Multi Year Tariff Order
For
Himachal Pradesh State Electricity Board Limited (HPSEBL)
For the period
FY 2014-15 to FY 2018-19

Himachal Pradesh Electricity Regulatory Commission

June 12, 2014

BEFORE THE HIMACHAL PRADESH ELECTRICITY REGULATORY COMMISSION AT SHIMLA

CASE NO: 141/2013.

CORAM

SUBHASH CHANDER NEGI

IN THE MATTER OF:

Determination of Aggregate Revenue Requirement (ARR) for the Third Multi Year Control Period (FY15 - FY19) under section 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 approval of its Aggregate Revenue Requirement (ARR) for the Third MYT Control Period (FY15 - FY19) and determination of Wheeling and Retail Supply Tariff for FY15 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.

The Commission having heard the applicant, interveners, consumers, consumer representatives of various consumer groups on March 26, 2014 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 HPSEBL for each year of the Third Control Period (FY15–FY19) under the Multi Year Tariff (MYT) regime and approved the Wheeling and the Retail Supply Tariffs for FY15 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. 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 August, 2014 and for the period 01.04.2014 to 31.07.2014 tariff determined for the FY14, extended on 31st March, 2014 shall apply.

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 HPERC (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2011, the Wheeling and Retail Supply Tariff shall unless amended or revoked, continue to be in force up to March 31, 2015. In the event of failure on the part of the licensee to file application for true-up for FY14 and approval of Wheeling and Retail Supply Tariff for the ensuing financial year, in terms of Regulation 37 of the HPERC (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2011 on or before November 30, 2014, the tariff determined by the Commission shall cease to operate after March 31, 2015, 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 HPERC (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) 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 publication of 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. In view of

changes/ reforms introduced for this MYT Control Period, appropriate changes in operating procedures, formats, I.T. Software etc. will be necessitated and therefore the licensee shall carry out such attendant changes efficiently and before 31.07.2014, so that there is no time lag of discrepancies in implementation. 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 **(Subhash C. Negi)**

Dated: 12th June, 2014 **Chairman**

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1 Introduction

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 HPERC

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 Himachal Pradesh State Electricity Board Ltd.

1.2.1 The Himachal Pradesh State Electricity Board Limited (hereinafter referred to as 'HPSEBL' or 'Licensee' or '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.

1.2.2 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 15 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 10 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

1.3 History of Power Sector in Himachal Pradesh

1.3.1 Electric 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.

1.3.2 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.

1.3.3 HPSEB was established in 1971, as a body constituted u/s 5 of the erstwhile Electricity (Supply) Act, 1948 and carried out functions of Generation, Transmission and Distribution for the State of Himachal Pradesh up to 10th June, 2010, when the Government of Himachal Pradesh, in exercise of the power conferred to it under Section 131 (2), 132, 133 and other applicable provisions of the Electricity Act 2003, transferred the functions of generation, distribution and trading of electricity to Himachal Pradesh State Electricity Board Limited (HPSEBL) and the function of evacuation of power by transmission lines to Himachal Pradesh Power Transmission Company Limited (HPPTCL), vide the Himachal Pradesh Power Sector Reforms Transfer Scheme, 2010.

1.3.4 On 10th of June 2010 Himachal Pradesh State Electricity Board (HPSEB) was re-organised into a company to be known as Himachal Pradesh State Electricity Board Limited (HPSEBL).

1.4 Overview of HPSEBL

1.4.1 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.

1.4.2 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.

1.4.3 The total installed capacity of generation of the HPSEBL is 471 MW and total line length (HT & LT) is approx 92870 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.

1.4.4 The HPSEBL has filed petition with the Himachal Pradesh Electricity Regulatory Commission (hereinafter referred to as 'the Commission' or 'HPERC') for final true-up of FY11 & FY12 and provisional true-up for FY13 and approval of its Aggregate Revenue Requirement (ARR) and determination of Wheeling and Retail Supply Tariff for the Third MYT Control Period (FY15 - FY19) under Sections 62, 64 and 86 of the Act, read with the Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2011.

1.4.5 The licensee is required to observe the methodologies and procedures specified by the Commission in the above mentioned Regulation in calculating the expected revenue from charges (viz. Aggregate Revenue Requirement) and in designing tariffs. The calculations relate to each financial year of the Control Period regarding:

1. its expected aggregate revenue from charges under its currently approved tariff; and

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

1.4.6 During the Second MYT Control Period, HPSEBL had filed a single petition for both its distribution activities and generation activities. The said petition was disposed of by a single order dated 19th July, 2011.

1.4.7 HPSEBL submitted a single petition for its distribution and generation activities for the third MYT Control Period also. However the Commission directed HPSEBL to resubmit separate petitions for its distribution and generation functions in accordance with the Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2011 and the Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Hydro-generation Tariff) Regulations, 2011. Accordingly HPSEBL resubmitted separate petitions for its distribution function and generation function.

1.4.8 The Commission has also reviewed the operational and financial performance of the HPSEBL for FY13 and has finalised this Order based on the review and analysis of the past records, information submissions, necessary clarifications submitted by the licensee and views expressed by the stakeholders.

1.4.9 The Commission had previously done performance reviews for FY11 and FY12 along with the tariff orders for FY13 and FY14 based on the provisional accounts submitted by HPSEBL as audited accounts for FY11 and FY12 were not available. HPSEBL has now submitted the final true-up petitions for FY11 and FY12 on the basis of final audited accounts and the variation between provisional and audited accounts. The final true up for FY11 and FY12 shall be done on the basis of the past records, information submissions and necessary clarifications submitted by the licensee.

1.5 Multi Year Tariff Framework

1.5.1 The Commission decided to adopt Multi Year Tariff (MYT) principles for determination of tariffs, in line with the provision of Section 61 of the Act.

1.5.2 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.

1.5.3 The HPERC had specified the terms and conditions for the determination of tariff in the year 2004, based on the principles laid down under Section 61 of the Electricity Act 2003. Thereafter, the HPERC had notified the HPERC (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2007; the HPERC (Terms and Conditions for Determination of Hydro Generation Tariff) Regulations, 2007 and the HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2007 and the previous tariff regulations of 2004 were repealed.

1.5.4 Subsequently, the HPERC notified HPERC (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2011; HPERC (Terms and Conditions for Determination of Hydro Generation Tariff) Regulations, 2011 and HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011 and the previous tariff regulations of 2007 were repealed.

1.5.5 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.

1.5.6 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.

1.5.7 The Commission from FY02 to FY08 determined annual tariffs and during this period issued five Tariff Orders. For FY03 to FY04, HPSEB failed to file its ARR and for this period no Tariff Orders were issued by the Commission. In FY2008-09 the Commission came up with its first 3 year MYT Tariff Order for the period FY09 to FY11. During the ongoing period of this first MYT, two Annual Performance Review (APR) Orders were issued by the Commission. The Second MYT Tariff Order was issued by the Commission during FY12 for a period of 3 years i.e. FY12 to FY14 and during this Control Period two Annual Performance Review (APR) Orders were issued by the Commission.

1.6 An overview of Second MYT period FY12 - FY14

1.6.1 In order to consolidate the strengths, gains and positive experience during this period and also to look at strategic solution to the weaknesses, bottlenecks and policy deficits an overview of the Control Period is necessary. Based on the filings of business plan, tariff petition for Second MYT period, tariff orders for these 3 years including true-ups of previous years and also based on the deliberations, the series of meeting held with the consumers groups, distribution licensees and other utilities, State Govt. officers, the following issues of importance emerge:-

Strengths and opportunities:

1. Licensee has abundant power available on long term and therefore, availability of power is a major strength.

2. Transmission and Distribution losses remained within the 13% to 14% and also revenue realisation is near 100%. Both these parameters being one among the best States in the country is great strength. This may be largely attributable to efficiency of the HPSEBL and at the same time it is on account of higher consumption at HT and EHT voltage level. It is also mainly attributable to salutary character of consumers in Himachal who pay their bills faithfully and in time.

3. In the power availability, hydel power constitutes approximately 90% of their total power requirement, therefore, stabilising power purchase cost.

4. There is 100% metered supply and also there is no free power to any consumer category in the State.

5. There is great opportunity in business growth in terms of consumption of electricity. This is on account of rising incomes, diversification of farm production, change in life style in the rural areas demanding use of electricity for accessing services and technology etc.

6. There is periodic retail tariff revisions recovery admissible cost of supply on year to year basis.

Weaknesses:

1. Even after reorganisation of functions of integrated erstwhile Electricity Board in June 2010, distribution licensee being the parent employer, the staff continues with HPSEBL alongwith responsibility for meeting pension expenses of the retirees of erstwhile Board as well as services rendered in the erstwhile Board by the present employees because there is no concept of contributory pension. The employee cost including pension and terminal benefits accounts for about 27% for total expenses, amounting to about Rs. 1.40 per unit (2013-14) which is very high against industry practices and national average of about 11% to 15% . In addition even after reorganisation wherein certain functions have been transferred to other utilities/departments, staff in a typical organisation structure of erstwhile HPSEB, continues with the HPSEBL.

2. During tariff setting process estimation and final outcome had been at great variance. During Second Control Period there had been huge tariff increase of 9%, 13% and 15% in successive years from FY 12 to FY14. This has been mainly on account of increase in employees cost due to pay revisions awarded by Pay Commission w.e.f. 01.01.2006 alongwith the huge arrears for which concurrent provisions in previous years could not be made. In addition there had been huge arrears based on power purchase because of huge time lags in tariff determination of power supplies and transmission system of the CPSUs. The arrears of past had also been on account of recoveries of cost of power in interstate sale.

