68.3	68.3
Khauri	12	12%	2.1	6.2	6.2	6.2	6.2
Budhil	70	12%	0.0	0.0	0.0	0.0	0.0
Allian Duhangan	192	12%	0.0	0.0	0.0	0.0	0.0
Kol Dam	800	12%	0.0	0.0	0.0	0.0	0.0
Parbati-II	800	12%	0.0	0.0	0.0	0.0	0.0
Parbati-III	520	12%	0.1	0.0	0.0	0.0	0.0
Rampur project	412	12%	23.6	0.0	0.0	0.0	0.0

Stations MUs	Plant capacity MW	Share %	14-15 R.E	15-16 Proj.	16-17 Proj.	17-18 Proj.	18-19 Proj.
Karcham Wangtoo	1000	12%	0.0	0.0	0.0	0.0	0.0
Sawra Kuddu	111	12%	0.0	0.0	0.0	0.0	0.0
Uhl-III	100	13%	0.0	32.2	46.8	46.8	46.8
Ghanvi II	10	12%	1.4	6.2	6.2	6.2	6.2
Malana II	100	12%	0.0	0.0	0.0	0.0	0.0
Kashang I, II, III	195	12%	0.0	0.0	0.0	0.0	0.0
Kashang IV	48	12%	0.0	0.0	0.0	0.0	0.0
Sainj	100	12%	0.0	0.0	0.0	0.0	0.0
Tidong	60	12%	0.0	0.0	0.0	0.0	0.0
Song tong Karcham	450	12%	0.0	0.0	0.0	0.0	0.0
Chirgaon Majgaon	42	12%	0.0	0.0	0.0	0.0	0.0
Renuka Dam	40	12%	0.0	0.0	0.0	0.0	0.0
SHEP Allocated	Varies	Varies	44.7	49.5	52.9	56.4	59.8
Total			514.5	484.2	502.3	505.7	509.2

Revised Estimates for Power Purchase from NTPC power plants

3.3.4 The revised availability from NTPC plants, as submitted by the petitioner, based on the actual power purchase till FY 2014 and first six months of FY 15 is as follows:

Table 7: Revised estimated of power procurement from NTPC power plants (MUs)

Stations MUs	Plant capacity MW	Share %	14-15 R.E.	15-16 Proj.	16-17 Proj.	17-18 Proj.	18-19 Proj.
Anta (G)	419.33	3.58%	70.5	87.7	87.7	87.7	87.7
Anta (L)	419.33	3.58%	0.0	0.0	0.0	0.0	0.0
Anta (LNG)	419.33	3.58%	0.5	0.5	0.5	0.5	0.5
Auriya (G)	663.36	3.32%	83.0	122.4	122.4	122.4	122.4
Auriya (L)	663.36	3.32%	0.0	0.0	0.0	0.0	0.0
Auriya (LNG)	663.36	3.32%	0.6	0.6	0.6	0.6	0.6
Dadri (G)	829.78	3.01%	110.5	152.0	152.0	152.0	152.0
Dadri (L)	829.78	3.01%	0.0	0.0	0.0	0.0	0.0
Dadri (LNG)	829.78	3.01%	1.9	1.9	1.9	1.9	1.9
Unchahar-I	420	1.67%	52.1	51.9	51.9	51.9	51.9
Unchahar-II	420	2.86%	91.1	87.7	87.7	87.7	87.7
Unchahar-III	210	3.81%	59.9	58.5	58.5	58.5	58.5
Rihand-1 STPS	1000	3.50%	243.4	263.7	263.7	263.7	263.7
Rihand-2 STPS	1000	3.30%	248.5	260.8	260.8	260.8	260.8
Singrauli STPS	2000	0.00%	14.5	0.0	0.0	0.0	0.0
Kahalgaoon - II	1500	1.53%	129.4	130.8	130.8	130.8	130.8
Rihand-3 Units-1,2	1000	3.37%	225.5	255.7	255.7	255.7	255.7
Dadri-II TPS	980	0.00%	5.7	0.0	0.0	0.0	0.0
Jhajjar TPS	1000	0.00%	8.8	0.0	0.0	0.0	0.0
Singrauli Solar	15	100.00%	0.0	130.8	130.8	130.8	130.8
Kol dam HEP	800	3.36%	0.0	0.0	0.0	0.0	0.0
North Karanpura	1980	1.53%	0.0	0.0	0.0	0.0	223.8
Meja	1320	1.44%	0.0	0.0	140.4	140.4	140.4

Stations	Plant capacity	Share	14-15	15-16	16-17	17-18	18-19
MUs	MW	%	R.E.	Proj.	Proj.	Proj.	Proj.
Lata Tapowan HEP	171	1.53%	0.0	0.0	0.0	10.2	10.2
Rupsia Bagar HEP	261	1.53%	0.0	0.0	14.7	14.7	14.7
Singrauli III	500	3.50%	0.0	0.0	0.0	0.0	129.3
Tanda II	1320	3.50%	0.0	0.0	0.0	0.0	341.3
Tapovan Vishnugarh HEP	520	1.53%	0.0	29.4	29.4	29.4	29.4
Gider Baha	2640	1.50%	0.0	0.0	0.0	307.9	307.9
Unchahar IV	500	2.00%	0.0	0.0	73.9	73.9	73.9
Billhaur	660	3.00%	0.0	0.0	0.0	0.0	146.3
Total			1346	1634	1864	2182	3022

Revised Estimates for Power Purchase from NPCIL power plants

3.3.5 Based on the actual power purchase from NPCIL till FY 2014 and first six months of FY 15, the revised estimates as submitted by the petitioner are as follows:

Table 8: Revised estimates of power procurement from NPCIL power plants (MUs)

Stations	Plant capacity	Share	14-15	15-16	16-17	17-18	18-19
MUs	MW	%	R.E.	Proj.	Proj.	Proj.	Proj.
NAPP	440	3.18%	84.4	80.1	80.1	80.1	80.1
RAPP (V & VI)	440	3.41%	138.2	139.9	139.9	139.9	139.9
RAPP (VII & VIII)	1400	1.90%	0.0	0.0	0.0	200.2	200.2
Total			222.7	220.0	220.0	420.2	420.2

Revised Estimates for Power Purchase from NHPC power plants

3.3.6 Based on the actual power purchase from NHPC till FY 2014 and first six months of FY 15, the revised estimates as submitted by the petitioner are as follows:

Table 9: Revised estimates of power procurement from NHPC power plants (MUs)

Stations	Plant capacity	Share	14-15	15-16	16-17	17-18	18-19
MUs	MW	%	Proj.	Proj.	Proj.	Proj.	Proj.
Salal	690	0.99%	31.7	30.2	30.2	30.2	30.2
Tanakpur	94.2	3.84%	12.0	14.8	14.8	14.8	14.8
Chamera I	540	2.90%	65.0	47.7	47.7	47.7	47.7
Chamera II	300	3.67%	57.9	54.4	54.4	54.4	54.4
Chamera III	231	3.36%	28.1	0.0	0.0	0.0	0.0
Uri	480	2.71%	77.4	69.3	69.3	69.3	69.3
Dhauliganga	280	3.57%	27.9	40.5	40.5	40.5	40.5
Dulhasti	380	UA	5.4	0.0	0.0	0.0	0.0
Sewa	120	UA	2.3	0.0	0.0	0.0	0.0
Parbati II	800	3.36%	0.0	0.0	86.3	86.3	86.3
Parbati III	520	3.36%	19.9	0.0	0.0	0.0	0.0
Kotli Behal	1045	2.47%	0.0	113.0	113.0	113.0	113.0

Stations	Plant capacity	Share	14-15	15-16	16-17	17-18	18-19
MUs	MW	%	Proj.	Proj.	Proj.	Proj.	Proj.
Total			327.4	369.9	456.2	456.2	456.2

Revised Estimates for Power Purchase from BBMB & Other Shared Stations

3.3.7 Based on the actual power purchased from BBMB and other stations till FY 2014 and first six months of FY 15, the revised estimates as submitted by the petitioner are as follows:

Table 10: Revised estimates of power procurement from BBMB & Other Shared Stations (MUs)

Stations	Plant capacity	Share	14-15	15-16	16-17	17-18	18-19
MUs	MW	%	R.E.	Proj.	Proj.	Proj.	Proj.
BBMB Old	0	Fixed 1.2LU/day	43.9	43.9	43.9	43.9	43.9
BBMB New	1480	7.19%	361.1	326.3	326.3	326.3	326.3
Dehar	990	7.19%	205.1	187.1	187.1	187.1	187.1
Pong	396	7.19%	50.7	46.4	46.4	46.4	46.4
Shanan	60	Fixed 1MW	5.2	5.2	5.2	5.2	5.2
Shanan Ext	50	Fixed 45 MU	45.0	45.0	45.0	45.0	45.0
Yamuna	474.7	24.68%	423.5	387.8	387.8	387.8	387.8
Khara	72	20.00%	44.4	56.6	56.6	56.6	56.6
Total			1179.0	1098.2	1098.2	1098.2	1098.2

Revised Estimates for Power Purchase from Nathpa Jhakri

3.3.8 Based on the actual power purchase from Nathpa Jhakri till FY 2014 and first six months of FY 15, the revised estimates as submitted by the petitioner are as follows:

Table 11: Revised estimates of power procurement from Nathpa Jhakri (MUs)

Stations	Plant capacity	Share	14-15	15-16	16-17	17-18	18-19
MUs	MW	%	R.E.	Proj.	Proj.	Proj.	Proj.
Nathpa Jhakri SOR	1500	2.47%	178	169	169	169	169
Nathpa Jhakri Equity	1500	22.00%	1504	1505	1505	1505	1505
Rampur	412	2.81%	35	58	58	58	58
Luhri	775	2.47%	0	0	0	0	84
Total			1717	1732	1732	1732	1816

Revised Estimates for Power Purchase from Other Sources

3.3.9 Based on the actual power purchase from other sources till FY 2014 and first six months of FY 15, the revised estimates as submitted by the petitioner are as follows:

Table 12: Revised estimates of power procurement from other sources (MUs)

Stations	14-15	15-16	16-17	17-18	18-19
MUs	R.E.	Proj.	Proj.	Proj.	Proj.

Stations	14-15	15-16	16-17	17-18	18-19
MUs	R.E.	Proj.	Proj.	Proj.	Proj.
Unallocated share from CGS	250.0	350.0	350.0	350.0	350.0
UI	163	0	0	0	0
Banking availed at gen bus	1800	1800	1800	1800	1800
Contingency Power purchase at periphery	0.0	14.0	0.0	0.0	0.0
Total	2213	2164	2150	2150	2150

Revised Estimates for Power Purchase from Other Stations

3.3.10 Based on the actual power purchase till FY 2014 and first six months of FY 15, the revised estimates for power availability from other stations is as follows:

Table 13: Revised estimates of power procurement from other stations (MUs)

Stations	14-15	15-16	16-17	17-18	18-19
MUs	R.E.	Proj.	Proj.	Proj.	Proj.
Small HEP/ Private Micro	1335	1435	1535	1635	1735
Small HEP/ Private Micro - REC	124	134	143	152	162
Baspa - II	1157	1127	1127	1127	1127
Additional Solar Power	0.7	0.0	0.0	0.0	14.7
Total	2617.6	2696.4	2805.8	2915.1	3039.1

Revised Estimates for Total Power Purchase (MUs)

3.3.11 The revised estimate of total power availability as submitted by the petitioner is summarized in the table below:

Table 14: Revised estimates of total power procurement (MUs)

Stations/ Sources	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19
	R.E.	Proj.	Proj.	Proj.	Proj.
Own generation	2216.6	2315.2	2422.5	2422.5	2422.5
Free power	514.5	484.2	502.3	505.7	509.2
NTPC	1345.7	1634.5	1863.5	2181.6	3022.2
NPCIL	222.7	220.0	220.0	420.2	420.2
NHPC	327.4	369.9	456.2	456.2	456.2
THDC	70.9	0.0	0.0	0.0	0.0
SJVN Stations	1717.3	1731.8	1731.8	1731.8	1815.6
Other sources	2213	2164	2150	2150	2150
Shared Stations	1179.0	1098.2	1098.2	1098.2	1098.2
Other Stations	2617.6	2696.4	2805.8	2915.1	3039.1
Total	12424.6	12714.2	13250.3	13881.3	14933.2

Meeting Renewable Purchase Obligations

3.3.12 The petitioner has also revised its renewable purchase in line with the revised sales projections and the revised power availability provided above, and in line with the

limits mandated vide Regulation 4 of the HPERC (Renewable Power Purchase Obligation and its Compliance) Regulations, 2010 as follows:

Table 15: Revised estimates of minimum purchase from Renewable Sources (MUs)

FY	Total Sales (including losses) (MUs)	Total RPPO (MUs)	Minimum non-solar %	Minimum Solar %
FY 15	7900.75	809.83	790.07	19.75
FY 16	8332.10	937.36	916.53	20.83
FY 17	8789.81	1076.75	1054.78	21.97
FY 18	9275.65	1252.21	1205.83	46.38
FY 19	9791.47	1444.24	1370.81	73.44

3.3.13 The petitioner has stated that it is meeting its Renewable Purchase Obligations of Non-Solar power from its existing sources itself. However, for the solar RPPO, it plans to procure the same from Singrauli Solar, pooled power from SECI (PPA being signed) and additional purchase of REC certificates (if required). The overall revised estimate of solar RPPO as submitted by the petitioner is as below:

Table 16: Revised estimates of meeting solar RPPO

	FY 15	FY 16	FY 17	FY 18	FY 19
Requirement	19.75	20.83	21.97	46.38	73.44
RPPO for previous years		0.53	18.4		
Singrauli Solar	19.08	25.44	25.44	25.44	25.44
Pooled power from SECI		33.28	33.28	33.28	33.28
Additional Solar Power Purchase	0.67	-	-	-	14.71

3.3.14 The petitioner has further submitted that additional solar power purchase which shall be required for FY 15 and FY 19 shall be done through tendering process. The process of same is stated to have already been initiated by the petitioner.

3.4 Transmission and Distribution (T&D) Losses

3.4.1 The T&D loss trajectory as approved by the Commission for the Third Control Period is shown in the table below:

Table 17: Proposed T&D Loss Trajectory for Third Control Period

Particulars	FY15	FY16	FY17	FY18	FY19
Approved T&D loss	12.80%	12.60%	12.40%	12.20%	12.00%
Loss Reduction	0.20%	0.20%	0.20%	0.20%	0.20%

3.4.2 The Petitioner has submitted that the actual loss level achieved in FY14-15 has not yet been compiled. However the petitioner is hopeful of achieving the loss trajectory as notified by the Commission.

3.5 Energy Balance

3.5.1 Based on the approved loss levels and the sales projections as above, the Petitioner has submitted the monthly as well as the annual energy balance for the Fourth Control Period. For the sake of summarizing the same, the annual summary of the energy balance as proposed by the Petitioner is reproduced below:

Table 18: Annual Summary of Energy Balance

MUs	FY 15	FY 16	FY 17	FY 18	FY 19
Power Procurement					
Own sources	2217	2315	2423	2423	2423
Others - Interstate, Banking, etc	10208	10399	10828	11459	12511
Transmission losses	309	290	300	318	348
Total availability at HPSEBL periphery	12116	12424	12950	13564	14585
Sales - within the state	7902	8339	8803	9296	9820
T&D losses	12.8%	12.6%	12.4%	12.2%	12.0%
Power required at HPSEBL periphery for intra state sales	9062	9541	10049	10588	11159
Contingency	350	350	350	350	350
Banking sale / return at discom periphery	1615	1800	1800	1800	1800
Interstate sales at periphery	1089	733	751	826	1276
Total power required at HPSEBL periphery	12116	12424	12950	13564	14585

3.6 Power Purchase Cost

3.6.1 The petitioner has revised the power purchase cost after comparison with the costs as approved by the Commission in the previous tariff order. With respect to the revision in the power purchase cost from various sources, the petitioner has also brought the following points to the notice of the Commission:

- The petitioner has submitted that owing to the updated tariff of the Khara power plant as per the revised tariff order issued by UPERC has resulted into an arrear of INR 48 Cr. The petitioner has made a claim for recovery of this amount to be allowed along with the current tariff revision exercise.
- The petitioner has also submitted that the CERC vide order dated 20.06.2014 had approved the generation tariff of Nathpa Jhakhri HEP (NJHEP) for the period 01.01.2009 to 31.03.2014. The petitioner has submitted that as per the said order, the AFC of NJHEP was INR 1312 Cr. upto 31.03.2009 which was allowed to continue till further revised. The revised AFC for the plant as per the CERC order is INR 1550 Cr. The petitioner has estimated an impact of

approximately INR 120 Cr attributable to this revision in the AFC of the plant. The petitioner further contends that adding up the carrying cost for this revision will further increase the amount payable by the petitioner to Rs.150 Cr which the petitioner has proposed to recover as part of this tariff revision exercise.

3.6.2 Revised estimate for power purchase cost from own generation plants for third MYT control period, as submitted by the petitioner is as follows:-

Table 19 Revised estimates of power purchase cost from Own Generation

Stations	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19
INR Cr	R.E.	Proj.	Proj.	Proj.	Proj.
Bhaba	28.6	28.3	45.4	51.4	54.0
Bassi	24.9	25.2	37.3	38.3	39.2
Giri	24.1	20.4	32.7	55.1	58.8
Andhra	8.8	9.6	12.4	16.5	17.4
Ghanvi	21.9	18.3	18.3	18.3	18.3
Baner	8.8	9.3	10.4	11.1	11.7
Gaj	9.2	9.7	13.3	14.2	15.1
Larji	129.4	125.0	122.6	125.2	129.0
Khauri	21.0	10.2	10.2	10.2	10.2
Binwa	4.7	5.1	9.8	10.4	11.0
Thirot	1.6	4.0	4.0	4.0	4.0
Gumma	0.0	2.6	2.6	2.6	2.6
Holi	1.9	2.6	2.6	2.6	2.6
Bhaba Aug	0.0	4.0	4.0	4.0	4.0
Nogli	2.5	2.8	3.6	4.7	5.1
Rongtong	1.9	2.0	2.3	2.5	2.7
Sal-II	1.3	1.8	1.8	1.8	1.8
Chaba	1.5	1.6	3.1	3.3	3.6
Rukti	0.7	0.8	1.2	1.3	1.4
Chamba	0.3	0.3	0.5	0.5	0.5
Killar	0.1	0.3	0.3	0.3	0.3
Uhi III - BVPCL	0.0	129.7	188.7	188.7	188.7
Ghanvi II	16.0	15.1	13.9	13.2	12.6
Total	309.1	428.5	540.7	580.0	594.5

Revised Power Purchase Cost from GoHP free power

3.6.3 Revised estimate for power purchase cost from GoHP free power for third MYT control period as submitted by the petitioner is as follows:-

Table 20 Revised estimates of power purchase cost from GoHP free power

Stations	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19
INR Cr	R.E.	Proj.	Proj.	Proj.	Proj.
Baira Siul	0.0	0.0	0.0	0.0	0.0
Chamera-I	0.0	0.0	0.0	0.0	0.0

Stations INR Cr	FY 14-15 R.E.	FY 15-16 Proj.	FY 16-17 Proj.	FY 17-18 Proj.	FY 18-19 Proj.
Chamera-II	0.0	0.0	0.0	0.0	0.0
Chamera-III	4.4	0.0	0.0	0.0	0.0
Shanan Share	0.8	0.8	0.8	0.8	0.8
Ranjeet Sagar Dam Share	22.9	19.9	19.9	19.9	19.9
Malana	20.2	21.0	21.0	21.0	21.0
Baspa (Primary & Sec.)	45.3	44.1	44.1	44.1	44.1
Nathpa Jhakri HEP	8.5	0.0	0.0	0.0	0.0
Ghanvi	1.3	3.2	3.2	3.2	3.2
Baner	0.5	2.1	2.1	2.1	2.1
Gaj	0.7	1.3	1.3	1.3	1.3
Larji	22.4	19.6	19.6	19.6	19.6
Khauli	0.6	1.8	1.8	1.8	1.8
Budhil	0.0	0.0	0.0	0.0	0.0
Allian Duhangan	0.0	0.0	0.0	0.0	0.0
Kol Dam	0.0	0.0	0.0	0.0	0.0
Parbati-II	0.0	0.0	0.0	0.0	0.0
Parbati-III	0.0	0.0	0.0	0.0	0.0
Rampur project	6.8	0.0	0.0	0.0	0.0
Karcham Wangtoo	0.0	0.0	0.0	0.0	0.0
Sawra Kuddu	0.0	0.0	0.0	0.0	0.0
Uhl-III	0.0	9.2	13.4	13.4	13.4
Ghanvi II	0.4	1.8	1.8	1.8	1.8
Malana II	0.0	0.0	0.0	0.0	0.0
Kashang I, II, III	0.0	0.0	0.0	0.0	0.0
Kashang IV	0.0	0.0	0.0	0.0	0.0
Sainj	0.0	0.0	0.0	0.0	0.0
Tidong	0.0	0.0	0.0	0.0	0.0
Song tong Karcham	0.0	0.0	0.0	0.0	0.0
Chirgaon Majgaon	0.0	0.0	0.0	0.0	0.0
Renuka Dam	0.0	0.0	0.0	0.0	0.0
SHEP Allocated	12.8	14.2	15.2	16.2	17.2
Total	147.6	139.0	144.2	145.1	146.1

Revised Power Purchase Cost from NTPC plants

3.6.4 Revised estimate for power purchase cost from NTPC plants for third MYT control period as submitted by the petitioner is as follows:

Table 21 Revised estimates of power purchase cost from NTPC plants

Stations INR Cr	FY 14-15 R.E.	FY 15-16 Proj.	FY 16-17 Proj.	FY 17-18 Proj.	FY 18-19 Proj.
Anta (G)	31.6	42.4	45.8	49.5	53.4
Anta (L)	0.0	0.0	0.0	0.0	0.0
Anta (LNG)	0.6	0.6	0.7	0.7	0.8
Auriya (G)	46.4	73.9	79.8	86.2	93.1
Auriya (L)	0.0	0.0	0.0	0.0	0.0
Auriya (LNG)	0.7	0.8	0.9	0.9	1.0
Dadri (G)	53.7	79.8	86.2	93.1	100.5
Dadri (L)	0.0	0.0	0.0	0.0	0.0
Dadri (LNG)	2.4	2.6	2.8	3.0	3.2

Stations	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19
INR Cr	R.E.	Proj.	Proj.	Proj.	Proj.
Unchahar-I	21.8	23.4	25.3	27.3	29.5
Unchahar-II	37.6	39.1	42.2	45.6	49.2
Unchahar-III	28.4	30.0	32.4	35.0	37.8
Rihand-1 STPS	60.7	71.1	76.8	82.9	89.5
Rihand-2 STPS	64.2	72.8	78.6	84.9	91.7
Singrauli STPS	2.6	0.0	0.0	0.0	0.0
Kahalgaoon - II	56.7	61.8	66.8	72.1	77.9
Rihand-3 Units-1,2	83.1	101.8	109.9	118.7	128.2
Dadri-II TPS	3.1	0.0	0.0	0.0	0.0
Jhajjar TPS	5.2	0.0	0.0	0.0	0.0
Singrauli Solar	0.0	61.8	64.9	68.1	71.5
Kol dam HEP	0.0	0.0	0.0	0.0	0.0
North Karanpura	0.0	0.0	0.0	0.0	106.6
Meja	0.0	0.0	57.3	61.9	66.9
Lata Tapowan HEP	0.0	0.0	0.0	4.6	4.6
Rupsia Bagar HEP	0.0	0.0	6.6	6.6	6.6
Singrauli III	0.0	0.0	0.0	0.0	61.6
Tanda II	0.0	0.0	0.0	0.0	162.5
Tapovan Vishnugarh HEP	0.0	13.2	13.2	13.2	13.2
Gider Baha	0.0	0.0	0.0	135.8	146.6
Unchahar IV	0.0	0.0	30.2	32.6	35.2
Bilhaur	0.0	0.0	0.0	0.0	69.6
Total	498.7	675.1	820.3	1022.7	1500.8

Revised Power Purchase Cost from NPCIL plants

3.6.5 Revised estimates for power purchase cost from NPCIL plants for third MYT control period as submitted by the petitioner is as follows:-

Table 22 Revised estimates of power purchase cost from NPCIL plants

Stations	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19
INR Cr	R.E.	Proj.	Proj.	Proj.	Proj.
NAPP	23.1	21.9	21.9	21.9	21.9
RAPP (V & VI)	52.2	52.9	52.9	52.9	52.9
RAPP (VII & VIII)	0.0	0.0	0.0	75.6	75.6
Total	75.3	74.8	74.8	150.4	150.4

Revised Power Purchase Cost from NHPC plants

3.6.6 Revised estimates for power purchase cost from NHPC plants for third MYT control period as submitted by the petitioner is as follows:

Table 23 Revised estimates of power purchase cost from NHPC plants

Stations	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19
INR Cr	R.E.	Proj.	Proj.	Proj.	Proj.
Salal	5.8	5.7	5.9	6.1	6.2
Tanakpur	3.1	4.0	4.1	4.2	4.3

Stations	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19
INR Cr	R.E.	Proj.	Proj.	Proj.	Proj.
Chamera I	11.7	8.8	9.1	9.4	9.6
Chamera II	18.6	18.0	18.5	19.1	19.6
Chamera III	12.9	0.0	0.0	0.0	0.0
Uri	18.0	16.6	17.1	17.6	18.1
Dhauliganga	8.1	12.1	12.5	12.8	13.2
Dulhasti	3.8	0.0	0.0	0.0	0.0
Sewa	1.2	0.0	0.0	0.0	0.0
Parbati II	0.0	0.0	38.8	38.8	38.8
Parbati III	9.0	0.0	0.0	0.0	0.0
Kotli Behal	0.0	50.9	50.9	50.9	50.9
Total	92.1	116.1	156.8	158.8	160.9

Revised Power Purchase Cost from BBMB & other shared plants

3.6.7 Revised estimates for power purchase cost from BBMB & other shared plants for third MYT control period as submitted by the petitioner is as follows:-

Table 24 Revised estimates of power purchase cost from BBMB & other shared plants

Stations	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19
INR Cr	R.E.	Proj.	Proj.	Proj.	Proj.
BBMB Old	4.1	4.6	5.0	5.5	6.0
BBMB New	16.2	17.0	17.9	18.8	19.7
Dehar	14.8	15.5	16.3	17.1	18.0
Pong	2.0	2.1	2.2	2.3	2.4
Shanan	0.2	0.2	0.2	0.3	0.3
Shanan Ext	1.0	1.0	1.1	1.1	1.2
Yamuna	28.6	30.6	32.8	35.1	37.5
Khara	4.1	4.3	4.5	4.7	4.9
Total	71.0	75.4	80.0	84.8	90.0

Revised Power Purchase Cost from Nathpa Jhakri

3.6.8 Revised estimates for power purchase cost from Nathpa Jhakri for third MYT control period as submitted by the petitioner are as follows:-

Table 25 Revised estimates of power purchase cost from Nathpa Jhakri

Stations	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19
INR Cr	R.E.	Proj.	Proj.	Proj.	Proj.
Nathpa Jhakri SOR	53.4	51.7	52.7	53.8	54.9
Nathpa Jhakri Equity	451.1	460.6	469.8	479.2	488.8
Rampur	15.9	26.0	26.0	26.0	26.0
Luhri	0.0	0.0	0.0	0.0	37.7
Total	520.5	538.2	548.5	558.9	607.3

Revised Power Purchase Cost from Other Sources

3.6.9 Revised estimates for power purchase cost from other sources for third MYT control period as submitted by the petitioner are as follows:-

Table 26 Revised estimates of power purchase cost from Other Sources

Stations	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19
INR Cr	R.E.	Proj.	Proj.	Proj.	Proj.
Unallocated share from CGS	89.6	133.0	141.1	149.9	159.2
UI	0.0	0.0	0.0	0.0	0.0
Banking availed at gen bus	0.0	0.0	0.0	0.0	0.0
Contingency Power purchase at periphery	0.0	5.3	0.0	0.0	0.0
Total	89.6	138.4	141.1	149.9	159.2

Revised Power Purchase Cost from Other Stations

3.6.10 Revised estimates for power purchase cost from other stations for third MYT control period as submitted by the petitioner are as follows:-

Table 27 Revised estimates of power purchase cost from Other Stations

Stations	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19
INR Cr	R.E.	Proj.	Proj.	Proj.	Proj.
Small HEP/ Private Micro	365.9	393.3	420.7	448.1	475.5
Small HEP/ Private Micro - REC	27.8	31.5	35.3	39.5	44.0
Baspa - II	312.5	264.9	153.3	156.7	156.7
Additional Solar Power	0	0	0	0	8
Total	706.6	689.7	609.3	644.3	684.3

Revised Overall Power Purchase Cost

3.6.11 The overall revised power purchase cost, as submitted by the petitioner, for the third MYT Control Period is as follows:

Table 28 Revised estimates of overall power purchase cost

Stations	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19
INR Cr	R.E.	Proj.	Proj.	Proj.	Proj.
Own generation	309.1	428.5	540.7	580.0	594.5
Free power	147.6	139.0	144.2	145.1	146.1
NTPC	498.7	675.1	820.3	1022.7	1500.8
NPCIL	75.3	74.8	74.8	150.4	150.4
NHPC	92.1	116.1	156.8	158.8	160.9
THDC	28.6	0.0	0.0	0.0	0.0
SJVN Stations	520.5	538.2	548.5	558.9	607.3
Other sources	89.6	138.4	141.1	149.9	159.2
Shared Stations	71.0	75.4	80.0	84.8	90.0
Other Stations	706.6	689.7	609.3	644.3	684.3
Total	2539.2	2875.0	3115.7	3495.1	4093.7

Transmission and Other charges

3.6.12 The summary of the transmission and other charges as proposed by the Petitioner is shown in table below:

Table 29: Summary of Transmission Charges (in Rs Cr.)

Description	FY 15	FY 16	FY 17	FY 18	FY 19
	R.E.	(Proj.)	(Proj.)	(Proj.)	(Proj.)
PGCIL Charges	304	346	382	455	639
HPPTCL Charges Payable	12	17	20	22	25
ULDC Charges	6	6	6	3	1
STOA Charges	60	64	83	103	7
O&M Charges	2	2	2	2	2
Total	384	435	493	585	671

3.7 Operation & Maintenance Expenses (O&M)

Employee Expenses

3.7.1 The Petitioner has computed the employees' expenses as per the following formula:-

$$EMP_n = [(EMP_{n-1}) \times (1+G_n) \times (CPI_{inflation})] + Provision(Emp)$$

Where:

' $CPI_{inflation}$ ' – is the average increase in the Consumer Price Index (CPI) for immediately preceding three years before the base year;

' EMP_{n-1} ' – employee's cost of the distribution licensee for the (n-1)th year.

' $Provision(Emp)$ '- Provision corresponding to clauses (iii), (iv) and (v) of sub-regulation (1-a) of regulation 13, duly projected for relevant year for expenses beyond control of the Distribution Licensee and expected one-time expenses as specified above;

' G_n ' - is a growth factor for the nth year. Value of G_n shall be determined by the Commission in the MYT tariff order for meeting the additional manpower requirement based on licensee's filings, benchmarking, approved cost by the Commission in past and any other factor that the Commission feels appropriate;

3.7.2 The $CPI_{inflation}$ rate is calculated as per the following table:

Table 30: CPI Calculation

Year	CPI	% Increase
FY 2009-10	162.75	
FY 2010-11	179.75	10.45%
FY 2011-12	194.83	8.39%
FY 2012-13	215.17	10.44%
FY 13-14	236.00	9.68%
Average		9.74%

3.7.3 The Petitioner has estimated the growth factors on the basis of the number of consumers handled per employee within the state. It is assumed that the number of consumers handled per employee shall increase at a rate of 3% annually during the MYT period. Accordingly, the growth (G_n) in number of employees has been calculated as under:

Table 31: Projected Growth factor for Employee Costs

	FY 14 Actual	FY 15 R.E.	FY 16 Proj.	FY 17 Proj.	FY 18 Proj.	FY 19 Proj.
Number of Employees	19917	19833	19752	19673	19597	19523
Growth (G) % in Employees on Account of Consumer connections	2.89%	-0.42%	-0.41%	-0.40%	-0.39%	-0.38%

3.7.4 As per the projected values of G_n and $CPI_{inflation}$, the Petitioner has projected the employee expenses calculated for the Third Control Period as under:

Table 32: Projected Employee Costs (Rs Cr.)

Particulars Rs Cr.	FY 15 R.E.	FY 16 Proj.	FY 17 Proj.	FY 18 Proj.	FY 19 Proj.
Salaries (Basic)	331.7	363.1	397.4	435.1	476.3
Grade pay	81.4	89.1	97.5	106.7	116.9
DA	263.5	288.4	315.6	345.5	378.3
Other Allowances	34.9	38.2	41.8	45.8	50.1
Overtime	2.8	3.0	3.3	3.6	4.0
Total Salaries	715.8	783.4	857.5	938.8	1027.8
Incentives/Awards	0.2	0.2	0.2	0.3	0.3
Incentives/Awards	1.5	1.7	1.8	2.0	2.2
Earned Leave Encashment	92.2	100.9	110.5	120.9	132.4
Medical Expense Re-Imbursement	9.9	10.8	11.8	13.0	14.2
Payment Under Workman'S Compensation And Gratuity	1.2	1.3	1.4	1.5	1.7
Staff Welfare Expenses	0.4	0.4	0.4	0.5	0.5
Gross Other Staff Cost	105.4	115.3	126.2	138.2	151.3
Terminal Benefits	513.3	539.0	565.9	594.2	623.9
Gross Employee Cost	1334.5	1437.7	1549.7	1671.1	1803.0
Chargeable To Construction Works	39.4	43.1	47.2	51.7	56.6
Net Employee Cost	1295.0	1394.6	1502.5	1619.5	1746.4

Administrative and General Expenses

3.7.5 The Petitioner has projected the A&G Expenses as per the HPERC MYT Distribution Regulations. The norms calculated by the Petitioner is shown in the table below:

Table 33: Norms for computing A&G expenses

Norms	FY 13
	Actuals
No. of employees	19357
A&G cost (Rs Cr.)	41.5
A&G / employee (Rs '000 / employee)	21.4
No. of consumers	2,087,604
A&G cost (Rs. Cr.)	41.5
A&G / 1000 consumers (Rs '000 / 1000 consumers)	198.8

3.7.6 The projections for number of employees and consumers as estimated by the Petitioner is presented in the table below. These projections, along with the WPI inflation as calculated in the previous section have been used to estimate the A&G costs during the Third Control Period:

Table 34: Basis for A&G Norms

Particulars	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19
	Proj.	Proj.	Proj.	Proj.	Proj.	Proj.
No. of employees	19,917	19,833	19,752	19,673	19,597	19,523
No. of consumers	2,140,983	2,195,939	2,252,542	2,310,858	2,370,959	2,432,922
Weightage of A&G/Employee	50%					
Weightage of A&G/1000 Consumers	50%					
WPI	7.96%					

3.7.7 Considering the A&G Norms, WPI and weightage of no. of employees and consumers as shown in above table, the Petitioner has calculated the A&G expenses as shown in the following table. The sub-heads of A&G cost have been projected on the basis of historical proportion of these sub-heads in the total A&G cost:

Table 35: Projected A&G Expenses for Third Control Period (Rs. Cr.)

Particulars	FY 15 R.E.	FY 16 Proj.	FY 17 Proj.	FY 18 Proj.	FY 19 Proj.
Administration Charges					
Rent, Rates & Taxes	1.8	2.2	2.2	2.4	2.6
Telephone, Postage & Telegrams	3.1	3.7	3.7	4.1	4.4
Consultancy Charges	1.4	1.7	1.7	1.9	2.1
Conveyance & Travel	21.7	25.9	26.0	28.4	31.1
Regulatory Expenses	1.6	2.0	2.0	2.1	2.3
Income Tax Updating Charges	0.1	0.1	0.1	0.1	0.1
Consumer Redressal Forum & Ombudsman	0.9	1.1	1.1	1.2	1.3

Particulars	FY 15	FY 16	FY 17	FY 18	FY 19
	R.E.	Proj.	Proj.	Proj.	Proj.
Insurance	0.0	0.0	0.0	0.0	0.0
Purchase Related Expenses & Other Charges	3.1	3.7	3.7	4.1	4.4
Incentive awards to employeesoutsiders	0.0	0.0	0.0	0.0	0.0
Administration Charges - Total	33.8	40.4	40.4	44.2	48.4
Other Charges					
Fees & Subscriptions, Books & Periodicals	0.4	0.4	0.4	0.5	0.5
Printing & Stationery	2.2	2.7	2.7	2.9	3.2
Exp. Under RTI and processing fee	0.0	0.0	0.0	0.0	0.0
Advertisement Expenses	0.6	0.7	0.7	0.7	0.8
Donation/ Contribution	0.0	0.0	0.0	0.0	0.0
Electricity Charges	4.7	5.6	5.6	6.1	6.7
Water Charges / Cold weather expenses	0.4	0.5	0.5	0.5	0.6
Miscellaneous Expenses	1.6	1.9	1.9	2.0	2.2
Legal Charges	0.8	1.0	1.0	1.1	1.2
Audit Fee/Statutory Audit Fee	0.4	0.5	0.5	0.5	0.6
Freight Material related Expenses	0.1	0.1	0.1	0.1	0.1
Entertainment Charges	0.1	0.1	0.1	0.1	0.1
Training to Staff	0.2	0.2	0.2	0.2	0.2
Public Interaction Program	0.6	0.6	0.7	0.8	0.9
Public Expenses / Other professional charges	5.2	6.2	6.3	6.8	7.5
GIS/GPS expenses related to High level Committee	0.8	1.0	1.0	1.1	1.2
Expense for providing cost free CFL bulbs to domestic consumers	0.0	0.0	0.0	0.0	0.0
Expense of collection of energy bill through agency	0.6	0.7	0.7	0.7	0.8
Fee for SSA Examintaion	0.0	0.0	0.0	0.0	0.0
A&G - Total	52.4	62.4	62.6	68.5	75.0
Less: Capitalisation	1.8	2.1	2.2	2.4	2.6
Net A&G Costs	50.3	60.0	60.1	65.8	71.9

Repair and Maintenance Expenses

3.7.8 The Petitioner has projected the R&M expenses as per the HPERC MYT Distribution Regulations:

$$'R\&M_n' = K \times (GFA_{n-1}) \times (WPI_{inflation})$$

Where:

'K' - is a constant (could be expressed in %).

'WPI_{inflation}' – is the average increase in the Wholesale Price Index (WPI) for immediately preceding three years before the base year;

'R&M_n' – Repair and Maintenance costs of the transmission licensee for the nth year;

'GFA_{n-1}' – Gross Fixed Asset of the transmission licensee for the n-1th year;

3.7.9 'K' factor has been calculated as a percentage of R&M expenses undertaken for the last 3 years GFA on the basis of which 'K' factor has been projected for the third Control Period.

Table 36: Proposed K factor for R&M Expenses for Third Control Period (Rs. Cr.)

Rs Cr.	FY 2011	FY 2012	FY 2013	FY 2014
Average GFA	2449.9	2785.8	3514.9	3911.8
GFA added during the year	116.3	881.5	576.6	217.3
R&M Costs as % of GFA	1.14%	1.09%	0.92%	0.76%
k Factor	0.98%			

3.7.10 The 'WPI_{inflation}' computed by the Petitioner is shown below:

Table 37: Details of Historical WPI

Year	WPI	% Increase
FY 2009-10	130.82	
FY 2010-11	143.62	9.56
FY 2011-12	156.13	8.94
FY 2012-13	167.62	7.33
FY 2013-14	177.64	5.98
Average		7.96

3.7.11 The Petitioner has projected the R&M Expenses considering the average GFA for a year, GFA added during the year, average of ratio of R&M expenses to average GFA for last 3 years and WPI.

3.7.12 The total R&M cost for the Third Control Period as proposed by the Petitioner is tabulated as below. The sub-heads of R&M cost have been projected on the basis of historical proportion of these sub-heads in the total R&M cost:

Table 38: Proposed R&M expenses for Third Control Period (Rs. Cr.)