3. Licensees had been slow in IT applications in its operation. Utilisation of gaps had been very low which can be attributed to inefficient procurement process and lack of priority on project clearances, including forest clearances, Govt. land clearances, financial tie up etc.

1.6.2 Strategic reforms and shift in approach based on experience of the past and future perspective within the State and country in general, the following shift in approach and reforms are required to be undertaken in present Control Period of 5 years:-

1. In order to avoid uncertainties in tariff and consequent burden of past liabilities in future tariff provisioning of employees cost and contingent services estimated for each year in future pay revisions should be provided for. In addition, surplus revenue should also be provided to meet unforeseen cost of power purchase particularly in retrospective revision by CERC. Tariff revision in the past have provided for full recovery of past arrears of pay as well as arrear of power purchase. Therefore, there are no significant distortions expected in future. There is already huge base due to increase in tariff over the past 3 years and therefore, there should not be any significant increase in tariff over the next 5 years.

2. Industry consumes about 65% of power in the State and their sustainability depends on reasonable cost of electricity. Already there is stagnation in consumption and growth in industry. Therefore, operation of HPSEBL can sustain if it increases its volume of business which is possible if industrial operation sustain in Himachal. Therefore, there is no scope for further significant increase in tariff which calls for operation of efficiency.

3. Only the area of operation of efficiency is the efficient and cost effective management of power purchase. An employee cost cannot be denied and further reduction of T&D losses has limitation. A reduction 1% of loss accounts for saving of about Rs.30 cores per annum whereas there can be huge saving if power purchase is managed efficiently. Apart from present long term PPAs, State has huge surplus power in terms of free power from projects and also equity power from joint sector purchase in State in addition to new projects coming up in the State sector i.e. HPPCL and HPSEBL. The Tariff of hydel power stations are regulated including for the projects which will come up by 2022 and therefore availability of power and tariff is predictable and stable. Average tariff in life cycle of various projects together is much lower than power available from coal, gas and nuclear stations. In addition purchase of power from local generating stations will also have cost of interstate transmission, losses etc. Therefore, HPSEBL should not buy any power from thermal as well

as other sources from outside State in future unless necessary and also examine how costly power under existing PPA from such sources can be allocated to other beneficiaries or surrendered after prudency check.

4. Banking of surplus power should be resorted to purely on commercial principles after evaluating cost of banked power including carrying cost and transaction cost and power available from other sources required till deficit months as a substitute for banking. Practice of buying costly power at the margin for banking leads to steep tariff increase. In addition surplus power disposed in the market is also a losing business because it does not recover the price which is price at the margin while purchasing such surplus power. Therefore, cost of power of banking should not be assumed as average cost but as cost of power at the margin plus other attendant cost. Reforms are required to optimise the network, capacity for drawing power, linkage of tariff with contract demand to make it transparent and predictable, narrowing down the cross subsidies, procedural reforms for doing business with ease and reduction of discretionary elements, removal of peak load restrictions so as to ensure 24x7 uninterrupted supply, promotion of open access including application of losses at voltage level, reduction of wheeling cost for promotion of renewables, supply of renewable power by licensees on efficient rates to meet RPPO by open access and captive consumers, procedural provision for application of section 126 in the event of violation, priority on safety operation etc.

1.7 Filing of ARR and Tariff Petition for the Third MYT Control Period (FY15 – FY19)

Procedural Background

1.7.1 The HPSEBL filed the application for approval of ARR and determination of Wheeling and Retail Supply Tariff as well as ARR and Generation Tariff for the Third Control Period (FY15–FY19), with the Commission on 30th November, 2014. HPSEBL submitted a single petition for its distribution as well as generation functions. The Commission directed HPSEBL to submit separate petitions for distribution and generation functions in accordance with the prevailing MYT Regulations. Accordingly HPSEBL submitted separate petition for distribution and generation functions on 20th February, 2014. The HPSEBL submitted further details in March and April 2014.

1.7.2 M/s Deloitte Touche Tohmatsu India Private Limited was appointed as Consultants to assist the Commission in assessment of the ARR and determination of the relevant tariffs.

Admission of Petition and Interaction with the Petitioner

1.7.3 The Commission admitted the petition submitted by HPSEBL vide interim order dated 21st February, 2014.

1.7.4 Since the submission of the petition by the HPSEBL, 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.

1.7.5 The Petitioner was asked to remove various deficiencies/ provide additional information vide following HPERC communications

a. HPERC/Chairman/PA/2014-3269-72 dated 21.02.2014

b. HPERC/MYT3/HPSEBL/2013-14-3322-23 dated 28.02.2014

c. HPERC/MYT3/HPSEBL/2013-14-3333.34 dated 01.03.2014

d. HPERC/MYT3/HPSEBL/2013-14-3391-92 dated 05.03.2014

e. HPERC/MYT3/HPSEBL/2013-14-3696 dated 22.03.2014

f. HPERC/MYT3/HPSEBL/2013-14-3705-06 dated 22.03.2014

g. HPERC/MYT3/HPSEBL/2013-14-17-19 dated 03.04.2014

h. HPERC/MYT3/HPSEBL/2013-14-146-47 dated 10.04.2014

i. HPERC/MYT3/HPSEBL/2013-14-3322.23 dated 28.02.2014

j. HPERC/Chairman/PA/2014-141-144 dated 10.04.2014

k. HPERC/MYT3/HPSEBL/2013-14-150-51 dated 11.04.2014

l. HPERC/MYT3/HPSEBL/2014-15-180 dated 17.04.2014

m. HPERC/MYT3/HPSEBL/2014-15-236-37 dated 23.04.2014

n. HPERC/MYT3/HPSEBL/2014-15-245-46 dated 25.04.2014

1.7.6 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 concern.

1.7.7 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 21/2014 dated 20th February 2014
2	M.A. No 51/2014 dated 2Second February 2014
3	M.A No 58/2014 dated 14th March 2014
4	M.A No 74/2014 dated 26th March, 2014
5	M.A No 100/2014 dated 7th April, 2014
6	MA No. 124/2014 dated 27th May, 2014
7	Letter No HPSEBL/F&A/Pen-II/HPERC/2013-4792-95 dated 20th March 2014
8	Letter No HPSEBL/CE(Comm)/T&D Losses-Vol.18/2014-21297 dated 31st March 2014
9	Letter No HPSEB/CE(Comm)/SERC-26/2013-14-969 dated 10th April 2014.

Public Hearings

1.7.8 The Commission issued an interim order to the HPSEBL on 21st February, 2014 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– 24th February, 2014
b. The Divya Himachal – 24th February, 2014
c. The Hindustan Times– 26th February, 2014
d. The Amar Ujala– 26th February, 2014

1.7.9 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) – 27th February, 2014.

b. The Amar Ujala (Chandigarh and Dharamsala Edition) 27th February, 2014.

1.7.10 The interested parties/stakeholders were asked to file their objections and suggestions on the petition by 14th March, 2014. The date of filing replies by HPSEBL was fixed on 20th March, 2014.

1.7.11 The Commission received objections from 15 stakeholders by the stipulated date. The HPSEBL filed its replies to the objections/ suggestions set out by various objectors vide M.A No 74/2014, 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 26th March, 2014.

1.7.12 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.

1.7.13 Public hearing on the HPSEBL's petition was held on 26th March, 2014 at the Commission's Court Room in Shimla.

1.7.14 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 5** of this Order.

2 Interaction with the Chairman, Managing Director and Whole Time Directors Of HPSEBL

2.1 Introduction

2.1.1 During the process of Determination of Annual Revenue Requirement and Tariff of the distribution licensee, the Commission interacts with the management of HPSEBL to know their viewpoint, future vision, strategies and initiatives undertaken by HPSEBL. During the current tariff determination process, the meeting with the management of HPSEBL was held on 25th March, 2014. During the interactive session the Commission sensitized HPSEBL on issues related to tariff, customer care and open access while HPSEBL shared with the Commission of the various steps undertaken by the utility to improve its performance and provide better services to the consumers.

2.1.2 The issues that were discussed during the interactive session are summed up below.

2.2 General Observation by the Commission

2.2.1 The Commission observed that the HPSEBL being a commercial Public Sector Enterprise has to work towards the goal of sustainable tariff. The tariff has to be at such a level that the major economic activities of manufacturing, tourism and construction can have sustainable economic operations.

2.2.2 For this purpose, HPSEBL has to bring in efficiency in its operation through technical and commercial loss reduction, lower costs and improved quality services. HPSEBL has to bring in business process reforms for doing business with ease and at the same time improve productivity by internal process reforms through delegations, monitoring and use of IT.

2.2.3 The distribution licensee has to provide reliable and quality power supply to its customers. The aim of HPSEBL should be to provide access to urban services and technology in the villages.

2.2.4 The HPSEBL should work towards achieving the benchmarks of Standards of Performance set for various services provided by it. At the same time, there has to be efficient and effective grievance redressal system to maintain excellent customer-utility relationship.

2.3 Power Purchase Projections by HPSEBL and Related Issues

2.3.1 In its projections HPSEBL has estimated a total surplus power of 2200 to 2900 million units (including banking power) during each year of the third MYT Control Period. This surplus power should be treated by the utility as the costliest power at the margin and steps should be taken so as to minimise the costs and maximise the returns on this surplus power.

2.3.2 In view of overall surplus availability of power the HPSEBL should sign new PPAs only after due diligence. As there is plenty of hydel power available in the State, the need to buy hydel power from outside the State should be reviewed. Similarly the purchase of Gas based expensive power should be reviewed.

2.3.3 HPSEBL should review the position of PPAs signed but the projects have not been commissioned so far.

2.3.4 While purchasing power/ signing PPAs, the cost of transfer of such power from generating station to HPSEBL periphery should be taken into account to workout cost of power.