Particulars	FY 15 R.E.	FY 16 Proj.	FY 17 Proj.	FY 18 Proj.	FY 19 Proj.
Plant & Machinery	0.06	0.06	0.07	0.08	0.10
Buildings	2.10	2.17	2.43	2.64	3.62
Civil Works	0.72	0.75	0.84	0.91	1.25
Hydraulic Works	0.01	0.01	0.01	0.02	0.02
Lines, Cables Networks	76.64	79.15	88.47	95.99	131.85
Vehicles	16.39	16.93	18.92	20.53	28.20
Furniture & Fixtures	0.05	0.05	0.06	0.06	0.09
Office Equipments	1.35	1.39	1.55	1.68	2.31
R&M Cost - Total	97.33	100.51	112.35	121.90	167.44
Any other Items (Reallocated to Capital Works)	-3.91	-4.04	-4.52	-4.90	-6.73
R&M Costs after Capitalisation	93.42	96.47	107.83	116.99	160.70
Less: Cost Reallocated to Employee Cost & A&G Expenses	27.90	28.82	32.21	34.94	48.00

Particulars	FY 15	FY 16	FY 17	FY 18	FY 19
	R.E.	Proj.	Proj.	Proj.	Proj.
Less: Cost Reallocated to Depreciation & Recovery of cost of vehicle from O&M and other units	16.78	17.33	19.37	21.01	28.87
Overall R&M Expenses	48.74	50.33	56.26	61.03	83.84

3.7.13 The total O&M expense proposed by the Petitioner for the Third MYT Control Period is shown as below:

Table 39: Projected O&M cost for the Control Period (Rs Cr.)

Particulars	FY15	FY16	FY17	FY18	FY19
Net Employee Cost	1295.0	1394.6	1502.5	1619.5	1746.4
Net A&G Cost	50.3	60.0	60.1	65.8	71.9
Net R&M Cost	48.74	50.33	56.26	61.03	83.84
Net O&M Cost (In Rs Cr.)	1394.04	1504.93	1618.86	1746.33	1902.14

3.8 Depreciation

3.8.1 For working out the depreciation, the Petitioner has considered the opening balance of assets in the beginning of the year and the projected capitalization. Assets funded through grants have been excluded in the calculation of depreciation. The Depreciation rates used are as per the HPERC MYT Tariff regulations.

3.8.2 The proposed break-up of assets and depreciation rates considered during the Third Control Period is shown in the following tables:

Table 40: Proposed GFA for depreciation calculation for the Control Period (Rs Cr.)

Particulars Rs Cr.	FY 15 R.E.	FY 16 Proj.	FY 17 Proj.	FY 18 Proj.	FY 19 Proj.	Rate of Dep
Land & Land Rights	78.2	86.3	94.2	103.5	151.1	0.0%
Building & civil works	171.9	198.8	224.7	255.2	411.7	1.8%
Hydraulic Works	19.6	21.1	22.7	24.4	33.6	5.3%
Towers,Poles, Fixture, overhead, conductors devices	1926.4	2062.0	2192.9	2346.8	3137.3	3.6%
Switichgears, controlgears & protection	708.2	773.4	836.4	910.4	1290.8	3.6%
Plants & Mechainery	1538.7	1645.5	1748.6	1869.8	2492.5	3.6%
Vehicles	17.5	19.6	21.6	23.9	35.8	18.0%
Furniture Fixture	11.8	13.0	14.1	15.4	22.0	6.0%
Office equipments incl intangibles	37.4	39.9	42.2	45.0	59.1	6.0%
Assets not belonging to the Board	3.8	4.2	4.6	5.0	7.3	
Others civil works	256.3	306.5	354.9	411.9	704.6	1.8%
Total	4769.8	5170.2	5556.7	6011.3	8345.9	
Assets not in use	0.0	0.0	0.0	0.0	0.0	
G. Total	4769.8	5170.2	5556.7	6011.3	8345.9	

3.8.3 The depreciation for each year of the Control Period has been computed as per the depreciation rates prescribed in the MYT Distribution Regulations. The depreciation proposed for each year of the Third Control Period is summarized in table below:

Table 41: Details of depreciation projected for the MYT Control Period (Rs Cr.)

Particulars Rs Cr.	FY 15 Proj.	FY 16 Proj.	FY 17 Proj.	FY 18 Proj.	FY 19 Proj.
Depreciation	148.4	160.4	171.8	185.2	254.1

3.9 Interest and Finance charges

3.9.1 The Petitioner has proposed Interest & Finance charges based on the proposed capital expenditure plan for the entire Control Period and the existing loans.

3.9.2 The summary of the proposed interest and finance charges for the Third MYT Control Period is provided in table below:

Table 42: Summary of the proposed Interest and Finance charges for the MYT Control Period (Rs Cr.)

Particulars	FY 15 R.E.	FY 16 Proj.	FY 17 Proj.	FY 18 Proj.	FY 19 Proj.
RGGVY - Existing loans as on 31 march 2013	2.97	2.69	2.41	2.13	1.85
LIC	9.50	7.49	5.29	3.29	2.04
REC - Existing loans as on 31 march 2013	83.32	74.50	65.74	57.03	48.40
PFC (for 2010-11 segregated frombank loan and taken here)	0.09	0.05	0.01	0.00	0.00
Short Term Bank Loans as per FRP Restructuring Plan	122.54	115.76	108.04	144.22	80.86
Non SLR Bonds	26.67	24.48	23.27	23.27	23.27
Cost of Raising Finances	14.39	13.10	12.15	11.45	9.64
Interest on Consumer Security Deposits	23.68	24.32	24.99	25.68	26.38
Interest on new CAPEX loans	189.58	255.30	331.86	406.28	628.37
Interest on WC Borrowing & Other Charges	86.46	90.20	98.29	105.56	116.40
Interest & Finance Charges - Total	559.20	607.88	672.04	778.90	937.21
Less: Interest Capitalisation	125.27	135.06	174.38	208.19	215.40
Net Interest & Financing Costs	433.93	472.83	497.66	570.71	721.81

3.10 Interest on working capital

3.10.1 The Petitioner has proposed an interest rate on working capital in line with the provisions of the HPERC MYT Distribution Regulations. The normative working capital requirement and interest thereon as projected by HPSEBL for the distribution business is summarized below:

Table 43: Proposed Interest on working capital for the Third Control Period (Rs Cr.)

Particulars	2014-15 R.E.	2015-16 Proj.	2016-17 Proj.	2017-18 Proj.	2018-19 Proj.
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Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
	R.E.	Proj.	Proj.	Proj.	Proj.
O&M expenses	1394.1	1504.86	1618.9	1746.4	1902.4
R&M expenses	48.8	50.33	56.4	61.2	84.1
A&G expenses	50.3	59.88	60.1	65.8	71.9
Employee expenses	1295.0	1394.6	1502.5	1619.5	1746.4
O&M expenses for 1 month	116.2	125.40	134.9	145.5	158.5
Annual revenues from tariffs and charges	4715.4	4867.8	5210.6	5512.9	5954.5
Receivables equivalent to 2 months average billing	785.9	811.3	868.4	918.8	992.4
Maintenance Spares (40% of R&M Expense of 1 Month)	1.6	1.68	1.9	2.0	2.8
Less: Consumer Security Deposit (CSD)	263.1	270.25	277.6	285.3	293.2
Total Working Capital	640.6	668.13	727.6	781.1	860.6
Interest on Working Capital	86.5	90.2	98.2	105.4	116.2

3.11 Provision for Bad and Doubtful Debt

3.11.1 The Petitioner has considered Bad and Doubtful Debts as the same as it was taken in the MYT Petition since the receivables are stated to have remained more or less same as they were in FY 14. Hence, provision for bad debt as submitted by the petitioner is as follows.

Table 44: Provision for Bad and Doubtful Debt for Third Control Period (Rs. Cr.)

Particulars	FY 15	FY 16	FY 17	FY 18	FY 19
	R.E.	Proj.	Proj.	Proj.	Proj.
Receivable from customers as at the beginning of the year	438.94	469.48	518.92	551.58	584.01
Revenue billed for the year	4771.1	5312.9	5597.4	5921.2	6407.4
Collection for the year					
Against current dues	4389.4	4887.8	5149.6	5447.5	5894.8
Against arrears upto previous year	351.2	375.6	415.1	441.3	467.2
Gross receivable from customers as at the end of the year	469.5	518.9	551.6	584.0	629.4
Receivables against permanently disconnected consumers	6.3	6.3	6.3	6.3	6.3
Receivables	463.2	512.6	545.3	577.7	623.1
% of provision	0.70%	0.70%	0.70%	0.70%	0.70%
Provision for bad and doubtful debts	3.2	3.6	3.8	4.1	4.4

3.12 Non-tariff Income

3.12.1 The Petitioner has estimated non-tariff and other Income for the third Control Period as shown in the table below:

Table 45: Non-Tariff Income for Third Control Period (Rs. Cr.)

Particulars	FY 15	FY 16	FY 17	FY 18	FY 19
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Particulars	FY 15	FY 16	FY 17	FY 18	FY 19
	R.E.	Proj.	Proj.	Proj.	Proj.
Meter Rent/Service Line Rentals	50.1	54.0	58.3	62.9	67.9
Recovery for theft of Power / Malpractices	0.1	0.1	0.1	0.1	0.1
Wheeling Charges Recovery	127.4	141.1	156.3	173.1	191.9
Miscellaneous Charges from Consumers	11.1	12.3	13.6	15.1	16.7
Non Tariff Income - Total	188.7	207.5	228.3	251.2	276.6
Other Income					
Interest on Staff loans & Advances	0.5	0.5	0.5	0.5	0.5
Income from Investments	4.3	4.5	4.7	5.0	5.2
Delayed Payment Charges from Consumers	59.6	61.5	65.9	69.8	75.4
Interest on Advances to Suppliers / Contractors	1.3	1.1	1.0	0.9	0.8
Income from Trading	2.9	3.1	3.2	3.4	3.6
Miscellaneous Receipts	20.3	20.3	20.3	20.3	20.3
O&M Charges Recovery from HPPTCL	0.0	0.0	0.0	0.0	0.0
PLVC charges	8.5	0.0	0.0	0.0	0.0
Gain on sale of fixed assets	0.0	0.0	0.0	0.0	0.0
Other Income – Total	97.5	91.1	95.7	99.9	105.9
Total Non-Tariff Income & Other Income	286.1	298.6	324.0	351.1	382.5

3.13 Return on equity

3.13.1 The return on equity as proposed by the Petitioner for the third Control Period is summarized below:

Table 46: Proposed Return on Equity for Third Control Period (Rs. Cr.)

Particulars Rs Cr.	FY 15	FY 16	FY 17	FY 18	FY 19
	R.E.	Proj.	Proj.	Proj.	Proj.
Opening Equity	275.1	343.1	377.9	410.8	450.1
Equity Infusion	68.0	34.8	32.9	39.3	214.5
Closing Equity	343.1	377.9	410.8	450.1	664.6
Rate of Return on Equity	16.00%	16.00%	16.00%	16.00%	16.00%
Return on Equity	49.5	57.7	63.1	68.9	89.2

3.14 Aggregate Revenue Requirement

3.14.1 The Petitioner's submission of ARR for the Third Control Period i.e. FY15 to FY19 has been summarised below:

Table 47: Details of the ARR proposed by the Petitioner for the MYT Control Period (Rs Cr.)

Particulars Rs Cr.	FY 15	FY 15	FY 16	FY 17	FY 18	FY 19
	Approved	RE	Proj.	Proj.	Proj.	Proj.
Purchase of Power from Own Stations	303.0	309.1	428.5	540.7	580.0	594.5
Purchase of Power from Other Sources (Including UI)	2091.0	2230.1	2464.8	2593.3	2933.4	3517.5
Transmission Charges	295.5	384.0	435.0	492.4	584.9	670.8
R&M Expense	43.5	48.8	50.4	56.4	61.2	83.81
Employee Expenses	1166.4	1334.5	1437.7	1549.7	1671.1	1803.0

Particulars Rs Cr.	FY 15 Approved	FY 15 RE	FY 16 Proj.	FY 17 Proj.	FY 18 Proj.	FY 19 Proj.
A&G Expense	36.4	52.4	62.4	62.6	68.5	75.0
Depreciation	62.7	148.4	160.4	171.8	185.2	253.4
Interest & Finance Charges	176.6	559.2	607.9	672.0	778.8	937.0
Less: Interest & other expenses capitalised	0.0	-166.5	-180.3	-223.7	-262.2	-274.6
Other Debits (incl. Prov for Bad debts)	1.0	3.2	3.3	3.6	3.8	4.1
Extraordinary Items (True Up / carrying cost for FY 13)	543.4					
Consumer Contribution towards RPPO Compensation Fund (as per HPERC order dated 10 th Nov 2014)			12.23			
Payment of arrears of Nathpa Jhakri & Khara Power plants as per the order of CERC and UPERC respectively			200			
Total	4719.5	4903.2	5682.3	5918.6	6604.7	7664.5
Reasonable Return	30.2	49.5	57.7	63.1	68.9	89.2
Other Income	(207.1)	(286.2)	(298.7)	(324.2)	(351.5)	(382.9)
Annual Revenue Requirement	4542.6	4666.5	5441.3	5657.5	6322.1	7370.8
Revenue from existing tariffs	4619	4716	4868	5211	5513	5955
Surplus / (Gap)	77	50	(573)	(446)	(809)	(1416)

3.15 Allocation of ARR into wheeling and retail supply

3.15.1 The Petitioner has allocated the total ARR for HPSEBL into wheeling ARR and retail supply ARR based on the approach adopted by the Hon' HPERC in its Tariff Order for the Second MYT Control Period:

Table 48: Basis for ARR allocation

Particulars	Wheeling allocation	Retail Supply allocation
Power Purchase Expenses	0%	100%
Transmission Charges	0%	100%
Employee Expenses	70%	30%
R&M Expenses	90%	10%
A&G Expenses	60%	40%
Interest & Financing Charges (other than interest on working capital)	100%	0%
Less : Interest & Other Expenses Capitalised	100%	0%
Interest on Working Capital	10%	90%
Depreciation	100%	0%
Other Debits (incl. Prov for Bad debts)	0%	100%
Return on Equity on Wheeling Business	100%	0%
Public Interaction Program	0%	100%
Non-tariff Income (excluding wheeling charges)	0%	100%

Particulars	Wheeling allocation	Retail Supply allocation
received from other states)		
Wheeling charges received from other states	100%	0%
Addition items (Prior period / true up, etc)	50%	50%

3.15.2 Based on the above allocation rationale, the ARR of wheeling and retail supply business is summarized in tables below:

Table 49: Wheeling ARR for Third Control Period (Rs. Cr.)

Wheeling ARR Rs Cr.	FY 15 R.E.	FY 16 Proj.	FY 17 Proj.	FY 18 Proj.	FY 19 Proj.
Power Purchase Expenses	0.0	0.0	0.0	0.0	0.0
Transmission Charges	0.0	0.0	0.0	0.0	0.0
Employee Expenses	934.1	1006.4	1084.8	1169.8	1262.1
R&M Expenses	43.9	45.3	50.6	54.9	75.5
A&G Expenses	31.1	37.1	37.2	40.6	44.5
Interest & Financing Charges (other than interest on working capital)	472.7	517.7	573.8	673.3	820.8
Less : Interest & Other Expenses Capitalised	-166.5	-180.3	-223.7	-262.2	-274.6
Interest on Working Capital	8.7	9.0	9.8	10.5	11.6
Depreciation	148.3	160.2	171.4	184.7	253.4
Other Debits (incl. Prov for Bad debts)	0.0	0.0	0.0	0.0	0.0
Non Tariff Income (excluding wheeling charges received from other states)	0.0	0.0	0.0	0.0	0.0
Addition items (Prior period / true up, etc)	0.0	0.0	0.0	0.0	0.0
ARR	1521.7	1653.0	1766.9	1940.6	2282.4

Table 50: Retail Supply ARR for Third Control Period (Rs. Cr.)

Retail supply ARR Rs Cr.	FY 15 R.E.	FY 16 Proj.	FY 17 Proj.	FY 18 Proj.	FY 19 Proj.
Power Purchase Expenses	2539.2	2893.4	3134.0	3513.4	4112.0
Transmission Charges	384.0	435.0	492.4	584.9	670.8
Employee Expenses	400.3	431.3	464.9	501.3	540.9
R&M Expenses	4.9	5.0	5.6	6.1	8.4
A&G Expenses	20.7	24.7	24.8	27.1	29.6
Interest & Financing Charges (other than interest on working capital)	0.0	0.0	0.0	0.0	0.0
Less : Interest & Other Expenses Capitalised	0.0	0.0	0.0	0.0	0.0
Interest on Working Capital	77.9	81.2	88.4	94.9	104.6
Depreciation	0.0	0.0	0.0	0.0	0.0
Other Debits (incl. Prov for Bad debts)	3.2	3.3	3.6	3.8	4.1
Return on Equity on Wheeling Business	0.0	0.0	0.0	0.0	0.0
Public Interaction Program	0.6	0.6	0.6	0.8	0.9
Non Tariff Income (excluding	286.2	298.7	324.2	351.5	382.9

Retail supply ARR Rs Cr.	FY 15 R.E.	FY 16 Proj.	FY 17 Proj.	FY 18 Proj.	FY 19 Proj.
wheeling charges received from other states)					
Wheeling charges received from other states	0.0	0.0	0.0	0.0	0.0
Addition items (Prior period / true up, etc)	0.0	0.0	0.0	0.0	0.0
ARR	3717.0	4173.2	4538.5	5083.8	5854.2

3.16 Proposal for cost optimization in power purchase

3.16.1 The petitioner has submitted a scenario/proposal for optimization of power purchase cost by surrendering costly NTPC power and procuring equivalent power from GoHP free power sources namely Baira Siul, Chamera I, II and III. The petitioner contends that Power procured from these plants may be banked during summers and can be received during winters. Accordingly the petitioner has submitted a plan to surrender costly NTPC power as per the below table:

Table 51: Surrendering costly power and procuring GoHP free power

Free Power	Installed Capacity	Share	Yearly Power available (MUs)	Status
Anta	419	3.58%	88	Wants to surrender
Auraiya	663	3.32%	123	Wants to surrender
Dadri	830	3.01%	154	Wants to surrender
Tehri	1000	2.80%	71	Already Surrendered
Koteshwar	400	2.51%	31	Already Surrendered
Koldam HEP	800	3.36%	100	Already Surrendered
Parbati III	520	3.36%	65	Already Surrendered
Chamera III	231	3.36%	33	Already Surrendered
Sub-Total			665	
Baira Siul	180	12%	81.0	Wants to procure
Chamera-I	540	12%	271.0	Wants to procure
Chamera-II	300	12%	167.0	Wants to procure
Chamera-III	231	12%	143.0	Wants to procure
Sub-Total			662	

3.16.2 The petitioner has submitted that if it surrenders power from NTPC plants mentioned above and procures power from GoHP free power, there is likely to be a net saving of the order of INR 60 Crore even if the fixed cost of INR 21 Crore (for Anta, Auraiya & Dadri plants) is taken into consideration.

3.17 Tariff Proposal

3.17.1 The Petitioner has not submitted a tariff proposal along with the petition for meeting the revenue gap. In spite of repeated reminders, the Petitioner had stated that the tariff proposal shall be submitted shortly.

4 Objection filed and Issues raised by Consumers during Public Hearing

4.1 Introduction

4.1.1 Seven objectors filed written objections to the Petition for First Annual Performance Review for the third Control Period FY15-19 filed by the HPSEBL. The list of the objectors is as follows:

Sl.	Objector	Address
1	Sh. Tek Chand	S/o Sh. Kahan Chand, Vill. Bhatagtan, P.O. Pipla aage, Teh.Bhunter, Distt. Kullu-175125.
2	Sh. Dola Ram	S/o Sh. Tulsi Ram, Vill. Bhatagtan, P.O. Pipla aage, Teh.Bhunter, Distt. Kullu-175125.
3	Sh. Sanjay Kumar	S/o Lt. Sh. Kaushal Kumar, Village Ruaru, P.O. Pipla aage, Teh.Bhunter, Distt. Kullu-175125.
4	Shri Rakesh Bansal, Representative	M/S Confederation of Indian Industry, Himachal Pradesh State Council Northern Region, Sector – 31 A, Chandigarh. M/S BBN Industries Association, C/o. Single Window Clearance Agency, Industrial Area, Baddi, Distt. Solan M/S Parwanoo Industries Association, HPCED Building, Department of Industries Complex, Sector – 1, Parwanoo, Distt. Solan. Nalagarh Industrial Association, C/o O/o Member Secretary, S.W.C.A, Nalagarh-174001.
5	M/S Ambuja Cements Ltd.	Vill. Navagraon, P.O. Jajhra, Teh-Nalagarh, Distt. Solan, H.P.-174101,
6	M/S Vardhman Textiles Ltd.	Sai-Road, Baddi, Tehsil Nalagarh, Distt. Solan, H.P.-173205
7	M/S Jaiprakash Himachal Cement Plant	Vill. Baga, P.O. Kandhar, Tehsil Arki, Distt. Solan, H.P.-171102.

4.1.2 The public hearing was held on 4th March, 2015 at the Commission's Court Room in Shimla. Various objectors, objecting organizations and their respective representatives, presented their cases before the Commission during public hearing.

4.1.3 Issues raised by the objectors in their written submission and during the public hearing, along with replies given to the objections by the HPSEBL and views of the Commission are mentioned in following paras:

4.2 Power Purchase

4.2.1 The objectors have made the following objections and observations on the Petition:

- a) In the tariff order of distribution business passed on 10.06.2014 by the HPERC, the power requirement was approved as 8217 MU for the year 2015. The actual consumption against this for the 1st six months has remained 3620 MU and therefore the revised projection has been worked out as 7946 MU. Thus there would be a saving in the power procurement, reducing the revenue requirement.
- b) The power available from GOHP free power share has been projected as 514.5 against 424 of approved in tariff order. This increase in free power should reduce the power procurement from other sources.
- c) Energy availability as per table 108 in the tariff order of 10.06.2014 is being totally ignored in APR petition.
- d) Despite the surplus power available going up from the approved figure of 10.06.2014 order, the annual revenue requirement is shown to have gone up from 3999.16 Cr. to 4304.4 Cr.
- e) Power purchase cost forms a huge share of the ARR. Better planning and management in power purchase may result in huge savings.

Petitioner's Response

4.2.2 The Petitioner has submitted the following responses and clarifications on the above power purchase related objections raised by Objectors:

- a) The applicable electricity tariff in India including Himachal Pradesh is composed of two-part tariff i.e. Fixed charge and Energy charge. Distribution Company is bound to pay fixed charge to generating company despite lower purchase or no purchase from the generating station on account of lower

electricity demand. Hence, despite reduction in revised power purchase quantum, power purchase cost will not reduce proportionately.

- b) The power available from free power share of GOHP has been projected as 514.5 MU against 424 MU as approved in the tariff order. However, revised power purchase plan will not reduce quantum of dependency from costly power generating stations as Bhabha power station has witnessed shutdown and is not likely to come up during FY 2015-16.
- c) The power plants mentioned in the table No. 108 of the tariff order are the power plants from which the power was not to be procured as per the direction by the Hon'ble Commission. However, power procurement from Tapovan Vishnugarh HEP has been considered for FY 16. The power being Hydro in nature shall reduce the burden in future.
- d) Reduction in power purchase which in turn increases the surplus power does not reduce the ARR proportionately due to two part tariff structure where HPSEBL is required to pay the fixed cost despite lower/ no power purchase.
- e) The increase in power purchase cost of close to Rs.300 Cr. includes the arrears of INR 200 Cr for payment to CGS power plants as per the tariff orders of CERC & UERC respectively. Such costs are not in the control of the petitioner and hence are uncontrollable.

Commissions Observations

4.2.3 The Commission will take into consideration the actuals of FY 2013-14 and ten months of FY2014-15 actual power purchase cost after examining the proposals made by the Petitioner.

4.2.4 The free power made available to the HPSEBL by the State Government has been valued at the generation tariff of each station or the average/ pooled power purchase cost of the HPSEBL, whichever is higher, as per the practice and principles followed by the Commission in the previous Tariff Orders.

4.2.5 The Commission is of the opinion that the HPSEBL needs to maintain an optimal mix of power purchase from different clean sources of generation for ensuring reliable supply to its consumers throughout the year. Accordingly, the HPSEBL is

encouraged to plan its power procurement in the best interest of the consumers. The Commission will continue with its policy of power procurement for 3rd MYT Control Period i.e. 100% clean energy in merit order pricing. The Commission will endeavour isolating the retail tariff from the impact of costly power purchase, in merit order, in excess of State requirement.

4.3 Variations in ARR components

4.3.1 The following objections were received regarding the variations in various components of the ARR:

- a) The total claimed ARR has gone up by almost 16%-17% despite the fact that there is an increase in surplus power.
- b) There is increase in all the elements of ARR over the approved amounts. The projection of ARR has been made in such a manner that it exceeds the revenue from existing tariff by almost Rs.1000 Cr pointing towards tariff hike.
- c) No prudence is being exercised for controlling the expenditure as against an approved surplus of Rs.77.11 Crore, HPSEBL has projected a deficit of 1083 Crore for FY15.
- d) The A&G expenses have gone up from 36.35 crores to 54.6 Cr. Depreciation charges have been claimed at 133.8 Cr against the approved value of 62.74 Cr. despite the rate of depreciation having remained the same. Such higher claims as compared to the approved values are being contested by the objectors.
- e) Objectors have opposed the allowance of the excess projections on account of controllable parameters like employee costs, interest cost and return on equity etc.

Petitioner's Response

4.3.2 With respect to the ACoS for the year FY 2014-15, the petitioner states that the average cost of supply looks higher on account of the true up amount. The numbers have been arrived at after detailed calculations. It can be seen that once this one time impact is sorted out, the average cost of supply comes down in FY 2016.

- 4.3.3 There is no excess R&M expenditure incurred. HPSEBL prudently spends amount against R&M expenditures. As R&M expenditure are critical expenditures for maintaining and ensuring the availability of distribution network, they should be allowed completely.
- 4.3.4 HPSEBL submits that the revised depreciation is projected after considering the growth in HPSEBL business and distribution network and resultant capitalization. HPSEBL requests Hon'ble Commission to approve the revised depreciation.
- 4.3.5 HPSEBL submits that the revised A & G expenditure is projected after considering the growth in HPSEBL business and distribution network. HPSEBL requests Hon'ble Commission to approve the revised A & G expenses.

Commissions Observations

- 4.3.6 The various components of ARR are segregated under controllable and uncontrollable parameters. As per the MYT Regulations, the controllable parameters shall remain constant and will not be revised during the Control Period. Therefore, the Commission while approving the ARR for FY16 has considered revision only on account of uncontrollable parameters. Other elements like depreciation, interest cost, etc. shall be considered for any revision based on the performance of the petitioner at the time of mid-term review/ end of control period.

4.4 Cost of supply

- 4.4.1 It has been pointed out by several objectors that industrial consumers are burdened by the element of cross subsidy built in the tariff. Also the tariff determination exercise doesn't adequately take into account the cross subsidy and the voltage-wise average cost of supply. On these lines, the objectors have suggested as under:
- a) The tariff of subsidised class of consumers should be raised to minimum 85% of the average cost of supply.
 - b) To determine the category wise tariff, there must a category wise cost of supply study.

Petitioner's Response

- 4.4.2 HPSEBL for its distribution business alone has huge asset base and earmarking of assets, liabilities, revenue and expenses across different voltage level is lengthy and

time-taking process. GIS mapping of all assets will be completed during FY 2015-16.

- 4.4.3 The current tariff applicable is in line with National Tariff Policy, 2006. The same has been adopted by Hon'ble Commission in its MYT tariff regulations. Hon'ble Commission may decide for switching of tariff philosophy from National Tariff Policy based tariff to Voltage-wise tariff at appropriate stage.

Commissions Observations

- 4.4.4 On the issue of determination of voltage-wise cost reflective tariff, the Commission has been following an approach for voltage-wise cost allocation to facilitate tariffs and pegging them to voltage-based Cost to Serve. The tariff under each category is being approved as per this methodology. The Commission has instructed the HPSEBL to undertake a detailed voltage-wise Cost of Supply study and submit the findings of the same to the Commission for further analysis and decision making.
- 4.4.5 In accordance with the HPERC (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulation, 2011 (read with amendments), the Commission has indicated a roadmap wherein, by the end of the current Control Period, the tariffs for all consumer categories except lifeline consumers are to be brought with (-)15% to (+)10% of the average cost of supply and the Commission is endeavouring towards achieving this.

4.5 Interest Charges

- 4.5.1 The following objections have been received regarding the interest on loan amount:
- a) It is not clear in the petition how much of the interest paid is for availing loans which were not approved by the commission.
 - b) There is an alarming excess of Rs.382 Cr. in interest and finance charges as compared to the approved values. These charges have gone thrice the value approved by the Hon'ble commission.
 - c) Interest and Finance charges should be allowed by the commission only after detailed scrutiny.

Petitioner's Response

4.5.2 The Petitioner has provided the following responses on the above objections:

- a) The objection regarding interest and finance charges pertains to the Hon'ble Commission.
- b) HPSEBL submits that the revised interest and financial charges are projected after considering the growth in HPSEBL business and distribution network. HPSEBL also states that HPSEBL has lower cash availability and interest on working capital amount calculated via regulatory formula provided in MYT tariff regulation is insufficient for HPSEBL to cater the whole distribution network in the state of Himachal Pradesh. HPSEBL requests Hon'ble Commission to approve the revised interest and financial charges.

Commissions Observations

4.5.3 The Commission has approved interest on loans with adequate due-diligence and with due cognizance to past practices. Detailed analysis regarding the same has been provided in the MYT Order dated 12th June, 2014.

4.5.4 While the Commission has been approving the interest on working capital as per the normative working capital requirement, any shortfall in recovery of revenue as against the ARR is approved along with carrying cost. Therefore, no short term loans are considered by the Commission while approving the interest and finance charges.

4.6 Tariff adjustment

4.6.1 A fund should be generated during the current MYT to absorb uncontrollable expenditure on account of employee cost or power purchase cost etc. This may be used to neutralize any future tariff shocks.

4.6.2 Arrears allowed during true-up should be shown separately from the base tariff in the form of surcharge.

Petitioner's Response

4.6.3 No response provided by Petitioner

Commissions Observations

4.6.4 Based on the projections undertaken by the Commission in the MYT Order for the 3rd Control Period, it is estimated that the revenue shall remain in surplus over the

projected ARR and therefore no major revision in tariff may be required. For creation of any fund additional burden would be required to be put on the consumers by way of a tariff increase which may not be a viable option.

4.7 Return on Equity

4.7.1 Objectors have stated that return on equity which may be invested in coming years or in the projects to be Commissioned should only be approved. In case the petitioner is not able to establish that the RoE would be invested in tangible assets, the same should not be approved. Further, it is contended that the RoE approved in the previous tariff order was Rs.30.24 Cr as against the amount of 52.4 Cr projected by the petitioner in the current petition. Such overestimation by the petitioner should not be accepted.

Petitioner's Response

4.7.2 HPSEBL also submits that Return on Equity has been calculated on the basis of actual equity infusion and HPSEBL requests Hon'ble HPERC to consider and approve the same.

Commissions Observations

4.7.3 In the MYT Order the Commission had observed that all past capex undertaken by the Petitioner are predominantly being funded through grants and debt. Therefore, the Commission had considered the same approach while approving funding for capital expenditure approved for the third Control Period and any equity infused for funding of the schematic capex shall be considered during the mid-term review and review at the end of Control Period. The Commission has continued with the philosophy defined in the MYT Regulations and will approve RoE in the MYT Order for the 3rd Control Period for FY16.

4.8 Capital Expenditure

4.8.1 It has been suggested by HT and EHT industrial consumers that the financial burden of 33 kV and below schemes should not be passed on to EHV consumers who pay IDC charges for getting HT connections.

4.8.2 It has also been suggested by some consumers that the cost of funds diverted from capital to revenue account should be disallowed by the Commission.

Petitioner's Response

4.8.3 The energy demand of consumers other than Industrial can be met through HPSEBL's own generation and free power available within the State but HPSEBL has to procure power from costly sources to fulfil the demand of industrial consumers. Major CAPEX is also being used for creating the HV/ EHV infrastructure. The capex for HV/ EHV infrastructure and costly power procured is also being borne by other consumers of the State as well. Therefore, EHT consumers can't claim relief on account of CAPEX for 33 kV schemes.

Commissions Observations

4.8.4 The Commission undertakes all the necessary prudence checks to ensure that the licensee is not allowed interest costs on funds that are diverted to revenue accounts. Interest and finance charges are only allowed to the extent of expansion of the capital assets of the licensee over a year.

4.8.5 At the same time, while it is correct that the HT consumers bear the highest tariff, it should be noted that they also account for a very high percentage of the total demand of the licensee area. The smaller consumer connected on 33 kV and below account for a very small per connection average consumption as compared to HT consumers. The sustainability of the entire network is dependent on a healthy mix of consumer. Grid stability is dependent on several consumer categories.

4.8.6 When the actual voltage-wise segregation of assets of the licensee are available, it will be possible to segregate the interest & finance charges for EHT consumers and below.

4.9 Energy Sales

4.9.1 Due to withdrawal of industrial concession package from 2010, considering CAGR of 5 years may not yield correct result for industrial consumers. Therefore, the projections of energy requirement should be realistically worked out and prudently checked.

4.9.2 The sales growth of EHT category appears to be under-assessed. Against 1 year CAGR of 16.7% and 5 year CAGR of 8.28%, this projection seems to be out of line and under projected.

Petitioner's Response

4.9.3 For the projection of energy requirement, multiple year CAGRs are computed and then its variability is checked. If five-year CAGR, four-year CAGR and other CAGRs yield close growth rate then CAGR yields correct result. The projections of energy requirement are dynamic in nature which depends on many factors like season, temperature, growth in economy, increase in per capita income etc. Hence, because of dynamic nature of energy projection, it needs to be revised after observing the actual trend. Actual industrial consumption and increase/decrease in industrial consumption due to setting-up of new industries and closure of existing industries are reflected in the consumption trend for the tariff category.

4.9.4 HPSEBL submits that the state of HP witnesses higher consumption during the winter months, unlike other states of India, due to heater and other loads. Therefore, the presumption of the consumer that the average of first six months of 600 MUs be used for projecting the entire year sales is incorrect. HPSEBL has projected the consumer sales based on detailed analysis of historical trends and seasonal variations in consumption pattern.

Commissions Observations

4.9.5 The Commission has examined the sales projections proposed by the Petitioner in detail and firmed-up the figures.

4.10 T&D Losses

4.10.1 The Objectors in their submissions cited various shortcomings in the functioning of HPSEBL as well as highlighted other operational deficiencies which are as follows:

- a) T&D Losses should not be imposed equally on all categories of consumers, especially for HT/EHV consumers as the HT network has lower losses. The HT/EHV consumers should be relaxed from such high T&D Losses
- b) Objectors have also pointed out that losses in several circles are way more than the overall level of 12%-14% and there is urgent need to attend the high T&D Losses in many circles.

Petitioner's Response:

4.10.2 The petitioner has not offered any response on these matters.

Commissions Observations

- 4.10.3 Regarding T&D losses being higher than approved, the Commission views with concern the higher T&D losses reported in the past years. The Commission expects the utility to make stronger efforts to rein in losses in the future. The continued high losses in some circles are a cause for concern. The petitioner should focus its efforts on these areas and strive to bring their loss level at par with that of the entire state. Further, the Commission has undertaken reforms in supply code and tariff schedule that should provide an impetus to the industrial consumption.
- 4.10.4 On the issue of determination of category wise cost reflective tariff, the Commission has been following an approach for voltage-wise cost allocation to facilitate tariffs and pegging them to voltage-based Cost to Serve. The tariff under each category is being approved as per this methodology. The Commission has instructed the HPSEBL to undertake a detailed voltage Cost of Supply study and submit the findings of the same to the Commission for further analysis and decision making.
- 4.10.5 The Commission is keenly pursuing the segregation of transmission and distribution losses in the State. Adequate provision of expenditure as proposed by HPPTCL for installation of meters at interface points between the transmission and distribution networks in the State has been approved in the Order for 3rd Control Period of HPPTCL.
- 4.10.6 The Commission has approved voltage-wise differential T&D losses in this Order for open access consumers.

4.11 Wheeling Charges and Cross Subsidy Charges

- 4.11.1 The Wheeling charges should be charged only on the purchase of power over and above the contract demand or from OA consumers who are not consumers of HPSEBL.
- 4.11.2 Cross subsidy charges should be abolished on power purchase through open access to bridge the gap between demand and supply during peak hours.
- 4.11.3 It is claimed by some objectors that only a small part of the transmission system has been transferred to the HPTCL while retaining substantial portion is with HPSEBL.

This loads the EHT consumers with the unnecessary burden of wheeling charges which can be avoided if all transmission system is transferred to an STU.

Petitioner's Response:

4.11.4 All the transmission assets have been transferred to HPPTCL. HPSEBL is doing repair and maintenance work for some transmission lines of HPPTCL. The expenditure on account of HPPTCL line maintenance is collected from HPPTCL which become part of non-tariff income and provides relief to consumers and not burdening the same.

Commissions Observations:

4.11.5 The Commission is keen to introduce voltage wise wheeling charges on completion of study for voltage-wise losses and voltage-wise cost of supply by the HPSEBL. Presently, distribution (wires business) and supply business are not segregated hence it doesn't have impact on retail tariff. However, for providing level playing field to open access consumers and open access generators selling power to other than HPSEBL, the Commission has considered allocation of costs and losses at different voltage levels in the MYT Order for FY15 to FY19.

4.11.6 Section 131 of the Electricity Act 2003 provides for vesting of property of Board in the State Government and then re-vesting in a company or companies on functional basis. However, there is no restriction or demarcation on the basis of voltage classification of assets. Transmission and distribution system has to be on functional basis, irrespective of voltage. The HV or EHV system feeding consumers can therefore be distribution system and can be vested with the distribution licensee as is the case in H.P.

4.11.7 The transmission charges are a function of the Aggregate Revenue Requirement (ARR) of the transmission licensee whereas wheeling charges are a function of wheeling ARR of the distribution licensee. In case of H.P. the ARR of HPPTCL is lesser as compared to ARR of wheeling business of HPSEBL as quantum of assets transferred to HPPTCL on re- organization of HPSEB is lesser. However, in case of H.P., the total transmission charges and wheeling charges put together are comparable (even lesser) to the neighbouring States like Punjab and Haryana. An EHV consumer in Himachal will have to pay a transmission and wheeling charge of 48 paise per unit (2 paise + 46 paise). However, in case of Haryana the transmission

charges and wheeling charges are 29 paise per unit and 74 paise per unit respectively. In case of Punjab the wheeling charges are 121 paise per unit and transmission charges are 19 paise per unit.

4.12 Employee Cost

4.12.1 The employee cost has risen to Rs.1361 Cr. from 1166.37 Cr. No explanation for this huge difference of about 200 Cr. has been give despite all out emphasis of the HPERC to cut down employee cost.

4.12.2 A sum of Rs.1361 crores towards employee cost for FY14 as against approved amount of Rs.1070.1 crores should not be allowed. The component of manpower cost on account of arrears occurring due to 5th pay commission was temporary and the manpower cost should have come down after the payment of arrears in subsequent years. HPSEBL has based its future projection on the basis of manpower cost which included arrear component also.

4.12.3 It has also been suggested that in order to controlling the employee expenses, the licensee is resorting to contractual arrangements at the divisional level for handling the O&M requirements. The licensee has not made any recruitment drives since a long time. Such a shortage of technical staff leads to direct impact on customer service. Thus the licensee must be directed to fill up all the vacancies with an aim of improving customer services. Objectors have also suggested that employee cost should be linked with increase in inflation and excess cost should be disallowed

Petitioner's Response:

4.12.4 The compilation of the replies to the above issues filed by the Petitioner is as follows:

- a) Actual employee expenses for FY 2013-14 are Rs. 1212.82 crores. The projected employee expenses for FY 2014-15 is Rs. 1334.45 crores which is around 10% more than that of actual employee expenses incurred during FY 2013-14. Average salary hike for HPSEBL employees stay around 3% per annum. The effect of inflation in India is around 6-8% per annum. Apart from this increase, employee strength also increases year-on-year. Despite this entire financial burden, an increase of 10% over actual expenditure for FY 2013-14 is justified. HPSEBL requests Hon'ble Commission to approve the complete amount against projected employee cost.

- b) The employee cost projections have been prepared in accordance with the MYT Tariff Regulations of HPERC.

Commission's Observations:

4.12.5 The Commission has provided its detailed analysis and approval of the employee cost for each year of the Control Period in Chapter 7 of the MYT Order dated 12th June, 2014. HPERC MYT Regulations provide for setting norms for employees cost under O&M cost and HPSEBL has to work out these norms accordingly for approval of the Commission expeditiously.

4.13 True-Up Related

4.13.1 A large part of the proposed revenue gap is on account of expenses disallowed by the Commission and mainly belongs to higher employee cost, interest cost, return on equity.