2.3.5 HPSEBL should study its base load requirement to be met from different sources of generation such as thermal, gas, hydro, nuclear etc. and find out the possibility of meeting the entire base load requirements during summer and monsoon from hydel generation. The surplus power available during summer/ monsoon can be prudently banked to get the base load requirement during deficit period of winters or else can be sold to buy the base load power in winter. Thus the higher cost of PPAs with thermal/ gas/ nuclear stations can be avoided.

2.3.6 While doing banking/ bilateral agreements, the cost of transfer/ banking should be looked in to.

2.3.7 HPSEBL should examine various possibilities for disposal of surplus power, including following options:

a. Advance/medium term tie up for sale of surplus power on the pattern the GoHP does for its free and equity power
b. Sale of Peaking power, Renewal power etc. on premium
c. Banking on premium by exploring strategic options like fortnightly/monthly quantum, peak hours quantum, additional quantum in return etc.
d. Transfer of SOR share to GoI unallocated pool for first few years from projects in HP like Chamera-III, Parvati, Rampur, Koldam etc.
e. Transfer of SOR share to host State having deficit like w.r.t. projects located in J&K, Uttrakhand and Delhi
f. Sale to other partner States
g. Surrendering if it makes economic sense

2.3.8 HPSEBL should create a separate dedicated cell with professionals to manage PPAs and sale/purchase of surpluses/deficits. HPSEBL should also consider hiring services of trading companies like PTC, even for banking.

2.3.9 HPSEBL apprised the Commission that it had already initiated various steps for efficient and cost effective power purchase management and the results will be visible in near future.

2.4 Distribution loss reduction

2.4.1 The HPSEBL needs to relook at overall T&D loss trajectory proposed for the Third MYT Control Period. HPSEBL needs to establish Division wise, voltage wise distribution loss up to 33 kV level and EHV level losses of HPPTCL and HPSEBL separately for 66, 132 and 220 kV levels. The targets for next 5 years need to be fixed, monitored and accountability should be fixed.

2.4.2 HPSEBL need to link the T&D loss trajectory with the EHV sales so that the target levels are auto adjustable in case there is major change in the EHV sales figure.

2.4.3 The Commission emphasised that the thrust of HPSEBL should be to bring losses in LT system to below 15% level.

2.4.4 HPSEBL informed that it was already monitoring the losses at circle level and circle-wise targets were being fixed. It was planning to fix and review division wise targets for losses from the ensuing year.

2.5 Efficient O&M costs

2.5.1 HPSEBL needs to retrain and redeploy existing staff and restructure existing posts, keeping in view the needs of distribution business. For example a vast pool of experienced cadres of Senior Assistants, Superintendents and Section Officers etc. can be reorganised and assigned commercial role including I.T. instead of routine housekeeping jobs.

2.5.2 Huge investments in I.T. have to be made outcome oriented i.e. efficient and cost effective so that manpower could be redeployed.

2.5.3 Fresh recruitments as per restructured needs to be done regularly.

2.5.4 Pensions and terminal benefits of existing staff are to be recovered from existing tariff as per cost to serve principle and a system for such recoveries and maintaining a corpus earning interest/return, for future payouts. Pension of pre-2010 retired employees and pre-2010 service of existing employees need to be secured with collective participation of GoHP, HPSEBL and regulatory support. Present consumer cannot pay for the services rendered yesterdays. Govt. contributions, could be out of return on its equity, part of electricity duty collections. HPSEBL's contribution could be sharing efficiency gain and return on investment. The Commission can explore contributions from HPPTCL and own generation plants.

2.5.5 The Commission also emphasised the need to invest the pension contribution made by different organisations, where HPSEBL employees have been deputed, in such a way so as to earn adequate returns.

2.5.6 HPSEBL informed that it will work out the actual pension liabilities of employees retired before June, 2010 and pension liabilities of current employees for the period prior to June, 2010 and will come out with a proposal to meet this liability.

3 Summary of the True-up Petition for FY13

3.1 Sales Projections

3.1.1 The Petitioner has submitted that the actual energy sale for FY13 has been lower than approved sales by 309.57 MUs. Category-wise energy sales submitted by HPSEBL are detailed in the table below:

Table 2: Energy Sales for FY13 (MU)

Energy Sales (Mus)	FY13		Deviation
	Approved	Actuals	
Domestic	1440.96	1618.45	177.49
Non Domestic Non Commercial	104.44	106.82	2.38
Commercial	406.33	408.73	2.40
Public Lighting	14.10	13.91	-0.19
Small Power	216.65	61.48	-10.48
Medium Power		144.69	
Large Supply	4569.89	4173.16	-396.73
Irrigation & Agriculture	476.11	453.98	24.49
Govt. Irrigation & Water Pumping		46.62	
Temporary	31.20	25.90	-5.30
Bulk Supply	273.40	169.78	-103.62
Total Energy Sales	**7533.08**	**7223.51**	**-309.57**

3.2 Energy Balance

3.2.1 HPSEBL has submitted that it has achieved a loss level of 13.62% in FY13. The Petitioner has submitted that the actual T&D loss for FY13 are in similar range as in FY12.

Table 3: Energy Balance for FY13 (MU)

Particulars	FY13
Power Availability	
Net Power Purchase Sources (CGS, Inter-state etc.)	9791
Total Availability	9791

Particulars	FY13
Sales within the State (MUs)	7224
Proposed T&D Loss % within the State	13.62%
Power Requirement for sale within the State (MUs)	8363
Inter-State Sale (MUs)	1429
Total Sale within & Outside the State (MUs)	8652
Overall Losses (MUs) - Total availability less Total Sale	1139
Overall T&D Losses %	11.6%

3.2.2 The Petitioner has attributed the higher T&D losses as against the approved 12.40% to fact that there was large variation of around 400 MUs in the Large Supply HT/EHT sales considered by the Commission and actual sales in this category. HPSEBL has submitted that the actual losses at HT/EHT level are very low as compared to LT loss level. Therefore, the decrease in percentage share of HT/EHT sales has resulted in increased overall T&D losses.

3.3 Power Purchase Cost

Purchase from HPSEBL's Own Stations

3.3.1 HPSBEL has submitted that the actual availability of power from owned generating stations for FY13 was only 1707.65 MUs as compared to the approved 2041.12 MUs. Further, the Petitioner has not considered any cost of power purchase from its own station as actual O&M, Depreciation, Interest Expenses and Return on Equity have been shown for HPSEB Limited as a whole on consolidated basis.

3.3.2 The actual power purchase quantum and cost from own generating stations submitted by the Petitioner is provided in table below:

Table 4: Power Purchase from Own Generating Stations in FY13 (MU)

Stations	Quantum (MU)	Per Unit Cost	Cost (Rs. Cr.)
Chaba	7.64	-	-
Chamba	0.54	-	-
Nogli	5.86	-	-
Bassi	246.04	-	-
Giri	196.01	-	-
Rukti	0.53	-	-
Binwa	29.40	-	-
Rongtong	1.48	-	-
Andhra	64.98	-	-
Bhaba	363.62	-	-

Stations	Quantum (MU)	Per Unit Cost	Cost (Rs. Cr.)
Killar	0.28	-	-
Throit	13.16	-	-
Sal-II	3.55	-	-
Gumma	3.57	-	-
Holi	9.54	-	-
Gaj	34.39	-	-
Baner	38.02	-	-
Ghanvi	64.61	-	-
Khauli	41.35	-	-
Larji	572.67	-	-
Bhabha Aug	10.42	-	-
Ghanvi II	-	-	-
Uhl III	-	-	-
Total	**1,707.65**	**-**	**-**

3.3.3 The table below summarizes the actual power purchase quantum and cost from various sources during FY13 as submitted by the Petitioner.

Table 5: HPSEBL Submission - Power Purchase Quantum and Cost (MU)

Stations	Quantum MU	Per Unit Rate Paisa/ Unit	Cost Rs. Cr
BBMB Stations			
BBMB Old	43.80	78	3.42
BBMB New	318.39	51	16.29
Dehar	180.90	72	12.96
Pong	53.52	31	1.66
Sub Total	**596.61**	**58**	**34.32**
NTPC Stations			
Anta(LNG)	3.21	895	2.88
Anta(G)	73.86	419	30.96
Anta (L)	0.01	1,048	0.01
Auraiya(LNG)	4.68	1,016	4.75
Auraiya(G)	65.47	440	28.82
Auraiya(L)	0.05	1,180	0.06
Dadri(LNG)	4.68	1,019	4.77
Dadri(G)	106.89	418	44.66
Dadri(L)	0.03	918	0.03
Unchahar-I	56.29	336	18.92
Unchahar-II	107.08	357	38.22
Unchahar-III	68.28	385	26.32

Stations	Quantum MU	Per Unit Rate Paisa/ Unit	Cost Rs. Cr
Rihand-1 STPS	270.88	195	52.90
Rihand-2 STPS	315.21	202	63.60
Kehalgaon	134.34	331	44.44
Singrauli	124.07	146	18.07
Dadri II TPS	53.87	448	24.14
Jhajjar STPS	32.91	519	17.09
Rihand-3 STPS	36.93	327	12.09
Sub Total	**1,458.73**	**297**	**432.72**
NHPC Stations			
Chamera-I	70.49	162	11.43
Chamera-II	64.12	304	19.52
Salal	32.45	137	4.46
Tanakpur	14.44	241	3.48
Uri	80.29	187	14.98
Dhauli Ganga	46.55	317	14.75
Dulhasti	15.41	665	10.25
Sewa	4.97	461	2.29
Chamera-III	24.57	479	11.78
Sub Total	**353.30**	**263**	**92.93**
Other Stations			
NAPP	91.49	248	22.65
RAPP	151.47	342	51.83
Nathpa Jhakri SoR	192.94	297	57.39
Shanan	5.26	40	0.21
Shanan Extn.	45.00	21	0.93
Yamuna (UJVNL)	438.13	60	26.22
Khara	71.90	37	2.66
Baspa –II	983.48	302	297.47
Baspa II Sec Energy	95.87	297	28.47
Tehri I	104.50	488	51.03
Koteshwar	35.73	436	15.59
Sub Total	**2,215.77**	**250**	**554.45**
Free Power & Equity Power			
Baira Suil	41.11	290	11.92
Chamera-I	114.37	290	33.17
Chamera –II	144.55	290	41.92
Shanan Share	2.63	290	0.76
Ranjeet Sagar Dam	62.49	290	18.12
Malana	49.40	290	14.33