4.13.2 Absence of audited balance-sheet makes it difficult to ascertain the cost.

Petitioner's Response:

4.13.3 HPSEBL submits that balance-sheet is provisionally available for FY 2013-14. Actual audited balance sheet is also available till FY 2012-13 and the actual audited balance sheet for FY 2013-14 is being prepared by the auditors. The same shall be available in due course of time.

Commission's Observations:

4.13.4 The approval of ARR/ Tariff Orders under the applicable MYT Regulations are intended at approving the best estimates towards the justifiable costs for determination of tariffs and giving a direction to the utility in controlling costs/ performance on efficiency parameters. While some parameters are in control of the utility (controllable), others may be uncontrollable and thus cannot be projected with complete certainty. Therefore, the MYT Regulations provides for treatment of each parameter for the purpose of true-up based on the audited accounts. In the true-up, the Commission approves the legitimate and justifiable expenses of the proposed expenses as per the provisions of the MYT Regulations.

4.13.5 Having said that, the Commission expects that the petitioner expedite the process of compilation and auditing of its annual accounts and submit the same to the

Commission so as to enable actual assessment while truing up the cost components.

4.14 Tariff Related Aspects

- a) The minimum demand charges, which are presently 90% of total contract demand, should be reduced to avoid unnecessary burden on consumers.
- b) Category wise cost of supply should be worked out and cross subsidy level should be determined accordingly. The Board's contention for moving tariff in the range of 80%-120% of cost of supply by referring to NTP is not valid and tariff for the subsidizing class of consumers should not be increased in such a way, which will increase the cross subsidy beyond the existing level given by the subsidizing class of EHT consumers. It is also contended by some objectors that the consumers connected on lower voltages are benefiting at the cost of HT consumers.
- c) A separate tariff category should be evolved and made applicable for 66 KV, 132 KV and 220 KV consumers in the State. Such tariff is applicable in several other states.
- d) The night tariff concession in the state is not adequate to create major change in consumption pattern. The same may be increased, such as Rs.1/- per unit in Punjab. It has also been suggested that the main purpose of modifying the demand curve would be defeated by seasonal variations in the concessional charges as the industrial consumers would not be able to make such frequent changes in their processes and thus move towards seasonality in the demand pattern. Thus the concessional rates should be uniform for the entire year.
- e) Night time concession should be extended to all categories of consumer throughout the year.
- f) The demand charges for the EHT category are abnormally high and need to be reduced. It was also proposed that the demand charges be made uniform for all categories of industrial consumers with no differential on the basis of the voltage level.
- g) The limit of special category load should be increased from 750 kW to 1500 kW and standard supply voltage of 415 V should be extended.

- h) Demand charges of HT2 and EHT consumers are very high and should be reduced. Further, demand charges should either be completely removed or should not be increased from the current levels. Further, the minimum chargeable demand should be at 80% level instead of current 90%.
- i) An excess of 10% over and above contract demand should be allowed without charging any penalty. The demand charges may be charged on this excess demand of 10%. Penalty for demand above 110% should be at one and half time the demand charges. Chargeable contract demand should be reduced from 90% to 80%/75%.
- j) The commission in its Tariff regulations 2013 has stated that tariff of the subsidizing category of consumers will not be more than 10% of average cost of supply and subsidized class of consumers would not be less than 85% of the average cost of supply. Therefore, tariff of subsidized class of consumers should be raised to minimum 85% of Average cost of Supply.
- k) Concept of Connected Load in kW should be replaced with contract demand in case of Industrial consumers as the consumption is recorded in kVAh. Further, continuation of the concept of connected load for the purpose of billing/connection release leads to avoidable harassment of the consumers at the hands of the utility staff.
- l) The peak load additional charges on Average Demand (PLADC) are exorbitantly high and the duration of peak load hours should be revised to 3 hours.
- m) The demand charges should be pro-rata adjusted in case of non-supply of power for a certain period.
- n) There should be time bound mechanism for refund of excess amount charged by HPSEBL.
- o) The demand charges based on average demand during peak load hours should be abolished and energy charges should be increased accordingly to make the steps revenue neutral.
- p) Two part tariff should be abolished by doing away with demand charges and

only single part Time of Day (ToD) should be charged.

- q) Approved lighting load of Industries should be considered as essential load and no peak load charges should be levied on it.

Petitioner's Response:

4.14.1 The compilation of the replies to the above issues filed by the Petitioner is as follows:

- a) HPSEBL for its distribution business alone has huge asset base and earmarking of assets, liabilities, revenue and expenses across different voltage level is lengthy and time-taking process. GIS mapping of all assets will be completed during FY 2015-16. The current tariff applicable is in line with National Tariff Policy, 2006.
- b) The same has been adopted by Hon'ble Commission in its MYT tariff regulations. Hon'ble Commission may decide for switching of tariff philosophy from National Tariff Policy based tariff to Voltage-wise tariff at appropriate stage.
- c) For tariff purpose, the aggregate losses of the entire state are taken into consideration. Bifurcation of these losses into smaller categories is not practical and prudent, as the same would result into infinite such smaller clusters with no practical way of tariff fixing.
- d) The demand charges are levied to offset the fixed costs incurred by HPSEBL on installations and O&M of the system created to supply power on demand by the consumer and therefore this cost has to be borne by the consumer even if there is no consumption due to any reason. Further, the Hon'ble Commission has allowed the consumer to modify their contract demand twice in a year also. Major CAPEX and power purchase from costly sources aim to fulfil the industrial demands which are borne by domestic consumers as well. Moreover, reduction of demand charges will reduce the revenue requirement and the same can only be compensated by higher energy charge from EHT consumers.
- e) Special category load increases harmonics in the system and results in system instability. Further, they result in high energy losses. Therefore, the

limits decided by Hon'ble Commission should not be changed. However, Himachal Pradesh Electricity Regulatory Commission may decide on this issue.

- f) HPSEBL submits that the reduction in demand charges will impact the revenue requirement of HPSEBL and the same can only be compensated by higher rate of demand charge or higher energy charges. Hence, HPSEBL is not in favour that the billable demand should be made at 80% of the contract demand or the actual demand whichever is higher. Demand charges are paid against fixed charges and towards obligation of long-term PPA by HPSEBL even if power is not procured by HPSEBL. Hence, the same can't be adjusted in the scenario when load-shedding is done by HPSEBL or power is not consumed by the consumer.
- g) HPSEBL is already providing night-time concession. Further increase in night-time concession will not result in major shift in load-curve. The night load curve is already stable and HPSEBL does not envisage any further shift of consumption in respect of single shift industries. Further HPSEBL does not see any merit in allowing it for the whole year since less power is available during winters as surplus during night time. Therefore, HPSEBL does not find any merit in further changing the same.
- h) Requisite changes have already been made in the Supply Code by the Hon'ble Commission as well as in the MYT order dated 12/06/2014 and since it is ongoing process, the concept of complete KVA based connection will evolve eventually in time.
- i) Existing Peak Load Average Demand Charges introduced in the MYT order dated 12/06/2014 is reasonable and justified since HPSEBL has to procure power during peak hours at higher rates. In case these charges are either reduced or removed, there will be proportionate increase in energy charges during peak hours in order to realise the complete ARR. Change in peak load hours from 3 hours to 3.5 hours was revised as per the changes in peak time observed which starts at around 6:00 PM and stretches even beyond 22:00 hours. Therefore, the change in peak hours can't be made

Commission's Observations:

4.14.2 Various steps were taken during the multi-year tariff order issued on 12th June, 2014 for simplification/rationalisation of tariff structure. These steps were taken after detailed deliberation with all the Stakeholders including various Industrial Associations. The multi-year tariff principles have been adopted to provide greater predictability to consumer tariff during the control period. Therefore, it will not be in the overall interest of the electricity sector in the State to alter the tariff concepts perceived for the 3rd MYT control period midway. Some of the issues raised by the Industrial Associations have been deliberated in the past and the Commission had taken a balanced view in such matters. These issues have not been discussed in detail here. In this context, the observation of the Commission on various issues is as under:

- a) In accordance with section 62 of Electricity Act, the Commission has to determine the Electricity Tariff wherein consumers of electricity may be differentiated in accordance to their load factor, power factor, voltage, total consumption of electricity during any specified time period, the time at which supply is required, geographical position of any area, nature of supply and the purpose for which supply is required. Therefore, voltage can be one of the criteria for fixing of tariffs but it need not be the sole criteria. In accordance with National Tariff Policy the level of cross subsidies is to be restricted for various consumer categories other than lifeline domestic consumers, to a level of (\pm)20% of the average cost of supply. However the Commission has gone a step further and laid out a roadmap in the Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Wheeling Tariff and Retail Supply Tariff) Regulations, 2011, wherein by the end of the current Control Period the level of cross subsidies shall be within (-)15% and (+)10% of the average cost of supply.
- b) The provision of levying demand charges on the basis of Contract Demand helps consumer to reduce his cost by managing his demand during various hours of the day. The provision of levying demand charges on 90% of Contract Demand takes care of marginal variations in the assessment of demand vis-a-vis actual demand. Since sufficient flexibility is available to the consumer wherein he can reduce his demand up to 50% twice a year, there is no need to change the chargeable demand from 90%.

- c) The basic purpose of providing night time concession is for balancing of load throughout the day which would eventually help in reducing the purchase of costly power during the peak hours. Providing it to all categories of consumer may not serve the desired purpose of night time concession. Moreover, our sources being only hydel, there are no surpluses at night in most part of the year.
- d) Regarding night time concession, the Commission shall consider the proposals given by HPSEBL and Consumer Associations while finalising the tariff.
- e) As far as separate tariffs within HT category for different voltage levels are concerned, the Commission is of the view that increasing the number of tariff categories within the HT category shall lead to unnecessary complication in the tariff structure. While the consumers opting for higher voltage levels automatically benefit through better power supply, the licensee also benefits through lower T&D losses. Hence it is a mutually beneficial condition and the Commission sees no merit in any further complication of HT tariff structure.
- f) The demand charges for all categories of consumers are being determined in accordance with the provisions of the relevant regulations and the Electricity Act 2003. The Commission feels that the demand charges cannot be made uniform for all HT consumers. This is because the licensee is required to tie up for greater capacities for larger consumers and the marginal cost of the licensee increases in such a situation. Hence, there needs to be an inherent differential in the demand charges based on the voltage level.
- g) The concept of retaining demand charges during peak load hours has been adopted for optimum utilization of the available capacities of the network. There is no merit of abolishing the demand charges during peak load hours as if the energy charges during peak hours are increased to make the step revenue neutral, the consumers will have to bear the extra burden on account of additional electricity duty charged on such energy charges.
- h) The concept of Two Part Tariff is a progressive tariff mechanism which has been adopted in the State since a long time and it has been well established. There is no merit to change to retrograde single part tariff.

- i) In case the distribution licensee fails to maintain certain critical distribution system parameters within the permissible limits, the compensation mechanism as laid down in the Himachal Pradesh Electricity Regulatory Commission (Distribution Performance Standards) Regulations, 2010 is already in place.
- j) As an established tariff principle, the lighting load is being considered as a common load of the industry and is being charged at applicable Time of Day (ToD) Tariff.

4.15 Agriculture tariff

4.15.1 Agriculture consumer with connected load of more than 20 kVA have stated that the difference in demand charges for agriculture connections with connected load of more than 20 kVA and with load of less than 20 kVA should be abolished. It was suggested that while the purpose of both types of loads is the same, namely to irrigate the land, the connections with connected load of less than 20 kVA are not being charged any demand charges. Such a differential policy is proposed to be abolished. In case the same cannot be done, it has been requested that the charges should not under any circumstances be raised to level above Rs.40 / kVA/month.

Petitioner's Response:

4.15.2 The petitioner has not offered any response on the objection.

Commission's Observations:

4.15.3 The tariff for various consumer categories is determined in accordance with the principles laid down in the relevant regulations as notified and amended by the Commission from time to time.

4.16 Other/ General Objections or suggestions

4.16.1 The objectors pointed out the following general issues related to the Multi Year Tariff Petition for the 3rd Control Period filed by the HPSEBL:

- a) The word consumer should be replaced with customer.
- b) Effective maintenance practices should be followed.

- c) It has been suggested that the provision for Force Majeure should be expanded to include planned shutdowns of period more than 15 days, over and above the events already included.
- d) The HPSEBL is collecting IDC and demand charges from industrial consumers. And the cost of power system is also included in the approved tariff. Hence there is little justification in recovering wheeling charges from open access consumers. Continuing with the previous trend of reduction of the wheeling charges, the Commission, the wheeling charges should be completely abolished.
- e) It has been suggested that the state being power surplus, the industrial consumers should be encouraged to consume maximum power during the night by offering a rebate of Rs.1.5 per unit the entire year and not during the month of August alone.
- f) It has been pointed out that the compliance to directives of the Commission in general, and in relation to pension liabilities is particular, no initiative has been taken by the petitioner.
- g) It has been suggested that power cuts, if unavoidable should be uniformly applied on all categories of consumers and industrial consumers alone should not be discriminated against on this account. It was also proposed that in case of power cuts, when the licensee is unable to supply continuous power, the demand charges should also be proportionately reduced in line with the hours of supply vis-à-vis the total hours in a month.
- h) It has been suggested by objectors that a time bound plan be furnished by the licensee to improve the quality of supply. Also it has been suggested that with the advent of internet the consumers may be involved in monitoring and reporting the quality of power. The licensee has also been asked to furnish reliability parameters like SAIDI, SAIFI, CAIDI, CAIFI etc.

4.16.2 The objectors have also suggested several initiatives to be launched by the licensee like a 24/7 centralized complaint management system, simplification in new connection application system, not allowing connection of new consumers on dedicated feeders or shifting of such consumers on other feeders if already

connected etc. This has also been demanded specifically for some industrial areas by HT/EHT consumers.

4.16.3 It is also contended by consumers that the HPSEBL is discouraging use of power during peak hours by imposing PLH charges. In parallel, cross subsidy surcharge is imposed on open access consumers thus curbing sourcing of power from outside. At the same time, even if a consumer is sourcing power under open access, he is still required to pay IDC and demand charges. In view of these observations, charging open access consumer with IDC, demand charges, cross subsidy surcharge, wheeling charge etc. is not justified as long as the consumer is consuming within its contract demand.

Petitioner's Response:

4.16.4 The compilation of the replies to the above issues by the Petitioner is provided below:

- a) Demand charges are paid against fixed charges and towards obligation of long-term PPA by HPSEBL even if power is not procured by HPSEBL. Hence, the same can't be adjusted in the scenario when load-shedding is done by HPSEBL. Also, the applicable tariff is charged as per the MYT tariff regulations 2011 approved by Hon'ble Commission which does not have any provision for adjustments of demand charges for non-availability periods. Also, planned cuts are aimed at repair and maintenance of distribution network which is done to improve the quality of supply and to ensure that the network is up and running in healthy environment.
- b) IDC is one time charge collected by HPSEBL due to addition of the infrastructure for providing supply to its consumers. All the open-access consumers of HPSEBL are short-term open access consumers. They source power from HPSEBL as well as from other sources. Hence, they are bound to pay the applicable tariff in HP for their consumption of electricity from HPSEBL in the form of demand charges since the system is there for them all the time and they are also liable to pay the wheeling charges, cross-subsidy surcharge etc. as approved by Hon'ble Commission for the quantum of electricity sourced through open access as per provisions of the Electricity Act, 2003 and Regulations framed there under.

- c) HPSEBL is already providing night-time concession. Further increase in night-time concession will not result in major shift in load-curve. The night load curve is already stable and HPSEBL does not envisage any further shift of consumption in respect of single shift industries. Further HPSEBL does not see any merit in allowing it for the whole year since less power is available during winters as surplus during night time. Therefore, HPSEBL does not find any merit in further changing the same.
- d) HPSEBL submits that no PPA is signed without prior approval of Hon'ble Himachal Pradesh Electricity Regulatory Commission and the same does not reflect in the APR as APR includes only the source from which the power is likely to be available during the subsequent years.
- e) Hon'ble HPERC has already published draft "Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Sharing of Cost of Terminal Benefits of Personnel of the erstwhile Himachal Pradesh State Electricity Board and Successor Entities) Regulations, 2015". Same is available on the website of HPERC.
- f) SLDC is in process of framing Standard Operating Procedures for load shedding throughout the state. However, ALDC has already issued guidelines to field units in this respect.
- g) Centralized toll free/ IVRS call centre for complaint handling is already present in HPSEBL. In addition to this a 24/7 complaint centre for industrial area has been established at Baddi to cater to need of the Industrial consumers of the area. More such centres are expected to be put in place in future.
- h) Due to corridor constraints, the power is supplied to consumers sometime in joint mode on dedicated feeders after taking prior consent of the prime owner of that feeder and such connections are governed by the Himachal Pradesh Electricity Regulatory Commission (Recovery of Expenditure for Supply of Electricity) Regulation, 2012.
- i) Application process required for getting a power connection has already been simplified by HPSEBL and the same has been shortened by HPSEBL.

Instead of five different affidavits, only one affidavit is required for getting a power connection. Due to some legal hurdles, currently it is not possible to reduce the same further. Since it is continuous process, the same shall be further simplified in due course. The NOCs are being taken in view of provisions of TCP Act 1977. The Act was enacted by the HP legislature to curb unauthorized constructions in the state. The HP-TCP Act 1977 has precedence over general law of electricity act and HPSEBL has to abide by the special enactment of State Government.

- j) HPSEBL is not discouraging consumption of power during peak hours however, in order to flatten the load curve and to maintain the grid stability, peak load charges are applicable as approved by Hon'ble Commission. Similarly IDC is one time charge collected by HPSEBL due to addition of the infrastructure for providing supply to its consumers. Demand charges are charged to maintain and sustain the network for the consumers. All the open-access consumers of HPSEBL are short-term open access consumers. They source power from HPSEBL as well as other sources. Since HPSEBL system is available to them even during short term open access, they have to pay the demand charges for their consumption of electricity from HPSEBL and they are also liable to pay the wheeling charges, cross-subsidy surcharge etc. as approved by Hon'ble Commission for the quantum of electricity sourced through open access.

Commission's Observations:

- 4.16.5 The word consumer has been used in accordance with the Electricity Act, 2003. However, customer is a generic term and can be used in the context of electricity distribution also.
- 4.16.6 Regarding 24X7 centralized complaint handling for industrial consumers, HPSEBL is directed to ensure efficient and effective operation of the already established centralized complaint handling in order to timely redress the complaints of such consumers.
- 4.16.7 The Commission directs the HPSEBL to take into cognizance issues and complaints highlighted by consumers/ consumer representatives during the ARR/ Tariff

determination process and take appropriate actions to resolve the same at the earliest.

5 Analysis of the Annual Performance Review (APR) and ARR Proposals for FY16

5.1 Background

- 5.1.1 The Commission has analyzed the revised Aggregate Revenue Requirement (ARR) Petition for FY16 submitted by the Petitioner (HPSEBL) for approval of the revised ARR of HPSEBL and determination of Wheeling and Retail Supply Tariff for FY16.
- 5.1.2 The Commission held several rounds of technical discussions to validate the data submitted by the Petitioner and sought further clarifications on various issues. The Commission has considered all information submitted by the Petitioner as part of the tariff petition, audited and provisional accounts for past years, responses to various queries raised during the discussions and also during the public hearing, for determination of tariff.
- 5.1.3 This chapter contains detailed analysis of the HPSEBL's revised ARR petition and the Commission's Annual Performance Review of various parameters for determination of revised ARR for the distribution business of HPSEBL.

5.2 Aggregate Revenue Requirement (ARR) of HPSEBL as per 3rd MYT Order

- 5.2.1 The Aggregate Revenue Requirement approved by the Commission for HPSEBL for the third Control Period (FY15-FY19) under its MYT Order dated June 12, 2014 is summarized in the table below:

Table 52: Approved ARR for the Third Control Period (Rs. Cr.)

Particulars	FY15	FY16	FY17	FY18	FY19
Power Purchase Expenses for Supply in the State	2,554.17	2,762.53	2,872.90	3,095.02	3,355.08
Cost of electricity purchase including own generation	2,258.72	2,431.22	2,505.69	2,685.08	2,901.05

Particulars	FY15	FY16	FY17	FY18	FY19
Inter-State Charges					
Power Grid Charges	230.51	258.53	288.29	326.97	365.45
Open Access Charges	53.12	58.43	64.28	70.71	77.78
Intra-State Charges					
HPPTCL Charges	3.45	3.47	3.32	3.36	3.46
SLDC Charges	8.37	10.88	11.32	8.89	7.34
Operation & Maintenance Costs	1,247.23	1,372.09	1,510.39	1,663.11	1,830.80
Employee Cost	1,166.37	1,284.81	1,414.82	1,557.50	1,714.12
R&M Cost	43.51	46.79	51.69	58.02	65.09
A&G Cost	36.35	39.48	42.89	46.58	50.60
Additional amount for Safety measures	1.00	1.00	1.00	1.00	1.00
Interest & Financing Charges	176.61	196.88	229.76	266.97	302.53
Depreciation	62.74	70.27	80.90	93.90	107.91
Return on Equity	30.24	30.24	30.24	30.24	30.24
Surplus Power Purchase as per PPA Obligation	135.31	173.29	219.11	282.27	325.73
Less: Non-Tariff & Other Income	207.14	216.07	225.47	235.36	245.77
Aggregate Revenue Requirement	3,999.16	4,389.24	4,717.84	5,196.15	5,706.52

5.2.2 The approved ARR vis-à-vis the revenue projected for each year of the 3rd Control Period in the MYT Order dated June 12, 2014 is summarized below:

Table 53: Revenue Surplus/ (Gap) for the Control Period (Rs. Cr.)

Particulars	FY15	FY16	FY17	FY18	FY19
Total Approved ARR	4,542.56*	4,389.24	4,717.84	5,196.15	5,706.52
Revenue from Sale outside state	255.15	290.42	350.03	425.37	482.64
Revenue as per Revised Tariff	4,288.95 [#]	4,469.25	4,700.59	4,946.11	5,206.81
Total Projected Revenue	4,544.09	4,759.67	5,050.62	5,371.48	5,689.45
Surplus/(Gap) for FY 2014-15	1.54	370.43	332.78	175.33	(17.07)

*including prior period adjustments on account of true-up of FY 13 including carrying cost, provisional amount towards true-up for FY 11 & FY 12 and the impact of review order

[#]estimated revenue for FY15 is based on four months of existing tariff and eight months applicability of revised tariff

5.3 Approach of the First Annual Performance Review under the 3rd MYT Control Period

- 5.3.1 In accordance with the HPERC (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2011 and amendments thereof, HPSEBL has filed for annual performance review for FY16.
- 5.3.2 The Commission in its Third MYT Order (FY15 to FY19) dated 12th June, 2014 has fixed the targets for controllable parameters. Any loss due to under performance of the licensee on these controllable parameters would be to its own account. However, any variation on account of factors deemed uncontrollable such as power purchase cost and energy sales is treated as a pass-through expense in the Annual Performance Review exercise after due deliberation by the Commission.
- 5.3.3 In light of the above, the Commission has considered the revision of ARR for uncontrollable parameters for FY16, while other components of costs are considered as per the figures approved by the Commission in the third MYT Order.

5.4 Sales Forecast

- 5.4.1 For projecting the energy sales of HPSEBL for the FY16, the Commission has taken into account the category-wise actual trend of past sales. The Commission has made use of Compounded Annual Growth Rate (CAGR) which gives the smoothed annualized growth rate of a parameter like energy sales in order to capture fluctuations in the value of that parameter over a period of time. CAGRs corresponding to different lengths of time were calculated for each consumer category and depending on the specific characteristics of each category, a particular CAGR has been chosen as the basis of sales projection for that category.
- 5.4.2 HPSEBL has projected energy sales by applying the category-wise CAGR of 1, 3 and 5 years as well as actual sales for first six months of FY15. HPSEBL has estimated sales for FY15 at 7902 MU as base for projection and projected energy sales within the State at 8339 MU for FY16.
- 5.4.3 The Commission has undertaken a detailed analysis of the sales projected by the HPSEBL. The Commission analyzed the year-on-year variations in sales as well as the short term, medium term and long term trends in sales and computed the CAGR

for different lengths of time (2 years, 3 years, 4 years, 5 years, 6 years, 8 years and 10 years) for all categories.

- 5.4.4 The Commission has estimated the revised sales for FY15 based on actual sales of six months of FY15 and past CAGRs witnessed across various categories of consumers. The revised estimate for FY15 has been considered as the base for the purpose of projections of sales for various categories of the consumers for FY16 after applying the category-wise growth factors.
- 5.4.5 On the basis of such analysis, the Commission approves total sales of 8438 MU for FY16. The Commission approves sale for each category of consumer as detailed below.

Domestic Supply

- 5.4.6 The energy sales to domestic category have shown a significant increase during the past four years with annual growth of over 9-10% year on year. However, the growth in sales to domestic category has declined from 15.0% in FY13 to 9.6% in FY14 as per the actual sales data submitted by the Petitioner.
- 5.4.7 Further analysis of sales in this category shows that the year-on-year variation in sales ranges between 2.11% to 15.3% in last ten years. The long term analysis of growth presents that the CAGR of sales has been in the range of 9.0% to 12.4% for a period of 10 years to 1 year respectively.
- 5.4.8 Considering the long term CAGR of sales for period of 5 to 10 years has been in the range of 8-10%, the Commission has adopted a growth rate of 8.0% for sales projections in domestic category for FY16.

Non Domestic Non Commercial Supply (NDNCS)

- 5.4.9 In contrast to previous MYT period, there is adequate segregated data existing for NDNC and commercial supply category, based on which the Commission has projected the energy sales for NDNC and commercial consumer category separately.

5.4.10 The CAGR for a period of 3 to 5 years has been in the range of 6.9% to 9.5%, with 5 year CAGR being 7.9%. Thus, the Commission has adopted the 5 year CAGR as the growth rate for projections of energy sales for FY16.

Commercial Supply

5.4.11 The sales to commercial category have seen a consistent high growth over the last few years, ranging from year on year growth of 6% to 17%. On the other hand, HPSEBL has projected the sales growth at 7% per annum for the Control Period whereas the 5 year and 3 year CAGR are estimated to be around 10.4% and 8.1% respectively.

5.4.12 Therefore, the Commission has considered a 3 years CAGR of 8.1% for the projection of energy sales.

Industrial Power Supply

5.4.13 In the MYT Order, the Commission had approved changes in the tariff structure leading to rationalization and reduction of industrial tariff. These structural measures and reforms in the tariff design were expected to encourage the industrial consumers to draw higher quantum of power which is evident from the actual sales particularly to large industrial consumers in the months of August and September. The Commission has therefore projected the sales to the industrial categories as below:

Small and Medium Industrial Power Supply

5.4.14 An assessment of year on year growth of sales to this category indicates wide variations ranging from -3.0% to 15%, which could be attributed to the changes in economic cycle.

5.4.15 The actual sales in FY14 to this category have reduced by 1.5% as compared with FY13. However, in view of the tariff rationalization measures undertaken which is expected to increase the sales in this category, an increase of 3.5% has been considered which is in line with the 5 year CAGR.

5.4.16 The Commission has considered the share of sales to small and medium industry supply for past three years, to allocate the total sales in this category between now existing separate small industrial consumers and medium industrial consumers.

Large Industrial Power Supply

5.4.17 While the analysis of past year-on-year growth of sales for last six years in this category indicates high growth levels in the beginning, while last 3 years recording a lower growth rate of 1% to 3% only. The growth in actual sales during FY14 is 2.7% over the FY13 sales in this category.

5.4.18 The Petitioner has submitted improvement in actual sales during the 6 months of FY15 particularly in the months of August and September post the tariff reduction in this category. Therefore, the Commission has considered the sales projection of the petitioner in this category which considers a buoyant offtake of energy during FY16 in view of the lower tariff approved by the Commission in the MYT Order for the 3rd Control Period.

Govt. Irrigation and Drinking Water Pumping Supply

5.4.19 The sales to this category have been steady with CAGR ranging from 3% to 7% y-o-y for last five years. The Commission has projected sales for FY16 considering a growth rate of 3.9%, which is in line with the CAGR of last five years.

Public Lighting

5.4.20 Large variations have been observed in the year on year growth of sales to public lighting. For FY14, sales in this category have decreased by 10% as against an increase of 8% in FY13. Therefore, the Commission has considered the sales projected by the petitioner for this category for FY16.

Agricultural Supply

5.4.21 The sales to this category have witnessed large variations with year on year growth ranging from -4% to 29%, owing to the variations in average recorded rainfall. In FY14 actual sales in this category has reduced by 11% as against an increase of 29% in FY13. Therefore, the Commission has considered sales projected by HPSEBL in this category for FY16.

Bulk Supply

5.4.22 The sales in this category has witnessed a declining trend with reduction of nearly 12% and 11% during FY13 and FY14 as majority of the load in this category is taken by small hydro plants for construction work. Therefore, the Commission has considered the bulk supply sales similar to the sales projection of HPSEBL for FY16.

Temporary Supply

5.4.23 The analysis of sales in this category indicates range bound sales during last five to six years. Therefore, the Commission has considered the temporary supply sales to remain constant for projections during the Third Control Period.

5.4.24 After detailed scrutiny of the consumer category wise sales, the Commission estimates the following sales to retail consumers within the State for FY16:

Table 54: Approved Sales for FY16

Consumer Category		FY16	
		Petitioner Submission	Revised Approved
1.	Industrial Power Supply		
	Small Industrial Power Supply	63	63
	Medium Industrial Power Supply	154	154
	HT Industrial Power Supply	2684	2684
	EHT Industrial Power Supply	2054	2054
2.	Domestic	2025	2070
3.	Irrigation and Drinking Water		
a.	Govt., Irrigation & Water Supply	466	508
b.	Private Agricultural Irrigation	45	45
4.	Commercial	516	527
5.	Bulk Supply	157	157
6.	Non Domestic Non Commercial	135	135
7.	Public Lighting	14	14
8.	Temporary	27	27
	Total	8339	8438

Note: In the MYT Order the Commission had revised the applicability of two part tariff and categorization of consumers based on contracted demand. Therefore, the above projections

for category-wise sales may differ from the actual due to shift of consumers. This shift in sales may be between categories, however, the overall quantum is expected to remain in line with the projections.

5.5 Transmission and Distribution Losses

5.5.1 In the MYT Order for the third Control Period, the Commission had approved a trajectory for T&D losses based on the actual T&D losses of the Petitioner and appropriate reduction each year. The approved T&D loss for the third Control Period is provided in table below:

Table 55: Approved T&D loss for Third Control Period

Particulars	FY15	FY16	FY17	FY18	FY19
Approved T&D loss	12.80%	12.60%	12.40%	12.20%	12.00%
Loss Reduction	0.20%	0.20%	0.20%	0.20%	0.20%

5.5.2 In the APR Petition, HPSEBL has submitted that it shall be able to achieve the approved T&D loss of 12.80% for FY15 and has submitted the energy balance for FY16 as per the approved loss of 12.60% for FY16.

5.5.3 Accordingly, the Commission has considered the T&D loss target of 12.60% set for HPSEBL for projecting the energy balance for FY16.

5.6 Energy Requirement

5.6.1 The Commission's estimates of energy requirement at distribution periphery for FY16 are based on the revised sales and T&D loss target approved by the Commission. The Commission's estimates for power requirement are tabulated as follows:-

Table 56: Approved Energy requirement for FY16

Energy Requirement	Petitioner	Revised Approved
Sales (MU)	8,339	8,438
Approved Loss (%)	12.60%	12.60%
Energy Requirement at State Periphery for own consumption (MU)	9,541	9,654

5.7 Power Purchase

- 5.7.1 As per the MYT Regulations, power purchase is an uncontrollable parameter and needs to be trued up every year based on actual. Hence, any variation in the power purchase cost shall be trued up at the end of every year of the Control Period.
- 5.7.2 For the Annual Performance Review (APR) of FY16, the Commission has updated the station-wise projection of energy availability and power purchase cost for FY16 taking into consideration the actual normative parameters achieved by generating stations in FY14 and ten months of FY15 as well as change in allocation, if any.
- 5.7.3 However, the Commission has retained the projection of energy generation from HPSEBL's own stations at the same level as approved in the 3rd MYT Order (FY15-19), since it had estimated the same on the basis of operational norms approved in the MYT Order. Hence, the Commission shall revisit the same only at the end of the third Control Period when it conducts a true-up of expenses, revenue and performance of the Generation function of HPSEBL.
- 5.7.4 The following power generating stations have been considered for the purpose of estimation of power availability for the Control Period:
- HPSEBL's own generating stations
 - Purchase from BBMB and shared stations;
 - Purchase from Baspa, Patikari HEPs, private SHPs up to 25 MW and under APPC mechanism for REC;
 - Purchase of Free and Equity power from the GoHP;
 - Purchase through bilateral short term arrangements;
 - Purchase from Central Generating Stations of NTPC, NHPC, SJVNL, NPCIL and THDC; New Plants expected to be commissioned during the Control Period;
- 5.7.5 In the following sub sections, estimation of power purchase along with certain assumptions thereof, from each of the above sources has been discussed.

Allocation and Energy Availability from Own Generating Stations

5.7.6 Based on the existing arrangements between the HPSEBL and GoHP, the Commission has considered 100% allocation from HPSEBL's own generating stations except those stations where HPSEBL is obligated to supply 12% free power to the GoHP.

5.7.7 The table below summarizes HPSEBL's share, generation and auxiliary consumption considered by the Commission for the projection of power purchase quantum from own generating stations above 25 MW for the MYT Control Period whereas the generation from power projects below 25 MW has been considered under renewable power (non-solar).

Table 57: Allocation and Energy Availability from Own Generating Stations

Name of Generating Station	Capacity (MW)	Generation (MUs)	HPSEBL Share	Auxiliary Consumption	Annual Energy available to HPSEBL (FY15 to FY19)
Larji	126.00	586.82	88%	0.20%	515.37
Bhaba	120.00	-	100%	0.20%	-
Bassi	60.00	346.83	100%	0.20%	346.14
Giri	60.00	289.55	100%	0.20%	288.97
Total Energy Available					1150.48*

*Excluding own generating stations with capacity of less than 25MW

5.7.8 Since the Bhabha generating station has witnessed a shut down in the month of January 2015, the same shall remain under restoration during FY16 and therefore no energy has been considered from the station for FY16.

Allocation and Energy Availability from Shared Generating Stations

5.7.9 HP has fixed allocation from Shanan and Shanan (Extension) at 1 MW at 60% PLF and 45 MU respectively. The Commission has considered the same while projecting the availability from these stations for FY16. For power availability from Yamuna, the Commission has considered the approved power generation as per the MYT Order for UJVNL Hydro Stations for FY16. In case of energy available from Khara, the Commission has considered the target energy as per the CEA report.

Table 58: Energy Availability from Shared Generating Stations

Name of Generating Station	Expected PLF/ Energy Generated	Aux Cons.	HPSEB Share	Annual Energy available to HPSEBL
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Name of Generating Station	Expected PLF/ Energy Generated	Aux Cons.	HPSEB Share	Annual Energy available to HPSEBL
Shanan	60%	-	Fixed at 1 MW	5.26
Shanan (Extension)	-	-	Fixed 45MU	45.00
Yamuna	-	1%	24.68%	386.54
Khara	-	1%	20%	72.31
Total Available from Shared Generating Stations				509.10

Allocation and Energy Availability from IPP with Long-term PPA

5.7.10 The total energy available from Baspa-II HEP during FY16 has been considered as 1050 MUs as per the MYT Order for the Third Control Period of Baspa-II approved by the Commission.

Allocation and Energy Availability from Free Power

5.7.11 The GoHP has free power entitlement in several stations including NTPC, NHPC, SJVNL, PSPCL, HPSEBL and IPPs in lieu of project site used by these generating stations. This power is available to HPSEBL for meeting its power requirement as per mutually agreed terms between HPSEBL and GoHP at a price fixed by the Commission.

5.7.12 In line with the methodology followed in the MYT Order for 3rd Control Period, the Commission has considered free power availability only from those generating stations that are directly connected to the State Grid. While projecting the power generation from these generating stations, the Commission has considered either last 3 years average or design energy generation based on availability.

5.7.13 The table summarizes the stations and quantum of free power available to HPSEBL during FY16:

Table 59: Energy Availability from Free Power (MU)

Free Power	FY16
Shanan Share (Fixed)	2.63
Ranjeet Sagar Dam Share (4.60%)	68.63

Free Power	FY16
Malana (20%)*	67.82
Baspa-II	143.18
Ghanvi	11.07
Baner	7.21
Gaj	4.55
Larji	70.28
Khauli	5.95
Ghanvi II	6.24
Small HEP/ Private Micro – Free	41.54
Total Power Available from GoHP share of Free Power	429.09

* As per the submission of Petitioner the GoHP free share has been revised from 15% earlier to 20% from FY15

Allocation and Energy Availability from BBMB

5.7.14 In case of generating stations of BBMB, the average energy has been considered based on the energy generated during the last 3 years. The table below summarizes the allocation as well as energy available from BBMB stations during the MYT Control Period.