Stations	Quantum MU	Per Unit Rate Paisa/ Unit	Cost Rs. Cr
Baspa – II	147.18	290	42.68
Nathpa Jhakri	386.46	290	112.07
Nathpa Jhakri Equity	-	-	-
Karcham Wangtoo	77.35	290	22.43
Private Micros (Up to 5 MW)	1.54	290	0.45
Private Micros (Above 5 MW)	32.05	290	9.29
Ghanvi	8.81	290	2.56
Baner	5.18	290	1.50
Gaj	4.69	290	1.36
Larji	78.09	290	22.65
Khauli	5.64	290	1.64
AD Hydro	15.92	290	4.62
Chamera - III	25.08	290	7.27
Parvati III	1.79	290	0.52
Malana II	3.15	290	0.91
Sub Total	**1,207.48**	**290**	**350.17**
Private Micros Stations			
Above 5 MW	135.92	249	33.86
Upto 5 MW (Pref. Tariff)	769.81	279	215.15
Upto 25 MW (REC Tariff)	117.32	220	25.81
Sub Total	**1,023.05**	**269**	**274.82**
Banking, Market and Bilateral Purchase & UI			
Banking	1,170.46	-	-
Bilateral Purchase	0.02	472	0.01
PXI/IEX	61.89	331	20.48
UI Power	211.57	236	50.01
Sub Total	**1,443.94**	**49**	**70.50**
Other Charges			
PGCIL Charges			246.94
HPPTCL Charges			12.05
ULDC Charges (Including POSCO)			6.81
ST Open Access Charges			39.65
Other Charges (BBMB)			35.89
Baspa Arrears			106.01
CPSU Arrears			66.07
Other Arrears (BBMB)			34.14
Sub Total			**547.56**
Grand Total	**8,298.88**	**284.07**	**2,357.47**

3.3.4 The Petitioner has included an amount of Rs. 73.96 Cr. (which includes arrears of Rs 22.77 Cr.s) in the Other Charges and Arrears on account of amount payable to the GoHP for revenue neutral charges against purchase of power from BBMB in FY12 up to December 2011.

3.3.5 The gross and net power purchase quantum and cost as submitted by the HPSEBL is summarized below:

Table 6: HPSEBL Submission – Gross and Net Power Purchase Quantum and Cost (MU)

Particulars	Quantum (In MUs)	P.U. Cost	Amount (In Cr.s)
Gross Power Purchase	10006.54	236	2357.47
External Loss	215.23		
Net Power Purchase	**9791.31**	**241**	**2357.47**

3.4 Renewable Power Obligation (RPO)

3.4.1 The Petitioner has submitted the following compliance to the renewable power purchase obligation for FY13:

Table 7: HPSEBL Submission – Compliance to Renewable Power Obligation (MU)

Renewable Power Purchase Obligation Compliance	Requirement	FY13 Actual	Compliance
RPPO Actual Purchase - Non Solar (MUs)	836	1036	Yes
RPPO Actual Purchase - Solar (MUs)	21	0	No
RPPO Actual Purchase - Overall (MUs)	**857**	**1036**	**Yes**

3.4.2 HPSEBL has submitted that it has been successful in complying with the Overall as well as Non Solar obligation during FY13 but has not been able to meet the solar obligation due to very lower availability of solar power in the market.

3.4.3 The Petitioner has submitted that the Commission had allowed meeting the shortfall in solar RPOs for FY12 and FY13 during the FY16 and FY17, respectively, in its Order dated 29th July 2013 in the Suo-Moto Case No. 93(A)/2013.

3.5 Employee Cost

3.5.1 The Petitioner has proposed actual employee cost of Rs. 1488.78 Cr. for the FY13 as against the approved employee expenses of Rs. 871.78 Cr. (excluding 6th Pay Commission Arrears).

3.5.2 The Petitioner has submitted the following reasons for the increase in employee cost:

a. In the MYT Order, Commission has approved the consolidated Employees cost for the Control Period based on the CPI and WPI. Further, Commission has not considered the DA as external factor /uncontrollable factor and has applied an escalation rate for approving the employees cost. The State Government has allowed two instalments of DA increase, with increase of 7% and 7% effective in January and July. HPSEBL has therefore allowed DA increase at the same rate to its employees as the increases in pay & allowances to its existing employees as per the State Government notification.

b. The revision in salaries and other incentives are kept at par with the other departments of Government of HP and HPSEBL is bound to follow the same.

3.5.3 HPSEBL has requested the Commission to consider salaries/employee cost as uncontrollable factor considering factors like DA/Basic hike through Government, revision through Pay Commission etc. and allow the increase and any deviation in the employee expense.

3.5.4 The employee cost submitted by the Petitioner for true-up for FY13 is summarized in table below:

Table 8: HPSEBL Submission – Employee Cost for FY13 (Rs. Cr.)

Particulars	Amount (Rs. Cr)
Salaries & Allowances	
Salaries (Basic) + Dearness Pay	340.87
Grade pay	81.84
DA	268.81
Employee Arrears - 5th Pay Commission	**64.19**
Other Allowances	34.77
Overtime	3.88
Bonus	0.03
Salaries - Total	**794.40**
Other Staff Cost	
Medical Expense Reimbursement	10.16
Fee & Honorarium	0.02
Earned Leave Encashment	88.15
Leave Salary Contribution	0.00
Payment under Workmen's Compensation	1.04

LTC	0.18
Staff Welfare Expenses/ employee contribution towards CPS	2.25
Other Staff Cost - Total	**101.80**
Terminal Benefits	
Pension - Base	505.88
Pension - 5th Pay Commission Arrears	86.70
Terminal Benefits - Total	**592.58**
Gross Employee Cost	**1,488.78**
Less : Employee Cost Capitalization	49.71
Net Employee Cost	**1,439.07**

3.6 Administrative and General Expense

3.6.1 The Petitioner has submitted actual A&G expense of Rs. 42.70 Cr. (inclusive of 0.14 Cr.s of Public Interaction Program) for the FY13 vis-à-vis approved A&G expenses of Rs. 33.11 Cr. as detailed in table below:

Table 9: HPSEBL Submission – A&G Expense for FY13 (Rs. Cr.)

Particulars	Amount (Rs. Cr.)
Administration Charges	
Rent, Rates & Taxes	0.81
Telephone, Postage & Telegrams	2.63
Consultancy Charges	0.73
Conveyance & Travel	15.77
Regulatory Expenses	1.20
Income Tax Updating Charges	0.03
Consumer Redressal Forum	0.05
Insurance	0.13
Administration Charges - Total	**21.35**
Other Charges	
Fees & Subscriptions, Books & Periodicals	0.28
Printing & Stationery	0.77
Advertisement Expenses	0.37
Electricity Charges	3.19
Water Charges / Cold weather expenses	0.30
Miscellaneous Expenses	0.54
Legal Charges	0.74
Audit Fee	0.05
Freight Material related Expenses	2.70
Entertainment Charges	0.20
Training to Staff	0.11
Public Interaction Program	0.14

Public Expenses / Other professional charges	3.06
GIS / GPS expenses related to High level Committee	0.86
Cost Free Bulb to DIS Consumers	10.91
A&G - Total	**45.55**
Less: Capitalization	2.85
Net A&G Costs	**42.70**

3.7 Repair and Maintenance Expenses

3.7.1 The Petitioner has claimed actual R&M expense of Rs. 56.82 Cr. against approved R&M expense of Rs. 32.83 Cr. as summarized in table below:

Table 10: HPSEBL Submission – R&M Expense for FY13 (Rs. Cr.)

Particulars	Amount (Rs. Cr.)
Plant & Machinery	3.38
Buildings	0.72
Civil Works	0.49
Hydraulic Works	0.35
Lines, Cables Networks	36.37
Vehicles	2.06
Furniture's & Fixtures	0.01
Office Equipments	0.08
R&M Cost - Total	**56.82**
Any other Items (Reallocated to Capital Works)	0.00
R&M Costs after Capitalization	**56.82**

3.8 O&M Expenses

3.8.1 The Petitioner has submitted total O&M expense of Rs. 1538.58 Cr. for true-up for FY13 as summarized in table below:

Table 11: HPSEBL Submission – R&M Expense for FY13 (Rs. Cr.)

Particulars	Amount (Rs. Cr.)
Employee Expenses	1,439.07
Administrative and General Expenses	56.82
Repair & Maintenance Expenses	42.70
Total O & M Expenses	**1,538.58**

3.9 Interest Cost

3.9.1 The Petitioner has submitted actual interest costs for FY13 as Rs 385.71 Cr. as against Commission approved interest cost of Rs 141.16 Cr.s (after capitalization).

3.9.2 The following reasons have been stated by the Petitioner for the increase in interest expense:

a. Interest on investments made by HPSEBL in commissioning and up-gradation of generation units, transmission & distribution systems improvement and metering

b. Interest has already been agreed while availing the loan and this cannot be avoided unless the financing body agrees to revise/ reduce the rate of interest

c. Increase in interest on working capital due to increase in short-term interest rates as well as increase in the actual power purchase cost during FY13

d. Higher interest amount of Rs 15.03 Cr. on account of interest on Consumer Security Deposit as against Rs 7.58 Cr. allowed by the Commission for FY13

3.9.3 The details of interest expense submitted by the Petitioner for true-up of FY13 are summarized in table below:

Table 12: HPSEBL Submission – Interest Expense for FY13 (Rs. Cr.)

Particulars	Amount (Rs. Cr.)
RGGVY	
LIC	13.72
REC	83.81
PFC	53.70
Bank Loans	72.60
Interest on State Govt. Loan	1.54
Non SLR Bonds	13.64
Other Negotiated Loan	80.62
Interest on GPF & CPF	1.48
Cost of Raising Finances	0.12
Other Charges	2.81
Interest on Consumer Security Deposits	15.03
Rebate allowed for Timely Payment	0.01
Interest on WC Borrowing & Other Charges	121.63
Total Interest & Finance Charges	**460.71**

Less: Interest Capitalization	75.00
Net Interest & Financing Costs	**385.71**

3.10 Non-Tariff Income

3.10.1 The details of non-tariff income submitted by the Petitioner for true-up of FY13 are summarized in table below:

Table 13: HPSEBL Submission – Non-Tariff Income for FY13 (Rs. Cr.)

Particulars	Amount (Rs. Cr.)
a) Meter Rent/Service Line Rentals	41.41
b) Recovery for theft of Power / Malpractices	35.23
c) Wheeling Charges Recovery	81.29
d) Miscellaneous Charges from Consumers	5.59
Non Tariff Income - Total	**163.52**
Other Income	
a) Interest on Staff loans & Advances	0.52
b) Income from Investments	18.24
c) Interest on Loans & Advances to Licensees	0.00
d) Delayed Payment Charges from Consumers	29.87
e) Interest on Advances to Suppliers / Contractors	0.27
f) Interest on Banks (other than on Fixed Deposits)	0.00
g) Income from Trading	1.65
h) Income fee collected against Staff Welfare Activities	0.09
i) Miscellaneous Receipts	77.06
Other Income - Total	**127.70**
Total Non Tariff Income & Other Income	**291.22**

3.10.2 With regards to LPSC charges, HPSEBL has submitted that the same should not be included as non-tariff income as LPSC compensate for the additional interest cost that is incurred by the utility on additional working capital requirement due to non-payment of consumer dues on time.

3.11 True up of Annual Revenue Requirement for FY13

3.11.1 The table below summarizes HPSEBL's Annual Revenue Requirement for FY13 as per the true-up petition:

Table 14: HPSEBL Submission – ARR for FY13 (Rs. Cr.)

Particulars	FY 12-13		
	Approved	Actuals	Difference
Costs			
Power Purchase Cost (including PGCIL Charges)	2354.95	2357.47	2.52
O&M Expenses - Distribution	851.33	1538.58	412.63
Impact of review order – Arrear payout in FY13	189.00		
O&M Expenses - Generation	85.62		
Interest Cost - Distribution	92.47	385.71	244.55
Interest Cost - Generation	48.69		
Depreciation - Distribution	97.11	209.12	22.43
Depreciation - Generation	89.58		
Total Costs	**3808.75**	**4490.87**	**682.12**
Add: Return on Equity - Distribution	30.24	159.63	92.27
Add: Return on Equity - Generation	37.12		
Less: Non-Tariff Income	349.00	291.22	(57.78)
Add: Other Adjustments	141.89		
Add: Total Amount to be trued up due to True up of First MYT Control Period	486.70		
Annual Revenue Requirement	**4155.70**	**4359.28**	**203.58**

3.12 Revenue from Sale of Power

3.12.1 Based on the provisional accounts for FY13, the revenue generated from the sale of power within the state as submitted by the Petitioner is provided in the table below:

Table 15: HPSEBL Submission – Revenue from Sale of Power within State for FY13 (Rs. Cr.)

Consumer Category	Amount
Domestic	551
Commercial	218
Small Supply	28
Medium Supply	80
Large Supply	2011
Agriculture/Irrigation	25
Public Lighting	8
Bulk and Grid Supply	98
Common Pool	0
NDNC	65
Other (Water Works and Sewerage)	254
Temporary Metered Supply	16
Total Revenue	**3353**

3.12.2 Based on the provisional accounts for FY13, the revenue generated from the sale of power outside the state is provided in table below:

Table 16: HPSEBL Submission – Revenue from Sale of Power outside State for FY13

Consumer Category	Units (MU)	Amount (Rs. Cr.)	Rate (Paisa per unit)
Banking Sale	876.8	0	0
PSEB-BP (11 KV Shanan Bassi)	0.4	0.2	430
I E X	173.9	53.5	307
PXIL	3.3	1.6	496
UI HPSEB (Receivable)	117.0	60.7	519
Sale of RE Power to PSPCL	257.3	104.7	407
Other Income		7.3	
Total	**1428.7**	**228.0**	**160**

3.12.3 HPSEBL has prayed to the Commission to approve the True up gap of Rs 778.05 Cr. for FY13 as detailed in table below:

Table 17: HPSEBL Submission – Revenue Gap for FY13 (Rs. Cr.)

Consumer Category	Approved	Actual	Difference
Annual Revenue Requirement	**4155.70**	**4359.28**	**203.58**
Covered by			
Revenue @ Existing Tariff	3,459.98	3,353.24	(106.74)
Revenue from Sale Outside State	374.92	227.99	(146.93)
Total Revenue	**3,834.90**	**3,581.23**	**(253.67)**
Revenue Gap / (Surplus)	**320.80**	**778.05**	**457.25**

4 Summary of the ARR petition for the Control Period

4.1 Introduction

4.1.1 This chapter summarizes the highlights of the Petition filed by the HPSEBL for determination of the Aggregate Revenue Requirement (ARR) and determination of Distribution and Retail Supply Tariff for the third MYT Control Period (FY15 to FY19).

4.1.2 The HPSEBL filed the application for approval of ARR and determination of Wheeling and Retail Supply Tariff as well as ARR and Generation Tariff for the Third Control Period (FY15 to FY19), with the Commission on 30th November, 2010. On initial scrutiny, the Commission observed that the MYT Petition filed by the Petitioner was incomplete and did not contain necessary information required for processing of the Petition. Therefore, the Petitioner was advised to submit a revised MYT Petition for the distribution business separately. The HPSEBL submitted further a revised MYT Petition for the Third Control Period on 20th February, 2014 as per the direction of the Commission.

4.1.3 The Petitioner has proposed projections for the Control Period as per the HPERC (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2011 read with HPERC (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) (First Amendment) Regulation, 2012 and HPERC (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) (Second Amendment) Regulation, 2013 herein after referred to as “HPERC MYT Distribution Regulation” and considering the actual expense for past years and estimates for the base year i.e. FY14.

4.2 Sales Projections

Projections for Connected Load

4.2.1 The Petitioner has projected the connected load by applying the category-wise Compounded Annual Growth Rate (CAGR) after considering the 5 year CAGRs for the past years. The break-up of the category wise connected load and the CAGR growth rates for the 5 years is shown in the table below:

Table 18: Historical Category-wise Connected Load (in MW)

Consumer Category (MW)	FY 8	FY 9	FY 10	FY 11	FY 12	FY 13	5 Year CAGR
	Actual	Actual	Actual	Actual	Actual	Actual	
Domestic (Including Antodaya)	2083	2169	2260	2381	2497	2637	4.83%
Non Domestic Non Commercial	95	99	107	112	122	134	7.18%
Commercial	436	457	483	505	528	556	4.95%
Temporary	19	21	23	22	24	25	5.82%
Small & Medium Industrial Power Supply	307	329	352	359	361	368	3.66%
Large Industrial Power Supply	838	957	1139	1295	1347	1422	11.16%
LT/HT	*603*	*808*	*900*	*917*	*935*	*995*	10.53%
EHT	*235*	*149*	*239*	*377*	*412*	*427*	12.71%
Govt., Irrigation & Water Supply	194	198	215	226	239	259	5.89%
Public Lighting	3	3	3	6	6	6	11.24%
Agricultural	66	63	67	69	72	79	3.47%
Bulk Supply	89	95	109	107	116	125	7.04%
Total	**4132**	**4392**	**4758**	**5080**	**5312**	**5610**	**6.31%**

4.2.2 Based on the actual available data for FY13 and the CAGRs as shown in above table, HPSEBL projected the sanctioned load for various categories which is shown in the following table:

Table 19: Projections of Sanctioned Load for Third Control Period (in MW)

Consumer Category (MW)	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19
	RE	Proj.	Proj.	Proj.	Proj.	Proj.
Domestic (Including Antodaya)	2764	2898	3038	3184	3338	3499
Non Domestic Non Commercial	144	154	165	177	190	204
Commercial	583	612	642	674	707	743
Temporary	27	28	30	32	34	36
Small & Medium Industrial Power Supply	381	395	410	425	440	456
Large Industrial Power Supply	1581	1758	1955	2174	2418	2690
LT/HT	*1100*	*1216*	*1344*	*1486*	*1642*	*1815*
EHT	*481*	*542*	*611*	*689*	*776*	*875*
Govt., Irrigation & Water Supply	274	290	307	325	344	365
Public Lighting	6	7	8	9	10	11

Agricultural	81	84	87	90	93	96
Bulk Supply	134	143	153	164	176	188
Total	**5976**	**6370**	**6795**	**7255**	**7750**	**8287**