Table 60: Allocation HPSEBL share and Energy Availability from BBMB for FY16

Name of Generating Station	Expected PLF/ Energy Generated	Aux Cons.	Energy (ex-bus) at expected PLF	HPSEB Share	Annual Energy available to HPSEB at Expected PLF
BBMB Old	-	-	-	Fixed 1.2LU/day	43.80
BBMB New	4,696	1.00%	4649.04	7.19%	334.30
Dehar	2,565	1.00%	2539.35	7.19%	182.84
Pong	1,448	1.00%	1433.52	2.97%	42.72
Total					603.65

Energy Availability from Renewable Power (Non-Solar and Solar)

5.7.15 The Petitioner is required to comply with the HPERC (Renewable Power Purchase obligation and its Compliance) Regulation, 2010 wherein the Commission had approved the non-solar and solar renewable power procurement trajectory to be

complied by the licensee. The obligation for non-solar and solar power purchase for FY16 is detailed below:

Table 61: Minimum quantum of purchase from Renewable Sources

Financial Year	Total RPPO %age.	Minimum Non-Solar RPPO %age of the total purchase	Minimum Solar RPPO %age of the total purchase
FY16	11.25	11	0.25

Renewable Power (Non-solar)

5.7.16 The Petitioner has owned generating hydro power plants which are lower than 25MW capacity and qualify under the renewable power projects. The Commission has considered availability from these plants based on the availability approved in the MYT Order for the 3rd Control Period for HPSEBL Generation Business and Tariff Order for 8 plants issued on 15.01.2014 against Petition no. 54/2013. The table below summarizes the power available from these stations during FY16:

Table 62: Allocation, HPSEBL share and Energy Availability from Own Generating Stations for FY16

Name of Generating Station	Capacity (MW)	Generation (MUs)	HPSEBL Share	Auxiliary Consumption	Annual Energy available to HPSEBL
Andhra	16.95	87.30	100%	1.00%	86.43
Ghanvi	22.50	93.34	88%	1.20%	81.15
Baner	12.00	60.67	88%	1.00%	52.86
Gaj	10.50	38.31	88%	1.00%	33.38
Khaulti	12.00	49.95	88%	0.70%	43.65
Binwa	6.00	29.25	100%	0.70%	29.05
Thirot	4.50	17.74	100%	0.90%	17.58
Gumma	3.00	11.83	100%	1.00%	11.71
Holi	3.00	11.83	100%	1.00%	11.71
Bhaba Aug	4.50	17.74	100%	0.90%	17.58
Nogli	2.50	9.85	100%	1.00%	9.75
Rongtong	2.00	7.64	100%	1.00%	7.56
Sal-II	2.00	7.88	100%	1.14%	7.79
Chaba	1.75	7.67	100%	1.00%	7.59
Rukti	1.50	6.54	100%	1.00%	6.47
Chamba	0.45	1.77	100%	1.00%	1.75
Killar	0.30	1.16	100%	0.86%	1.15
Total Available from Own Generation					427.17

5.7.17 In addition, the Petitioner has PPAs with various SHPs/ IPPs/ private micro hydel projects. Power from these projects is also considered towards meeting the non-solar renewable obligation of the Petitioner. A list of existing and upcoming SHPs/ IPPs/ private micro hydel projects in the State during FY16 are provided in the table below along with the capacity:

Table 63: List of Existing and New SHPs/ IPPs/ Private Micro HEPs along with Installed Capacity

S. No.	Name of Project.	Installed Capacity (MW)
EXISTING PLANTS		
1	Raskat	0.800
2	Titang	0.900
3	Dehar	5.000
4	Baragran	4.900
5	Maujhi	4.500
6	Ching	1.000
7	Manal/Chandni	6.000
8	Aleo	3.000
9	Manjhal	1.000
10	Salag	0.150
11	Jiwa Kothari	1.000
12	Marhi	5.000
13	Kothi	0.200
14	Juthed	0.100
15	Taraila	5.000
16	Gharola	0.100
17	Bramganga	5.000
18	Sahu	5.000
19	Sarbari -1	4.500
20	Upper Awa	5.000
21	Purthi	0.100
22	Sural	0.100
23	Lingti	0.400
24	IKU-II	5.000
25	Shyang	3.000
26	Tarella-II	5.000
27	Luni-III	5.000
28	Andhra Stage-II	5.000
29	Lower Bajjnath Kuhl	1.000

S. No.	Name of Project.	Installed Capacity (MW)
30	Upper Tarella	5.000
31	Luni-II	5.000
32	Baner-III	5.000
33	Manglad	4.500
34	Drinidhar	5.000
35	Sainj	5.000
36	Gurahan	1.500
37	Maujhi-II	5.000
38	Palor-I	3.000
39	Tangling	5.000
40	Gaj-II	1.500
41	Brahal	4.000
42	Upper Khauli	5.000
44	IQU-I	4.500
45	Rakchad	5.000
46	Chirchand	5.000
47	Timbi	3.000
48	Binua Parai	5.000
49	Dehar-II	1.500
50	Tarella-III	5.000
51	Sach	0.900
52	Rukti-II	5.000
53	Sechi	4.500
54	Chakshi	2.000
55	Belij	5.000
57	Suman Sarwari Unit-I	2.500
59	Masli	5.000
60	Dunali	5.000
61	Panwi	4.000
62	Dikleri	2.000
63	Binwa-IV	4.000
63	Hamal	2.000
64	Kotlu	1.800
65	Tulang	3.000
69	Aleo-II	4.800
70	Kalm	2.000
A	Sub-Total (< 5MW)	219.75
1	Neogal II	4.500
2	Ubharh	2.400
3	Kurtha	4.500

S. No.	Name of Project.	Installed Capacity (MW)
4	Kuthed	4.500
B	Sub-Total (< 5MW commissioned in FY15)	15.90
1	Patikari	16
2	Toss	10
3	Sarbari-II	5.4
4	Neogal	15
C	Sub-Total (> 5MW)	46.40
New Plants to be Commissioned in FY16		
1	Brua - Non REC	5.000
2	Kesta	4.500
3	Bagrood	0.240
4	Balh Padhar	4.000
5	Jail	1.200
6	Awa	4.500
D	Sub-Total (< 5MW)	19.44
E	Grand Total	301.49

5.7.18 The Commission has considered submission of the Petitioner with respect to the power procured from existing SHEPs during FY14 and six months of FY15 for projecting the power for FY16. Additional projects which are expected to commission during FY16 have also been considered for projecting the energy available in FY16. The table below summarizes energy availability for HPSEBL from own and private small and micro hydel projects:

Table 64: Energy Availability from Small Hydro Own and IPPs/ Private Stations

Particulars	Energy Available (MUs)
Small Hydro Own Generation	427.17
Small HEP/ Private Micro <5MW	1,033.83
Small HEP/ Private Micro >5MW	151.58
Total Non-solar Renewable Power	1612.58

Renewable Power (Solar)

5.7.19 The Petitioner submitted for procurement of solar energy from NTPC for supply of 15 MW bundled power from a 15 MW Solar thermal power plant. HPSEBL has started procuring power under this agreement from 31.12.14. Further, the petitioner has also considered additional power from SECI under MNRE, the draft PPA of which has been submitted to the Commission for approval. The Commission has provisionally

considered the submission of the Petitioner in this regard and has approved the following solar power purchase for FY16:

Table 65: Energy Availability from Solar Power

Particulars	Energy Available (MUs)
Singrauli Solar	24.97
SECI	33.28
Total Solar Power	58.25

Energy Availability from Private Micro Hydel Projects (Purchase at APPC under REC Framework)

5.7.20 The Petitioner also purchases power at APPC rate from small and micro hydel projects which are under the REC framework. Also, there are new projects under the APPC agreements which are expected to be commissioned during FY16. The details of existing as well as new plants along with the installed capacity are provided in table below:

Table 66: List of small and micro HEPs along with Installed Capacity

Name of Project.	Installed Capacity (MW)
EXISTING PLANTS	
Jirah	4.00
Balsio	5.00
Suman Sarwari Unit –II	2.50
Belij Ka Nallah	3.50
Billing	0.40
Jogini-II	5.00
Upper Joiner	12.00
Sumez	14.00
Beas Kund	9.00
Kurmi	8.00
Jongini	16.00
Nanti	14.00
Total	93.4
NEW PLANTS COMMISSIONING IN FY16	
Brua	4.00
Baragaon	14.00
Tangrui ramal	6.00
Kut	24

Name of Project.	Installed Capacity (MW)
Total	48

5.7.21 It is observed that for number of existing projects under the REC mechanism, the agreement with HPSEBL is coming to an end during FY16. The petitioner was asked to submit details regarding extension of the agreements with various micro and small HEPs under the REC framework for projecting the power availability for FY16. However, in its response the petitioner has submitted its inability to project the same. Therefore, the Commission has decided to continue the existing plants under the REC mechanism for FY16 and shall consider the appropriate adjustments in the power purchase cost at the time of truing-up.

5.7.22 The details of power available from micro hydro projects under REC mechanism during FY16 is provided below:

Table 67: Energy Availability from IPPs and Private SHPs

Particulars	FY16
Small HEP/ Private Micro – REC	326.74

Energy Availability from Equity Share in Generating Plants

5.7.23 The GoHP has equity share of 22% in the Nathpa Jhakri. The Commission has projected the energy available from NJPS for FY16 based on the actual energy generated during the last two years:

Table 68: HPSEBL share and Energy Availability from NJPS for FY16

Name of Generating Station	Expected PLF/ Energy Generated	Aux Cons.	Energy (ex-bus) at expected PLF	HPSEB Share	Annual Energy available to HPSEB at Expected PLF
Nathpa Jhakri Equity	6,985	1.20%	6,901.18	22.00%	1,518.29

Allocation and Energy Availability from firm Share in Central Generating Stations (CGS)

5.7.24 The State of Himachal Pradesh has firm allocated share in Central Sector Generating Stations (CGS) of National Thermal Power Corporation (NTPC), National Hydroelectric Power Corporation (NHPC), Tehri Hydro Development

Corporation (THDC), Satluj Jal Vidyut Nigam Limited (SJVNL) and Nuclear Power Corporation Limited (NPCIL). In addition to the firm share allocation, most of these stations (except Baira Siul, Salal, Tanakpur, Chamera-I and Uri stations of NHPC) have 15% unallocated power. The distribution of this unallocated power among the constituents of Northern Region is decided from time to time, based on the power requirement and power shortage in different States.

- 5.7.25 The Commission has considered allocation of firm power from CGS in accordance with latest allocations issued by the Northern Regional Power Committee.
- 5.7.26 In view of the directions of the Commission with respect to surrender of costly power, the Petitioner has already written to the Government for surrendering the costly power available from gas based stations of Anta, Auriya and Dadri with effect from 01.04.2016. Therefore, the Commission has not considered availability of energy from these stations during FY16.
- 5.7.27 The energy available from NTPC and NPCIL has been considered based on the average PLF achieved by respective generating stations during the last 3 years, based on the data available from CEA. The Commission has considered normative auxiliary consumption as approved by CERC to arrive at the energy generated from each of these stations.
- 5.7.28 The Petitioner has submitted that it has surrendered the allocation from costly power stations of Tehri and Koteshwar. Therefore, the Commission has not considered the same for projecting the power availability for FY16.
- 5.7.29 In addition to surrender of Tehri and Koteshwar power, the Petitioner has submitted that it has also surrendered the power from hydel stations of Koldam HEP, Parbati III and Chamera III which have been excluded from the projections of FY16 by the Commission. In case of generating stations of NHPC and SJVNL, average energy has been considered based on the energy generated during the last 3 years. The table below summarizes the allocation as well as energy available from CGS during FY16.

Table 69: Allocation, Total Generation, HPSEBL share and Energy Availability from Central Generating Stations for FY16

Name of Generating Station	Expected PLF/ Energy Generated	Aux Cons.	Energy (ex-bus) at expected PLF	HPSEB Share	Annual Energy available to HPSEB at Expected PLF
SJVNL					
Nathpa Jhakri SOR	6,985	1.20%	6,901.18	2.47%	170.46
NPCIL					
NAPP	69.59%	9.50%	2,682.41	3.18%	77.20
RAPP (V & VI)	80.05%	9.50%	3,085.45	3.41%	94.97
Total					172.16
NTPC – Thermal					
Unchahar-I	87.68%	9.00%	3,225.92	1.67%	49.02
Unchahar-II	87.68%	9.00%	3,225.92	2.86%	83.96
Unchahar-III	87.68%	9.00%	1,612.96	3.81%	55.92
Rihand-1 STPS	83.83%	8.50%	7,343.22	3.50%	235.17
Rihand-2 STPS	83.83%	6.50%	7,343.22	3.30%	226.57
Rihand-3 Units-1,2	83.83%	9.00%	7,343.22	3.37%	225.26
Kahalgaoon-II	72.89%	9.00%	9577.31	1.53%	133.34
Total					1009.25
NHPC					
Salal	3,243.4	1.00%	3,210.97	0.99%	31.79
Tanakpur	450.9	1.00%	446.39	3.84%	17.14
Chamera I	2,479.6	1.20%	2,449.84	2.90%	71.04
Chamera II	1,450.2	1.20%	1,432.80	3.67%	52.54
Uri	2,730.6	1.20%	2,697.83	2.71%	73.06
Dhauliganga	1,146.7	1.20%	1,132.94	3.57%	40.45
Total					286.02
Grand Total					1,637.90

Energy Availability from Unallocated Power from CGS

5.7.30 The Petitioner's share in CGS unallocated quota varies from time to time based on the allocation made to HP depending upon power requirement and power shortage in different States. Considering the uncertainty associated with the availability from the unallocated quota, the Commission has not considered the same in energy balance. However, energy to the extent of 350 MU from this unallocated quota has been considered to be utilized towards meeting the demand-supply gap or a substitute for costly power. The Petitioner is directed to consider the commercial principles and merit order before procuring power from the unallocated quota.

Allocation and Energy Availability from New Projects

5.7.31 The Commission has considered energy availability from one new own generating stations of HPSEBL i.e. Ghanvi-II as the same has been commissioned. Power availability from UHL-III as proposed by the Petitioner is unlikely and any power available during FY16 from the station shall be considered at the time of truing-up. Power availability from Ghanvi-II has been considered as per the design energy of the station based on the submission of HPSEBL. The allocation from Ghanvi-II has been considered as 88% (45.77 MUs) after deducting 12% share of free power to the GoHP.

5.7.32 Power available from NTPC stations as part of the bundled power along with the solar Singrauli solar power has also been considered as per normative PLF of 85%. The Petitioner has projected power from NTPC's Tapovan Vishnugarh HEP for FY16, However, as per the CEA broad status report the project is likely to slip to FY17. Accordingly, the Commission has not considered the power from this station for FY16. HPSEBL has also projected power availability from Kotli Bhel HEP during FY16. As per status updated dated 31.03.2014 provided by CEA, the project appears in the list of hydroelectric schemes concurred by CEA and yet to be taken up for construction. Therefore, the Commission has not considered any energy available from Kotli Bhel for FY16. Further, considering the commissioning of Rampur station during FY15 and power availability to HPSEB from this station has been considered for FY16 as per the design energy.

5.7.33 The table below summarizes the power availability from new generating stations projected for FY16:

Table 70: Energy Availability from New Generating Stations (MU)

Name of Plant	Installed (MW)	Financial Year of commissioning	Share of HPSEBL (%)	HPSEB Share (MU)
Own Station				
Ghanvi II	10	31-Mar-15	88%	45.77
NTPC				
Bundled power with Singrauli solar*	15	31-Mar-15	100%	107.62
Other CGS				

Name of Plant	Installed (MW)	Financial Year of commissioning	Share of HPSEBL (%)	HPSEB Share (MU)
Rampur	412	2013-15	2.81%	45.88
Total Power from New Plants				199.26

**To be bundled with 15MW of solar power from Singrauli plant*

Allocation and Energy Availability from Other Sources, Bilateral and Short Term Arrangements

5.7.34 For the purpose of projecting power purchase from Bilateral, Short term arrangements and Banking, the Commission has carried out a month-wise demand supply analysis for FY16.

5.7.35 For FY16, the Commission has considered that the commercially prudent surplus power available during the summer months can be banked to meet the shortfall during the winter months. Any further shortfall can be met from the GoHP free/equity power share, unallocated quota in CGS and market purchases. However, the Petitioner may consider the most appropriate combination of banking and bilateral arrangement for meeting the deficit on commercial principles and with the intention of reducing the power purchase cost. The summary of monthly demand supply positions during FY16 is shown in the tables as follows:

Table 71: Monthly Demand Supply Position – FY16

Month	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
Sales (MU)	648.56	679.74	696.58	718.67	694.51	708.62	685.53	685.28	711.49	722.29	716.83	769.82	8,437.93
Losses	12.60%	12.60%	12.60%	12.60%	12.60%	12.60%	12.60%	12.60%	12.60%	12.60%	12.60%	12.60%	
Monthly Demand (MU) Discom Periphery	742.06	777.74	797.00	822.28	794.63	810.78	784.36	784.08	814.06	826.42	820.17	880.80	9,654.38
Monthly Availability (MU) Discom Periphery	640.18	882.97	1,066.82	1,186.55	1,206.26	989.58	689.87	491.32	406.93	379.05	381.46	576.42	8,897.39
Deficit Power (MU) Discom Periphery	101.87	-	-	-	-	-	94.50	292.76	407.14	447.37	438.71	304.39	2,086.73
Deficit Power (MU) Ex Bus	105.59	-	-	-	-	-	97.94	303.44	421.99	463.69	454.72	315.49	2,162.86
Surplus Power (MU) Discom Periphery	-	105.23	269.82	364.27	411.62	178.80	-	-	-	-	-	-	1,329.74
Surplus Power (MU) Ex Bus	-	109.07	279.67	377.56	426.64	185.32	-	-	-	-	-	-	1,378.26
Net Suplus/ (Deficit) (Ex Bus)	(105.59)	109.07	279.67	377.56	426.64	185.32	(97.94)	(303.44)	(421.99)	(463.69)	(454.72)	(315.49)	(784.61)

- 5.7.37 Based on the analysis of month-wise energy demand and supply considering the firm sources, it is observed that the Petitioner shall be in a deficit. This shortfall is primarily due to the surrender of costly power as well as non-availability of power from Bhabha station due to break-down.
- 5.7.38 HPSEBL in its petition and subsequent clarifications have submitted that it has decided to avail additional GoHP free power from various stations including Bairasuil, Chamera I & II to compensate for the shortage on account of surrender of power from Tehri, Koteswar, Parbati-III, Chamera-III and Koldam HEPs.
- 5.7.39 Further, HPSEBL may avail unallocated power from CGS stations as well as additional power from equity share of GoHP in Rampur to meet the deficit in the State for FY16. The Petitioner is required to undertake proper planning with respect to the power procurement from various sources.

5.8 Power Purchase Cost

- 5.8.1 The cost of power purchase from various sources has been considered based on the following:

Generation cost of HPSEBL own stations

- 5.8.2 The cost of generation from the HPSEBL's own generating stations, excluding eight stations for which generic tariff has been approved by the Commission in its Order dated 15.01.2014 against Petition no. 54/2013, have been considered as per the MYT Order for 3rd Control Period for the HPSEBL Generation.
- 5.8.3 The generic tariff of Rs. 2.25 per unit as approved by the Commission in its Order dated 15.01.2014 against Petition no. 54/2013 has been considered for the balance eight stations i.e. Ghanvi, Khauli, Thiro, Gumma, Holi, Bhaba Aug, Sal-II and Killar.

Cost of Free Power

- 5.8.4 As per the Commission's Order dated 31.03.2015, the purchase rate of free power available to the HPSEBL from GoHP has been fixed at 280 paise/unit (inclusive of trading margin, if any) for FY16. Therefore, in order to project the power purchase cost for FY16 the Commission has considered 280 paise/unit as the rate of free power available to the HPSEBL from GoHP for FY16.

Cost of Power from NPCIL Stations

5.8.5 The cost of power for NPCIL plants for FY16 has been considered based on the actual rate of power for ten months of FY15 submitted by the Petitioner with an escalation of 3%.

Cost of Power from BBMB and Other Plants

5.8.6 The cost of power from BBMB, Dehar, Pong, Shanan, and Khara has been considered based on the actual power purchase cost during first ten months of FY15 submitted by the Petitioner. For Yamuna, approved annual charges by UERC have been considered as per the tariff order for FY15 for UJVNL.

Cost of Power from SJVN Plant

5.8.7 For projecting the cost of power from Nathpa Jhakri station for FY16, the Commission has considered the actual fixed and variable charges for FY15 as submitted by the Petitioner which are considering the impact of the CERC Order dated 20.06.2014 for determination of tariff for FY09-FY14 of NJPS plant.

Cost of Power from IPPs and Private SHPs

5.8.8 The Commission has considered the Annual Fixed Cost from Baspa plant as per the Tariff Order for Third Control Period for Baspa issued by the Commission.

5.8.9 The average rate of power from private SHP during ten months of FY15 has been considered for the existing quantum of power being available from various private SHPs. For the additional quantum being projected to be available during FY16, the Commission has considered the revised generic tariff approved for the small and micro SHPs as per the Suo-moto Order dated 20.05.2013.

5.8.10 APPC for purchase of power from SHPs generator in the State availing REC facility has been considered to be the same as determined by the Commission for FY15 i.e. Rs. 2.24/ unit.

Cost of Additional Solar Power

5.8.11 For projecting the power purchase cost from NTPC Singrauli solar plant for FY16, an average rate of Rs.3.80 per unit has been considered for the entire bundled power in

line with the actual power purchase cost during the month of Jan 2015. For purchase of the solar quantum from SECI, the Commission has provisionally considered the rate of Rs. 5.50 per unit as submitted by the petitioner.

5.8.12 Further, in compliance to the Commission's Order 93(A)/2013 dated 29.07.2013, the Petitioner is required to purchase additional solar quantum over and above the RPPO obligations for the FY16 and FY17 for meeting the shortfall in the RPPO obligation for FY12 and FY13. Since the availability from Singrauli solar and SECI would be adequate for meeting the additional requirement for FY12 & FY13, no additional amount towards purchase of solar REC certificate is being allowed as provided in the MYT Order for the 3rd Control Period.

Cost of Power from NTPC stations

5.8.13 The tariff for NTPC stations is approved by the CERC for a Control Period of five years. The last tariff approved by CERC is for the Control Period FY 2009-14 and the tariff orders for the Control Period 2014-19 have not been issued. Since the CERC has issued new tariff regulations for determination of tariff for the Control Period 2014-19, which are more conservative, the impact on the fixed cost for CGS may not be determined with certainty. Therefore, the Commission has considered the fixed cost approved for FY14 for the CGS stations by CERC and has applied the allocation to the state of HP for approving the fixed cost from the respective CGS plants for FY16.

5.8.14 The variable cost for existing NTPC thermal generating stations, including Fuel Price Adjustment (FPA) for FY16 has been based upon the actual power purchase data for ten months of FY15, as submitted by the HPSEBL in Form 4a. An escalation of 5% has been applied to arrive at the variable cost for projecting the variable charge for FY16. Other Charges (per unit) have been considered to be at the same level as those paid in FY15 by the HPSEBL as submitted in Form 4a.

Cost of Power from NHPC Plants

5.8.15 As reasoned for NTPC stations, the tariff order for NHPC stations for 2015-19 is to be issued by CERC. Therefore, the Commission has considered the annual charges approved by the CERC for FY14 and has applied the allocation of power from these plants to the State of HP to compute the charges payable by the Petitioner for the

FY16. The other charges payable to NHPC are considered to be at the level as actually paid by HPSEBL during FY15.

Source-wise Power Purchase Cost

5.8.16 Based on the principles discussed above, the table below summarizes power purchase cost of each plant for FY16.

Table 72: Source wise Power Purchase Cost for FY16

Name of Plant	Units (MUs)	Cost (Rs.Cr.)
Bhaba	-	-
Bassi	346.14	25.24
Giri	288.97	20.38
Andhra	86.43	9.57
Ghanvi	81.15	18.26
Baner	52.86	9.27
Gaj	33.38	9.67
Larji	515.37	124.95
Khauri	43.65	9.82
Binwa	29.05	5.14
Thirot	17.58	3.96
Gumma	11.71	2.64
Holi	11.71	2.64
Bhaba Aug	17.58	3.96
Nogli	9.75	2.77
Rongtong	7.56	2.02
Sal-II	7.79	1.75
Chaba	7.59	0.79
Rukti	6.47	1.62
Chamba	1.75	0.31
Killar	1.15	0.26
Ghanvi II	45.77	14.53
Total - Own Generation	1,623.41	269.53
Shanan Share	2.63	0.74
Ranjeet Sagar Dam Share	68.63	19.22
Malana	67.82	18.99
Baspa (Primary & Sec.)	143.18	40.09
Ghanvi	11.07	3.10
Baner	7.21	2.02
Gaj	4.55	1.27
Larji	70.28	19.68
Khauri	5.95	1.67
Ghanvi II	6.24	1.75
Small HEP/ Private Micro – Free	41.54	11.63
Total	429.09	120.15
Unchahar-I	49.02	18.89

Name of Plant	Units (MUs)	Cost (Rs.Cr.)
Unchahar-II	83.96	31.84
Unchahar-III	55.92	24.03
Rihand-1 STPS	235.17	61.33
Rihand-2 STPS	226.57	62.52
Kahalgaoon-II	133.34	54.23
Rihand-3 Units-1,2	225.26	73.47
Singrauli Solar	132.58	50.38
Total NTPC	1,141.84	376.69
NAPP	77.20	19.79
RAPP (V & VI)	94.97	33.60
Total NPCIL	172.16	53.39
Salal	31.79	5.75
Tanakpur	17.14	3.84
Chamera I	71.04	11.35
Chamera II	52.54	14.06
Uri	73.06	13.26
Dhauliganga	40.45	11.28
Total NHPC	286.02	59.54
BBMB Old	43.80	4.07
BBMB New	334.30	18.65
Dehar	182.84	14.47
Pong	42.72	1.77
Shanan (available to HPSEB)	5.26	0.21
Shanan Ext (available to HPSEB)	45.00	0.93
Yamuna	386.54	27.69
Khara	72.31	5.21
Total Others	1,112.76	72.99
Nathpa Jhakri SOR	170.46	52.08
Nathpa Jhakri Equity	1,518.29	463.87
Rampur	45.88	14.55
Small HEP/ Private Micro <5MW	1,033.83	289.47
Small HEP/ Private Micro >5MW	151.58	37.90
Small HEP/ Private Micro – under REC framework	326.74	73.19
Baspa - II	1,050.0	247.12
Additional Solar Power	33.28	18.80
Total SJVN & Others	4,330.06	1,196.97
Grand Total	9,095.34	2,149.27

Merit Order Purchase

5.8.17 As per the monthly demand supply analysis detailed in para 5.7.35, it is observed that the Petitioner would be surplus during summer months and deficit during winter months. Also, due to shut-down of Bhabha and surrender of power from various stations, the petitioner may require additional power for meeting the demand-supply

gap during FY16. Appropriate power purchase planning by way of utilizing the unallocated power, equity power from Rampur, additional free power from stations like Bairasuil, Chamera I & II, etc. along with bilateral arrangement and banking would be required to be undertaken by the Petitioner for meeting the deficit during winter months. For this purpose, it is important that the Petitioner is fully aware of the cost of power from various sources and the merit order so that it is able to take decisions based on commercial principles. The Commission has considered unallocated power and a mix of GoHP free power and equity power for meeting the deficit requirement.

5.8.18 As also stated in the MYT Order for the 3rd Control Period, the Commission reiterates its intention of strategic shift in power procurement policy towards total green energy. It is observed that HPSEBL has already taken steps by way of surrendering of PPAs from thermal plants like Anta, Auraiya and Dadri. Considering the upcoming hydro stations in the State, the Commission is of the view that adequate availability of green energy shall be there for meeting the demand of the State while any shortfall can be met by procuring power from less costly conventional thermal stations.

5.8.19 Furthering the strategic intent of green energy, the Commission has considered the same while preparing the merit order for FY16. The energy from clean sources have been considered for meeting the State demand and shortfall to meet the state requirement in FY16 has been considered from GoHP equity share in Rampur, additional free power, unallocated share in CGS and less costly conventional thermal stations. While the balance power required to be procured as the PPA obligation has been considered towards contingency power as well as surplus power.

5.8.20 It is observed that inspite of surrender of costly power, HPSEBL shall have power available from NTPC costly sources i.e. Kahalgaon II, Unchahar I, II & III, etc. during FY16. This power is the most expensive power in the merit order and can be easily replaced by GoHP free share of power and has therefore been considered as surplus power. The Petitioner should make appropriate arrangements for disposal of such surplus power in a manner that average cost of procurement of such surplus power is realized. This is essential considering the fact that any shortfall in recovery from sale of this surplus power shall put additional burden on the consumers in the State, which is not prudent.

5.8.21 The merit order for FY16 has been prepared based on the green energy and status of plant i.e. owned generating station, must run stations, power purchase towards renewable power obligations, etc. The merit order for FY16 is summarized in table below; keeping in view the Commission's policy of 100% clean energy supply in the State:

Table 73: Merit Order for FY16

Sr. No.	Source	Units (MUs)	Cost (Rs. Cr)	Rate (Paisa per unit)
	Power Procurement for Supply in State	9,862	2,345	238
I	Clean Energy	9,401	2,221	236
(A)	Green (Renewal) Energy	1,716	454.41	265
(i)	SHP own generation	473	98.96	209
(ii)	SHP PPAs Preferential Tariff (Excluding on APPC under REC)	1,185	327.37	276
(iii)	Solar			
(a)	NTPC Singrauli	25	9.49	380
(b)	SECI	33	18.80	565
(c)	Solar Net Metering	-	-	
(B)	Green Energy Hydel Sources	7,512	1,713	228
(i)	Own generation	1,150	170.57	148
(ii)	BBMB and other shared projects			
a)	BBMB	604	38.96	65
b)	Shanan & Shanan Ext.	50	1.14	23
c)	Yamuna & Khara	459	32.90	72
(iii)	Baspa -IPP	1,050	247.12	235
(iv)	NJPS equity share	1,518	463.87	306
(v)	On APPC under REC framework	327	73.19	224
(vi)	GoHP Free Power in Projects directly connected to HPSEBL	429	120.15	280
(vii)	SoR Share NHPC	286	59.54	208
(viii)	SoR Share NJPS	170	52.08	306
(ix)	SoR Share Rampur	46	14.55	317
(x)	Equity Power Rampur	450	142.65	317
(xi)	Additional Free Power (including additional availability from (A) & (B))	622	174.21	280
(xii)	Unallocated share	350	122.50	350
(C)	Clean Energy Nuclear	172	53.39	310
	NPCIL	172	53.39	310
II	Conventional Thermal Sources	462	123.86	268
(i)	Rihand -I	235	61.33	261
(ii)	Rihand -II	227	62.52	276

Sr. No.	Source	Units (MUs)	Cost (Rs. Cr)	Rate (Paisa per unit)
	Total (I + II)	9,862	2,345	238
	Disposal of Seasonal Surpluses for inter-state sale/ Banking, for procurement during winter (only for benchmarking purchase cost at the margin)	1,378	427	310
	Surplus purchases under PPA obligation for disposal/ trading in addition to I & II above	655	243	371
A	Contingent Purchase if required in case of shortfall in availability or increase in demand	225	73	326
(a)	Green Energy Hydel sources	-	-	-
(b)	Conventional Thermal Sources	225	73.47	326
(i)	Rihand III	225	73.47	326
B	Surpluses for Trading due to PPA obligation	430	170	395
(a)	Green energy Hydel	-	-	-
(b)	Conventional Thermal Sources	430	169.88	395
(i)	Unchhahar-II	84	31.84	379
(ii)	NTPC Bundled power (singrauli solar)	108	40.89	380
(iii)	Unchhahar-I	49	18.89	385
(iv)	Kahalgaoon-II	133	54.23	407
(v)	Unchhahar III	56	24.03	430
	Grand Total	10,518	2,589	246

5.8.22 The Commission observes that post revival of the Bhabha station and availability of allocation from CGS hydro plants (Parbati III, Koldam, Chamera III, Tehri and Koteshwar) put at the disposal of the Govt of India, HPSEBL has sufficient green power to meet the requirement for supply within the State.

5.8.23 Further, it is observed from the merit order table above that the average power purchase cost for meeting the demand in the State during FY16 is Rs. 2.38/kWh.

5.8.24 Since HSPEBL has availability of power from various cleaner sources including free share of GoHP in various hydro stations, equity share of GoHP in Rampur, etc. which can be utilized for not only meeting the deficit but also reducing the power purchase cost, additional power available from conventional thermal stations are considered as an obligation under PPA to purchase and has to be managed differently.

Banking Subject to Prudency

5.8.25 The Petitioner has been undertaking banking agreements as a matter of routine and without any commercial prudence with other state utilities for utilizing its surplus during summer and meeting its deficit during winter months. But it is important to note that the power banked by the Petitioner during summer is returned after a lag of four-six months which has carrying cost implications on the Petitioner. Also, it is important for the utility to understand that the cost of the power available for banking is at the marginal cost of power as per the merit order. In addition, since banking involves two inter-state transfer transactions, licensee has to pay transmission charges, including losses and system operation charges twice, as against once if direct purchase is involved. The Commission in its previous tariff orders had indicated the same to the Petitioner and had instructed to be cautious in its power purchase planning. In the APR Order for FY14, the Commission had stated:

*“6.92 Moreover, the cost of power procured during summer months to be (forward) banked should be carefully strategized. Banking occurs when surplus available is lent to other entities for return during deficit times and such surplus comes at a cost. Such cost is the most expensive power at the margin in the merit order. **The utility ought to avoid banking of costly power that is procured from thermal sources in summer, relying instead on buying economical power that is available for purchase during winter months.** For instance, the utility need not buy power at an average rate of above Rs 4.00/unit during summer months from CSGS, only to bank it with other states with the assurance of getting back the same quantum of power during winter months. Instead, the utility can find alternate buyers for this quantum of power during summer months when other states in the Northern Region face a power deficit. Once winter approaches, the utility should plan its power purchase in such a way that it is able to procure the same quantum of power for meeting its own demand at a lower rate, say, Rs 3.50 to Rs 4.00/unit. **However, if banking is considered prudent then the Petitioner should buy extra Free Power from GoHP, if available at cheaper rates or from any other cheaper source.**”*

5.8.26 Therefore, the Commission is of the view that in case HPSEBL is required to bank power to meet the winter requirement, it should ensure additional quantum of power (say 10-20%) at the time of return during winters which would be beneficial for covering the working capital requirement of HPSEBL. Otherwise the petitioner may

look at other arrangements including bilateral sales, etc. to recover the cost of the power procured so that it does not burden the consumers in the state.

Management of Surplus Power to Recover Cost of Purchase in Merit Order

5.8.27 The cost of the surplus power is the most expensive which ranges from Rs. 3.79/kWh to Rs. 4.30/kWh during FY16. The Petitioner should undertake adequate measures for avoiding the burden of its inefficient power purchase planning on the consumers. The Commission may disallow any such inefficiency to be passed at the time of true-up.

5.8.28 For the purpose of disposal of this surplus power, the Commission has considered the average cost of purchase of such power as per the merit order principle with a view to avoid loading of any shortfall recovery by the Petitioner in the tariff for consumers in the State.

5.8.29 In view of the unavailability of power from Bhabha station, the Commission has considered a contingency quantum of 225 MU to meet the contingencies arising from unforeseen demand or unexpected problems in power availability. This buffer/contingency surplus shall also help in reducing the marginal power purchase cost of the utility and, if not required for demand within state, can be disposed-off through inter-state sales. It will also help in avoiding over-drawl from the system for maintaining grid discipline. The disposal of this contingency surplus has been considered at average marginal cost as per the merit order.

5.8.30 The Commission approves the power purchase quantum and cost from various sources as discussed above for supply within the State, including for contingent surplus and banking. However, expenses for purchase of power not required for supply within the State but is unavoidable shall be treated as purchase of surplus power under PPA obligation (not as power for supply) and will be provided in the ARR as separate item of expense. However, in line with the Commission's view expressed above, HPSEBL should be prudent in purchase of energy and its banking arrangements.

5.8.31 In view of the above, a summary of the total power purchase for meeting the sales requirement within the State has been provided in the table below. Also, the details of

the surplus power purchase as per the PPA obligation is also provided. However, the Commission feels that the avoidance of such power purchase is in the best interest of the consumers in the State.

Table 74: Power Purchase Approved for FY16

Power Purchase Summary	Units (MUs)	Cost (Rs. Cr.)	Per Unit (Paisa per unit)
Total own generation	1,623	270	166
Total free Power	429	120	280
Additional free power	622	174	280
Additional Equity power (Rampur)	450	143	317
Total NTPC	712	207	290
Total NPCIL	172	53	310
Total NHPC	286	60	208
Total THDC			
Total Other CG Stations	1,113	73	66
Total SJVNL & Others	4,330	1,197	276
Total Unallocated power	350	123	350
Total Power purchase for meeting State demand (including contingency reserve)	10,088	2,419	240
Total Surpluses Power Purchase for Trading due to PPA obligation	430	170	395
Grand Total Power Purchase	10,518	2,589	246

5.9 PGCIL & HPPTCL Charges

- 5.9.1 The Petitioner has submitted actual PGCIL charges of Rs. 209 Crore for 10 months of FY15 (after netting off any amount recoverable from PTC on account of PGCIL wheeling charges).
- 5.9.2 For approving the PGCIL charges for FY16, the 10 months PGCIL charges for FY15 has been pro-rated for 12 months and an escalation of 10% has been considered for projecting the PGCIL charges for FY16.
- 5.9.3 HPPTCL charges for FY16 have been considered as approved by the Commission in the MYT Order for the Third Control Period. The summary of the PGCIL and HPPTCL transmission charges approved for FY16 are summarized in table below:

Table 75: Approved PGCIL & HPPTCL Charges for FY16 (Rs, Cr.)

Particulars	Approved in MYT Order	Proposed by Petitioner in APR	Now Approved
PGCIL Charges	258.53	345.94	275.88
HPPTCL Charges	3.47	17.04	3.47

5.9.4 The Petitioner has claimed an additional cost of Rs. 2.10 Cr. as O&M charges. Based on the clarification sought by the Commission, the petitioner has submitted that the same is against the O&M expense incurred by HPSEBL towards maintenance of the transmission system. This amount has not been included as part of the ARR of HPSEBL in the MYT Order.

5.9.5 It is clarified that the Commission has approved the various elements of O&M expense for HPSEBL for the third Control Period based on the actual expenditure for FY13 which is inclusive of the O&M expense incurred by the HPSEBL towards maintenance of the transmission lines of HPPTCL. Further, the O&M expense towards these transmission lines are included in the total ARR of HPPTCL which forms part of the HPSEBL ARR and therefore, the same has been included in the non-tariff income of HPSEBL to avoid double counting of the same expense.

5.10 Other Power Purchase Related Charges

5.10.1 The SLDC charges are considered as approved in the MYT Order for FY16 for HPSLDS.

5.10.2 With respect to short-term open access charges, the Petitioner has claimed Rs. 64.34 Crore for FY16. Based on the actual short-term open access charges (PTC) of Rs. 51.86 Crore submitted by the HPSEBL for FY14, an annual escalation of 10% has been considered for approving the short-term open access charges for FY16. The same would be trued up along with other power purchase cost, based on actual amount paid for FY16. The summary of SLDC charges and open access charges are provided in table below:

Table 76: Approved SLDC & Short-term Open Access Charges for FY16 (Rs. Cr.)

Particulars	Approved in MYT Order	Proposed in APR Petition	Revised Projected
SLDC Charges	10.88	5.60	10.88

Particulars	Approved in MYT Order	Proposed in APR Petition	Revised Projected
Open Access charges	58.43	64.34	62.75
Total	69.32	69.94	73.63

5.11 Operation and Maintenance (O&M) Expenses

5.11.1 In the APR petition, HPSEBL has claimed higher employee cost, R&M expense and A&G expense for FY16 as against the approved amount for the respective year in the MYT Order for the third Control Period. Further, the petitioner has not provided any rationale for the increased O&M cost elements. The Petitioner was asked to submit the break-up of O&M expenses for FY14 and six months of FY15 between the various functions i.e. generation, projects, S&I and distribution business. As per the submission dated 02.04.2015, 17.12.2014 and 20.12.2014, the Petitioner has submitted the following O&M expense towards the distribution business for FY14.

Table 77: Actual O&M Expense for FY14 & 6 months of FY15 (Rs. Cr.)

Particulars	FY14 Amount (Rs. Cr.)	FY15 (6 months) Amount (Rs. Cr.)
Employee Expense	1207.92	627.31
R&M Expense	32.08	14.77
A&G Expense	34.36	11.09
Total	1274.36	653.17

5.11.2 Considering the actual R&M and A&G expense for FY14 and actuals for six months of FY15, it is observed that approval against these expenses for FY16 shall be adequate for HPSEBL. Further, in one of the submissions the petitioner has submitted higher amount towards terminal benefits for FY14 based on which it has revised its estimate for FY16. During the discussions with the HPSEBL officials, it has been brought to the notice of the Commission that the employee cost for FY14 includes a provisioning of Rs. 24.28 Cr. (Rs. 13.99 Cr. towards gratuity and Rs. 10.29 Cr. towards other employee cost i.e. leave encashment) towards future employee cost. The actual employee expense of HPSEBL for FY14 is expected to be lower and as per the submission dated 02.04.2015, HPSEBL has submitted an amount of Rs. 936.35 Cr. as actual employee cost for 10 months of FY15 towards distribution business as against the approved employee cost of Rs. 1166.37 Cr. Therefore, the

Commission is of the view that the approved employee expense for FY16 in the MYT Order for the 3rd Control Period shall be adequate for meeting the employee expense for FY16.

5.11.3 Further, it is observed that the petitioner submissions with respect to employee cost cannot be relied upon as the figures are revised by HPSEBL even after preparation of provisional / final accounts. Therefore, the Commission has continued with the projections of employee cost for FY16 and the same shall be dealt at the time of truing-up based on the prudence check.

5.11.4 In line with the HPERC (Terms and Conditions for sharing of Cost of Terminal benefits of Personnel of the erstwhile Himachal Pradesh State Electricity Board and Successor Entities) Regulations, 2015, the terminal benefits of HPSEBL is required to be apportioned between the time period of Pre-Transfer Scheme and Post-Transfer Scheme and the return approved on GoHP equity share as well as pension contribution of employees on deputation in commissioned projects and in BVPCL, Projects and S&I is to be adjusted against the terminal benefits component (Pre-Transfer Scheme) of the employee cost of HPSEBL.

5.11.5 The pension contribution of employees on deputation in commissioned projects and in BVPCL, Projects and S&I which was earlier considered as part of the non-tariff income in the MYT Order for the 3rd Control Period has now been adjusted in the employee cost as also mentioned in para 5.18.4 below. Accordingly, the approved employee cost for FY16 in the MYT Order for the 3rd Control Period has been apportioned as below:

Table 78: O&M Expense Approved for FY16 (Rs. Cr.)

S. No.	Particulars	Amount
A	Employee Cost	927.71
B	Pension and Terminal benefits (a +b)	384.92
a)	<u>Terminal Benefit liabilities post Transfer Scheme</u>	118.47
	- 50% of Pension & Terminal benefits of employee retired after 31.3.2010	118.47
b)	<u>Terminal Benefit liabilities pre Transfer Scheme</u>	266.46
	- Pension of employee retired till 31.3.2010	214.03
	- Balance 50% of Pension & Terminal benefits of employee retired after 31.3.2010	118.47
	Less:	
	Annual Share of State Government (Return on GoHP Equity)	47.50

	approved for Generation and Distribution)	
	Pension contribution of employees on deputation in commissioned projects and in BVPCL, projects and S&I	18.54
	Gross Employee Cost (A+B)	1,312.63
	Less: Capitalization	46.36
	Net Employee Cost approved	1,266.27

5.11.6 Accordingly, the Commission approves the O&M expense for FY16 as approved in the MYT Order for the third Control Period as provided in table below:

Table 79: O&M Expense Approved for FY16 (Rs. Cr.)