Projections for No. of Consumers

4.2.3 The Break-up of the category-wise number of consumers and the CAGR growth rates for 5 years are as follows:

Table 20: Historical Category-wise No. of Consumers

Consumer Category	FY 8	FY 9	FY 10	FY 11	FY 12	FY 13	5 year CAGR
	Actual	Actual	Actual	Actual	Actual	Actual	
Domestic (Including Antodaya)	1565173	1591315	1625869	1670476	1719673	1767611	2.5%
Non Domestic Non Commercial	15516	16475	17436	18278	19312	22120	7.3%
Commercial	208568	212102	216688	222936	226911	232723	2.2%
Temporary	2162	2602	3181	3380	3728	4358	15.0%
Small & Medium Industrial Power Supply	32288	32147	32736	32591	32715	32782	0.3%
Large Industrial Power Supply	1114	1253	1446	1580	1651	1717	9.0%
LT/HT	*1096*	*1235*	*1428*	*1557*	*1626*	*1689*	9.0%
EHT	*18*	*18*	*18*	*23*	*25*	*28*	9.2%
Govt., Irrigation & Water Supply	3560	3917	4193	4483	4790	5197	7.9%
Public Lighting	592	598	641	702	756	889	8.5%
Agricultural	12561	13732	15204	16811	18190	19946	9.7%
Bulk Supply	161	173	295	325	244	261	10.1%
Total	**1841695**	**1874314**	**1917689**	**1971562**	**2027970**	**2087604**	**2.5%**

4.2.4 Based on the actual available data for FY13 and the CAGRs as shown in above table, HPSEBL has projected the no. of consumers for various categories which is shown in the following table:

Table 21: Projections of No. of Consumers for Third Control Period

Consumer Category	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19
	RE	Proj.	Proj.	Proj.	Proj.	Proj.
Domestic (Including Antodaya)	1811138	1855737	1901434	1948256	1996232	2045389
Non Domestic Non Commercial	23746	25491	27365	29376	31535	33853
Commercial	237880	243151	248539	254046	259675	265430
Temporary	4794	5273	5800	6381	7019	7720
Small & Medium Industrial Power Supply	32882	32982	33082	33183	33284	33385
Large Industrial Power Supply	1807	1898	1993	2092	2197	2307
LT/HT	*1773*	*1862*	*1955*	*2053*	*2156*	*2263*

Consumer Category	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19
	RE	Proj.	Proj.	Proj.	Proj.	Proj.
EHT	*34*	*36*	*37*	*39*	*41*	*43*
Govt., Irrigation & Water Supply	5605	6046	6521	7034	7587	8183
Public Lighting	964	1046	1135	1231	1335	1448
Agricultural	21879	23999	26324	28875	31673	34742
Bulk Supply	287	317	349	384	423	466
Total	**2140983**	**2195939**	**2252542**	**2310858**	**2370959**	**2432922**

4.2.5 The Petitioner has submitted that in the case of Temporary consumers, instead of the historical CAGR of 15%, a conservative 10% growth has been assumed. For large Industrial Power supply consumers a conservative growth rate of 5% in number of consumers has been considered by the Petitioner. The Petitioner has shifted mushroom growers from the category of Small & Medium Industrial Power Supply to Agricultural category.

Sales projections

4.2.6 The Petitioner has considered the actual category wise sales from April'13 to September'13 to estimate the sales in each category for FY14. The Petitioner has analysed the past growth rates in energy sold to each consumer category for the purpose of projection of sales.

4.2.7 Considering the 3 & 5 year CAGRs for the past years, current economic environment and the sustainability of high historical growth rate in certain categories, the CAGR considered by the Petitioner for the future projections are as follows:

Table 22: CAGR for past years

Consumer Category	CAGR	CAGR	CAGR
	Considered for projections	3 years	5 years
Domestic (Including Antodaya)	8.00%	13.32%	8.87%
Non Domestic Non Commercial	6.00%	5.92%	6.67%
Commercial	7.00%	10.17%	10.49%
Temporary	2.05%	-1.45%	2.05%
Small & Medium Industrial Power Supply	3.57%	5.51%	3.57%
Small Industrial Power Supply	2.00%	3.17%	-0.05%
Medium Industrial Power Supply	5.34%	6.56%	5.34%
Large Industrial Power Supply	0.00%	6.85%	7.35%
LT/HT	3.50%	6.96%	6.87%
EHT	6.00%	6.70%	7.96%
Govt., Irrigation & Water Supply	5.00%	3.05%	6.27%
Public Lighting	2.00%	3.53%	1.98%

Agricultural	8.00%	8.38%	11.83%
Bulk Supply	2.00%	-8.10%	2.99%

4.2.8 Accordingly, the yearly projected sales projected by the Petitioner for various categories are shown in the table below:

Table 23: Sales Projections for Third Control Period (MUs)

Consumer Category	FY 14	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19
	Approved	RE	Proj	Proj	Proj	Proj	Proj
Domestic (Including Antodaya)	1756	1781	1923	2077	2243	2423	2616
Non Domestic Non Commercial	115	111	118	125	132	140	149
Commercial	448	428	458	490	524	561	600
Temporary	25	27	27	28	28	29	30
Small & Medium Industrial Power Supply	216	209	218	227	237	247	257
Small Industrial Power Supply		*62*	*63*	*64*	*65*	*67*	*68*
Medium Industrial Power Supply		*148*	*155*	*163*	*171*	*180*	*189*
Large Industrial Power Supply	4732	4286	4483	4689	4906	5133	5372
LT/HT		*2393*	*2480*	*2570*	*2664*	*2761*	*2862*
EHT		*1893*	*2003*	*2119*	*2242*	*2372*	*2510*
Govt., Irrigation & Water Supply	539	470	494	519	545	573	602
Public Lighting	14	13	14	14	14	15	15
Agricultural		47	50	54	58	62	67
Bulk Supply	163	158	162	166	170	175	179
Total	**8008**	**7529**	**7946**	**8388**	**8858**	**9356**	**9886**

4.3 Power Purchase

Power purchase from own generating stations

4.3.1 The Petitioner has projected the power purchase from own generating stations as has been considered in the generation petition being filed for the Third Control Period. The same is shown in the table below:

Table 24: Power Procurement (MUs) from Own Generating Stations

Stations		FY 13	FY 14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19
		Actual	RE	Proj.	Proj.	Proj.	Proj.	Proj.
1	Bhaba	363.6	537.3	540.0	540.0	540.0	540.0	540.0
2	Bassi	246.0	239.9	345.3	345.3	345.3	345.3	345.3
3	Giri	196.0	224.4	218.9	218.9	218.9	218.9	218.9
4	Andhra	65.0	80.9	86.4	86.4	86.4	86.4	86.4
5	Ghanvi	64.6	71.2	81.2	81.2	81.2	81.2	81.2
6	Baner	38.0	40.0	52.9	52.9	52.9	52.9	52.9

Stations		FY 13	FY 14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19
		Actual	RE	Proj.	Proj.	Proj.	Proj.	Proj.
7	Gaj	34.4	39.1	33.4	33.4	33.4	33.4	33.4
8	Larji	572.7	522.6	500.6	500.6	500.6	500.6	500.6
9	Khauli	41.3	40.1	39.8	39.8	39.8	39.8	39.8
10	Binwa	29.4	21.6	29.1	29.1	29.1	29.1	29.1
11	Thirot	13.2	15.7	17.6	17.6	17.6	17.6	17.6
12	Gumma	3.6	0.3	11.7	11.7	11.7	11.7	11.7
13	Holi	9.5	8.8	11.7	11.7	11.7	11.7	11.7
14	Bhaba Aug	10.4	4.4	17.6	17.6	17.6	17.6	17.6
15	Nogli	5.9	6.5	9.8	9.8	9.8	9.8	9.8
16	Rongtong	1.5	2.1	7.6	7.6	7.6	7.6	7.6
17	Sal-II	3.5	7.2	7.8	7.8	7.8	7.8	7.8
18	Chaba	7.6	5.0	7.6	7.6	7.6	7.6	7.6
19	Rukti	0.5	2.6	6.5	6.5	6.5	6.5	6.5
20	Chamba	0.5	1.7	1.8	1.8	1.8	1.8	1.8
21	Killar	0.3	0.6	1.2	1.2	1.2	1.2	1.2
22	Uhl III - BVPCL	0.0	0.0	0.0	343.1	343.1	343.1	343.1
23	Ghanvi II	0.0	0.0	45.8	45.8	45.8	45.8	45.8
Total		**1707.7**	**1871.8**	**2073.9**	**2417.0**	**2417.0**	**2417.0**	**2417.0**

4.3.2 HPSEBL has proposed availability of power from two new owned generating stations i.e. Uhl III and Ghanvi II during the Third Control Period.

Power purchase from other generating stations

4.3.3 The HPSEBL also procures a substantial quantum of power from various inter-state generators as well as procures free power from the Govt. of HP. The source wise projected power procurement is shown in the para below.

Power procurement from GoHP (Free power allocation of GoHP)

4.3.4 The Petitioner has submitted that HPSEBL shall not procure GoHP quota of free power from stations that are not directly connected to its network. Thus, going forward, GoHP quota of free power would only be procured from the following plants: - Shanan, Ranjeet Sagar Dam, Malana, Baspa, Ghanvi, Baner, Gaj, Larji, Khauli, Uhl III and Ghanvi II, along with the SHEP projects within the state.