Approved	Amount (Rs. Cr.)
Employee Cost	1266.27
R&M Expense	46.79
A&G Expense	39.48
Additional amount for Safety measures	1.00
Total O&M Expense	1353.55

5.12 Capital Investment

5.12.1 Based on the queries of the Commission, HPSEBL has submitted the details of capital expenditure undertaken during FY14 and first six months of FY15. However, it is observed that the petitioner has not segregated the generation and distribution works. Also the information provided by HPSEBL could not be correlated with the business plan submitted by the petitioner. In spite of various reminders, the petitioner has not submitted the information with respect to capital expenditure.

5.12.2 In view of the inappropriate information with respect to the capital expenditure undertaken during the first half of FY15, the Commission is constrained to ascertain the progress of schemes with respect to the approved Business Plan.

5.12.3 The capital investment of HPSEBL for FY16 shall be the same as approved in the 3rd MYT Order dated 12th June, 2014. This amount, however, shall be reviewed at the time of mid-term review based on the actual capital expenditure incurred by HPSEBL, subject to prudence check and the Commission's approval. The Commission also approves and allows the execution of schemes for south-zone

submitted through supplementary list by HPSEBL vide letter no. 21573-74 dated 26.03.2015.

5.12.4 The Commission reiterates its direction of the previous Order and expects that the Petitioner would undertake appropriate measures for timely execution of the various projects covered under the R-APDRP / RGGVY schemes.

5.13 Asset Capitalisation

5.13.1 The asset capitalization of Rs. 425.54 Crore approved for FY16 in the MYT Order for the 3rd Control Period shall remain the same.

5.13.2 The Commission would like to highlight that the capitalization approved is provisional and the same would be subjected to review/ true-up at the time of mid-term review and end of the Control Period.

5.14 Depreciation

5.14.1 The Commission had approved depreciation for each year of the 3rd Control Period in the MYT Order dated 12th June, 2014. For this, the Commission has considered the closing value of assets approved as per the true-up of the First Control Period for distribution and transmission function after excluding assets worth Rs.199.09 Cr transferred to the HPPTCL and the approved capitalization schedule for the Second Control Period. The capitalization approved for each year of the Third Control Period has been further added to the opening GFA to determine the opening and closing GFA for each year of the Third Control Period.

5.14.2 Since the true-up for the 2nd Control Period has still not been submitted by HPSEBL, the Commission approves the depreciation for FY16 as approved in the MYT Order for the 3rd Control Period.

5.15 Working Capital Requirement

5.15.1 Based on the approved O&M Expenses, expected receivables and consumer security deposits, the Commission in the 3rd MYT Order had approved the working capital requirement for the Control Period.

5.15.2 Hence, the working capital approves for FY16 remains the same as approved for the year in the 3rd MYT Order and shall be trued up at the end of the Control Period.

5.16 Interest and Financing Charges

- 5.16.1 The Commission has approved a capital investment plan as well as its capitalization schedule, source of funding and financing for the third MYT Control Period. This capital plan shall be reviewed at the time of the mid-term review.
- 5.16.2 The summary of means of finance and interest cost approved by the Commission for FY16 remains the same as approved in the 3rd MYT Order.
- 5.16.3 Further, HPSEBL vide M.A. no. 44/2015 dated 20.03.2015 has filed additional claim towards payment for construction of 2x50/63 MVA, 33/132 kV sub-station at Kurthala and 132kV D/C transmission line from Kurthala to Bathri sub-station to M/s Tissa Power Transmission Pvt. Ltd. in the ARR for FY16. The Commission notes that the information submitted by HPSEBL would require prudence check and approval of investment, therefore, the same cannot be considered as an additional information to the current APR Petition. HPSEBL is directed to file a separate petition for investment approval for “Construction of 2x50/63 MVA, 33/132 kV sub-station at Kurthala and 132kV D/C transmission line from Kurthala to Bathri sub-station” along with appropriate fee for consideration by the Commission. Further, it is clarified that as per the MYT Regulations, 2011 and amendments thereof, capital expenditure as well as associated parameters (i.e. depreciation, interest and RoE) shall form part of review at the time of mid-term review / end of the Control Period. However, keeping in view the financial impact of such payments to be made against the work, the Commission is provisionally approving an additional amount of Rs. 10 Cr. towards interest charges for FY16.

5.17 Return on Equity

- 5.17.1 Based on the RoE approved for FY16 in the MYT Order for the 3rd Control Period, the Commission has considered the same RoE as no revisions have been envisaged in the capitalization or funding pattern as against that approved in the MYT Order for 3rd Control Period.
- 5.17.2 The Commission shall, however, true-up the funding and financing approved at the end of the Third Control Period.

5.18 Non-tariff and Other Income

- 5.18.1 In the MYT Order for the 3rd Control Period, the Commission had considered FY13 actual non-tariff income for projecting the non-tariff income for each year of the 3rd Control Period with some adjustments.
- 5.18.2 The Petitioner has submitted the actual non-tariff income for FY14 as per the provisional accounts, which is considerably higher as compared with respect to actual for FY13. In view of the same, HPSEBL has projected non-tariff income of Rs. 298.69 Crore for FY16 in the APR petition.
- 5.18.3 It is observed that the wheeling charges considered as part of non-tariff income have increased. In response to the query of the Commission, HPSEBL has clarified that the same are inclusive of the PGCIL charges recovered from M/s PTC which is also occurring as an expense under PGCIL charges. Since the Commission has reduced the PGCIL charges to be recovered from M/s PTC for computing the PGCIL charges to be recovered as part of ARR, the same is required to be reduced from non-tariff income as well. The revised non-tariff income computed based on actual non-tariff for FY14 and considering the same methodology as provided in MYT Order for the 3rd Control period is broadly in line with the approved non-tariff income for FY16. Therefore, the Commission has continued with the approved non-tariff income for FY16 in the MYT Order for the 3rd Control Period.
- 5.18.4 As per sub-regulation 2(A) of Regulation 3 of HPERC (Terms and Conditions for sharing of Cost of Terminal benefits of Personnel of the erstwhile Himachal Pradesh State Electricity Board and Successor Entities) Regulations, 2015, the pension contribution of employees on deputation in commissioned projects and in BVPCL, projects and S&I is to be adjusted against the terminal benefits component of employee of HPSEBL. Therefore, in line with the same an amount of Rs. 18.54 Cr. has been reduced from the approved non-tariff income and has been adjusted in the employee cost of HPSEBL for FY16 which shall have no impact on the total ARR of HPSEBL. The revised non-tariff income after adjusting for the mentioned components is summarized below:

Table 80: Revised Approved NTI for FY16 (Rs. Cr.)

Particulars	Amount
Approved Non-Tariff Income in the MYT Order for FY16	216.07
Less:	
Pension Contribution of employee on deputation	8.39

Particulars	Amount
Pension Contribution of generation employees (tentative)	7.34
Pension Contribution of BVPCL, Projects & S&I employees	2.81
Now approved Non-Tariff Income	197.53

5.19 Aggregate Revenue Requirement

5.19.1 The table given as follows provides a summary view of the Aggregate Revenue Requirement of Distribution business as approved by the Commission for FY16:

Table 81: Proposed and Revised Approved ARR for FY16 (Rs. Cr.)

Particulars	MYT Approved	Petitioner Submission	Revised ARR
Power Purchase Expenses for Supply in the State	2,762.53	3,328.37	2,771.73
Cost of electricity purchase including own generation	2,431.22	2,893.35	2,418.74
Inter-State Charges			
Power Grid Charges	258.53	345.94	275.88
Open Access Charges	58.43	64.34	62.75
HPPTCL Charges	3.47	17.04	3.47
SLDC Charges	10.88	5.60	10.88
O&M Charges	-	2.10	-
Operation & Maintenance Costs	1,372.09	1,550.40	1,353.55
Employee Cost	1,284.81	1,437.68	1,266.27
R&M Cost	46.79	50.33	46.79
A&G Cost	39.48	62.39	39.48
Additional amount for Safety measures	1.00	-	1.00
Interest & Financing Charges	196.88	607.88	196.88
Additional Interest amount towards Kurthala sub-station & line	-	-	10.00
Depreciation	70.27	160.17	70.27
Return on Equity	30.24	57.68	30.24
Provision for Bad & Doubtful Debtors	-	3.34	
Surplus Power Purchase as per PPA Obligation	173.29	-	169.88
Less: Non-Tariff & Other Income	216.07	298.69	197.53
Less: Capitalisation of Expenses		180.34	
Aggregate Revenue Requirement	4,389.24	5,228.82	4,405.02

5.19.2 In addition to the Distribution ARR of Rs. 4405.02 Cr. approved for FY16, the Commission has considered the following adjustments in the ARR for FY16 aggregating to Rs. 250.61 Cr.:

a. Impact of Review Order dated 31.12.2014

In accordance with its Review Order no. 153/2014 decided on 31.12.2014, the Commission has considered the approved gap of Rs. 45.94 Cr. to be adjusted in the ARR for FY16.

b. Impact of BAPSA-II True-up for the Control Period FY12-FY14

The Commission has issued a True-up Order for BASPA-II HEP for FY12-FY14 on 30.03.2015. As per the True-up Order, HPSEBL has to pay Rs. 2.94 Cr. to BASPA II HEP. The Commission has considered Rs. 2.94 Cr. as BASPA arrears till FY14 in the ARR of HPSEBL for FY16.

c. Impact of Final Truing-up for FY11 & FY12

In accordance with its True-up Order for FY11 & FY12 dated 30.03.2015, the Commission has considered the approved gap of Rs. 56.51 Cr. to be adjusted in the ARR for FY16.

d. Consumer Contribution towards RPPO Compensation

The Commission has considered an amount of Rs. 12.23 Cr. as per the Order dated 10th November 2014 in the Petition no. 129/2013 on account of RPPO Compensation Fund to be allowed to HPSEBL.

e. Impact of Nathpa Jhakri and Khara Power Plant Arrears

The Petitioner has claimed an amount of Rs. 200 Cr. towards arrear on account of revision of ARR of NJPS for the period FY09-FY14 and on account of increased tariff payable for power drawn from Khara. The Petitioner was asked to submit the details and necessary documents along with computation of the claim amount.

It is observed that CERC has issued a revised Order dated 20.06.2014 for NJPS revising the annual fixed charges for the period FY10 to FY14. The Commission after review of the revised invoices and computation submitted by the Petitioner has considered an amount of Rs. 97.15 Cr. provisionally towards the NJPS arrears prior to FY15 to be included in the ARR for FY16.

Arrears which correspond to the power purchase for FY15 shall be considered along with the truing-up of uncontrollable parameters for FY15.

Also, HPSEBL has submitted details of Rs. 36.64 Cr. towards arrears on account of Khara Power Plant as against the claim of Rs. 48 Cr. made in the tariff petition. The Petitioner has submitted that the claim of Rs. 36.64 Cr. is towards principal amount while the balance is towards interest due to late payment. As per the minutes of meeting dated 15.10.2014 between HPSEBL and UPJVNL, the amount shall be paid by HPSEBL subject to reconciliation, prudent verification and final checking. Therefore, the Commission has provisionally considered the principal amount of Rs. 35.83 Cr. towards Khara arrears for the period up to FY14 to be included in the ARR of FY16. The arrears corresponding to the power purchase from Khara during FY15 shall be considered along with the truing-up of uncontrollable parameters for FY15.

It is clarified that the above arrears approved for NJPS and Khara are provisional and the Commission shall true-up the same based on the actual payments made during FY15 subject to prudence check.

5.19.3 Based on the above adjustments, the revenue requirement (including approved for FY15 is summarized in table below:

Table 82: Total Revenue Requirement for FY15 including Past Adjustments (Rs. Cr.)

Particulars	Amount
Annual Revenue Requirement approved for FY16	4405.02
Add: Past Period Costs	250.61
Impact of Final Truing-up for FY11 & FY12	56.51
Impact of BASPA-II Truing-up	2.94
Impact of Review Order (MYT 3rd Control Period)	45.94
Consumer Contribution towards RPPO Compensation Fund (as per HPERC order dated 10th November 2014)	12.23
Payment of arrears of Nathpa Jhakri plants as per the order of CERC	97.15
Payment of arrears of Khara Power plants as per the order of UPERC	35.83
Total Revenue Requirement approved including ARR for FY16, impact of Review Order, impact of Truing-up and past arrears	4,655.63

5.20 Allocation of Distribution ARR into Wheeling and Retail Supply

5.20.1 As per the MYT Regulations, 2011, the total Distribution ARR for the Control Period has to be allocated between Wheeling and Retail Supply business. The wheeling charges would be calculated on the Wheeling ARR and the Retail Tariffs would be calculated on the Retail Supply ARR.

5.20.2 In absence of segregated information for wheeling and retail supply being maintained by the Petitioner, for purpose of segregating the ARR for each year of the 3rd Control period, the Commission had continued with the segregation approved in the MYT Order for the 2nd Control Period with certain modifications.

5.20.3 The revised allocation statement approved by the Commission in the MYT Order for 3rd Control Period is as under:

Table 83: Approved Allocation of ARR of Distribution Business

Particulars	Wheeling	Retail Supply
Power Purchase Expenses	0%	100%
PGCIL Charges	0%	100%
HPPTCL Charges	0%	100%
SLDC Charges	0%	100%
Open Access Charges	0%	100%
Employee Expenses	70%	30%
R&M Expense	90%	10%
A&G Expense	60%	40%
Interest and Financing Charges	95%	5%
Depreciation	95%	5%
Return on Equity	100%	0%
Non-tariff Income	0%	100%
Wheeling Charges	100%	0%

5.20.4 The summary of Wheeling and Retail Supply ARR for the Control Period is shown as follows:

Table 84: Approved ARR of Wheeling Business for FY16 (Rs. Cr.)

Particulars	FY16
Operation & Maintenance Costs	953.19
Interest & Financing Charges	196.54
Depreciation	66.76

Particulars	FY16
Return on Equity	30.24
Aggregate Revenue Requirement	1,246.73

Table 85: Approved ARR of Retail Supply Business for FY16 (Rs. Cr.)

Particulars	FY16
Power Purchase Expenses for Supply in the State	2,771.73
Operation & Maintenance Costs	400.35
Interest & Financing Charges	10.34
Depreciation	3.51
Less: Non-Tariff & Other Income	197.53
Aggregate Revenue Requirement	2,988.41

6 Tariff Philosophy and Design

6.1 Tariff Principles

- 6.1.1 The philosophy of tariff determination is primarily guided by the principles enshrined in Section 61 of the Electricity Act, 2003, Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2011, National Tariff Policy and the National Electricity Policy.
- 6.1.2 The Commission has issued amendments to the HPERC (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2011 on 1st November, 2013 wherein the Commission has laid down the principle of progressively moving towards the targeted roadmap of (-) 15% and (+) 10% of the average cost of supply by end of the Third Control Period for all categories of consumers excluding life line consumers. The Commission has continued with the approach as per these regulations while approving tariff for the FY16.
- 6.1.3 However, the Regulation 41-B also states that during the interim periods as mentioned as sub regulations (3) and (4), the Commission shall, with an objective of broadly assessing, the trends and levels of category wise cost of supply for indicative purposes also carry out suitable exercise based on the available data, suitable assumptions and the concepts as may be considered appropriate. The assumptions and methodologies to be broadly followed for the allocation of costs for the purpose of cost to serve calculations has been considered similar to that followed in the MYT Order for the 3rd Control Period.

Sales at Various Voltage Level

- 6.1.4 Accordingly sales at various voltage levels have been worked out and are presented in the table below:

Table 86: Sales at different Voltage Levels for FY16 (MUs)

Category	FY16
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	Total Sales	EHT (>=66 kV)	HT (>=11 kV & <66kV)	LT (< 11 kV)
Domestic	2,070	-	-	2,070
NDNCS	135	-	41	95
Commercial (CS)	527	-	79	448
Small & Medium Industrial Power (SMS)	217	-	-	217
Large Power Supply (LS)	4,738	2,054	2,684	-
Irrigation and Drinking Water Pumping (IDWP)	553	-	166	387
Street Lighting	14	-	-	14
Bulk supply	157	-	100	57
Temporary Supply	27	-	-	27
Total (within State)	8,438	2,054	3,070	3,314

6.1.5 The cost to serve at different voltage level as calculated on this basis is indicated in the following table:

Table 87: Cost to Serve for FY16

Particulars	Generation busbar	>= 66 kV	>=11 kV & <66kV	< 11 kV	Total
Energy Input (MU)	9,654.4	9,654.4	7,600.4	4,530.4	
Loss (MU)		-	-	-	-
Sales at respective level (MU)		2,054.0	3,069.9	3,314.0	8,437.9
Cost at respective level (Rs. Crore)	2,698.3	482.9	461.9	458.6	4,101.7
<u>Cost Allocation (Rs. Per unit)</u>					
Power Purchase Cost		2.91	2.81	2.01	
Cost of Losses		0.15	0.22	0.45	
Transmission & Open Access Charges		0.42	0.42	0.42	
Distribution Cost (> 66kV)		0.67	0.57	0.57	
Distribution Cost (> 11 kV)			0.85	0.72	
Distribution Cost (< 11 kV)				1.38	
Cost of Serve Model		4.15	4.87	5.56	4.93

*Rs 4.93 per unit is the average cost of supply without considering past gap and carrying cost

6.1.6 The above cost does not include the impact of the expenses pertaining to the past periods which have been approved at Rs. 250.61 Cr. (on account of Impact of Final Truing-up for FY11 & FY12, Impact of BASPA-II Truing-up Impact of Review Order (MYT 3rd Control Period), Consumer Contribution towards RPPO Compensation Fund (as per HPERC order dated 10th November 2014), Payment of arrears of

Nathpa Jhakri & Khara plants). These amounts of the past gap shall also have to be loaded to the above stated costs and shall increase the average cost of supply by about 30 paise per unit.

6.1.7 The Commission would like to clarify here that these calculations have been made only for indicative purposes and for assessing the trends and not for fixing the tariffs. However, the data relating to cost allocation shall be used for determining the voltage wise open access charges as adoption of an average rate for this purpose shall otherwise be restrictive to open access, as discussed in separate chapter relating to open access.

6.1.8 In view of the provisions of the Regulations and also in absence of authentic information regarding voltage level cost and losses, the Commission has computed the average cost of supply, as also mandated in the National Tariff Policy and amended HPERC (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2011, for purpose of fixation of tariff for various categories of consumers for the second year of the Third Control Period i.e. FY16.

6.1.9 The average cost of supply computed for FY 16 is provided in table below:

Table 88: Average Cost of Supply for FY 2015-16 based on Approved ARR

Particulars	FY16
Approved Aggregate Revenue Requirement (Rs. Cr.)	4,405.02
Less: Sale of Surplus Power (Rs. Cr.)	243.35
Net Aggregate Revenue Requirement (Rs. Cr.)	4,161.67
Projected Sales (MU)	8,438
Average Cost of Supply (Rs./unit)	4.93

6.1.10 The average cost of supply for FY 2014-15 works out to Rs. 4.93 per unit which does not include the prior period adjustments as detailed in Para 6.1.6. Taking into account the past gap, the average cost of supply comes out to be Rs. 5.23 per unit.

Revenue from Existing Tariff

6.1.11 The Commission has computed the revenue from various categories as per the sales approved for FY16 and the existing applicable tariff in the respective categories. The summary of the estimated revenue for the FY16 is summarized in table below:

Table 89: Revenue for FY16 based on Existing Tariff

Category	Sales (MUs)	Revenue (Rs. Cr.)
Industrial Power Supply	4,955	2,702.58
Small Industrial	163	87.64
Medium Industrial	54	30.40
Large Industrial	4,738	2,584.53
Domestic	2,070	844.07
Irrigation and Drinking Water	553	283.98
Commercial	527	295.36
Bulk Supply	157	95.60
NDNC	135	72.64
Public Lighting	14	6.66
Temporary Supply	27	23.95
Total	8,438	4,324.84

Revenue from Sale of Power Outside State

6.1.12 The Commission in Chapter 5 of this Tariff Order has talked about the need for HPSEBL to show commercial prudence in its power arrangements and avoid purchasing of costly surplus power. The same has been treated in the ARR as purchase of trading surpluses under PPA obligation and the sale of this surplus power have been considered similar to the purchase cost to exclude any impact of the difference in purchase and sale cost of this surplus power on the consumers in the State.

6.1.13 The Commission has also allowed for contingency buffer of 225 MU to maintain continuous supply in the State in case of any unforeseeable difficulty i.e. shutdown of any large generating station, increase in sales within State, etc. In case the power remains unused, the same is estimated to be sold at the average rate of purchase of contingent power in the merit order for the year.

6.1.14 The projected revenue from sale of power outside State is tabulated as follows:

Table 90: Revenue from Sale of Power outside the State

Parameters	Units (MUs)	Revenue (Rs. Cr.)	Cost (Paisa per unit)
Sale of Contingent Purchase	430	169.88	395
Sale of Surpluses for Trading due to PPA obligation	225	73.47	326
Total	655	243.35	371

Incentive Grant towards Procurement of Renewable Power

6.1.15 As per the letter dated January 2, 2015, the Government of India vide Ministry of New and Renewable Energy has indicated to provide an incentive grant of Rs. 132.99 Cr to the State of HP in line with the recommendations of 13th Finance Commission for development of renewable energy. This incentive grant is to be utilized by the States for strengthening the Discoms for procuring renewable power and ensuring timely payment and meeting the gap in RPO compliance by procuring RECs. Therefore, the Commission has considered the incentive grant available to the Discom for FY16 as additional revenue.

Revenue Surplus/Gap at Existing Tariff for FY16

6.1.16 Taking into account the revenue from sale within state at existing tariffs, revenue estimated from sale of power outside state for FY16 and grant available from 13th Finance Commission, the estimated revenue surplus/gap in FY16 as follows:

Table 91: Revenue Surplus/ Gap for FY16 based on Existing Tariff (Rs. Cr.)

Parameters	FY16
Approved Annual Revenue Requirement	4,405.02
Add:	
Impact of Final Truing-up for FY11 & FY12	56.51
Impact of BASPA-II Truing-up	2.94
Impact of Review Order (MYT 3rd Control Period)	45.94
Consumer Contribution towards RPPO Compensation Fund (as per HPERC order dated 10th November 2014)	12.23
Payment of arrears of Nathpa Jhakri plants as per the order of CERC	97.15
Payment of arrears of Khara Power plants as per the order of UPERC	35.83

Parameters	FY16
Total Revenue Requirement	4,655.63
Less: Revenue from Sale of Power within State at Tariff of FY15	4,324.84
Less: Revenue from sale of Power Outside State	243.35
Less: Grant available from 13 th Finance Commission	132.99
Revenue Surplus / (Gap)	45.55

6.1.17 The above revenue surplus for FY16 estimated by the Commission also takes into account the past adjustments as detailed above. The difference in the projection of revenue surplus of Rs. 370 Crores in the MYT Order dated 12th June, 2014 and the present projection of Rs. 45.55 Crores is mainly on account of additional cost of about Rs. 180 Crores for substitute power due to shut down of Bhaba project and arrears of NJPC and Khara of about Rs. 133 Crores.

6.1.18 Based on the above table it is observed that the Petitioner is in surplus during FY16 and there is no requirement for a tariff increase. Considering the pending true-up of uncontrollable parameters of FY14 and true-up of controllable parameters of 2nd MYT Control Period, the Commission has not considered any reduction in tariff. However, with a view to align the average realization with the average cost of supply in line with the road map prescribed in the Tariff Regulations, the Commission is reviewing the tariff for domestic category in this Order as detailed below:

6.2 Issues related to Tariff Structure

Philosophy for Demand Charges

6.2.1 The aggregate cost of supply can be divided on the basis of functions performed such as generation/power purchase, transmission and distribution etc. Each of the functionalized cost can be further classified, based on intrinsic nature into fixed and variable costs. The total fixed costs would primarily comprise of demand related costs which would have mainly two distinct and independent components i.e. the one relating to network cost and the other one relating to power procurement. The fixed network cost comprises of the wheeling charges of the Distribution System and the same corresponding to power procurement would normally include the fixed charges associated with the PPAs for purchase of power and the corresponding transmission charges and losses of Power Grid and HPPTCL etc. Ideally all the demand related fixed costs should be recovered from the consumers in the area of supply through demand charges. The category wise rates of demand charges should

be fixed by taking into account such fixed costs and the pattern of the consumption for various categories of consumers such as load factor and demand factors etc. Since the demand charges have to be payable irrespective of the actual usage of the sanctioned contract demand, it may not be practicably feasible to fix the rates of demand charges at such levels in view of historical trends and the tariff shocks and other distortions/anomalies that may be caused in the category wise tariff by way of exorbitant higher average charges in respect of the particular periods in which the consumption by a consumer may be low due to certain reasons.

- 6.2.2 The Commission is also aware of the fact that determination of demand charges on cost to serve basis would require detailed studies based on the coincident demand of each category of consumers during different time blocks as well as during the period in which the peak demand occurs. Such detailed exercise would be more relevant at the stage when Commission shifts to the pricing on the basis of cost to serve model instead of that based on average cost. In case of EHT and HT consumers (above 1 MVA), the demand charges, based on voltage wise wheeling charges and other fixed costs, including cost of power, Power Grid/HPPTCL charges losses, forming part of the total ARR for power procurement, work out to be of the order of Rs.1100 per kVA per month. As such, the present rates of demand charges broadly work out to be of the order of only about one third of the indicative rate as mentioned above. The Commission has however not revised the present rates in view of the practical problems as described above.
- 6.2.3 The Commission also observes that in some cases, the consumers may avail open access in distribution system on short term basis, even on daily basis or for certain discrete or indiscrete time blocks of a day. In such cases, open access consumers retain their normal prevalent contract demands as consumers of distribution licensee and as such are required to pay the demand charges in full apart from the open access charges. In order to avoid any anomalous situations, the Commission clarifies that in case where a consumer availing short-term open access retains his contract demand, the wheeling charges shall be charged at 50% of the normal rates and remaining 50% shall be deemed to have been included in the demand charges. The balance portion of demand charges, if any, after adjusting the wheeling charges in the aforesaid manner shall be considered to have been provided for on account of a part of the fixed costs in relation to power procurement including transmission cost. Even though the Commission may duly account for such balance portion while fixing

the rates of additional surcharge, if any, the consumers shall always be required to pay the demand charges even if there is no additional surcharge determined.

6.3 Approved Tariff

6.3.1 The Commission has retained the tariff structure as per the MYT Order for the 3rd Control Period. The existing and revised tariff for each category is as under:

DS: Domestic Supply

6.3.2 The existing schedule is applicable to consumers using electrical energy for lights, fans, heaters, cooking ranges, ovens, refrigerators, air conditioners, stereos, radios, televisions, mixers, grinders, electric iron, sewing/embroidery/knitting machines, domestic pumping sets and other domestic appliances in a single private house/flat or any other residential premises; Religious places with connected load up to 5 kW; Monasteries; Panchayat Ghars with connected load up to 5 kW; Patwarkhanas and Kanungoo Bhawans (Government Buildings only) with connected load up to 5 kW; Community gausadans managed by institutions/ government with connected load up to 5kW; Orphanages, homes for old people and homes for destitute; Working Women Hostels, Hostels attached to the educational institutions if supply is given separately to each hostel and the electricity charges are recovered from the students based on actual consumption; Leprosy Homes run by charity and un-aided by the Government; “Home Stay Units” in rural areas duly registered with the District Tourism Development Officer; and Offices of the Himachal Pradesh Senior Citizen Forum.

Note:

- (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 supply to tenants, other flats etc. is strictly prohibited.*
- (iii) *No compounding will be permissible. For residential societies which 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 3,500 units, the first 1,250 (125*10) units would be charged at Rs 3.50 per kWh, the*

next 1,750 (175*10) at Rs 4.40 per unit and the balance 500 units at Rs. 4.95 per unit. Consumer service charge shall be Rs. (50x10).

6.3.3 The Commission, after a detailed analysis, approves the tariff for Domestic category as under:

Table 92: Existing and Revised Approved Tariff for Domestic Category

Description Units/month	Existing		Approved	
	Energy Charges (Rs/kWh)	Consumer Service Charges (Rs. /con/month)	Energy Charges (Rs/kWh)	Consumer Service Charges (Rs. /con/month)
0 -60 (Lifeline consumers including BPL)	2.85	30.00*	2.85	30.00*
0-125	3.50	40.00	3.50	40.00
126-300	4.40	40.00	4.40	50.00
301 & above	4.70	40.00	4.95	50.00
Pre-paid meter	4.40	Nil	4.40	Nil

**consumer service charge for tribal and difficult area is also fixed at Rs. 30/month irrespective of consumption*

6.3.4 The Commission is continuing with the approach followed during the previous tariff Order of FY15 whereby it had extended the benefit of lower electricity tariff available for BPL households, also to very poor and marginalized consumers, in line with the principles laid out in Electricity Act, National Electricity Policy and National Tariff policy.

6.3.5 The applicable rebates and surcharges for this category have been detailed in Part III of Annexure I of this Order.

NDNC: Non Domestic Non Commercial Supply

6.3.6 This schedule is applicable to Government and semi Government offices; Government – Hospitals, primary health centres, dispensaries and veterinary hospitals; Educational Institutions viz. Schools, Universities; I.T.Is, Colleges, Centre for Institute of Engineers, Sports Institutions, Mountaineering Institutions and allied sports and Libraries Hostels, Government Libraries, Centre for Institute of Engineers, Hostels and residential quarters attached to the educational institutions if supply is given at a single point; Religious places such as Temples, Gurudwaras, Mosques, Churches with connected load greater than 5 kW; Sainik and Government Rest

Houses, Anganwari worker training centres, Mahila mandals, village community centers; Hospitals run on charity basis; Sarais and Dharamsalas run by Panchayats and Municipal Committees or by voluntary organizations; and Panchayat Ghars with connected load greater than 5 kW; Patwar Khanas and Kanungoo Bhawans (Government buildings only) with connected load greater than 5 kW.

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

6.3.7 The Commission, after a detailed analysis, has retained the tariff for NDNCS category as shown in the table below:

Table 93: Existing and Approved Tariff for NDNCS Category

Slab	Existing		Approved by Commission	
	Energy Charges (Rs. /kWh)	Consumer Service Charges (Rs. /con/month)	Energy Charges (Rs. /kWh)	Consumer Service Charges (Rs. /con/month)
Up to 20kVA	4.70	70.00	4.70	70.00

Table 94: Existing and Approved Tariff for NDNCS Category: Above 20kVA

Slab	Existing			Approved by Commission		
	Energy Charges (Rs/kVAh)	Consumer Service Charges (Rs/con/month)	Demand Charge (Rs/kVA/month)	Energy Charges (Rs/kVAh)	Consumer Service Charges (Rs/con/month)	Demand Charge (Rs/kVA/month)
Above 20kVA	4.40	-	120	4.40	-	120

6.3.8 The applicable rebates and surcharges for this category have been detailed in Part III of Annexure I of this Order.

CS: Commercial Supply

6.3.9 This schedule is applicable to consumers for lights, fans, appliances like pumping sets, central air conditioning plants, cold storages, lifts, heaters, embroidery machines, printing press, power press and small motors in all Commercial premises such as shops, business houses, cinemas, clubs, banks, private offices, private hospitals, petrol pumps, hotels/motels, welding sets, service stations, private nursing

homes, private rest/guest houses, private research institutions, private coaching institutions, private museums, dry cleaning, garages and private auditoriums, departmental stores, restaurants, lodging and boarding houses, shopping malls and multiplexes. This schedule will also include all other categories, which are not covered by any other tariff schedule.

6.3.10 The Commission, after a detailed analysis, has retained the tariff for the Commercial Supply category as shown in the tables below:

Table 95: Existing and Approved Tariff for CS Category

Slab	Existing		Approved by Commission	
	Energy Charges (Rs. /kWh)	Consumer Service Charges (Rs. /con/month)	Energy Charges (Rs. /kWh)	Consumer Service Charges (Rs. /con/month)
Up to 20kVA	4.95	70.00	4.95	70.00

Table 96: Existing and Approved Tariff for CS Category

Slab	Existing			Approved by Commission		
	Energy Charges (Rs/kVAh)	Service Charges (Rs/con/month)	Demand Charge (Rs/kVA/month)	Energy Charges (Rs/kVAh)	Service Charges (Rs/con/month)	Demand Charge (Rs/kVA/month)
Above 20-100 kVA	4.70	-	80	4.70	-	80
Above 100kVA	4.60	-	140	4.60	-	140

6.3.11 In case of mobile welding sets, the consumer will pay Rs 200 per day, in addition to the energy charges.

6.3.12 The applicable rebates and surcharges for this category have been detailed in Part III of Annexure I of this Order.

SIP: Small Industrial Power Supply

6.3.13 This schedule is applicable to industrial consumers with contracted demand not exceeding 50 kVA including pumps (other than irrigation pumping), poultry farms and sheds, Atta Chakkis, and also for supply to Information Technology Industry, limited only to IT Parks recognised by the State/Central Government. The Industrial type of Agricultural loads with connected load falling in the above-mentioned range and not covered by Schedule "IDWPS" shall also be charged under this schedule.

6.3.14 The Commission, after a detailed analysis, has retained the tariff for the SIP category as shown in the tables below:

Table 97: Existing and Approved Tariff for Small Industrial Supply

Slab	Existing			Approved		
	Energy Charges	Service Charges (Rs. /con/ month)	Demand Charges (Rs./kVA/month)	Energy Charges	Service Charges (Rs. /con/ month)	Demand Charges (Rs./kVA/month)
Up to 20kVA	4.70 (Rs./kWh)	90	-	4.70 (Rs./kWh)	90	-
Above 20kVA - 50kVA	4.50 (Rs/kVAh)	-	80	4.50 (Rs/kVAh)	-	80

6.3.15 The applicable rebates and surcharges for this category have been detailed in Part III of Annexure I of this Order.

MIP: Medium Industrial Power Supply

6.3.16 This schedule is applicable to industrial consumers with contracted demand above 50kVA and not exceeding 100 kVA including pumps (other than irrigation pumping), poultry farms and sheds, Atta Chakkis, and also for supply to Information Technology Industry, limited only to IT Parks recognised by the State/Central Government. The Industrial type of Agricultural loads with connected load falling in the above-mentioned range and not covered by Schedule “IDWPS” shall also be charged under this schedule.

6.3.17 The Commission, after a detailed analysis, has retained the tariff for the MIP category as shown in the tables below:

Table 98: Existing and Approved Tariff for Medium Industrial Supply Category

Slab	Existing			Approved		
	Energy Charges (Rs/kVAh)	Service Charges (Rs/con/ month)	Demand Charge (Rs/kVA/ month)	Energy Charges (Rs/kVAh)	Service Charges (Rs/con/ month)	Demand Charge (Rs/kVA/ month)
Above 50kVA- 100kVA	4.50	-	100	4.50	-	100

The applicable rebates and surcharges for this category have been detailed in Part III of Annexure I of this Order.

LIPS: Large Industrial Power Supply

6.3.18 This schedule is applicable to all industrial power consumers with contracted demand exceeding 100 kVA including the Information Technology industry (limited only to IT parks recognized by the State/Central Government) and not covered by the schedule “IDWPS”.

6.3.19 The Commission, after a detailed analysis, has retained the tariff for the Large Industrial Power Supply category as shown in the tables below:

Table 99: Existing and Approved Tariff for Large Industrial Power Supply Category

Slab	Existing			Approved		
	Energy Charges (Rs/kVAh)	Service Charges (Rs/con/month)	Demand Charge (Rs/kVA/month)	Energy Charges (Rs/kVAh)	Service Charges (Rs/con/month)	Demand Charge (Rs/kVA/month)
EHT	4.10	-	350.00	4.10	-	350.00
HT-1 (up to 1 MVA)	4.50	-	200.00	4.50	-	200.00
HT-2 (More than 1 MVA)	4.20	-	350.00	4.20	-	350.00

6.3.20 The applicable rebates and surcharges for this category have been detailed in Part III of Annexure I of this Order.

BS: Bulk Supply

6.3.21 This schedule is applicable to general or mixed loads to M.E.S and other Military establishments, Central PWD Institutions, Hospitals, Departmental colonies, A.I.R Installations, Aerodromes, construction power to hydroelectric projects and other similar establishments where further distribution to various residential and non-residential buildings is to be undertaken by the consumers for their own bonafide use and not for resale to other consumers with or without profit. However, in case of MES, this schedule shall continue to apply till such time M.E.S. do not avail open access.

6.3.22 The Commission, after a detailed analysis, has retained the tariff for the Bulk Supply category as shown in the tables below:

Table 100: Existing and Approved Tariff for Bulk Supply Category

Slab	Existing			Approved		
	Energy Charges (Rs/kVAh)	Service Charges (Rs/con/mth)	Demand Charge (Rs/kVA/mth)	Energy Charges (Rs/kVAh)	Service Charges (Rs/con/mth)	Demand Charge (Rs/kVA/mth)
LT	4.85	-	200.00	4.85	-	200.00
HT	4.35	-	300.00	4.35	-	300.00
EHT	4.00	-	300.00	4.00	-	300.00

6.3.23 The applicable rebates and surcharges for this category have been detailed in Part III of Annexure I of this Order.

SLS: Street Lighting Supply

6.3.24 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.

6.3.25 The Commission, after a detailed analysis, retains Street Lighting as a separate category and approves the tariff for this category as shown in the table below.

Table 101: Existing and Approved Tariff for Street Lighting Supply Category

Existing		Approved by Commission	
Energy Charges (Rs. /kWh)	Consumer Service Charges (Rs. /con/mth)	Energy Charges (Rs. /kWh)	Consumer Service Charges (Rs. /con/mth)
4.70	70.00	4.70	70.00

6.3.26 The applicable rebates and surcharges for this category have been detailed in Part III of Annexure I of this Order.

TS: Temporary Metered Supply

6.3.27 This schedule is applicable to all loads of temporary nature including exhibitions, touring talkies, circuses, fairs, melas, marriages, festivals, temporary supply for construction purposes including civil works by Government departments and other similar purposes for temporary needs only. However, this tariff is not applicable to wheat threshers and paddy threshers which shall be covered under Irrigation and Drinking Water Pumping (IDWP) even for temporary connection.

6.3.28 The Commission, after detailed analysis, retains the tariff for the Temporary Supply category as shown in the tables below:

Table 102: Existing and Approved Tariff for Temporary Meter Category (upto 20kVA)

Slab	Existing		Approved	
	Energy Charges (Rs. /kWh)	Consumer Service Charges (Rs. /con/mth)	Energy Charges (Rs. /kWh)	Consumer Service Charges (Rs. /con/mth)
Up to 20kVA	7.50	140.00	7.50	140.00

Table 103: Existing and Approved Tariff for Temporary Meter Category (above 20 kVA)

Slab	Existing			Approved by Commission		
	Energy Charges (Rs/kVAh)	Service Charges (Rs/con/mth)	Demand Charge (Rs/kVA/mth)	Energy Charges (Rs/kVAh)	Service Charges (Rs/con/mth)	Demand Charge (Rs/kVA/mth)
Above 20kVA	6.00	-	350.00	6.00	-	350.00

6.3.29 The applicable rebates and surcharges for this category have been detailed in Part III of Annexure I of this Order.

IDWPS: Irrigation and Drinking Water Pumping Supply

6.3.30 The existing schedule is applicable to Government connections for water and irrigation pumping and also covers all consumption for bona fide Pump House lighting. This schedule shall also be applicable to private Irrigation Pumping loads. This schedule shall also be applicable to green houses, poly houses, mushroom growing, processing facilities for agriculture, pisci-culture, horticulture, floriculture and sericulture etc. where all such activities are undertaken by farmers only under this category. This schedule will also be applicable to temporary agricultural loads such as wheat threshers, paddy threshers, tokas, and cane crushers.

6.3.31 Since this schedule of tariff covers 'processing facilities for agriculture', all consumers having processing facilities relating to agriculture such as seed treatment, etc. shall also be covered under this schedule. However, the consumers involved in manufacturing, processing and service sector activities based on agriculture produce such as mushroom processing, etc. shall be covered under relevant industrial schedule of tariff.

6.3.32 The Commission, after a detailed analysis, has retained the tariff for this category as shown in the tables below:

Table 104: Existing and Approved Tariff for IDWPS up to 20 kVA

Slab	Existing		Approved	
	Energy Charges (Rs. /kWh)	Service Charges (Rs. /con/mth)	Energy Charges (Rs. /kWh)	Service Charges (Rs. /con/mth)
Up to 20kVA	3.50	50.00	3.50	50.00

6.3.33 The two-part tariff applicable for IDWPS for connected load above 20 kVA shall be as shown in the table as follows:

Table 105: Existing and Approved Tariff for IDWPS above 20 kVA

Slab	Existing			Approved		
	Energy Charges (Rs/kVAh)	Service Charges (Rs/con/mth)	Demand Charge (Rs/kVA/mth)	Energy Charges (Rs/kVAh)	Service Charges (Rs/con/mth)	Demand Charge (Rs/kVA/mth)
LT	4.60	-	40.00	4.60	-	40.00
HT	4.20	-	350.00	4.20	-	350.00
EHT	4.00	-	350.00	4.00	-	350.00

6.3.34 The applicable rebates and surcharges for this category have been detailed in Part III of Annexure I of this Order.