4.3.5 The table below shows the projected power procurement from GoHP (Free power allocated from GoHP):

Table 25: Power Procurement from GoHP (Free Power Allocation of GoHP in MUs)

Stations	Plant capacity	Share	FY13	FY14	FY15	FY16	FY17	FY18	FY19
	MW	%	Actual	RE	Proj.	Proj.	Proj.	Proj.	Proj.
Baira Siul	180	12%	41.1	30.5	0.0	0.0	0.0	0.0	0.0
Chamera-I	540	12%	114.4	80.8	0.0	0.0	0.0	0.0	0.0
Chamera-II	300	12%	144.5	88.6	0.0	0.0	0.0	0.0	0.0
Chamera-III	231	12%	25.1	20.5	0.0	0.0	0.0	0.0	0.0
Shanan Share	0.5	Fixed	2.6	2.6	2.6	2.6	2.6	2.6	2.6
Ranjeet Sagar Dam Share	600	5%	62.5	75.8	69.4	69.4	69.4	69.4	69.4
Malana	86	15%	49.4	56.2	73.3	73.3	73.3	73.3	73.3
Baspa (Primary & Sec.)	300	12%	147.2	160.0	153.7	153.7	153.7	153.7	153.7
Nathpa Jhakri HEP	1500	12%	386.5	688.4	0.0	0.0	0.0	0.0	0.0
Ghanvi	22.5	12%	8.8	9.7	11.1	11.1	11.1	11.1	11.1
Baner	12	12%	5.2	5.5	7.2	7.2	7.2	7.2	7.2
Gaj	10.5	12%	4.7	5.3	4.6	4.6	4.6	4.6	4.6
Larji	126	12%	78.1	71.3	68.3	68.3	68.3	68.3	68.3
Khauli	12	12%	5.6	5.5	5.4	5.4	5.4	5.4	5.4
Budhil	70	12%	1.8	3.5	0.0	0.0	0.0	0.0	0.0
Allian Duhangan	192	12%	15.9	9.3	0.0	0.0	0.0	0.0	0.0
Kol Dam	800	12%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Parbati-II	800	12%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Parbati-III	520	12%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rampur project	412	12%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Karcham Wangtoo	1000	12%	77.4	80.2	0.0	0.0	0.0	0.0	0.0
Sawra Kuddu	111	12%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Uhl-III	100	13%	0.0	0.0	0.0	46.8	46.8	46.8	46.8
Ghanvi II	10	12%	0.0	0.0	6.2	6.2	6.2	6.2	6.2
Malana II	100	12%	3.1	3.9	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	0.0	0.0
Kashang IV	48	12%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sainj	100	12%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tidong	60	12%	0.0	0.0	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	0.0	0.0
Chirgaon Majgaon	42	12%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Renuka Dam	40	12%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHEP Allocated	Varies	Varies	33.6	41.5	39.7	43.2	46.6	50.1	53.5
Total			**1207.5**	**1439.2**	**441.5**	**491.8**	**495.2**	**498.7**	**502.1**

Power procurement from Central Generating stations and shared stations

4.3.6 **NTPC:** The Petitioner has projected the allocation of power to HPSEBL from the various NTPC plants along with the projections of power availability as shown in the following table:

Table 26: Power Purchase (MUs) from NPTC Stations

Stations	Plant capacity	Share	FY13	FY14	FY15	FY16	FY17	FY18	FY19
	MW	%	Actual	RE	Proj.	Proj.	Proj.	Proj.	Proj.
Anta (G)	419.33	3.58%	73.9	74.8	87.7	87.7	87.7	87.7	87.7
Anta (L)	419.33	3.58%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Anta (LNG)	419.33	3.58%	3.2	0.1	0.0	0.0	0.0	0.0	0.0
Auriya (G)	663.36	3.32%	65.5	74.5	122.4	122.4	122.4	122.4	122.4
Auriya (L)	663.36	3.32%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Auriya (LNG)	663.36	3.32%	4.7	0.2	0.0	0.0	0.0	0.0	0.0
Dadri (G)	829.78	3.01%	106.9	113.3	152.0	152.0	152.0	152.0	152.0
Dadri (L)	829.78	3.01%	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dadri (LNG)	829.78	3.01%	4.7	0.1	0.0	0.0	0.0	0.0	0.0
Unchahar-I	420	1.67%	56.3	43.4	51.9	51.9	51.9	51.9	51.9
Unchahar-II	420	2.86%	107.1	80.6	87.7	87.7	87.7	87.7	87.7
Unchahar-III	210	3.81%	68.3	49.2	58.5	58.5	58.5	58.5	58.5
Rihand-1 STPS	1000	3.50%	270.9	240.6	263.7	263.7	263.7	263.7	263.7
Rihand-2 STPS	1000	3.30%	315.2	220.1	260.8	260.8	260.8	260.8	260.8
Singrauli STPS	2000	0.00%	124.1	97.6	0.0	0.0	0.0	0.0	0.0
Kahalgaon - II	1500	1.53%	134.3	128.2	130.8	130.8	130.8	130.8	130.8
Rihand-3 Units-1,2	1000	3.37%	36.9	155.6	255.7	255.7	255.7	255.7	255.7
Dadri-II TPS	980	0.00%	53.9	42.2	0.0	0.0	0.0	0.0	0.0
Jhajjar TPS	1000	0.00%	32.9	29.5	0.0	0.0	0.0	0.0	0.0
Singrauli Solar	15	100.00%	0.0	0.0	99.5	132.6	132.6	132.6	132.6
Kol dam HEP	800	3.36%	0.0	0.0	50.9	100.3	100.3	100.3	100.3
North Karanpura	1980	1.53%	0.0	0.0	0.0	0.0	0.0	0.0	223.8
Meja	1320	1.44%	0.0	0.0	0.0	0.0	140.4	140.4	140.4
Lata Tapowan HEP	171	1.53%	0.0	0.0	0.0	0.0	0.0	10.2	10.2
Rupsia Bagar HEP	261	1.53%	0.0	0.0	0.0	0.0	14.7	14.7	14.7
Singrauli III	500	3.50%	0.0	0.0	0.0	0.0	0.0	0.0	129.3
Tanda II	1320	3.50%	0.0	0.0	0.0	0.0	0.0	0.0	341.3
Tapovan Vishnugarh HEP	520	1.53%	0.0	0.0	0.0	29.4	29.4	29.4	29.4
Gider Baha	2640	1.50%	0.0	0.0	0.0	0.0	0.0	307.9	307.9
Unchahar IV	500	2.00%	0.0	0.0	0.0	0.0	73.9	73.9	73.9
Bilhaur	660	3.00%	0.0	0.0	0.0	0.0	0.0	0.0	146.3
Total			**1459**	**1350**	**1622**	**1734**	**1963**	**2281**	**3121**

4.3.7 The projections for FY14 are based on the actual procurement till November, 2013 and estimated availability of the remaining 4 months based on the historical PLF observed for the thermal plants and design energy for the hydro based plants

4.3.8 The Petitioner has not considered any unallocated quantum from Singrauli, Dadri II and Jhajjar for the purpose of projection for the Third Control Period. The unallocated quantum has been projected separately and has been explained later in this chapter.

The Petitioner has also considered availability of power from number of new central generating stations during the Control Period.

4.3.9 **NPCIL:** The Petitioner has projected the allocation of power to HPSEBL from the various NPCIL plants along with the projections of power availability as shown in the table below:

Table 27: Power Purchase (MUs) from NPCIL Stations

Stations	Plant capacity	Share	FY13	FY14	FY15	FY16	FY17	FY18	FY19
	MW	%	Actual	RE	Proj.	Proj.	Proj.	Proj.	Proj.
NAPP	440	3.18%	91.5	89.9	74.0	74.0	74.0	74.0	74.0
RAPP (V & VI)	440	3.41%	151.5	155.2	135.1	135.1	135.1	135.1	135.1
RAPP (VII & VIII)	1400	1.90%	0.0	0.0	0.0	0.0	0.0	190.1	190.1
Total			**243.0**	**245.1**	**209.1**	**209.1**	**209.1**	**399.2**	**399.2**

4.3.10 RAPP (VII & VIII) is expected to get commissioned from FY18. The estimated generation available for HPSEBL has been calculated on the basis of the average availability of the other nuclear plants.

4.3.11 **NHPC:** The Petitioner has projected the availability of power to HPSEBL from the various NHPC plants based on the design energy. The projection of power availability from various NHPC stations as per the Petitioner submission is summarized in the table below:

Table 28: Power Purchase (MUs) from NHPC Stations

Stations	Plant capacity	Share	FY13	FY14	FY15	FY16	FY17	FY18	FY19
	MW	%	Actual	RE	Proj.	Proj.	Proj.	Proj.	Proj.
Salal	690	0.99%	32.4	30.2	30.2	30.2	30.2	30.2	30.2
Tanakpur	94.2	3.84%	14.4	14.2	14.8	14.8	14.8	14.8	14.8
Chamera I	540	2.90%	70.5	63.3	47.7	47.7	47.7	47.7	47.7
Chamera II	300	3.67%	64.1	61.1	54.4	54.4	54.4	54.4	54.4
Chamera III	231	3.36%	24.6	37.2	33.2	33.2	33.2	33.2	33.2
Uri	480	2.71%	80.3	67.6	69.3	69.3	69.3	69.3	69.3
Dhauliganga	280	3.57%	46.6	13.6	40.5	40.5	40.5	40.5	40.5
Dulhasti	380	UA	15.4	10.0	0.0	0.0	0.0	0.0	0.0
Sewa	120	UA	5.0	2.3	0.0	0.0	0.0	0.0	0.0
Parbati II	800	3.36%	0.0	0.0	0.0	0.0	86.3	86.3	86.3
Parbati III	520	3.36%	0.0	0.0	56.3	65.6	65.6	65.6	65.6
Kotli Behal	1045	2.47%	0.0	0.0	0.0	113.0	113.0	113.0	113.0
Total			**353.3**	**299.4**	**346.3**	**468.7**	**555.0**	**555.0**	**555.0**

UA - Unallocated

Note: Parbati III shall be partially commissioned initially. Full Operation shall be from Second Quarter of FY15