RT: Railway Traction

6.3.35 The Commission has retained the tariff for Railway Traction as shown in the table below:

Table 106: Tariff for Railway Traction

Energy Charges (Rs/kVAh)	Existing		Energy Charges (Rs/kVAh)	Approved	
	Service Charges (Rs/con/mth)	Demand Charge (Rs/kVA/mth)		Service Charges (Rs/con/mth)	Demand Charge (Rs/kVA/mth)
4.50	400.00	350.00	4.50	-	350.00

6.3.36 The applicable rebates and surcharges for this category have been detailed in Part III of Annexure I of this Order.

6.4 Revenue Projection at Approved Tariff

6.4.1 The following paras summarize the Commission's revenue projection at the revised tariff now approved in this Tariff Order.

Revenue from Sale of Power within State

6.4.2 The Commission has calculated the revenue from sale of power for FY16 across each consumer category at the revised approved tariff as shown in the table as follows:

Table 107: Projected Revenue for FY 16 at Approved Tariff

Consumer Category	Sales (MU)	Revenue (Rs. Cr.)	Avg. Realization (Rs./unit)
Industrial Power Supply	4,955	2,702.58	5.45
Small Industrial	163	87.64	5.39
Medium Industrial	54	30.40	5.60
Large Industrial	4,738	2,584.53	5.45
Domestic	2,070	856.41	4.25
Irrigation and Drinking Water	553	283.98	5.14
Commercial	527	295.36	5.60
Bulk Supply	157	95.60	6.09
NDNC	135	72.64	5.38
Public Lighting	14	6.66	4.76
Temporary Supply	27	23.95	8.91
Total	8,438	4,337.18	5.17

6.4.3 The average revenue realization as percentage of average cost based on the tariff approved for FY15 in the MYT Order for the 3rd Control Period is provided below:

Table 108: Average Realization as % of Average CoS for FY15

Consumer Category	FY15 (Approved Tariff)
Industrial Power Supply	105%
Domestic *	82%
Irrigation and Drinking Water	105%
Commercial	108%
Bulk Supply	118%
NDNC	103%

**The domestic consumers exclude Lifeline consumers, whose average tariff is more than 50% of the average cost of supply as mandated under the National Tariff Policy*

6.4.4 Since the Commission has not revised tariff for any category except domestic, the average realization as percentage of average CoS has remained the same. For domestic category, the average realization as percentage of average CoS has improved from 82% to 84%.

6.5 Overall Revenue–Expenditure Position of HPSEBL at Approved Tariff

6.5.1 The Commission has computed the revenue surplus/ gap for FY16 based on the approved ARR and approved tariff which is given in the table below:

Table 109: Revenue Surplus/ (Gap) for FY16 (Rs. Cr.)

Parameters	FY16
Total Approved ARR (including prior period adjustments)	4,655.63
Less: Revenue from Sale of Power within State at Revised Tariff for FY16	4,337.18
Less: Revenue from sale of Power Outside State	243.35
Less: Grant available from 13 th Finance Commission	132.99
Revenue Surplus / (Gap)	57.89

6.5.2 Based on the above table it is observed that the Petitioner would have a surplus for FY16. The Commission observes that the true-up for FY14 on account of uncontrollable parameters and true-up for 2nd Control Period on account of controllable parameters is still pending. Therefore, depending on the finalization of these true-ups, the Commission shall review the actual revenue position in the subsequent APR/s.

6.5.3 The Commission directs the Petitioner to transfer any surplus revenue realised in FY16 and subsequent years at approved tariffs to the MYT Contingency Reserve as per Regulation 12 of the HPERC (Terms and Condition for determination of Wheeling Tariff and Retail Supply Tariff) Regulation, 2011.

6.5.4 The Commission observes that apart from the additional receipts on account of grants under 13th Finance Commission of Rs. 132.99 Cr., the following revenue streams shall be available to HPSEBL during FY16:

Benefit of REC against R.E. Procurement in Excess of RPPO

6.5.5 HPSEBL shall also be entitled for revenue from sale of RECs for the excess RPPO quantum of power purchase for FY14. A quantum of 541.09 MUs for FY14 in excess of the RPPO target has been computed by the Commission in its Order dated 07.03.2015 which shall be eligible for the Renewable Energy Certificates. Considering the sale rate of @ Rs. 1.50 per unit for the RECs issued for FY14, an amount of Rs. 81.16 Cr. is realizable during FY16. Similarly, the Commission shall be shortly issuing RECs for the excess RPO quantum of power purchased for FY15 which can be sold by HPSEBL during FY16. Amount towards the sale of RECs for FY15 is estimated to be in the tune of Rs. 85.91 Cr. which is also realizable during FY16. A part of this amount from the sale of RECs for FY14 and FY15 estimated at an aggregate of Rs. 167.07 Cr. can be utilized for meeting its equity requirement for setting-up of solar power plants as detailed in para 7.9 of this Order. The balance amount shall be considered at the time of truing-up for FY16 and also at the time of final truing-up of 2nd Control Period.

Transitional Finance Mechanism under FRP approved by Gol

6.5.6 The initiative of Financial Restructuring Plan (FRP) undertaken by GoHP for bailing out the HPSEBL from financial difficulties is commendable and shall be helpful in sustainable development of the power sector in the State. However, the delay on behalf of HPSEBL in availing the scheme has not resulted in attaining the complete benefit of this scheme. It is observed that as per the FRP scheme, HPSEBL has been able to obtain approvals to restructure its past liabilities to the tune of Rs. 1462.50 Cr. partially by restructuring of the loans by the banks and partially by transfer of liabilities to the GoHP (by issuance of bonds). A transition finance mechanism by the Central Government is available by way of grant equal to the value of additional energy saved by way of accelerated AT&C loss reduction beyond the loss trajectory specified under R-APDRP. HPSEBL vide its letter no. 17252 dated 20.01.2015 has submitted that an amount of Rs. 276 Cr. is admissible as incentive under this scheme from the Central Government for FY 2012-13 and has submitted that the claim is being put-up for approval of the state level monitoring committee and central level monitoring committee. The Commission is of the view that the 50% i.e. Rs. 138 Cr.; of the grant available from Central Government should be shared with consumers and the balance 50% can be utilized by HPSEBL for improving its financial liquidity and meeting its equity requirement for setting-up of solar plants as

detailed in para 7.9 of this Order. Accordingly, the Commission directs HPSEBL to pursue the matter on priority.

- 6.5.7 The Commission directs the HPSEBL to undertake serious efforts during FY16 for recovery of the above additional sources of revenue from sale of RECs and grant available under transitional finance mechanism. The Commission shall undertake the impact of these revenue streams based on actual and subject to prudence check at the time of true-up.

Utilization of Unadjusted Fund from Infrastructure Development Charges

- 6.5.8 In accordance with HPERC (Recovery of Expenditure for Supply of Electricity) Regulations, 2012 Regulations, HPSEBL recovers the expenses in the shape of Infrastructural Development Charges (IDC) at the normative rates and associated terms and conditions approved by the Commission. The amounts recovered by the HPSEBL under various provisions of these Regulations are to be accounted for separately as capital receipts under separate accounting heads and sub-heads. The amount so collected is to be used exclusively for meeting a part of the capital expenditure under the capital expenditure plan.
- 6.5.9 An amount of approximately Rs. 144 Crores is available as unadjusted with HPSEBL as on 31.03.2014. The Commission advises that an amount of Rs. 90 Crores out of this may be used by HPSEBL against its 10% share for Capital Works being funded through financial institutions. The balance amount of Rs. 54 Crores may be used as a revolving fund/ amount for implementation of Capital Works funded through financial institutions to meet liquidity problems arising out of the gap between the implementation of the schemes and their submission for reimbursement. This will be treated like interest free working capital revolving fund, in addition to admissible working capital. All the receipts of IDCs after 31.03.2014 will be treated a capital receipt as per HPERC (Recovery of Expenditure for Supply of Electricity) Regulations, 2012 Regulations.

6.6 Subsidy by Government of Himachal Pradesh

- 6.6.1 The Govt. of Himachal Pradesh has made a provision of Rs. 380 Crores in the financial budget for 2015-16, for providing rollback subsidy to electricity consumers of domestic and agriculture categories during the year.

6.6.2 In accordance with provisions of Section 65 of the Electricity Act, 2003, the Commission in terms of sub-regulation (5) of Regulation 42 of the Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2011 in giving effect to the subsidy hereby makes the following provisions:

- (a) The effective energy charges for Domestic Supply category, as proposed by the GoHP after accounting for Government subsidy, shall be as given in the table below:-

Table 110: Subsidized tariff for Domestic category

Description	Units/month	Approved Tariff for FY16 (Rs/kWh)	GoHP Subsidy for FY16 (Rs./kWh)	Effective Tariff after subsidy (Rs/kWh)
Lifeline consumers	0-60	2.85	1.85	1.00
Other Consumers	0-125	3.50	2.20	1.30
	126-300	4.40	1.70	2.70
	Above 300	4.95	0.75	4.20
	Prepaid consumers	4.40	1.70	2.70

- (b) With respect to agricultural consumers under Irrigation and Drinking Water Pumping Supply (IDWPS) category, the energy charges shall be Rs 1.00 per kWh to the consumer category up to 20 kW under single part tariff and Rs. 1.00 per kVAh only for LT category under two part tariff. These revised energy charges on the account of Government subsidy would only be applicable to agricultural and allied activities, and which are paid for by individuals/ user groups.
- (c) The above revised tariffs in respect of Domestic and Agricultural consumers shall be effective retrospectively from April 1, 2015. HPSEBL shall give appropriate adjustments in consumer bills for the subsidy amount.
- (d) In case the GoHP/ HPSEBL want to change the level of subsidy provided to above classes/ categories of consumers, they shall inform the Commission accordingly for necessary changes.

6.6.3 The Commission orders that subsidy amount shall be paid in advance to the HPSEBL as per the provisions of Section 65 of the Electricity Act, 2003, and reconciled after every quarter. HPSEBL is directed to submit quarterly report regarding the payment of subsidy as well as the outstanding amount; if any. In case the State Government fails to pay the subsidy, as per the provisions of Section 65 of the Act, the tariffs in respect of above two categories shall stand reverted back to the original tariff, as approved by the Commission in this tariff order.

7 Open Access and Renewable Power Purchase Obligation

7.1.1 The Commission has permitted Open Access to all the generators irrespective of installed capacity and to all the consumers having contract demand above 1 MVA. The Commission has also made enabling provisions for availing the Open Access since First MYT Regulations by segregation of the ARR of the distribution licensee in to ARR for Retail Supply and Wheeling Supply. Accordingly the Wheeling Tariff and Retail Supply Tariffs were determined for each year of the First and Second Control period. Till date no consumer has gone for medium term/ long term open access in HP. However, short term open access is being availed by some of the consumers. The Commission feels that the sustainable benefits of Open Access for large consumers can be through medium/long term Open Access.

7.1.2 Based on the wheeling ARR approved in para 5.20.4, the average wheeling charges for FY16 are as below:

Table 111: Wheeling Charges for FY16

Particulars	Amount (Rs. Cr.)
Total ARR for Wheeling Business approved for FY16 (Rs. Cr.)	1,246.73
Approved Energy Sales (MU)	8438
Average Wheeling Charge (paise per unit)	148

7.1.3 The above computed average wheeling charge of 148 paise is for the total distribution network of HPSEBL. Most of the open access consumers are utilizing higher voltage level of the network and therefore, applying the average wheeling charge would restrict the open access within the State. Therefore, for the purpose of promoting open access, the Commission has worked out the voltage-wise wheeling charge applicable for open access consumers at various voltage level.

- 7.1.4 Regulation 27 (2) of the Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2011 stipulate that:

“The distribution licensee shall maintain separate books of accounts for wheeling and retail supply business. For such period until accounts are segregated and separate books of accounts are maintained, the Commission shall stipulate the ratio of allocation of all expenses and return component, based on data obtained from the distribution licensee.”

- 7.1.5 In the absence of separate accounts for wheeling and retail supply business, the ARR of HPSEBL for FY15 have been segregated in to wheeling and retail supply businesses in accordance with the allocation statement as detailed in para 5.20. The various charges payable by the consumers availing open access have been determined in this chapter.

7.2 Wheeling Charges

- 7.2.1 The distribution system of HPSEBL consists of lines and associated equipment at various voltage levels of EHV, HV and LV connected with the generating stations, HPPTCL system and the consumers of HPSEBL. Wheeling costs are dependent on the voltage level at which the supply is wheeled and therefore form an integral part of the wheeling tariff. The Commission during the tariff determination exercise requested HPSEBL to submit the details of voltage wise assets. However, in response the HPSEBL submitted that the exercise of asset mapping via GIS and GPS was under progress and the results shall be submitted separately. In the absence of actual voltage wise assets of HPSEBL, the Commission has apportioned the cost of HPSEBL’s wheeling business of Rs. 1,246.73 Cr. as determined in the para 5.20.4, to various voltage classes and accordingly determined the wheeling charges for the EHT (66 kV and above), HT (33 kV), HT (11 kV to less than 33 kV) and other voltage levels (up to 11 kV) of the distribution system. Certain reasonable assumptions have however been made, wherever required, in view of the non-availability of complete data which are detailed below:

- 7.2.2 The assumptions and methodologies used by the Commission for computing the voltage-wise wheeling cost is as below:

Assumptions

7.2.3 The Commission has considered the following assumptions:

(1) Energy Input: Only the energy input into the State transmission system is considered for intra-state consumption. Hence, the Commission has not considered energy sale outside the State for the computation of wheeling charges.

(2) Category-wise sales have been allocated to different voltages proportionately based on past information, except for categories where sales data at different voltages is available, such as Large Industrial Power, Irrigation and Drinking Water Pumping, and Bulk Supply.

(3) Data on cost segregation across voltage levels and consumer category wise is done based on past information and reasonable assumptions in case of absence of data.

Methodology

7.2.4 Cost of Supply to consumers at 66 kV and above has been determined by allocating approximately 33% of the total wheeling cost and power wheeled through this network.

7.2.5 Cost of Supply to consumers at High Tension (33 kV and 11kV) has been estimated by allocating costs to the sales to HT consumers and power wheeled to reach the LT network. It also includes the cost incurred during the wheeling of power at 66 kV and above network. This has further been bifurcated between 33kV and 11kV based on the estimated sales at each level.

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

Sales at various voltage levels

7.2.7 The sales at various voltage levels considered by the Commission are presented in the table as follows:

Table 112: Estimated Sales at Different Voltage Levels for FY15 (MU)

Category	Total Sales	EHT (≥66 kV)	HT (33kV)	HT (≥11 kV & <33kV)	LT (< 11kV)
Domestic Supply	2,070	-	-	-	2,070
NDNCS	135	-	16	24	95
Commercial	527	-	32	47	448
Small & Medium Industrial Power	217	-	-	-	217
Large Power Supply	4,738	2,054	1,342	1,342	-
Irrigation & Drinking Water Pumping	553	-	66	100	387
Street Lighting	14	-	-	-	14
Bulk supply	157	-	20	80	57
Temporary Supply	27	-	-	-	27
Total (within State)	8,438	2,054	1,476	1,594	3,314

Cost Segregation

7.2.8 The Commission has continued the existing practice of cost segregation as followed in the MYT Order for the 3rd Control Period. In order to validate the voltage-wise per unit Distribution cost allocated to different voltage levels, the Commission also assessed the same based on certain other relevant parameters including the pattern of usage of the system by consumers at various voltages, and found the rates worked out in table below to be reasonable.

7.2.9 Hence, the costs are divided into EHT, HT and LT voltages, in the following manner:

(a) Cost of wheeling at EHT: The Commission has estimated cost of wheeling at EHV at Rs 411.42 Cr based on EHV component of the GFA. The same has been apportioned to sales at all voltage level.

(c) Cost of Wheeling at HT: The Commission has considered the wheeling cost at HT level considering the balance of total wheeling charges and cost determined towards EHT level. The balance wheeling cost has been allocated between HT and LT based on the proportion of sales at HT and LT network. Further, the HT cost determined has been further bifurcated between HT (33kV) and HT (11kV) based on the proportion of sales. The HT cost so determined is apportioned to sales at HT (33kV and 11kV and above) and LT voltage level only.

(c) Cost of Wheeling at LT: The Commission has considered the wheeling cost at LT level based on the balance wheeling cost after accounting for EHT and HT wheeling cost. The resultant cost is only towards sales at LT level and has been accounted accordingly.

7.2.10 The approved CoS at different voltage levels for determination of tariff is shown in the table as follows:

7.2.11 Wheeling Charges as determined by Commission are tabulated in the following table:-

Table 113: Approved Wheeling Charges for Open Access Consumers for FY16

Sr. No.	Description	EHT (≥66kV)	HT (33kV)	HT (≥11kV & <33kV)	LT (<11 kV)
(i)	Total cost apportioned (Rs in Crore)	411.42	193.17	208.52	433.62
(ii)	Cost allocation brought forward from the next higher voltage block) $\{(i)-(v)*vi)/1000\}$ [Rs. In Crore]		311.27	387.79	402.67
(iii)	Total allocation (i) + (ii) (Rs. In Crore)	411.42	504.44	596.31	836.29
(iv)	Total Energy Quantum (Sales relevant to determination of per unit rate) in MU	8,438	6,384	4,908	3,314
(v)	Energy Sales	2,054	1,476	1,594	3,314
(vi)	Rate of wheeling Charges in Paisa/unit (iii)/iv) of previous column	49	79	122	252

7.2.12 The long-term and medium-term open access to the distribution system entail firm allocation of wheeling capacity by HPSEBL to the consumer availing open access as well as generators. Accordingly, the charges for these consumers is required to be computed based on capacity basis (per MW) as against the short-term open access consumers for which the wheeling charges shall be determined based on per unit basis. In the above table the Commission has worked out the open access charges for short-term consumers. Since the information with respect to voltage-wise demand and coincident demand is not available, appropriate voltage-wise wheeling charges cannot be computed at this stage. The Commission directs HPSEBL to carry out a study of the voltage-wise demand and coincident demand at various voltage levels and submit by the end of July 2015. Till such time, the above computed wheeling charges shall be applicable for long-term and medium-term open access consumers as well.

7.2.13 Wheeling charges shall be levied on the energy drawn at the delivery point in the distribution system.

7.2.14 In case the power is withdrawn from the distribution system at a voltage level which is different from the voltage level for injection of power into the distribution system, the wheeling charges corresponding to the lower voltage level shall be applicable.

7.2.15 In case where power is injected at HT level in to an EHT substation of the licensee, the wheeling charges shall be worked out by allowing increase of 5% on the wheeling charges applicable for EHT system.

7.2.16 In case of Generators these will be applicable on the energy injected into the system.

7.3 **Wheeling Charges for Renewable Generator**

7.3.1 In accordance with section 86(1)(e) read with section 61(h) of the Electricity Act, 2003, the Commission, for the promotion of renewable can provide suitable measures for connectivity with the grid. The small hydroelectric projects up to an installed capacity of 25 MW are covered under the renewable energy sources. In order to promote generation from these renewable sources, the Commission decides that the wheeling charges payable by the SHPs covered under renewable energy sources shall be comparable to the wheeling charges for the EHV category of open access consumers i.e. 49 paise/ unit for FY16. However the renewable energy generator shall have to bear the losses as per the actual connected voltage level. These concessional wheeling charges shall not be available to the renewable generators selling power, under Renewable Energy Certificate (REC) framework, to the open access consumers or in power exchange or bilateral sale outside the State or captive consumers availing certain portion of power as captive power producers.

7.4 **Wheeling Charges for Embedded Consumers availing Short Term Open Access**

7.4.1 The consumers availing short term open access while simultaneously maintaining their contract demand with the distribution license shall, in addition to the applicable demand charges, pay wheeling charges @50% of the wheeling rates applicable at respective voltage levels. Such consumers shall, however, have to pay the distribution losses applicable at relevant voltage levels. However, if the consumer avails open access over and above the contract demand, full wheeling charges shall be payable. These wheeling charges shall be fixed, without any subsequent true-up.

7.5 Additional Surcharge:

7.5.1 Sub-section (4) of the section 42 of the Electricity Act provides that whenever the Commission permits a consumer or class of consumers to receive a supply of electricity from a person other than the distribution licensee of his area of supply, such consumer shall be liable to pay an additional surcharge on charge of wheeling as specified by the Commission to meet fixed cost of the distribution licensee arising out of its obligation to supply. The Commission has specified the following provisions with regard to additional surcharge under Regulation 6 of the HPERC (Cross Subsidy Surcharge, Additional Surcharge and Phasing of Cross Subsidy) Regulations, 2006:

“Additional surcharge .- (1) An open access consumer shall also pay to the distribution licensee an additional surcharge to meet the fixed cost of such distribution licensee arising out of his obligation to supply as provided under sub-section (4) of section 42 of the Act.

(2) Additional surcharge will be payable by any consumer including any consumer who puts up a captive plant for his own use.

(3) The additional surcharge for obligation to supply as per sub-section 4 of section 42 of the Act shall become applicable only if it is conclusively demonstrated that the obligation of a licensee, in terms of existing power purchase commitments, has been and continues to be stranded, or there is an unavoidable obligation and incidence to bear fixed costs consequent to such a contract. The fixed costs related to network assets would be recovered through wheeling charges.

(4) Each distribution licensee shall submit to the Commission, details of fixed costs, which the licensee is incurring towards his obligation to supply.

(5) In determining the additional surcharge, the Commission shall scrutinize the details of fixed costs submitted by the distribution licensee and invite and consider objections, if any, from the public and affected parties.

(6) The additional surcharge shall be determined on annual basis and it can be collected either as one time payment or on monthly basis.”

7.5.2 The aforesaid provisions thus provide that the additional surcharge shall be payable by the consumer availing open access to the distribution licensee to meet fixed cost arising out of his obligation to supply if it is conclusively demonstrated that the obligation of the licensee, in terms of existing power purchase agreements continues

to be stranded, or there is an unavoidable obligation to bear fixed cost consequent to such a contract. The said Regulations further provide that distribution licensee shall submit to the Commission, details of fixed costs, which the licensee is incurring towards his obligation to supply and that the Commission shall determine additional surcharge on annual basis. The HPSEBL has not submitted any proposal/details in this regard inspite of the requests made to it by the Commission in the past. The Commission therefore again requests HPSEBL to submit proposal for determination of additional surcharge, if any. The proposal would need to be supported with all requisite details. Some of the factors which should also be considered while framing any such proposal are, however, also given below for the sake of convenience of the distribution licensee.

- i. The distribution licensee in the State has tied up adequate power on long term basis to meet the requirements for 24x7 supply to its consumers. The consumers in the State are accordingly being given unrestricted supply and in fact, adequate power is also available to meet the future requirements of the prospective consumers. This may have bearing on the quantification of stranded power and corresponding costs.
- ii. The nature and duration of open access shall have to be duly considered while fixing the rates of additional surcharge and other associated terms and conditions. In case of long/medium term open access, the distribution licensee may be able to dispose of the power rendered surplus in more efficient way as compared to that in case of short term open access. In case the open access is applied for or availed for smaller durations or the quantum of open access varies in different time blocks over such period, the power management may become more difficult for the distribution licensee keeping in view the uncertainties about the finalization of daily schedule(s). In such cases, if the transaction materialises, the surplus power may have to be disposed at rates which may be much lower in the timeframes in which the consumers may generally tend to avail such open access. On the other hand, if such transaction does not materialises, the distribution licensee may have to arrange power for such consumer to the extent it might have been scheduled for disposal in anticipation of the short-term open access transaction proposed by the consumer for daily schedule. In case of open access for the longer durations, the distribution licensee may still have some scope for efficient management of the surplus power. Thus the stranded costs corresponding to power requirements in case of short- term open access

consumers may have separate features as compared to those in case of the long term and the medium term open access consumers and can be dealt separately. As a matter even within short term open access the features may vary depending on the duration of open access.

- iii. In view of (ii) above, the rates of additional surcharge can be linked with nature of open access(long/medium term and short term) and in case of short term open access it can further be linked with the duration for which open access is availed at a time. Moreover, in case of long term and medium term open access consumers, the stranded costs may have to taper down over the time, starting from the date on which each such consumer starts availing open access, but the same may continue to exist in case of short-term open access.

7.5.3 The Commission feels that non fixation of rate(s) of additional surcharge may lead to uncertainties which may, on one hand, directly or indirectly impede the growth of open access and on the other hand could harm the interest of the consumers of HPSEBL. The Commission therefore expects HPSEBL to submit, along with complete details, the proposal for levying, or for not levying, the additional surcharge within two months of issue of the tariff order this year. However in future it should be part of tariff petition filings.

7.6 Cross Subsidy Surcharge

7.6.1 Sub-regulation 2 of Regulation 3 of Himachal Pradesh Electricity Regulatory Commission (Cross Subsidy Surcharge, Additional Surcharge and Phasing of Cross Subsidy) Regulations, 2006 stipulates that the Consumers availing Open Access shall have to pay the Distribution Licensee Cross Subsidy Surcharge which shall be determined by the Commission on a methodology and surcharge formula mentioned in the National Tariff Policy, which is given as follows:-

$$S = T - [C (1+L/100) +D]$$

where

- (a) "S" is the Surcharge
- (b) "T" means Tariff payable by the relevant category of consumers
- (c) "C" is the Weighted average cost of power purchase of top 5% at the margin excluding liquid fuel based generation and renewable power
- (d) "D" is the Wheeling Charge

- (e) “L” is the system losses for the applicable voltage level, expressed as a percentage.

Cross-subsidy Surcharge for Long-term and Medium-term Open Access Consumers

The Cross-subsidy Surcharge has been worked out based on the above methodology. Further, the Commission in line with its HPERC (Cross Subsidy Surcharge, Additional Surcharge and Phasing of Cross Subsidy) Regulations, 2006, is required to reach a normative level of 20% of its opening level. Considering the same, the Cross Subsidy Surcharge computed by the Commission for FY16 is tabulated below:

Table 114: Computed Cross Subsidy Surcharge for Long-term & Medium-term Open Access Consumers

Sr. No.	Description of Consumers	Cross Subsidy Surcharge (Rs./ unit)	20% of the Cross Subsidy Surcharge (Rs./ unit)
1	Large Industrial Power Supply EHT Consumers	0.57	0.11
2	Large Industrial Power Supply HT 2 Consumers	0.68	0.14
3	Irrigation & Drinking Water Supply Category - EHT Consumers	0.84	0.17
4	Irrigation & Drinking Water Supply Category - HT Consumers	0.12	0.02
5	Bulk Supply Category - EHT Consumers	0.92	0.18
6	Bulk Supply Category - HT Consumers	0.73	0.15

7.6.2 Since for few of the categories the Cross-subsidy surcharge computed as per the above formula is higher than the cross-subsidy surcharge approved last year i.e. FY15, the Commission has retained the lower of the two. The approved Cross-subsidy surcharge shall be as provided in table below:

Table 115: Approved Cross Subsidy Surcharge for Long-term & Medium-term Open Access Consumers

Sr. No.	Description of Consumers	Approved Cross Subsidy Surcharge (Rs./ unit)
1	Large Industrial Power Supply EHT Consumers	0.09
2	Large Industrial Power Supply HT 2 Consumers	0.14
3	Irrigation & Drinking Water Supply Category - EHT Consumers	0.17
4	Irrigation & Drinking Water Supply Category - HT Consumers	Nil
5	Bulk Supply Category - EHT Consumers	0.18
6	Bulk Supply Category - HT Consumers	0.15

Cross-subsidy Surcharge for Short-term Open Access Consumers

7.6.3 In case of short term open access by the consumer, the rates as per table above shall be applicable only in cases where open access is availed for the full day (24 hours of the day) and the same quantum of power is availed through open access throughout the day. However certain consumers may avail open access for certain hours of the day to meet part of their requirement. The computed cross-subsidy surcharge for peak hours for FY16 based on the above formula are higher than the approved cross-subsidy surcharge for peak hours during FY15. Further, as per the present tariff structure, the tariff during peak hours are higher than the normal hours and the cross subsidy surcharge computed as per formula above will be higher as compared to normal hours. Curtailing the computed cross-subsidy surcharge at 20% would significantly lower the cross-subsidy surcharge levels during peak load hours and therefore, the Commission has retained the cross-subsidy surcharge of peak hour and non-peak hour as approved in previous year.

Table 116: Cross Subsidy Surcharge for Short-term Open Access Consumers during Time of the Day

Sr. No.	Description of Consumers	Cross Subsidy Surcharge for Part of the Day	
		Non-Peak Hours (Rs./ unit)	Peak Hours (Rs./ unit)
1	Large Industrial Power Supply EHT Consumers	0.09	2.73
2	Large Industrial Power Supply HT 2 Consumers	0.14	2.48
3	Irrigation & Drinking Water Supply Category - EHT Consumers	0.17	2.66
4	Irrigation & Drinking Water Supply Category - HT Consumers	Nil	1.92
5	Bulk Supply Category - EHT Consumers	0.18	0.75
6	Bulk Supply Category - HT Consumers	0.15	0.54

Note: The cross subsidy surcharge as per Table above, as applicable shall be levied on the energy drawn at the delivery point in the distribution system through open access.

7.6.4 The Commission also feels that in some cases the consumers may have to avail Open Access because of inability of Distribution Licensee to supply power during certain specific hours for reasons of power shortages etc. In order to avoid any hardships to consumers, the Commission hereby stipulates that in cases where the Distribution Licensee has communicated in advance to the consumer about its inability to meet any part of power requirements of a consumer for a specific duration, the cross subsidy surcharge shall not be applicable for such part of the energy requirement (for which Distribution Licensee had expressed its inability to supply) as is met through open access during such periods.

7.6.5 The Commission has continuously endeavoured to reduce the cross-subsidy and has been guided by the principles laid down in the National Tariff Policy. Since the target of realization being +/-20% of average cost of supply was achieved by FY14, the Commission in the amendments to the Regulations, 2011 have laid down a road map for with a target that by end of 3rd Control Period (i.e. FY19), tariff for consumer categories, other than lifeline consumers, shall be within (-)15% and (+)10% of the average cost of supply. For computation of cross-subsidy surcharge, the Commission is following the formula specified in the tariff policy notified by Government of India. Since the formula does not leave any subjective control on the cross-subsidy values arrived, the Commission has no other option but to approve the cross-subsidy surcharge that is arrived based on application of the prescribed formula.

7.7 Distribution Losses

7.7.1 In addition to above charges, the Open Access consumers shall have to bear the distribution losses in kind as per the provisions of the Open Access regulations and shall be credited to the respective licensees through energy accounting mechanism to the respective licensees. The distribution losses at following rates shall be applicable to the open access consumers including generators, other licensees and traders:

Table 117: Approved Loss Level for Open Access Consumers

Voltage Level	220kV/ 132 kV	66kV	33kV	22kV/ 11kV	LT
Loss level (in % of energy)	4.0	6.0	7.5	9.0	19.0

7.7.2 The losses at LT are for indicative purposes only as no open access may actually be availed on LT.

7.7.3 In order to provide non-discriminatory access to its system to the open access consumers, the HPSEBL shall maintain such systems in accordance with the provisions of the Himachal Pradesh Electricity Regulatory Commission (Distribution Performance Standards) Regulations, 2010.

7.8 Renewable Power Purchase Obligation (RPPO)

7.8.1 The Commission vide Regulation 4 of the HPERC (Renewable Power Purchase Obligation and its Compliance) Regulations, 2010 (read with amendments) has specified the minimum ceiling of solar and non-solar RPPO for the distribution

licensee over a time span of ten years. Accordingly the minimum RPPO of the distribution licensee for solar and non-solar energy for FY16 is as under:

Table 118: Minimum quantum of Purchase from Renewable Sources & Projected RPO Obligation for FY16

Particular	Minimum RPPO %age of the gross requirement	Minimum RPPO quantum in MUs
Non-Solar	11%	1084.86
Solar	0.25%	24.66
Total RPPO	11.25%	1109.52

7.8.2 The Commission while deciding the suo-moto case no. 93(A)/2013, in its order dated 29.07.2013 had observed that HPSEBL had fully met and in fact exceeded the specified target in respect of Non-Solar RPPO for the last three years but was unable to meet the Solar RPPOs for the FY12 and FY13. There was a shortfall of 0.74MU and 18.4MU in the solar RPPO during FY12 and FY13. The Commission in the order decided that the shortfall of Solar RPPOs for FY12 and FY13 shall be met during the FY16 and FY17 respectively, in addition to the Solar RPPOs of those years. Accordingly, for meeting solar quantum of FY16, the Commission has considered an additional solar RPPO of 0.74 MUs.

7.8.3 Accordingly in this Order the Commission has approved the total purchase of renewable power by HPSEBL for FY16, which is in excess of solar RPPO and non-solar RPPO and is as under:

Table 119: Approved Quantum of Renewable Power Purchase for FY16

Source	FY16	
	MU	Rs Cr
Solar	58.25	28.28
Singrauli Solar*	24.97	9.49
SECI	33.28	18.80
Non-Solar	1658.34	426.33
SHP Own Generation	472.93	98.96
SHP PPAs Preferential Tariff (Excluding on APPC under REC)	1,185	327.37

*Cost from Singrauli solar also includes cost of bundled thermal power.

7.8.4 In line with the 3rd amendment dated 30.12.2014 of CERC (Terms and Conditions for Recognition and Issuance of Renewable Energy Certificate for Renewable Energy

Generation) Regulations, 2010, HPSEBL are eligible for RECs for the surplus quantum of power procured from renewable sources. As per Commission's Order dated 07.03.2015, HPSEBL is eligible for non-solar RECs corresponding to 541.09 MUs of excess renewable energy purchase for FY14. HPSEBL shall be eligible for RECs in the subsequent years also, as the quantum of power purchase from renewable sources shall exceed the RPPO quantum.

- 7.8.5 In accordance with Regulation 4 of the HPERC (Renewable Power Purchase Obligation and its Compliance) Regulations, 2010 (read with amendments), the minimum percentage of RPPO obligation is also applicable to captive generation/open access consumers including DG sets above 1MW installed capacity. Such consumers have the option to purchase R.E. power, solar as well as non solar, or buy RECs. Since HPSEBL has surplus quantum of renewable power available after meeting its RPPO, these consumers have the option to convert their conventional energy supplied by HPSEBL into renewable energy by payment of additional Rs. 1.50 per unit (i.e. floor price of the non-solar RECs as approved by CERC in Order 142/2011 dated 13.06.2011) to HPSEBL. The HPSEBL is directed to maintain account of consumers availing this facility of conversion to renewable power and submit the same to the Commission on quarterly basis.
- 7.8.6 The surplus quantum of renewable power purchased by HPSEBL after meeting its RPPO, sale of renewable power outside the State and conversion of conventional energy to green energy by other obligated entities within the State as specified in Para 7.8.5, shall be eligible for issuance of RECs and therefore HPSEBL shall maintain a proper permanent account of procurement from each identifiable source and utilization thereof.

7.9 **Clean Energy Policy and promotion strategies**

Clean Energy Policy:

- 7.9.1 The Commission in its MYT Order for 3rd Control Period FY15-FY19 dated 12th June, 2014, took a policy decision in consultation with HPSEBL, that Himachal shall be 100% green in terms of consumption of electricity and hence all power purchases to meet requirements of consumption in the State shall be from clean sources, that is hydel and other renewable sources like solar and Himachal's share in the nuclear generating plants of Govt. of India. Accordingly, purchases during 2014-15 and 2015-16 are approved and long term strategy up to 2040 is outlined in the tariff order.

Promotion of small hydro generation:

7.9.2 While there is in the State an adequate expertise and capacity in generation of hydel electricity in public as well as private sectors, SHPs up to 25 MWs are now largely in private sector. Smaller capacities cannot always be competitive in market and therefore, HPSEBL needs to purchase power from them. CERC has allowed the DISCOMs the benefit of RECs for purchase of R.E. over and above its RPPO targets. Accordingly, the HPSEBL, with prior approval of the Commission, shall formulate and notify an objective, prudent and transparent policy for power procurement from SHP sources. This will promote capacity creations in hydro R.E. and in the process it will also earn the incentive of REC for the benefit of consumers.

Development of Solar Electricity:**Solar potential:**

7.9.3 Hydel shall continue to remain the better options among the renewable sources, yet due to variations in generations, an appropriate energy mix from clean sources is required. NISE has calculated the solar potential of 34,000 MW in H.P. With rapid technological development in solar generation, it shall be the most competitive in future and therefore capacity creation within the State should be catalysed. The Commission has already initiated mapping of the solar potential sites and services of Aryabhat Centre of the S&T Department and NIT Hamirpur are being availed for this purpose.

Capacity building of HPSEBL in solar energy generation:

7.9.4 HPSEBL played the pioneering role in hydel generation very effectively and so it can do the same in solar generation. Investment in solar under regulated tariff regime is highly lucrative, with returns up to 21% per annum. There is no unforeseen risks if procurement of works and equipments are done with due diligence. Solar RPPO of 3% requiring installed capacity of 250 MW by 2022 is likely to go up due to increase in projections from 20,000 MW to 1 Lac MW by Govt. of India. Therefore, investment and implementation priority of HPSEBL could shift from SHPs to Solar. Being a PSU, it has the advantage of getting land transfers, including forest clearances and leases speedily, which is the key to solar investment. Therefore, private investment can come in a big way once investment experience is available, which can be led by HPSEBL. Instead of large sized projects, HPSEBL should go in for smaller size distributed generation, which will be useful for 24x7 supply across the State,

reduction of line losses, least O&M costs etc. Therefore, the Commission is of the view that each hydel generating station should have solar generation at or near its hydel stations, each E.S. Sub-station should have solar station and each Electrical Sub-Division should have 1 MW installed capacity of solar stations or even varying sizes of less than 1 MW capacity.

- 7.9.5 Even if HPSEBL plans to undertake 200 MW of solar power plant at various locations within HP, considering a fixed cost of Rs. 605.85 lacs per MW (CERC Suo-motu Order dated 31.03.2015) and 30% equity requirement, total equity required to be invested by HPSEBL should be approx. Rs. 364 Cr. HPSEBL may pursue the GoHP for arranging part of this equity requirement and balance equity requirement can be met partially from the sale of RECs as detailed in para 6.5.5, partially from the Transitional Finance Mechanism under FRP as detailed in para 6.5.6 of this Order and efficiency gains and partially from surpluses under ARR. HPSEBL can also consider disinvesting its equity in HPPCL and put this money on solar generation.

Contribution of equity returns of solar projects to terminal benefits payouts.

- 7.9.6 Responsibility of payment of pension to employees of the erstwhile Board, those who have retired prior to 2010 and the past services rendered in Board by the employees of HPSEBL as transferred to it after reorganisation in 2010, is with the GoHP and HPSEBL. These costs are increasing with increasing rates and hence full recovery from tariff can become unsustainable at some stage. Therefore, surplus revenues from tariff and Govt. and regulatory incentives available to HPSEBL can be invested as equity in solar, with a mechanism evolved and approved by the Commission, on the lines discussed in para 7.9.5 above. 80% of such return can be contributed to terminal benefits payouts and balance 20% can be retained by the HPSEBL.

Waste to Energy:

- 7.9.7 The Commission's policy of 100% clean energy is not only aimed at energy security on sustainable basis, including long term tariff stability, it is also an important measure to arrest climate change and environment protection. Therefore, the Commission proposes to promote generation of energy from the wastes, including municipal waste and decides that entire energy generated from waste in the State shall be purchased by HPSEBL on the tariff determined by the Commission as renewable energy.

8 Directions and Advisories

- 8.1.1 The Commission had issued directions and advisories to HPSEBL in the MYT Order for the 3rd Control Period. In reply to the various clarifications sought by the Commission during the review of the First APR Petition for the 3rd Control Period, the petitioner has submitted the compliance to various directives which are summarized below along with the Commission's observation on the appropriateness and completeness of the compliance towards each direction/ advisory.

Direction	Compliance Status	Commission's observation																																																												
<p>Clause 5.6.3:</p> <p>The Hon'ble Commission appreciates the efforts made by the Petitioner to recover outstanding dues. Further, the Hon'ble Commission is of the view that the Petitioner should take action in accordance with the relevant provisions of the Electricity Act, 2003. The Petitioner is directed to keep the Hon'ble Commission updated on the status where consumers are delaying payment of legitimate dues.</p>	<p>All out efforts are being made to realize the outstanding arrears by serving notices, issue of TDCOs and PDCOs to the defaulting consumers as per provision in Para 7.1.2. of supply Code- 2009 and court cases are also being pursued to recover the arrears from permanent defaulters. The latest status of the circle wise outstanding arrears as in respect of north zone ending 9/2014 are as under:-</p> <table border="1"> <thead> <tr> <th>Circle</th> <th>I&PH</th> <th>MCs/N ACs</th> <th>Others</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Kangra</td> <td>28.78</td> <td>1.08</td> <td>9.82</td> <td>39.68</td> </tr> <tr> <td>Una</td> <td>16.80</td> <td>0.001</td> <td>5.97</td> <td>22.77</td> </tr> <tr> <td>Dalhousie</td> <td>19.45</td> <td>0.51</td> <td>13.59</td> <td>33.65</td> </tr> <tr> <td>TOTAL</td> <td>65.03</td> <td>1.591</td> <td>29.38</td> <td>96.10</td> </tr> </tbody> </table> <p>The latest status of the outstanding arrear in respect of south zone ending September 2014 is as under: -</p> <table border="1"> <thead> <tr> <th>Circle</th> <th>I&PH</th> <th>MCs/ NACs</th> <th>Others</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Solan</td> <td>25.13</td> <td>-0.02</td> <td>54.75</td> <td>79.86</td> </tr> <tr> <td>Shimla</td> <td>77.00</td> <td>0.227</td> <td>7.28</td> <td>84.507</td> </tr> <tr> <td>Rampur</td> <td>1.02</td> <td>.0094</td> <td>3.99</td> <td>5.019</td> </tr> <tr> <td>Nahan</td> <td>26.68</td> <td>0.34</td> <td>13.59</td> <td>40.61</td> </tr> <tr> <td>Rohroo</td> <td>3.06</td> <td>0.0054</td> <td>5.32</td> <td>8.385</td> </tr> <tr> <td>TOTAL</td> <td>132.89</td> <td>0.5618</td> <td>84.93</td> <td>218.38</td> </tr> </tbody> </table> <p>In respect of central zone major amount is in respect of I&PH department only and for rest every efforts are being made to recover the outstanding amount.</p>	Circle	I&PH	MCs/N ACs	Others	Total	Kangra	28.78	1.08	9.82	39.68	Una	16.80	0.001	5.97	22.77	Dalhousie	19.45	0.51	13.59	33.65	TOTAL	65.03	1.591	29.38	96.10	Circle	I&PH	MCs/ NACs	Others	Total	Solan	25.13	-0.02	54.75	79.86	Shimla	77.00	0.227	7.28	84.507	Rampur	1.02	.0094	3.99	5.019	Nahan	26.68	0.34	13.59	40.61	Rohroo	3.06	0.0054	5.32	8.385	TOTAL	132.89	0.5618	84.93	218.38	<p>The Commission appreciates the efforts being made by the petitioner for recovering outstanding dues. However the progress made by the petitioner is still not very encouraging. The Commission directs the petitioner to take up the matter of outstanding arrear against I&PH department at the government level or look at options of working out suitable settlements for such long outstanding arrears. The Commission directs the petitioner to provide quarterly reports on the actions taken for the recovery of these arrears from the date of publishing of this order.</p> <p>The Commission also directs the petitioner to undertake an category-wise and age-wise analysis of the arrears with breakup of the</p>
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Direction	Compliance Status	Commission's observation
		<p>arrears into:</p> <ul style="list-style-type: none"> • Principal outstanding • Surcharge outstanding • Arrears of less than one years • Arrears of one to five years • Arrears older than five years <p>The Commission also directs the petitioner to identify non-recoverable arrears and initiate proceedings for writing the same off. The petitioner is directed to submit the above report on arrears within three months from notification of this order.</p>
<p>Clause 7.6.27:</p> <p>Considering the uncertainty associated with the availability from the unallocated quota, the Hon'ble Commission has not considered the same in energy balance. However, energy to the extent of 400 MU from this unallocated quota. The Petitioner is directed to consider the commercial principles and merit order before procuring power from the unallocated quota.</p>	<p>Due to less availability of power from the thermal plants and to meet the RTC demand HPSEBL had to requisition unallocated quota. However against the requisition of 100 MW only 45 MW has been diverted to H.P i.e. total quantum for December to April shall be approximately 150 MUs.</p>	<p>While the demand-supply may vary on a year-to-year basis, the petitioner is required to use prudence and commercial principles in mind while undertaking power procurement from the unallocated quota and evaluate alternative options.</p>
<p>Clause 7.8.27:</p> <p>The Hon'ble Commission therefore directs the Petitioner to undertake adequate measures for avoiding the burden of its</p>	<p>HPSEBL shall give due compliance to the advice of Hon'ble commission. However it is submitted that prudent practices are being adopted during power purchase planning.</p>	<p>Compliance noted.</p>

Direction	Compliance Status	Commission's observation
inefficient power purchase planning on the consumers.		
<p>Clause 7.8.28:</p> <p>The Commission reiterates that since HPSEBL and Government of HP are surplus in power, the allocation from hydro stations outside State upcoming in the future should be avoided as HP is already having abundantly existing and upcoming hydro power projects within the State. HPSEBL should not enter in to PPAs for such upcoming projects and if at all HPSEBL feels the need to do so on merit, prior approval of the Commission shall be taken. Similarly, no PPA or purchase from upcoming thermal sources shall be made in future without prior approval of the Commission.</p>	<p>HPSEBL shall give due compliance to the advice of Hon'ble commission while executing new PPA's. At present, HPSEBL is not intending to purchase power from the hydro projects located outside the state. However any new PPA regarding Thermal projects, if required shall be signed after due approval of Hon'ble HPERC. HPSEBL is also in process to review the position of PPA's already signed where the projects have not been commissioned so far.</p>	<p>Compliance noted.</p>
<p>Clause 7.8.30:</p> <p>Since HP has abundant Hydel Power, which is firm power, although having seasonal variations, the HPSEBL shall study how the base load for the entire year will be met from the hydel power itself or thermal power in return of surplus hydel power banked or both, so that HPSEBL avoids buying costly power from new thermal stations in future.</p>	<p>HPSEBL shall give due compliance to the advice of Hon'ble commission.</p>	<p>The direction was given to the petitioner more than a year ago. In the intervening period, the petitioner should have prepared a plan or should have undertaken a feasibility study for the same. However the Commission is disappointed to see that the petitioner has failed to demonstrate any constructive movement on this front. The Commission reiterates its direction and instructs the petitioner to provide tangible proof of any</p>

Direction	Compliance Status	Commission's observation
		actions taken in this regard.
<p>Clause 7.15.2:</p> <p>a) The Petitioner is directed to submit the complete details of the proposed schemes along with the cost benefit analysis and obtain the scheme wise approval (excluding the central sponsored schemes like R-APDRP and RGGVY etc.) in accordance with the provisions of the Regulations for the capital expenditure to be incurred during each year of the Third Control Period as per the annual investment plan drawn for the purpose. The licensee shall also indicate the sources of funding including its own contribution and consumer contribution. The licensee's financial contribution to the scheme will be treated as normative loan. However pending such submission, the Commission has provisionally considered capital expenditure of Rs.2,220 Cr. for ARR projection.</p> <p>b) The licensee shall streamline its process for decision making, financing, tendering and contracting to enhance its capacities for speedy execution of schemes for cost</p>	<p>a) All the scheme are being formulated/ prepared on the basis of cost benefit analysis REC guidelines and Scheme wise approval is being got approved from the commission as per regulations for each year as per actual annual investment plan.</p> <p>b) Efforts are being made to get the schemes/projects executed timely as required, but problem is being faced due to shortage of staff particularly drawing cadre. Under central zone above Rs.10.00 Lac e-tendering process is followed for clear transparency in the process and the schemes are executed in the cost efficiency and quality of service enhancement manner.</p> <p>c) Only viable schemes approved by Board and M/s REC are being considered for execution.</p> <p>d) Infrastructure Development charges are being recovered from the prospective consumer as per the HPERC, Regulations, 2012 (Recovery of expenditure regulation 419/2012).</p> <p>e) Every effort is being made by the officials to achieve the loss reduction targets as per RGGVY/ R- APDRP norms, so that full grant as per provision in the scheme is availed in R- APDRP Towns.</p> <p>f) Being supplied regularly as per the directions.</p>	<p>While the petitioner is claiming to provide the cost benefit analysis scheme-wise to the Commission, there has been no DPRs/ cost-benefit report/ any other document submitted to the Commission along with the Business Plan and MYT Petition last year. Similarly no documents were furnished along with the First APR petition. The directive stands continued.</p>

Direction	Compliance Status	Commission's observation
<p>efficiency and quality of service enhancement.</p> <p>c) The licensee shall undertake only such works as considered viable based on the cost benefit analysis.</p> <p>d) The licensee shall ensure the capital cost recoverable from the prospective consumer as per the relevant regulations.</p> <p>e) The licensee shall ensure timely completion and compliance of the loss reduction targets as well as various other conditions associated with R-APDRP and RGGVY schemes. In case the licensee fails to get any loan converted into grant as per the provision of R-APDRP due to non-compliance of any condition, the Commission shall not allow any such loan as pass through in the ARR.</p> <p>f) The Petitioner shall submit the quarterly progress report of actual capital investment within one month of the respective quarter.</p>		
<p>Clause 7.15.4:</p> <p>The Commission reiterates its direction of the previous Order and expects that the Petitioner would undertake appropriate measures for timely execution of the various projects covered under the R-APDRP / RGGVY schemes.</p>	<p>RGGVY:</p> <p>In respect of 12 no's RGGVY schemes, all the works except for 33 KV line work in Pangi Block of district Chamba have been completed. The balance work of 33 KV line of Pangi block shall be undertaken departmentally. Out of 12 no's RGGVY schemes, 11 no's scheme closure has already been submitted to M/s REC Ltd. through Govt. of H.P and the balance closure of Sirmour district shall be submitted by the end of December, 2014 i.e. the execution and closure submission of RGGVY schemes shall be as per schedule.</p>	<p>While the petitioner has provided details of various works under the RGGVY/ R-APDRP schemes, the status of the projects (timely, delayed, etc) is not provided. Therefore, the petitioner is directed to provide the scheme wise report for each town. The</p>

Direction	Compliance Status	Commission's observation
	<p><u>Zone- wise status of RGGVY is as under: -</u></p> <p><u>Chief Engineer (Operation) North:</u> RGGVY works of 11th plan for District Kangra, Una and Chamba has been completed and submitted to REC for closing. The R-APDRP works under Una and Chamba towns are on the verge of completion as per provision in the scheme. The works of Dharamshala and Yol towns are targeted for completion up to February, 2015.</p> <p><u>Chief Engineer (Operation) South:</u> RGGVY works of 11th Plan under (Op), South Zone have been completed and closure reports of all districts except Sirmour have been submitted. Regular Progress Meeting is being conducted for timely completion of works under R-APDRP Schemes.</p> <p><u>Chief Engineer (Operation) Central Zone:</u> R-APDRP works are going on at full swing and the works shall be completed within the targeted dates. RGGVY scheme in respect of the zone have completed and closed.</p> <p>R-APDRP (Part A): Go-live of Towns: - HPSEB Ltd. has declared all the 14 towns Go-live in the review meeting held with M/s PFC on 10th July, 2014.</p> <p>User Acceptance Testing: - User Acceptance Testing (UAT) of Data Center is in progress and the same is expected to be completed by 15th December, 2014. After the completion of User Acceptance (UAT) of Data Center, the Disaster Recovery Center (DRC) Drill is planned and the UAT of Sub-Division and other offices of 14 towns under R-APDRP Part-A project will be scheduled, which would take another 2-3 months.</p> <p>Application Stabilization and inspection by the Third Party appointed by Ministry of Power (MoP), Govt. of India (GoI):- After the UAT, application stabilization and successful running of applications from Data Centre in integrated manner in all 14 town offices shall take another 3 months to complete. Then third party will be called upon to inspect and verify the activities being done under the project which will also take 2-3 months.</p> <p>Completion of project:- The project is expected to be completed by 31st August, 2015</p> <p>R-APDRP (Part B): In respect of 14 no. R-APDRP (part B) towns viz. Chamba, Una, Hamirpur, Kullu, Nahan have been almost completed and left with some minor works only and 5 no. towns (i.e .Dharamshala, Yol, Mandi, Sundernagar and Solan) are likely to be completed at the end of this FY 2014-15. The left out 4 no. towns (Baddi, Bilaspur, Shimla, Poanta Sahib) shall be completed in FY 2015-16.</p>	<p>report shall include the following parameters:</p> <ul style="list-style-type: none"> • Original timeline for completion • Actual completion date • Expected date of completion (for incomplete projects) • Reasons for delays • Benefits achieved after implementation of the scheme • Any other parameters that the petitioner deems fit. <p>The petitioner is directed to provide the above report within three months from the issue of this order.</p>

Direction	Compliance Status	Commission's observation
<p>Clause 7.16.1:</p> <p>The Commission has analyzed the available details to consider provisional capitalization for the Control Period and the same would be subjected to true-up at the end of the Control Period. The Petitioner is directed to submit actual details of capitalization for each year for the Control Period by September 30 of the following year to the Commission for scrutiny and year-wise capitalization of assets.</p>	<p>Detail of capitalization of assets is being collected from the field units. The information will be submitted to the Hon'ble Commission regularly during the MYT Period.</p>	<p>The capitalization of assets is essential for prudence check in allowing capital costs. Also it has been noticed that several assets are not capitalized in the books of accounts despite they being put to use by the petitioner. This delays the recovery of several fixed cost components pertaining to such assets and is an undue burden on the consumers. Hence the Commission directs the petitioner to ensure timely capitalization of assets. The Commission also directs the petitioner to explore the possibility of the deployment of IT initiatives in project management and monitoring thus ensuring better project management practices.</p>
<p>Clause 7.21.2:</p> <p>b) Inclusion of balance recoverable amount as income from S&I wing.</p> <p>As per the information supplied by the Petitioner in the Review order no. 88/2013 decided on 26-11-2013, the Commission had noted:</p> <p>"Out of total of Rs467 Cr., the HPSEBL has shown its inability to recover Rs.122.60 Cr. and has therefore illustrated that it is in position to recover the balance amount of</p>	<p>No recoveries on account of S&I expenditure have been made from the IPP's during the current financial year because of following reasons:</p> <ol style="list-style-type: none"> 1. As intimated by Directorate of Energy no IA has been signed after 2011 and the reimbursement case can only be initiated after lapse of 2 years period from the date of signing of IA. 2. The IPP's from whom HPSEBL has to recover the S&I expenditure and with whom IA has been signed have time and again been requested to deposit the amount but without any results. <p>Therefore, the status regarding recovery of S&I charges remains the same as intimated to HPERC vide D.O. No. HPSEB/ CE(Comm.)/ SERC-S&I charges/2013-9975,dated 9.9.2013 (Copy enclosed)</p>	<p>The Commission notes the efforts of the petitioner for recovery of the S&I charges from IPPs. However, if repeated requests have not helped in recovery of these charges, the Commission directs the petitioner to list out what further legal/other steps does the petitioner intend to take for recovery of the said sum. Since the amount is significant, the Commission reiterates its previous direction to ensure the recovery at the</p>

Direction	Compliance Status	Commission's observation
<p>Rs.344.65 Cr. out of which Rs.118.67 Cr. have been shown as already recovered, Rs.160.97 Cr. as that which is in the process of recovery and Rs.65.01 Cr. as amount that would be deferred for recovery in the future;"</p> <p>The Commission has provisionally considered an amount of Rs.125 Cr. to be recovered equally during the Third Control Period. The Commission also directs HPSEBL for recovery of the balance amount of Rs.100.98 Cr. during the Control Period and retain it as contingent surplus for meeting the liability that may arise out of pay commission revisions during this period, with prior approval of the Commission.</p>		<p>earliest.</p> <p>In case the recoveries cannot be affected with the IPPs and other entities on mutually agreeable terms, the Commission directs the petitioner to take necessary help from GoHP for recovery of these dues or undertake suitable legal options for the same.</p>
<p>Clause 8.6.1:</p> <p>The Commission directs the Petitioner to transfer any surplus revenue realized in FY15 and subsequent years at approved tariffs to the MYT Contingency Reserve as per Regulation 12 of the HPERC (Terms and Condition for determination of Wheeling Tariff and Retail Supply Tariff) Regulation, 2011. Any surplus transferred to the MYT Contingency Reserve would be utilized to meet the gap at truing up stage because the Commission has</p>	<p>The surplus revenue if any realized during the FY 2014-15 and subsequent years at approved tariff will be transferred to the MYT contingency reserve.</p>	<p>Compliance noted.</p>

Direction	Compliance Status	Commission's observation
already authorized the utility through Regulations to adjust tariff on account of fuel costs adjustments and revisions in tariff by CERC with respect to Central Sector Generating Stations, PGCIL, etc. midway through the year.		

Annexure – I

General Conditions of Tariff and Schedule of Tariff

PART-I: General Conditions of Tariff

- A. This Schedule of Tariff shall come into force with effect from **1st April, 2015** and will be applicable throughout the State of Himachal Pradesh.

Provided further that this Tariff Order shall not be applicable to consumers who have been permanently disconnected prior to the date of issue of this Order unless such consumers get their connections re-instated in the future

- B. 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.
- C. This tariff automatically supersedes the existing tariff w.e.f. **1st April, 2015** that was in force with effect from **1st August, 2014** except in such cases where 'Special Agreements' have otherwise been entered into for a fixed period, by HPSEBL with its consumers. Street Lighting Agreements shall however, not be considered as 'Special Agreements' for this purpose and revised tariff as per schedule '**SLS**' of this Schedule of Tariff shall be applicable.
- D. This Schedule of Tariff is subject to the provisions of '**Schedule of General and Service Charges**' (**Appendix – A**) and related Regulations notified by the Commission, from time to time.
- E. Force Majeure Clause: In the event of lockout, fire or any other circumstances considered by the HPSEBL to be 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.
- F. Standard Supply Voltage: shall be regulated in accordance with the **Part –II**.
- G. Single Point Supply: The various tariffs referred to in this Schedule are based on the supply being given at a single voltage and through a single delivery and metering

point. Supply given at other voltages and through other points, if any, shall be separately metered and billed.

- H. Lower Voltage Supply Surcharge (LVSS): Consumers availing electricity supply at a voltage lower than the 'Standard Supply Voltage' as mentioned in part-II shall, in addition to other charges, be also charged a 'Lower Voltage Supply Surcharge' (LVSS) at the rates given in the following Table on only the amount of energy charges billed, for each level of step down (as given in following table) from the 'Standard Supply Voltage' to the level of Actually Aailed Supply Voltage.

Standard Supply	Actually Aailed Supply Voltage	LVSS
11kV or 15kV or 22 kV	1Ø 0.23 kV or 3Ø 0.415kV OR 2.2 kV	5%
33 kV	11 kV or 22 kV	3%
66 kV	33 kV	2%
≥ 132 kV	66 kV	2%

EXPLANATION:

- 1) *In case of voltage based tariffs, the tariff applicable at the standard supply voltage or at the lower voltage (i.e. voltage at which connection is actually availed), whichever of the two is higher, shall be applicable and the LVSS shall be levied in addition to the said tariff.*
- 2) *The revised provisions of standard supply voltage under the HPERC Electricity Supply Code have been notified and new connections shall be released on that basis. In cases of existing connections, the applicability of LVSS shall be determined, subject to relaxation clause (6) below, on the basis of the revised provisions.*
- 3) *Here the expression "for each level of step down" as an example shall mean that in a particular case if the Standard Supply Voltage is 33kV and the Actually Aailed Supply Voltage is less than 11 kV, then the number of step downs shall be two (2) and the rate of LVSS applicable shall be 8% (5%+3%). Similarly, if the Standard Supply voltage is 132 kV or 220 kV and actual availed supply voltage is 33 kV LVSS shall be applicable @4%.*
- 4) *The LVSS shall be charged at 50% of the rates determined as per the above provisions if any one or all of the following conditions are met:-*
 - i. *if supply is given through a dedicated feeder or a joint dedicated feeder and metering for billing purpose is done at the licensee's sub-station; and/or*
 - ii. *If the LVSS becomes payable inspite of the contract demand being within the relevant permissible limit applicable for the standard supply voltage viz 50 kVA for LT supply, 2200 kVA for 11 kV or 22 kV supplies, 10000 kVA for 33 kV and 12000 kVA for 66 kV supplies.*
- 5) *The low voltage surcharge shall also be applicable in cases where the consumer, after having taken the connection, is found to have violated the maximum demand or the connected load beyond the maximum limits applicable for the relevant Standard Supply Voltage corresponding to the voltage at which supply has been availed.*
- 6) *LVSS shall not be applicable for the period upto 31.03.2016 to such HT consumers (11kV or 15kV or 22 kV or 33 kV) or to such EHT consumers (66 kV and above) who were already existing on 01.12.2007 and were getting supply at a voltage less than the specified Standard Supply Voltage as per*

Part-II. Such consumers shall have the option to either shift to appropriate higher voltage before 31.03.2016 or to pay low voltage surcharge at these rates w.e.f. 01.04.2016 till such shifting to higher voltage. However, in case any extension of load is sanctioned in such cases after 01.12.2007 LVSS, if any, shall be applicable with reference to the Standard Supply Voltage applicable from time to time. The extension in time limit (i.e. up to 31.03.2016) for the purpose of levy of LVSS, as aforesaid, shall not be applicable in such cases.

- I. Lower Voltage Metering Surcharge (LVMS): In respect of consumers, for whom the metering (for maximum demand (kVA) or energy consumption (kWh or kVAh) or both) instead of being done on the higher voltage side of the transformer at which the supply had been sanctioned by the HPSEBL, is actually done on the lower voltage side of the transformer due to non-availability of higher voltage metering equipment or its unhealthy operation, such consumers shall in addition to other charges, be also charged “Lower Voltage Metering Surcharge” (LVMS) at the rate of 2% on the amount of only the energy charges billed.
- J. Late Payment Surcharge (LPS): Surcharge for late payment shall be levied at the rate of 2% per month or part thereof, on the outstanding amount excluding electricity duty/ taxes for all the consumer categories.
- K. Supply during peak load hours: The following additional conditions shall be applicable for use of power during peak load hours(6:30 PM to 10 PM) in case of the consumers covered under small industrial power supply, medium Industrial power supply, large industrial power supply and irrigation and drinking water power supply:
 - i) Such consumption shall be recorded separately through suitable meters which are capable of recording the energy (kVAh/kWh) during the peak load hours. In cases where such meters do not already exist, the consumer intending to use power during peak load hours shall give a notice of 3 months to HPSEBL and may start using power during peak load hours after such meter has been installed;
 - ii) The consumers who have already obtained sanction from HPSEBL for using electricity during peak load hours may continue doing so to the extent of permission granted to them without any additional notice;
 - iii) Where the meters as per clause (i) already exist but the consumers have not already obtained exemption to run their plant during peak load hours or want to use higher load than what was permitted during peak load hours, they shall give a prior intimation of 30 days to HPSEBL where after they may start using power or additional power during peak load hours as per their requirement within their sanctioned contract demand unless HPSEBL issues any instructions to the contrary through a general or specific order. In the meanwhile, consumers may continue using power to the extent of bonafide factory lighting and colony supply forming part of sanctioned connected load or to the extent of permission obtained. The consumption shall however be charged at the rates applicable for respective periods (normal, peak and night) as a part of the total consumption during such respective periods.
 - iv) HPSEBL shall, in case of any constraint, always be entitled to impose any restrictions on usage of power during peak load hours in all cases through general or specific order;
 - v) In cases where HPSEBL imposes any restrictions through general or specific orders the consumer shall abide by such restrictions failing which the HPSEBL shall be entitled to disconnect the supply to such consumers after giving a notice;

- vi) The sanctioned contract demand shall not be violated;
- vii) Payment of peak load charges (demand and energy) shall be made as per the respective schedules of tariff;

L. Demand Charge (DC): Consumers under two (2) part tariff, whose energy consumption during non-peak load hours of the month is billed/ charged in Rs/kVAh, shall in addition to the kVAh charges, be also charged at the rates as per Part-III, the 'Demand Charges' (in Rs/kVA/month), calculated on the actual Maximum Demand (in kVA) recorded on the energy meter during any consecutive 30 minute block period of the month or at 90 % of the Contract Demand (in kVA), whichever is higher but up to a ceiling of contract demand as currently applicable. The demand in excess of Contract Demand will be charged under clause "M" relating to Contract Demand Violation Charges (CDVC).

Explanation:

- i) *During the actual number of days of billing in any period, the above mentioned parameters i.e. actual recorded Maximum Demand and Contract Demand as the case may be and the prescribed respective rates of charges in the relevant schedule of tariff alone shall form the basis for calculation of Demand Charges and the licensee, based on the number of days of billing in excess or short of a month (of 28 or 29 or 30 or 31 days), shall not apply any other factor other than mentioned in this para, that may alter or vary either of these parameters in any way.*
- ii) *Where the contract demand has not been applied for or sanctioned, the limit corresponding to 90% of the connected load (in kW) converted into kVA by adopting power factor of 0.9 shall be deemed as the contract demand;*

M. Contract Demand Violation Charge (CDVC): In the event, the actual Maximum Demand (in kVA) recorded on the energy meter during any consecutive 30 minute block period, exceeds the Contract Demand (in kVA), the consumer shall be charged 'Contract Demand Violation Charges' (CDVC) (in Rs/ kVA) at a rate which shall be three (3) times the rate of the demand charges (DC) (referred to in para 'L') to the extent the violation has occurred in excess of the Contract Demand.

NOTE: In cases where the Contract Demand has been got reduced temporarily as per applicable provisions; such reduced Contract Demand shall be considered as the Contract Demand for the purpose of determining the Contract Demand Violation Charges (CDVC); if any.

N. Disturbing Load Penalty (DLP): In case where there is unauthorized use of mobile welding sets, the consumer will pay by way of penalty, Rs. 20 per kVA of the load rating of welding set per day, in addition to the energy charges.

NOTE: Authorization shall mean authorization (temporary or permanent) to a consumer by the designated office of the licensee in whose area the supply to the consumer exists and shall not be assumed as authorization of any form from local or other bodies.

O. Night Time Concession (NTC): Night Time Concession (in Rs/kVAh) on consumption of energy (in kVAh) from 22:00 hours to 06:00 hours shall be available to two part tariff consumers falling under the category to which such concession has been allowed as per Part-III – Schedule of Tariff, at the rates fixed in the relevant consumer category under the Schedule of Tariff. However such consumers must be provided with suitable tri-vector meters capable of recording energy during different times of the day.

P. Seasonal industries: In this schedule, unless the context otherwise provides, seasonal industries mean the industries which by virtue of their nature of production, 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 chakkis, 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 HPSEBL 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 HPSEBL, 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 levied for the seasonal period only.

Q. Power Factor Surcharge (PFS):

- i) If at any point of time, the power factor of consumers, to whom power factor surcharge is applicable as per Part-III Schedule of Tariff, is checked by any means and found to be below 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 to at least 0.90 lagging by suitable means under intimation to the concerned Sub Divisional Officer who shall immediately get it checked.
- 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 as follows and shall be rounded up to two decimal places:

$$\text{Power Factor} = \text{kWh} / \text{kVAh}$$

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) The said power factor surcharge shall be independent of the supply voltage.
- iv) The consumer service 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 kWh energy charges only.
- v) No new supply to L.T. installations with induction motor(s) of capacity above 3 H.P and/ or welding transformers above 2 kVA shall be given unless shunt capacitors of appropriate ratings are installed to the entire satisfaction of the HPSEBL.

R. 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, one month 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.

S. Temporary Revision of Contract demand:

The consumers to whom two part tariff is applicable shall be entitled to revise their contract demand within the total sanctioned contract demand without surrendering their lien of the total sanctioned contract demand, subject to the following conditions-

- (a) the consumer shall not reduce the contract demand to lesser than 50% of the total sanctioned contract demand subject to a further condition that the contract demand shall not be reduced below the lowest limit of contract demand as per the tariff category (or any sub-category thereof) applicable to him;

Illustration.- A HT-2 single supply consumer having sanctioned contract demand of 1.8 MVA shall not be entitled to reduce the contract demand to 1000 kVA or any value lesser than 1000 kVA;

- (b) the consumer shall not be entitled to revise the contract demand more than twice a year subject to the condition that the time gap between two successive revisions shall not be less than 3 months;
- (c) the consumer shall give a notice of at least one month to the HPSEBL before revising the contract demand under this mechanism. Even though the consumer shall not be required to obtain any sanction from the HPSEBL for change in contract demand under this mechanism, he, so as to avoid the disputes, shall ensure that the notice(s) for such revision are duly served by him upon the licensee through registered post or through courier service or is delivered by hand against signed receipt therefor;
- (d) in cases where the contract demand is reduced under this mechanism, such reduced contract demand shall be applicable for billing purposes; and
- (e) in cases where the consumer gets his contract demand reduced permanently, the limit under clause (a) shall be considered with respect to such reduced contract demand, but such reduction shall not be considered to have been made under this mechanism and the time gap of 3 months as per clause (b) shall be reckoned from the date from which the demand was last revised under this mechanism.

Illustration.- If a consumer who is having sanctioned contract demand of 10 MVA temporarily revises the contract demand to 6 MVA w.e.f. 01.08.2015 under this mechanism but gets his sanctioned contract demand permanently reduced to 8 MVA w.e.f. 01.09.2015, he shall have to pay charges based on 6 MVA contract demand till 31.10.2015 (i.e. till the expiry of 3 months period from the date at which the contract demand was last revised i.e. from 01.08.2015). However, if the contract demand is to be reduced permanently to lesser than 6 MVA (say 4 MVA as on 01.09.2015), the demand charges would have been based on a contract demand of 4 MVA during the period upto 31.10.2015.

T. Sanction of Contract Demand:

- 1) In case of new connections, except for Domestic Supply, the Contract Demand shall invariably be incorporated in the Application and Agreement form as well in the load sanction, irrespective of the connected load.
- 2) In case of such existing connections, other than Domestic Supply, where the Contract Demand has not been applied for or has not been sanctioned, 90% of the sanctioned connected load, converted in to kVA by adopting a power factor of 0.9, shall be deemed as the Contract Demand till such time the consumer informs HPSEBL about the quantum to be considered as his Contact Demand.

U. HPSEBL shall provide suitable meters capable of recording the parameters for billing purposes as per the tariff structure under respective schedules.

V. 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.

DEFINITIONS

1. **Act:** means The Electricity Act, 2003 as amended from time to time;
2. **Average Power Factor:** means the ratio of kWh (kilo Watt hour) to the kVAh (kilo Volt Ampere hour) registered during a specific period;
3. **HPSEBL:** means the Himachal Pradesh State Electricity Board Limited;
4. **Commission:** shall mean the Himachal Pradesh Electricity Regulatory Commission;
5. **Connected Load:** expressed in kW, means aggregate of the manufacturer's rated capacities of all energy consuming devices or apparatus connected with the distribution licensee's service line, on the consumer's premises, which can be simultaneously used;
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:** expressed in kVA units means the maximum demand contracted by the consumer in the agreement with the licensee and in absence of such contract, the contract demand shall be determined in accordance with the relevant sections of this Tariff Order;
8. **Demand Charges:** for a billing period shall mean the amount chargeable based upon the recorded maximum demand in kVA or the contract demand; whichever is higher but up to a ceiling of Contract Demand and shall be calculated at the rates prescribed in this Tariff Order and shall be in addition to the energy charges and other fixed charges wherever applicable;
9. **Energy Charges:** expressed in Rs/kWh or Rs/kVAh for a billing period shall mean the amount chargeable in rupees based on the quantity of electricity supplied measured in (kWh or kVAh) and calculated at the rates prescribed in this Tariff Order. The Demand or other fixed charges, wherever applicable, shall be in addition to the energy charges;

Note: During the actual number of days of billing in any period, the above mentioned parameters i.e. energy (in kWh or kVAh) and the prescribed respective rates of charges in the relevant schedule of tariff, alone, shall form the basis for calculation of energy charges and the licensee, based on the number of days of billing in excess or short of a month (of 28 or 29 or 30 or 31 days), shall not apply any other factor other than mentioned in para '9' above, that may alter or vary either of these parameters in any way.
10. **Maximum Demand:** means the highest load measured in kVA or kW at the point of supply of a consumer during consecutive period of 30 minutes or as laid down by the Commission, during the month;
11. **Rules:** means the Rules or Safety Regulations made or saved under the Act.
12. **Sanctioned Load:** means the load expressed in kW/kVA of the consumer, which the licensee has agreed to supply, from time to time, in the agreement;
13. **Schedule:** shall mean this Tariff Schedule;
14. **State:** means the State of Himachal Pradesh;

15. **Supplier:** shall mean the Himachal Pradesh State Electricity Board Limited;
16. For the purpose of this tariff order, the voltage wise categorization shall be as follows:
 - a) **EHT** means the voltage, which exceeds 33,000 volts; under normal conditions subject, however, to the percentage variation allowed under electricity rules;
 - b) **HT** means the voltage higher than 400 volts but not exceeding 33,000 volts under normal conditions, subject, however, to the percentage variation allowed under the electricity rules;
 - c) **LT** means the voltage, not exceeding 230 volts between phase and neutral and 400 volts between phases under normal conditions, subject, however, to the percentage variation allowed under electricity rules.

PART -II: Character of Supply - Standard Supply Voltage/ Supply Voltage

Depending upon the minimum and maximum limits of contract demand (or connected load in case of domestic supply) the character of supply under the respective schedules shall be as per the relevant provisions of the Himachal Pradesh Electricity Supply Code, 2009, as amended from time to time. The relevant provisions are as below:

1. Standard Supply Voltage:

The standard supply voltage shall mean the standard voltage at which electricity shall be given to the consumer through a common or dedicated or joint dedicated feeder without payment of any lower voltage supply surcharge(LVSS). Depending upon the connected load(kW or MW), contract demand (kVA or MVA), nature of load and existence of a voltage (volts/kV) and phase in the relevant distribution system, the standard supply voltage for a consumer shall be as provided in clauses (a) and (b) of this para and para 3-

- (a) The maximum limits of connected load (kW or MW) and contract demand (kVA or MVA) for the supply of power at a voltage, shall be as under-

Sr. No.	Standard Supply Voltage	Maximum Connected Load	Maximum Contract Demand
1.	Single phase 230 volts or three phase 415 volts or 2.2 kV; (for supplies not involving special category loads)	50 kW	50 kVA
2.	Three phase 11 kV or 22 kV; (for supplies not involving special category loads)	3 MW	2.2 MVA
3.	Three phase 33 kV	12 MW	10 MVA
4.	Three phase 66 kV	14 MW	12 MVA
5.	Three phase 132 kV or 220 kV	No limits	

Provided that where special category loads are involved, the standard supply voltage shall be 11 kV or 22 kV, as may exist on the relevant distribution system, if –

- (i) the total connected load does not exceed 1 MW, irrespective of special category loads; or
- (ii) the total quantum of connected load in respect of special category loads does not exceed 750 kW within the overall limit of total connected load upto 3 MW and total contract demand upto 2.2 MVA:

Provided further that, if neither of the limits given in the first proviso, in relation to supplies involving special category loads, are adhered to, the standard supply voltage shall be 33 kV or the appropriate higher voltage in accordance with the limits specified in this clause:

Provided further that where a consumer having connected load of not more than 50 kW is already getting supply at LT voltage immediately before commencement of the Himachal Pradesh Electricity Supply Code (First Amendment) Regulations, 2014, he shall continue to be covered under a LT standard voltage (i.e. single phase 230 volts or three phase 415 volts) irrespective of contract demand

already sanctioned in his favour, so long as he does not further extend his connected load or contract demand beyond the specified limits of 50 kW or 50 kVA respectively:

Provided further that where a consumer is getting supply at a voltage higher than the standard supply voltage as per the said specified limits, he shall continue to get supply at such higher voltage without any rebate for higher voltage supply.

- (b) Where the connected load or contract demand exceeds the relevant ceiling limit specified in clause (a), the appropriate higher voltage at which both such limits can be adhered to, shall be considered as standard supply voltage and there shall be no minimum limits for supply of power at a particular voltage.

2. Supply at Lower Voltage:

Where the consumer seeks supply of power at a voltage lower than the standard supply voltage as per para (1), the licensee shall supply power at such lower voltage subject to the maximum limits of connected load and contract demand as specified in this para; payment of lower voltage supply surcharge (LVSS) by the consumer at the rates given in the tariff order applicable from time to time; and other conditions, as may be relevant, specified in this para or in para (3) or elsewhere in the Supply Code :-

Sr. No.	Supply Voltage	Description	Maximum Connected Load	Maximum Contract Demand
1.	11 kV (for supplies not involving special category loads)	(a) If 22 kV or 33 kV voltage level exists in the relevant distribution system.	5 MW	4 MVA
		(b) If 22 kV or 33 kV voltage level does not exist in the relevant distribution system.	6 MW	5 MVA
2.	22 kV (for supplies not involving special category loads)	(a) If 33 kV voltage level exists in the relevant distribution system.	6 MW	5 MVA
		(b) If 33 kV voltage level does not exist in the relevant distribution system.	7 MW	5.5 MVA
3.	33 kV	(a) If 66 kV voltage level exists in the relevant distribution system.	15 MW	12 MVA
		(b) If 66 kV voltage level does not exist in the relevant distribution system.	18 MW	14 MVA
4.	66 kV	(a) Through a common or dedicated or joint dedicated feeder	18 MW	14 MVA
		(b) Through a dedicated or joint dedicated feeder	30 MW	24 MVA

Provided that all such supplies, excepting the same at Sr. No.4(a), shall be given through dedicated or joint dedicated feeders only and that in case of Sr. No. 4(a) the supply shall be given through a common or dedicated or joint dedicated feeder:

Provided further that in case of supply involving special category loads, the same shall be given at 11 kV or 22 kV subject to further conditions that the total connected load in respect of the special category loads does not exceed 1.5 MW within the total connected load upto 3 MW and contract demand upto 2.2 MVA and that the supply is to be given through a dedicated feeder or a joint dedicated feeder emanating from EHV sub-station:

Provided further that if the conditions given in second proviso, in relation to the supplies involving special category loads, are not adhered to, the supply shall be given at 33 kV or at appropriate higher voltage depending on the total connected load and contract demand:

Provided further that the provisions of this para, shall be further subject to the following condition:-

- (i). that the voltage regulation limits shall have to be adhered to while deciding the supply arrangements;
- (ii). that in case of special category loads and other such loads which can cause disturbances in the power distribution system, the consumer shall provide suitable protection equipments as per the Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2010 and other prudent practices to adequately insulate the distribution system from the disturbance caused by such loads;
- (iii). that the consumer already getting supply at higher voltage as compared to the standard supply voltage or the limits given in this para, shall not be entitled to any higher voltage supply rebate; and
- (iv). that in cases of joint dedicated feeder, the limits of maximum connected load and maximum contract demand as per this para shall be applicable for the summation of the connected loads and contract demands of both the consumers.

Explanation.- For the purposes of this para,-

- (a) “dedicated feeder” means the electric supply line emanating from the sub-station of the licensee through which electricity is, or is intended to be, supplied to a single consumer; and
- (b) “joint dedicated feeder” means the electric supply line emanating from the sub-station of the licensee through which electricity is, or is intended to be, supplied to two consumers.

3. (i) Where the contract demand has not been applied for or sanctioned, the limit corresponding to 90% of the connected load (in kW) converted into kVA by adopting power factor of 0.9 shall be deemed as the contract demand.
- (ii) The supply shall be made at the minimum voltage level at which all the relevant limits and conditions are adhered to. However, if the consumer opts for supply of power at a voltage higher than the standard supply voltage, the licensee shall allow the same excepting the cases in which there may be some constraint.
- (iii) Where the connected load or contract demand is to be enhanced, the standard supply voltage under para (1) and the supply voltage under para (2) shall be redetermined as per the provisions under the said paras based on enhanced connected load and enhanced contract demand.

Explanation.- For the purposes of paras (1) and (2), “special category loads” means furnace loads and mass induction heating loads and shall also include any other load as the Commission may, after taking into consideration electrical characteristics and its impact on the distribution system, by order, declare it to be a special category load.

PART-III: Schedule of Tariff**SCHEDULE - DOMESTIC SUPPLY (DS)****1 Applicability**

This schedule is applicable to the following consumers:

- a) 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;
- b) Religious places with connected load up to 5 kW;
- c) Orphanages, homes for old people and homes for destitute;
- d) Working Women Hostels, Hostels attached to the educational institutions if supply is given separately to each hostel and the electricity charges are recovered from the students based on actual consumption;
- e) Leprosy Homes run by charity and un-aided by the Government;
- f) Panchayat Ghars with connected load up to 5 kW;
- g) Patwar Khanas and Kanungoo Bhawans (Government Buildings only) with connected load up to 5 kW;
- h) Community gausadans managed by institutions/ government with connected load up to 5kW;
- i) Monasteries;
- j) "Home Stay Units" in rural areas duly registered with the District Tourism Development Officer; and
- k) Offices of the Himachal Pradesh Senior Citizen Forum.

Note:

- (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 supply to tenants, other flats, etc. is strictly prohibited.*
- (iii) *No compounding will be permissible. For residential societies which 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 3500*

units, the first 1250 (125*10) units would be charged at Rs 3.50 per kWh, the next 1750 (175*10) at Rs 4.40 per unit and the balance 500 units at Rs. 4.95 per unit. Consumer service charge shall be Rs. (50*10).

2 **Character of Service:** *Applicable as per the relevant provisions under Part – II.*

3 **Single Part Tariff**

A) Consumers Other than Pre-Paid Metered

a) Consumer Service Charge (Charges-1)

Description	Consumer Service Charge (Rs./Month)
Lifeline consumers and Consumers in Tribal & Difficult Areas	30.00
Other consumers	
0-125	40.00
126-300	50.00
Above 300	50.00

b) Energy Charge

Description	Slabs (kWh per month)	Energy Charge (Rs./kWh)
Lifeline consumers	0-60	2.85
Other consumers	0-125	3.50
	126-300	4.40
	Above 300	4.95

Note:

1. In the case of **Lifeline consumers** the concessional tariff will be available for use of electricity by these families up to a maximum of 60 units per month. In case this limit is exceeded, the normal domestic tariff slabs of 0-125; 126-300; and above 300 kWh per month respectively will apply.
2. In the case of Domestic Category consumers with consumption in the slabs 0-125, 126-300; and above 300 kWh per month respectively, the slab rates for 0-60 kWh per month shall not apply.

B) Energy Charge [Prepaid Meter]

Description	Slabs (kWh per month)	Energy Charge (Rs./kWh)
Prepaid meter consumers	Entire consumption	4.40

Note:

1. *Subsidy given by GoHP shall apply to prepaid meter consumers also. Should the GoHP decide to maintain the tariffs at the current levels after subsidy, then the prepaid consumers shall be deemed to be placed in the slab of 126-300 kWh per month and the subsidy applicable for the slab of 126-300 kWh shall also apply to prepaid meter consumers.*
 2. *Prepaid meter consumer shall be charged energy charges only and no other fixed charges i.e. meter rent and service charges shall be applicable to such consumers.*
4. The effective energy charges for Domestic Supply category, as proposed by the GoHP after accounting for State Government subsidy, shall be as follows:

Description	Units per month (kWh)	Approved Tariff for FY14 (Rs/kWh)	GoHP Subsidy for FY14 (Rs/kWh)	Effective Tariff after Subsidy (Rs/kWh)
Lifeline consumers	Up to 60 kwh	2.85	1.85	1.00
Other consumers	0-125	3.50	2.20	1.30
	126-300	4.40	1.70	2.70
	Above 300	4.95	0.75	4.20
	Prepaid consumers	4.40	1.70	2.70

5. **Lower Voltage Supply Surcharge (LVSS):** *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*
6. **Lower Voltage Metering Surcharge (LVMS):** *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*
7. **Late Payment Surcharge (LPS):** *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*
8. **Night Time Concession (NTC):** *Not Applicable.*
9. **Power Factor Surcharge (PFS):** *Not Applicable.*
10. **Disturbing Load Penalty (DLP):** *Applicable as per the provisions under 'Part-1 General Conditions of Tariff'.*

SCHEDULE - NON-DOMESTIC NON-COMMERCIAL SUPPLY (NDNCS)**1. Applicability**

This schedule is applicable to the following consumers:

- a) Government and semi Government offices;
- b) Educational Institutions viz. Schools, Universities, ITIs, Colleges, Centre for Institute of Engineers, Sports Institutions, Mountaineering Institutions and allied sports and 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. with connected load greater than 5 kW;
- d) Sainik and Govt. Rest Houses, Anganwari workers training centers, Mahila mandals, village community centres;
- e) Government Hospitals, primary health centers, dispensaries and veterinary hospitals;
- f) Panchayat Ghars with connected load greater than 5kW;
- g) Patwar Khanas and Kanungoo Bhawans (Government Buildings only) with connected load greater than 5kW;
- h) Sarais and Dharamsalas run by Panchayats and Municipal Committees or by voluntary organizations.

Note: *In the case of residences attached to the Institutions, as at (b), (f) and (g) above, the same shall be charged at the Domestic Supply (DS) tariff, in cases where the consumer seeks a separately metered connection for the residential portion.*

2. Character of service: *Applicable as per the relevant provisions under Part – II.*

3. Single Part Tariff for contract demand \leq 20 kVA**a) Consumer Service Charge (Charges-1)**

Consumer Service Charge (Rs/month)	70.00
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b) Energy Charge (Charges-2)

Energy Charge (Rs./kWh)	4.70
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4. Two Part Tariff for contract demand > 20 kVA**a) Consumer Service Charge (Charges-1)**

Consumer Service Charge (Rs/month)	Nil
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b) Energy Charge (Charges-2)

Energy Charge (Rs./kVAh)	4.40
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c) Demand Charge (Charges-3)

Demand Charge (Rs/kVA/month)	120.00
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Demand charges would be levied on the actual maximum recorded demand in a month in any 30 minute interval in a month or 90% of the contract demand, whichever is higher but up to a ceiling of Contract Demand. Contract Demand Violation Charges shall be applicable beyond such ceiling.

Note:

- a. *HPSEBL shall continue with the existing practice of installation of tri-vector meters capable of reading parameters applicable for two-part tariff, for all consumers in this category and having connected load of more than 20 kW, even though some of these consumers may be covered in single part tariff.*
- b. *The present practice of meter reading through MRI/ AMR shall be continued for all consumers with connected load above 20kW irrespective of applicability of single/ two part tariff.*
5. **Lower Voltage Supply Surcharge (LVSS):** *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*
6. **Lower Voltage Metering Surcharge (LVMS):** *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*
7. **Late Payment Surcharge (LPS):** *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*
8. **Contract Demand Violation Charge:** *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*
9. **Night Time Concession (NTC):** *Not Applicable.*
10. **Power Factor Surcharge (PFS):** *Not Applicable.*
11. **Disturbing Load Penalty (DLP):** *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*
12. **Peak Load Charges (PLC):** *Not Applicable.*

SCHEDULE – COMMERCIAL SUPPLY (CS)**1 Applicability**

This schedule is applicable to consumers for lights, fans, appliances like pumping sets, central air conditioning plants, cold storages, lifts, heaters, embroidery machines, printing press, power press and small motors in all commercial premises such as shops, business houses, cinemas, clubs, banks, private offices, private hospitals, petrol pumps, hotels/motels, welding sets, 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, shopping malls and multiplexes.

This schedule shall also include all other categories which are not covered by any other tariff schedule.

Note: Resale of electricity to tenants, adjoining houses and to other parties is strictly prohibited.

2. Character of service: *Applicable as per provisions under Part – II.*

3. Single Part Tariff for contract demand \leq 20 kVA

a) Consumer Service Charge (Charges-1)

Consumer Service Charge (Rs/month)	70.00
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b) Energy Charge (Charges-2)

Energy Charge (Rs./kWh)	4.95
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4. Two Part Tariff for contract demand > 20 kVA

a) Consumer Service Charge (Charges-1)

Consumer Service Charge (Rs/month)	
20 – 100 kVA	Nil
Above 100 kVA	Nil

b) Energy Charge (Charges-2)

Contract Demand	Energy Charge (Rs./kVAh)
>20 kVA \leq 100 kVA (More than 20 kVA but upto 100 kVA)	4.70
Above 100 kVA	4.60

c) Demand Charge (Charges-3)

Demand Charge (Rs/kVA/month)	
>20 kVA ≤ 100 kVA (More than 20 kVA but upto 100 kVA)	80.00
Above 100 kVA	140.00

Demand charges would be levied on the actual maximum recorded demand in a month in any 30 minute interval in a month or 90% of the contract demand, whichever is higher but up to a ceiling of Contract Demand. Contract Demand Violation Charges shall be applicable beyond such ceiling.

Notes:

- a) *HPSEBL shall continue with the existing practice of installation of tri-vector meters capable of reading parameters applicable for two-part tariff, for all consumers in this category and having connected load of more than 20 kW even though some of these consumers may be covered under single part tariff.*
 - b) *The present practice of meter reading through MRI/ AMR shall be continued for all consumers with connected load above 20kW irrespective of applicability of single/ two part tariff.*
5. **Lower Voltage Supply Surcharge (LVSS):** *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*
 6. **Lower Voltage Metering Surcharge (LVMS):** *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*
 7. **Late Payment Surcharge (LPS):** *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*
 8. **Contract Demand Violation Charge:** *Applicable as specified under 'Part-1 General Conditions of Tariff'.*
 9. **Night Time Concession (NTC):** *Not Applicable.*
 10. **Power Factor Surcharge (PFS):** *Not Applicable.*
 11. **Disturbing Load Penalty:** *Applicable as specified under 'Part-1 General Conditions of Tariff' of this Annexure I.*
 12. **Peak Load Charges (PLC):** *Not Applicable.*

SCHEDULE - SMALL INDUSTRIAL POWER SUPPLY (SIP)**1. Applicability**

This schedule is applicable to Industrial consumers with contract demand not exceeding 50 kVA including pumps (other than irrigation pumping), tokas, poultry farms and sheds, cane crushers, Atta Chakkis, and also for supply to Information Technology Industry (limited only to IT Parks recognised by the State/Central Government). Industrial type of Agricultural loads with connected load falling in the abovementioned range and not covered by Schedule "IDWPS" shall also be charged under this schedule.

2. Character of service: *Applicable as per provisions under Part-II.***3. Single Part Tariff for contract demand \leq 20 kVA****a. Consumer Service Charge (Charges-1)**

Consumer Service Charge (Rs/month)	90.00
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b. Energy Charge (Charges-2)

Energy Charge (Rs./kWh)	4.70
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4. Two Part Tariff for contract demand $>$ 20 kVA \leq 50 kVA**a) Consumer Service Charge (Charges-1)**

Consumer Service Charge (Rs/month)	Nil
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b) Energy Charge (Charges-2)

Energy Charge (Rs./kVAh)	4.50
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c) Demand Charge (Charges-3)

Demand Charge (Rs/kVA/month)	80.00
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Demand charges would be levied on the actual maximum recorded demand in a month in any 30 minute interval in a month or 90% of the contract demand, whichever is higher but up to a ceiling of Contract Demand. Contract Demand Violation Charges shall be applicable beyond such ceiling.

Note:

- a. *HPSEBL shall not only continue with the existing practice of installation of tri-vector meters capable of recording the relevant parameters applicable for two-part tariff for*

different time blocks of the day, for all consumers in this category having connected load of more than 20 kW, but shall also provide such meters for new/ existing connections under single part tariff wherever the consumer expresses his intention to use power during peak load hours.

- b. *The present practice of meter reading through MRI/ AMR shall be continued for all consumers under this category with connected load above 20kW irrespective of applicability of single/ two part tariff.*

5. Peak load charges (PLC)

Description	Additional Charges on Average Demand *	Energy Charge for consumption during peak load hours
	(Rs./kVA/month)	
Contract Demand \leq 20 kVA	Nil	1.5 times of the normal per kWh charges
Contract Demand $>$ 20 kVA	100.00	Rs. 6.40/kVAh

* These additional charges shall be charged on the average demand during peak load hours for the billing month, which shall be calculated in kVA by dividing the total kVAh consumption during peak load hours of the month by a fixed figure of 105.

6. **Lower Voltage Supply Surcharge (LVSS):** *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*
7. **Lower Voltage Metering Surcharge (LVMS):** *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*
8. **Late Payment Surcharge (LPS):** *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*
9. **Contract Demand Violation Charge:** *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*
10. **Night Time Concession (NTC):** *Applicable for the consumers having Contract Demand of more than 20kVA, as per provisions under 'Part-1 General Conditions of Tariff', at the following rates:*
- (i) *80 paise/kVAh for consumption during night hours for the month of June, July and August 2015;*
- (ii) *40 paise/kVAh for other months.*
11. **Power Factor Surcharge (PFS):** *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*
12. **Disturbing Load Penalty (DLP):** *Not Applicable.*
13. **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 centre and factory yard lighting shall be charged under this tariff schedule. The consumption for bonafide use*

of residential/staff quarters and street lighting of the colony shall also be charged under this tariff schedule if supply is taken at a single point. Such consumption shall be charged for the energy consumed at the following rates:

- a) During Normal times and night time: Normal Rate subject to the condition that the night time concession as per 10 above shall be given on consumption during night time.
- b) During peak load hours: The rates (demand and energy) applicable for peak load hours shall be charged.

If supplies for colony and/or its residences are taken separately then the same shall be charged as per the relevant consumer categories of this schedule of tariff.

SCHEDULE - MEDIUM INDUSTRIAL POWER SUPPLY (MIP)**1. Applicability**

This schedule is applicable to Industrial consumers with contract demand above 50 kVA but not exceeding 100 kVA including pumps (other than irrigation pumping), tokas, poultry farms and sheds, cane crushers, Atta Chakkis, and also for supply to Information Technology Industry (limited only to IT Parks recognised by the State/Central Government). Industrial type of Agricultural loads with connected load falling in the abovementioned range and not covered by Schedule "IDWPS" shall also be charged under this schedule.

2. Character of service: Applicable as per provisions under Part – II.**3. Two Part Tariff****a) Consumer Service Charge (Charges-1)**

Consumer Service Charge (Rs/month)	Nil
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b) Energy Charge (Charges-2)

Energy Charge (Rs./kVAh)	4.50
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c) Demand Charge (Charges-3)

Demand Charge (Rs/kVA/month)	100.00
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Demand charges would be levied on the actual maximum recorded demand in a month in any 30 minute interval in a month or 90% of the contract demand, whichever is higher but up to a ceiling of Contract Demand. Contract Demand Violation Charges shall be applicable beyond such ceiling.

4. Peak load charges (PLC)

Description	*Additional Charges on Average Demand	Energy Charge
	(Rs./kVA/month)	(Rs./kVAh)
> 50 kVA	100.00	Rs. 6.20

* These additional charges shall be charged on the average demand during peak load hours for the billing month, which shall be calculated in kVA by dividing the total kVAh consumption during peak load hours of the month by a fixed figure of 105.

5. **Lower Voltage Supply Surcharge (LVSS):** *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*
6. **Lower Voltage Metering Surcharge (LVMS):** *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*
7. **Late Payment Surcharge (LPS):** *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*
8. **Contract Demand Violation Charge:** *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*
9. **Night Time Concession (NTC):** *Applicable as per provisions under 'Part-1 General Conditions of Tariff', at the following rates:*
 - (i) *80 paise/kVAh for consumption during night hours for the month of June, July and August 2015;*
 - (ii) *40 paise/kVAh for other months.*
10. **Power Factor Surcharge (PFS):** *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*
11. **Disturbing Load Penalty (DLP):** *Not Applicable.*
12. **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 centre and factory yard lighting shall be charged under this tariff schedule. The consumption for bonafide use of residential/staff quarters and street lighting of the colony shall also be charged under this tariff schedule if supply is taken at a single point. Such consumption shall be charged for the energy consumed at the following rates:*
 - a) *During Normal times and night time: Normal Rate subject to the condition that the night time concession as per 9 above shall be given on consumption during night time.*
 - b) *During peak load hours: The rates (demand and energy) applicable for peak load hours shall be charged.*

If supplies for colony and/or its residences are taken separately then the same shall be charged as per the relevant consumer categories of this schedule of tariff.

SCHEDULE - LARGE INDUSTRIAL POWER SUPPLY (LIPS)**1. Applicability**

This schedule is applicable to all other industrial power consumers with contract demand exceeding 100 kVA including the Information Technology industry (limited only to IT parks recognized by the State/Central Govt.) and not covered by schedule "IDWPS".

2. Character of Service: *Applicable as per provisions under Part – II.***3. Two Part Tariff****a) Consumer Service Charge (Charges-1)**

Description	Consumer Service Charge (Rs/month)
EHT	Nil
HT-1 (Contract Demand up to and including 1MVA)	Nil
HT-2 (Contract Demand above 1 MVA)	Nil

b) Energy charge (Charges-2)

Description	Energy Charge (Rs./kVAh)
EHT	4.10
HT-1 (Contract Demand up to and including 1MVA)	4.50
HT-2 (Contract Demand above 1 MVA)	4.20

c) Demand Charge (Charges-3)

Description	Demand Charge (Rs/kVA/month)
EHT	350.00
HT-1 (Contract Demand up to and including 1MVA)	200.00
HT-2 (Contract Demand above 1 MVA)	350.00

Note: Demand charges would be levied on the actual maximum recorded demand in a month in any 30 minute interval in a month or 90% of the contract demand, whichever is higher but up to a ceiling of Contract Demand. Contract Demand Violation Charges shall be applicable beyond such ceiling.

4. Peak load charges (PLC)

Description	*Additional Charges on Average	Energy Charge
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	Demand (Rs/kVA/month)	(Rs./kVAh)
EHT	100.00	6.00
HT-1	100.00	6.20
HT-2	100.00	6.20

* These additional charges shall be charged on the average demand during peak load hours for the billing month, which shall be calculated in kVA by dividing the total kVAh consumption during peak load hours of the month by a fixed figure of 105.

5. **Lower Voltage Supply Surcharge (LVSS):** *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*
6. **Lower Voltage Metering Surcharge (LVMS):** *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*
7. **Late Payment Surcharge (LPS):** *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*
8. **Contract Demand Violation Charge:** *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*
9. **Night Time Concession (NTC):** *Applicable as per provisions under 'Part-1 General Conditions of Tariff' of this Annexure I at following rates:-*
 - a) For HT-1 category: 80 paise/kVAh for the month of June, July and August 2015; and
40 paise/kVAh for other months.
 - b) For HT-2 and EHT categories: 40 paise/kVAh for the month of June, July and August 2015; and
20 paise/ kVAh for other months.
10. **Power Factor Surcharge (PFS):** *Not Applicable.*
11. **Disturbing Load Penalty (DLP):** *Not Applicable*
12. **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 centre and factory yard lighting shall be charged under this tariff schedule. The consumption for bonafide use of residential/staff quarters and street lighting of the colony shall also be charged under this tariff schedule if supply is taken at a single point. Such consumption shall be charged for the energy consumed at the following rates:
 - a) During Normal times and night time: Normal Rate subject to the condition that the night time concession as per 9 above shall be given on consumption during night time.
 - b) During peak load hours : The rates (demand and energy) applicable for peak load hours shall be charged.

If supplies for colony and/or its residences are taken separately then the same shall be charged as per the relevant consumer categories of this schedule of tariff.

SCHEDULE - IRRIGATION AND DRINKING WATER PUMPING SUPPLY (IDWPS)**1 Applicability**

This schedule is applicable to connections for water and irrigation pumping and also covers all consumption for bonafide Pump House lighting. This schedule is also applicable to Private Irrigation loads in individual/ society's names, green houses, poly houses, mushroom growing, processing facilities for agriculture, fisheries, horticulture, floriculture and sericulture etc. where all such activities are undertaken by agricultural land holders and temporary agricultural loads such as wheat threshers and paddy threshers.

Since this schedule of tariff covers 'processing facilities for agriculture', all consumers having processing facilities relating to agriculture such as seed treatment, etc. shall also be covered under this schedule. However, the consumers involved in manufacturing, processing and service sector activities based on agriculture produce such as mushroom processing, etc. shall be covered under relevant industrial schedule of tariff.

2. Character of service: *Applicable as per provisions under Part – II of this Annexure I.*

3 Single Part Tariff for contract demand ≤20 kVA**a) Consumer Service Charge (Charges-1)**

Description	Consumer Service Charge (Rs/month)
All consumers	50.00

b) Energy Charge (Charges-2)

Energy Charge (Rs./kWh)	3.50
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4. Two Part Tariff for contract demand > 20 kVA**a) Consumer Service Charge (Charges-1)**

Consumer Service Charge (Rs/month)	
LT	Nil
HT	Nil
EHT	Nil

b) Energy Charge (Charges-2)

Description	Energy Charge (Rs./kVAh)
LT	4.60
HT	4.20
EHT	4.00

c) Demand Charge (Charges-3)

Maximum Demand Charge (Rs/kVA/month)	
LT	40.00
HT	350.00
EHT	350.00

Demand charges would be levied on the actual maximum recorded demand in a month in any 30 minute interval in a month or 90% of the contract demand, whichever is higher but up to a ceiling of Contract Demand. Contract Demand Violation Charges shall be applicable beyond such ceiling.

Notes:

- a) HPSEBL shall not only continue with the existing practice of installation of tri-vector meters capable of recording the relevant parameters applicable for two-part tariff for different time blocks of the day, for all consumers in this category having connected load of more than 20 kW, but shall also provide such meters for new/ existing connections under single part tariff wherever the consumer expresses his intention to use power during peak load hours.
- b) The present practice of meter reading through MRI/ AMR shall be continued for all consumers with connected load above 20kW irrespective of applicability of single/ two part tariff.

5. Peak load charges (PLC)

Description	*Additional Charges on Average Demand (Rs./kVA/month)	Energy Charges (Rs./kVAh)
LT	100	6.40
HT	100	6.20
EHT	100	6.00

* These additional charges shall be charged on the average demand during peak load hours for the billing month, which shall be calculated in kVA by dividing the total kVAh consumption during peak load hours of the month by a fixed figure of 105.

6. After GoHP subsidy, the energy charges shall be Rs 1.00 per kWh to the consumer category up to 20 kW under single part tariff and Rs. 1.00 per kVAh only for LT category under two part tariff. These revised energy charges on the account of Government subsidy would only be applicable to agricultural and allied activities, and which are paid for by individuals/ user groups
7. **Lower Voltage Supply Surcharge (LVSS):** Applicable as specified under 'Part-1 General Conditions of Tariff'.
8. **Lower Voltage Metering Surcharge (LVMS):** Applicable as per provisions under 'Part-1 General Conditions of Tariff'.
9. **Late Payment Surcharge (LPS):** Applicable as per provisions under 'Part-1 General Conditions of Tariff'.
10. **Contract Demand Violation Charge:** Applicable as per provisions under 'Part-1 General Conditions of Tariff'.
11. **Night Time Concession (NTC):** Applicable as per provisions under 'Part-1 General Conditions of Tariff', at the following rates:

(i) 40 paise/kVAh for consumption during night hours for the month of June, July and August 2015;

(ii) 20 paise/kVAh for other months.

12. **Power Factor Surcharge (PFS):** *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*
13. **Disturbing Load Penalty (DLP):** *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*
13. **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 centre and factory yard lighting shall be charged under this tariff schedule. The consumption for bonafide use of residential/staff quarters and street lighting of the colony shall also be charged under this tariff schedule if supply is taken at a single point. Such consumption shall be charged for the energy consumed at the following rates:
- During Normal times and night time: Normal Rate subject to the condition that the night time concession as per 9 above shall be given on consumption during night time.
 - During peak load hours : The rates (demand and energy) applicable for peak load hours shall be charged.

If supplies for colony and/or its residences are taken separately then the same shall be charged as per the relevant consumer categories of this schedule of tariff.

SCHEDULE - BULK SUPPLY (BS)**1 Applicability**

This schedule is applicable to general or mixed loads to M.E.S and other Military establishments, Central PWD Institutions, Construction power for Hydro-Electric projects, Hospitals, Departmental/private colonies, group housing societies, 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, for its own bonafide use and not for resale to other consumers with or without profit. However, in case of MES, this schedule shall continue to apply till such time MES do not avail Open Access.

2. Character of service: *Applicable as per provisions under Part – II.*

3. Two Part Tariff**a) Consumer Service Charge (Charges-1)**

Consumer Service Charge (Rs/month)	
LT	Nil
HT	Nil
EHT	Nil

b) Energy Charge (Charges-2)

Description	Energy Charge (Rs./kVAh)
LT	4.85
HT	4.35
EHT	4.00

c) Demand Charge (Charges-3)

Demand Charge (Rs/kVA/month)	
LT	200.00
HT	300.00
EHT	300.00

Demand charges would be levied on the actual maximum recorded demand in a month in any 30 minute interval in a month or 90% of the contract demand, whichever is higher but up to a ceiling of Contract Demand. Contract Demand Violation Charges shall be applicable beyond such ceiling.

4. Lower Voltage Supply Surcharge (LVSS): *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*

5. Lower Voltage Metering Surcharge (LVMS) *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*

6. Late Payment Surcharge (LPS) *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*

7. **Contract Demand Violation Charge:** *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*
8. **Night Time Concession (NTC):** *Not applicable.*
9. **Power Factor Surcharge (PFS):** *Not Applicable.*
10. **Disturbing Load Penalty (DLP):** *Not Applicable.*
11. **Peak Load Charges (PLC):** *Not Applicable.*

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, Nagar Panchayats, SADA areas and Panchayats.

2 Character of service: *Applicable as per provisions under Part – II of this Annexure I.***3. Single Part Tariff****a) Consumer Service Charge (Charges-1)**

Consumer Service Charge (Rs/month)	70.00
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b) Energy Charge (Charges-2)

Energy Charge (Rs./kWh)	4.70
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4. Line maintenance and lamp renewal charges

Where the bulbs, tubes etc. are to be provided and replaced at the cost of the HPSEBL, Line Maintenance and lamp renewal charges shall be charged in addition to the energy charges. These charges shall be charged at the following rates:

Description	Charge
(a) Bulbs all wattage	14
(b) Mercury vapour lamps up to 125 watt	40
(c) Mercury vapour lamps 126 watt to	95
(d) Fluorescent 2 ft. 20 watt single tube	21
(e) Fluorescent 2 ft. 20 watt double tube	35
(f) Fluorescent 4 ft. single tube fixture	35
(g) Fluorescent 4 ft. double tube fixture	48

Note:

- i) *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..*
- ii) *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 HPSEBL, Line Maintenance and lamp renewal charges shall be as follows:*

Description	Charge
Bulbs	7
Tubes and MVL etc	12
Sodium/Neon Vapour lamps or	18

5. Lower Voltage Supply Surcharge (LVSS): *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*

6. **Lower Voltage Metering Surcharge (LVMS):** *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*
7. **Late Payment Surcharge (LPS):** *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*
8. **Night Time Concession (NTC):** *Not Applicable.*
9. **Power Factor Surcharge (PFS):** *Not Applicable.*
10. **Disturbing Load Penalty (DLP):** *Not Applicable.*

SCHEDULE - TEMPORARY METERED SUPPLY (TMS)**1 Applicability**

This schedule is applicable to all loads of temporary nature including exhibitions, touring talkies, circuses, fairs, melas, marriages, festivals, temporary supply for construction purposes including civil works by Government departments and other similar purposes for temporary needs only.

2 Character of service: *Applicable as per provisions under Part – II of this Annexure I.*

3 Single Part Tariff for contract demand ≤ 20 kVA**a) Consumer Service Charge (Charges-1)**

Consumer Service Charge (Rs/month)	140.00
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b) Energy Charge (Charges-2)

Energy Charge (Rs./kWh)	7.50
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4 Two Part Tariff for contract demand > 20 kVA**a) Consumer Service Charge (Charges-1)**

Consumer Service Charge (Rs/month)	Nil
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b) Energy Charge (Charges-2)

Energy Charge (Rs./kVAh)	6.00
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c) Demand Charge (Charges-3)

Demand Charge (Rs/kVA/month)	350.00
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5. Lower Voltage Supply Surcharge (LVSS): *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*

6. Lower Voltage Metering Surcharge (LVMS): *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*

7. Late Payment Surcharge (LPS): *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*

8. Contract Demand Violation Charge: *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*

9. Night Time Concession (NTC): *Not Applicable.*

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

11. Disturbing Load Penalty (DLP): *Not Applicable.*

12. **Peak Load Charges (PLC): Not Applicable.**

SCHEDULE – RAILWAY TRACTION**1 Applicability**

This schedule is applicable to Railways for Traction loads.

2 Character of service

Standard Supply Voltage (AC 50 Hz)	≥ 66kV
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3 Two Part Tariff for contract demand > 20 kVA**a) Consumer Service Charge (Charges-1)**

Consumer Service Charge (Rs/month)	Nil
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b) Energy Charge (Charges-2)

Energy Charge (Rs./kVAh)	4.50
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c) Demand Charge (Charges-3)

Demand Charge (Rs/kVA/month)	350.00
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4. **Lower Voltage Supply Surcharge (LVSS):** *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*
5. **Lower Voltage Metering Surcharge (LVMS):** *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*
6. **Late Payment Surcharge (LPS):** *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*
7. **Contract Demand Violation Charge:** *Applicable as per provisions under 'Part-1 General Conditions of Tariff'.*
8. **Night Time Concession (NTC):** *Not applicable.*
9. **Power Factor Surcharge (PFS):** *Not Applicable.*
10. **Disturbing Load Penalty (DLP):** *Not Applicable.*
11. **Peak Load Charges (PLC):** *Not Applicable.*

Appendix-A : Schedule of General and Service Charges

S. No.	Description	Approved by the Commission
1. Particulars:		
A. Meter Inspection and Testing Charges (Challenge of Correctness of Meter by Consumer)		
(i)	Single Phase	Rs. 55/- per meter
(ii)	Poly phase (LT)	Rs. 225/-
(iii)	HT or special meter (MDI or Trivector meter)	Rs. 550/-
		Rs. 1100/- with CT/PT combined unit
Note:- This amount shall be deposited by the consumer along with his application for the inspection of the meter and will be refunded to him in case the meter is not found to be correct within the prescribed limits.		
B. Testing Charges of Transformers or other equipment of consumer or private party		
(I)	Protective Relays:	
	Testing including current and Time Setting of protective relays	Rs. 1100/- per Relay
(II)	Power and Distribution Transformers	
(a)	Insulation resistance tests of winding	Rs. 770/- per Transformer
(b)	General checking of breather and other accessories	Rs. 400/- per Transformer
(c)	Dielectric strength test of oil	Rs. 220/- per Transformer
(d)	Testing of bucholz relay and temperature indicators functioning	Rs. 800/- each
(III)	Circuit Breaker 400 volts and 11/33kV	
	General checking of breaker and testing of the tripping mechanism	Rs. 800/- each
(IV)	Current transformer and Potential transformers and meters:	
(a)	Testing of single phase LT current transformer	Rs. 165/- each
(b)	Current Testing of 3 phase LT current transformer	Rs. 440/- each
(c)	Testing of single phase 11kV & 33kV CTs	Rs. 550/- each
(d)	Testing of three phase 11kV & 33kV CTs	Rs. 1100/- each
(e)	Testing & recalibration of single phase LT energy meter	Rs. 90/- per meter
(f)	Testing & recalibration of three phase energy meter w/o CT	Rs. 330/- per meter
(g)	Testing & recalibration of three phase energy meter With CT	Rs. 660/- per meter
(h)(i)	Testing & recalibration of HT/EHT metering equipment	Rs. 2000/- per meter
(h)(ii)	With CT/PT combined unit	Rs. 2500/- per unit
(i)	Testing & recalibration of maximum demand indicator	Rs. 660/- per meter
(j)	Testing & adjustment of voltmeter/ ammeter	Rs. 165/- each
(V)	Checking of Capacitors (other than initial checking) on consumer's request:	
(a)	At 400 volts	Rs. 110/- per job
(b)	At 11 kV and above	Rs. 110/- per job
(VI)	General	
(a)	Dielectric strength of oil of various equipment	Rs. 220/- per sample

S. No.	Description	Approved by the Commission	
(b)	Earth test of substation	Rs. 220/- per earth	
(c)	Insulation resistance of cables/insulation of various equipment /installations	Rs. 220/- per cable/ equipment	
<p>C. Testing charges at the time of routine periodical inspections or first test and inspection of new installation which includes protection and control of complete sub-station (including Transformers, Capacitor Banks, Meter and Metering equipment having connected load >50 kW and/or supply voltage 11 kV or higher) and inclusive of all manpower required</p> <p>(Note1: In accordance with Regulation 31 of Central Electricity Authority (Measures Relating to Safety and Electricity Supply) Regulations, 2010, the supplier shall either test the installation himself or accept the test results submitted by the consumer when the same has been duly signed by the licensed by the licensed Electrical Contractor.</p> <p>Note 2: In accordance with Regulation 30 of Central Electricity Authority (Measures Relating to Safety and Electricity Supply) Regulations, 2010, where an installation is already connected to the supply system of the supplier, every such installation shall be inspected and tested at intervals not exceeding five (5) years (known as routine periodical inspections and testing).</p>			
(i)	11/22 kV	Substations	Rs. 10,000/-
(ii)	33 kV		Rs. 15,000/-
(iii)	66 kV		Rs. 50,000/-
(iv)	132 kV		Rs. 1,00,000/-
(v)	220 kV		Rs. 3,00,000/-
(vi)	SHP Capacity (up to 2.5 MW)	Small Hydro Plants	Rs. 25,000/-
(vii)	SHP Capacity (greater than 2.5 MW)		Rs. 50,000/-
D.	Visiting charges		
	Visiting charges for Officers and staff to Consumers premises for testing of equipments(other than C above)		Rs. 3500/- per day for complete team PLUS actual journey charges as per out turn of vehicle
Remarks: -			
(i) The charges mentioned under 'C' above shall be charged for the actual Periodical Inspection done and shall be on per inspection basis only.			
(ii) Visiting charges mentioned under D above include the visiting charges of M&T staff as well.			
(iii) Charges for HPSEBL's maintenance/testing Vans or Trucks if needed for the purpose will be extra. All Charges shall be got deposited before undertaking the testing work.			
(iv) Complete testing of 11kV, 22kV and 33 kV connections as per item C above shall be conducted before the release of HT connection.			
(v) Test reports on suitable forms will be issued by the operation sub-divisions/M&T Lab, which will be produced by the prospective consumer along with the wiring Contractor's test report.			
(vi) The insulation, earth and oil tests as well as general checking and inspection should be performed by the operation sub-division. Other tests requiring M&T Lab. facilities shall be arranged by the operation sub-division/division in the nearest M&T Lab., or by arranging the visit of the M&T staff to the consumer's premises.			
(vii) The requests for testing shall be entertained by the concerned operation sub-division which will be responsible for arranging all tests including tests by the M&T Lab and also for the recoveries of all the charges, including those of M&T Lab			
(viii) The amount recovered from consumers for testing carried out by the M&T Lab shall be adjusted through inter divisional adjustment between the operation divisions and the M&T divisions.			

S. No.	Description	Approved by the Commission
2. Changing the position of meter at the request of consumer		
(i)	Single phase	Rs. 45/-
(ii)	Poly phase (LT) without CT	Rs. 220/-
	Poly phase (LT) with CT	Rs. 440/-
(iii)	HT or special meter	Rs. 1100/-
3. Resealing charges		
(i)	Meter cupboard	Rs. 25/-
(ii)	Meter Cover or Terminal Cover (single phase)	Rs. 110/- for meter terminal cover and full cost of the meter where M&T seal is found broken.
(iii)	Meter cover or terminal cover (three phase)	Rs. 350/- for meter terminal cover and full cost of the meter where M&T seal is found broken.
(iv)	Cutout (where it has been independently sealed)	Rs. 25/-
(v)	Maximum demand indicator	Rs. 550/-
(vi)	Potential fuse(s) time switch/CT chamber	Rs. 550/-
4. Monthly meter/equipment rentals:		
(i)	Single phase energy meter low tension	Rs. 15/- per month
(ii)	Polyphase energy meter low tension (up to 50 Amps.)	Rs. 30/- per month
(iii)	a) Polyphase low tension meters with CTs (up to 20 kW)	Rs. 35/- per month
	b) Polyphase low tension meters with CTs(above 20 kW)	Rs. 50/- per month
(iv)	Polyphase 11kV meter with CT/PT without any breaker of HPSEBL	Rs. 550/- per month
(v)	Polyphase 11kV meter with CT/PT with one 11kV breaker of HPSEBL	Rs. 4000/- per month
(vi)	Single phase Pre Paid energy meter low tension	NIL
(vi)	Polyphase 33,22 kV meter with CT/PT without any 33, 22 kV breaker of HPSEBL	Rs. 800/- per month
(vii)	Polyphase 33,22 kV meter with CT/PT with one 33, 22 kV breaker of HPSEBL	Rs. 7000/- per month
(viii)	Polyphase meter with CT/PT with or without circuit breaker of voltage 66 kV and above	
(a)	Polyphase 66 kV with CT/PT without any 66 kV circuit breaker of HPSEBL	Rs. 1300/- per month
(b)	Polyphase 66 kV with CT/PT with 66 kV circuit breaker of HPSEBL	Rs. 13500/- per month
(c)	Polyphase 132 kV with CT/PT without any 132 kV circuit breaker of HPSEBL	Rs. 2500/- per month
(d)	Polyphase 132 kV with CT/PT with 132 kV circuit breaker of HPSEBL	Rs. 20000/- per month

S. No.	Description	Approved by the Commission
5. Reconnection of supply		
(i)	Small Industrial Power Supply consumers (contract demand < = 50 kVA)	Rs. 100/-
(ii)	Medium Industrial Power Supply consumers (contract demand > 50 kVA and < = 100 kVA)	Rs. 500/-
(iii)	Large Industrial Power Supply consumers (contract demand > 100 kVA)	Rs. 1000/-
(iv)	All other categories of consumers	Rs. 40/-
6. Fuse replacement:		
	Replacement of fuse(s) pertaining to HPSEBL/ Consumer	Rs. 5/-
7. Testing consumer's installation:		
(i)	The first test and inspection of a new installation or of an extension to the existing installation	Nil
(ii)	For every subsequent visit for the test and inspection of a new installation or of an extension to the existing installation	
(a)	Single Phase LT	Rs. 60/-
(b)	Three phase (LT)	Rs. 100/-
(c)	Three phase (HT)	Rs. 500/-
	Note:- These charges shall be deposited by the consumer in advance before every subsequent visit for inspection of installation	
8. Replacement of meter card:		
(i)	Domestic/NDNCS/Commercial	Rs. 10/- in each case
(ii)	All other categories of consumers	Rs. 10/- in each case
9. Replacement of meter glass:		
(i)	Replacement of broken glass of meter cup board when the consumers is considered to have broken it	Rs. 50/-
(ii)	Replacement of broken or cracked glass of meter when there is no evidence of consumer having broken it or tempered with the meter	Rs. 50/-
(iii)	Replacement of broken glass of meter when the consumer has tempered with or broken by consumer:	
(a)	Single phase	Rs. 500/-* or the actual cost of meter whichever is higher
(b)	Three phase	Rs. 1500/- *or the actual cost of meter, whichever is higher.
	Note-1: This amount will be charged without prejudice to the right of HPSEBL to take any other action or impose penalty on the consumer as per the prevailing rules. Since in such cases, the meter has to be sent to M&T lab, the meter changing charges shall be levied additionally.	
	* This is without prejudice to HPSEBL's right to recover the estimated cost of theft of energy. Principles of natural justice shall invariably be followed and opportunity of being heard given to the consumer before levying such charge.	

S. No.	Description	Approved by the Commission
10. Supply of duplicate copies of the bills/ review of bills:		
(i)	Review of bills (all Categories)	Nil
(ii)	Supply of duplicate copies of bills	
(a)	Domestic/NDNCS/Commercial	Rs. 5/-
(b)	Medium and large power supply	Rs. 5/-
(c)	All other categories	Rs. 5/-
(iii)	Supply of duplicate copies of Demand notice:	
(a)	Domestic consumers	Rs. 10/-
(b)	Non residential consumers	Rs. 10/-
(c)	Small Industrial and Agriculture consumers	Rs. 10/-
(d)	Medium Industrial consumers	Rs. 10/-
(e)	Large Industrial and other categories of consumers	Rs. 10/-
(iv)	Supply of detailed print out of the meter recording	Rs. 50/-
11. Attendants for functions		
	Deputing attendants (line staff) for all functions.	
	(Per Attendant per day per function limited to 8 hours/day)	Rs. 250/-
12. Cost of Application/Agreement Form and wiring Contractor's test report forms:		
	For all categories	Nil
13. Processing fee for change in contract demand		
	Fee for change in Contract Demand (CD)	Rs. 25/- per kVA of the changed quantum of CD