4.3.12 **THDC:** The Petitioner has projected the availability of power to HPSEBL from the THDC station based on the average generation for past three years and for Koteshwar based on the design energy. The projections of power availability during the Third Control Period from THDC and Koteshwar is shown in the table below:

Table 29: Power Purchase (MUs) from THDC Stations

Stations	Plant capacity	Share	FY13	FY14	FY15	FY16	FY17	FY18	FY19
	MW	%	Actual	RE	Proj.	Proj.	Proj.	Proj.	Proj.
Tehri	1000	2.80%	104.5	121.0	101.0	101.0	101.0	101.0	101.0
Koteshwar	400	2.51%	35.7	35.5	31.0	31.0	31.0	31.0	31.0
Total			**140.2**	**156.5**	**132.0**	**132.0**	**132.0**	**132.0**	**132.0**

4.3.13 **SJVN:** The Petitioner has projected availability of SOR and equity power from Nathpa Jhakri station based on the design energy. Further, power from Rampur and Luhri has been projected to be available from FY15 and FY19, respectively. HPSEBL's share of power from the various SJVN plants along with the projections of power availability as shown in the table below:

Table 30: Power Purchase (MUs) from SJVN and other plants

Stations	Plant capacity	Share	FY13	FY14	FY15	FY16	FY17	FY18	FY19
	MW	%	Actual	RE	Proj.	Proj.	Proj.	Proj.	Proj.
Nathpa Jhakri SOR	1500	2.47%	193	200	169	169	169	169	169
Nathpa Jhakri Equity	1500	22.00%	0	233	1505	1505	1505	1505	1505
Rampur	412	2.81%	0	0	58	58	58	58	58
Luhri	775	2.47%	0	0	0	0	0	0	84
Total			**193**	**432**	**1732**	**1732**	**1732**	**1732**	**1816**

4.3.14 **Shared stations:** The following table gives the projections for availability of power to HPSEBL from other shared generating stations:

Table 31: Power Purchase (MUs) from shared stations

Stations	Plant capacity	Share	FY13	FY14	FY15	FY16	FY17	FY18	FY19
	MW	%	Actual	RE	Proj.	Proj.	Proj.	Proj.	Proj.
BBMB Old	0	Fixed 1.2LU/day	43.8	43.9	43.9	43.9	43.9	43.9	43.9
BBMB New	1480	7.19%	318.4	411.3	326.3	326.3	326.3	326.3	326.3
Dehar	990	7.19%	180.9	199.4	187.1	187.1	187.1	187.1	187.1
Pong	396	7.19%	53.5	54.4	46.4	46.4	46.4	46.4	46.4
Shanan	60	Fixed 1MW	5.3	5.2	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	45.0	45.0
Yamuna	474.7	24.68%	438.1	450.2	387.8	387.8	387.8	387.8	387.8
Khara	72	20.00%	71.9	53.0	56.6	56.6	56.6	56.6	56.6

Total			**1156.9**	**1262.4**	**1098.2**	**1098.2**	**1098.2**	**1098.2**	**1098.2**

4.3.15 **Unallocated power from other sources:** The Petitioner has projected the power procurement from various central generating stations during the winters to meet the shortfall. The power purchase projected from other sources is summarized in the table below:

Table 32: Power Purchase (MUs) from other sources

Stations	FY13	FY14	FY15	FY16	FY17	FY18	FY19
	Actual	**RE**	**Proj.**	**Proj.**	**Proj.**	**Proj.**	**Proj.**
Unallocated share from CGS	0.0	0.0	350.0	350.0	350.0	350.0	350.0
UI	212	163	0	0	0	0	0
Banking availed at gen bus	1170	1214	1200	1200	1200	1200	1200
Contingency Power purchase at periphery	61.9	85.2	24.1	79.6	155.8	136.2	35.4
Total	**1444**	**1462**	**1574**	**1630**	**1706**	**1686**	**1585**

Note: Unallocated Allocation for winter month to HPSEBL is already included in actual power purchase of FY13 and RE of FY14

4.3.16 **Other stations:** The Petitioner has projected the power procurement from various small and micro hydro-electric projects that are operating in the state and the procurement from these private SHEPs is done at both PPA and REC prices. The following table shows the projections of power from these stations by the Petitioner:

Table 33: Power Purchase (MUs) from other stations

Stations	Share	FY13	FY14	FY15	FY16	FY17	FY18	FY19
	%	**Actual**	**RE**	**Proj.**	**Proj.**	**Proj.**	**Proj.**	**Proj.**
Small HEP/ Private Micro		906	1052	1152	1252	1352	1452	1552
Small HEP/ Private Micro – REC		117	141	107	117	126	135	145
Baspa - II	88.00%	1079	1207	1127	1127	1127	1127	1127
Additional Solar Power			21.7	3.7	0.0	18.3	27.9	58.8
Total		**2102.4**	**2422.1**	**2390.9**	**2496.4**	**2624.0**	**2742.9**	**2883.2**

4.3.17 The Petitioner has projected an annual increase of 100 MUs from the Small HEP / Private Micro plant keeping in view the growing interest of private players to set up small hydro generating plants in the State.

4.3.18 The energy purchased from Baspa-II is projected under two heads - primary (based on the 88% allocation) and secondary (share of additional energy generated). The secondary share has been on an average 154 MUs for the past three years. However, for the projections only 50% of the same has been considered, along with 1050 MUs of primary energy.

4.3.19 The Petitioner has submitted that it has abundant procurement of non-solar renewable power to meet its RPO obligations. In case of solar RPO obligations, it is expected that HPSEBL shall procure additional solar power from other stations apart from Singrauli to meet its RPO obligations.

4.3.20 The summary table on power procurement proposed by the Petitioner for the Third Control Period is shown below:

Table 34: Overall Power Purchase (MUs)

Stations/ Sources	FY13	FY14	FY15	FY16	FY17	FY18	FY19
	Actual	RE	Proj.	Proj.	Proj.	Proj.	Proj.
Own generation	1707.7	1871.8	2073.9	2417.0	2417.0	2417.0	2417.0
Free power	1207.5	1439.2	441.5	491.8	495.2	498.7	502.1
NTPC	1458.7	1349.9	1621.8	1733.6	1962.6	2280.7	3121.4
NPCIL	243.0	245.1	209.1	209.1	209.1	399.2	399.2
NHPC	353.3	299.4	346.3	468.7	555.0	555.0	555.0
THDC	140.2	156.5	132.0	132.0	132.0	132.0	132.0
SJVN Stations	192.9	432.3	1731.8	1731.8	1731.8	1731.8	1815.6
Other sources (Unallocated Power)	1444	1462	1574	1630	1706	1686	1585
Shared Stations	1156.9	1262.4	1098.2	1098.2	1098.2	1098.2	1098.2
Other Stations	2102.4	2422.1	2390.9	2496.4	2624.0	2742.9	2883.2
Total	**10006.5**	**10941.0**	**11619.6**	**12408.2**	**12930.7**	**13541.6**	**14509.0**

4.4 Transmission and Distribution (T&D) Losses

4.4.1 The T&D loss trajectory proposed by the Petitioner for Third Control Period is shown in the table below:

Table 35: Proposed T&D Loss Trajectory for Third Control Period

Particulars	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19
T&D Losses	13.30 %	13.00%	12.75%	12.50%	12.25%	12.00%
Loss reduction		0.30%	0.25%	0.25%	0.25%	0.25%

4.4.2 The Petitioner has submitted that the actual loss level achieved in FY13 was 13.62% and the same is expected to be 13.30 % in FY14. The Petitioner has state the reason for higher than approved losses on account of growth rates of domestic and agricultural segment being highest across the categories followed by the commercial segment in past 3 years.

4.4.3 Further, the Petitioner has requested for approval of T&D loss level at a realistic level keeping in view the following factors:

a. Inherent disadvantage of the State due to scattered population, difficult terrain, low load density and long sub-transmission & distribution lines.

b. Other utilities have advantage of underground cabling, which is not realistic in the case in HP.

4.5 Energy Balance

4.5.1 The Petitioner has submitted the monthly energy balance for Third Control Period. The annual summary of the energy balance as proposed by the Petitioner is shown in the table below:

Table 36: Annual Summary of Energy Balance

MUs	FY 13	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19
Power Procurement							
Own sources	10007	10941	11620	12408	12931	13542	14509
Others - Interstate, Banking, etc	7078	7630	8116	8350	8665	9173	10098
Transmission losses	215	249	269	276	286	304	334
Total availability at HPSEBL periphery	**9791**	**10692**	**11350**	**12132**	**12644**	**13238**	**14175**
Sales - within the state	7224	7529	7946	8388	8858	9356	9886
T&D losses	13.62%	13.29%	13.00%	12.75%	12.5%	12.25%	12.00%
Power required at HPSEBL periphery for intra state sales	**8363**	**8683**	**9133**	**9614**	**10123**	**10663**	**11234**
Banking sale / return at discom periphery	877	1312	1542	1200	1200	1200	1200
Interstate sales at periphery	552	698	675	1318	1321	1376	1740
Total power required at HPSEBL periphery	**9791**	**10692**	**11350**	**12132**	**12644**	**13238**	**14175**

4.6 Power Purchase Cost

4.6.1 Some of the highlights of power purchase cost assumptions made by the HPSEBL are:

a. The Petitioner has projected the cost of power purchase from own generating stations as has been considered in the generation petition being filed for the Third Control Period. The Petitioner has considered the tariff for 8 plants as approved by the Commission in its order dated 15.01.2014 against Petition No.54/2013.

b. HPSEBL has considered an escalation of 8% for the thermal power plants of NTPC. For the hydro plants being planned by NTPC, no escalation factor has been considered for the Control Period, with the assumption that the tariffs during this time period of debt servicing would remain approximately constant. The tariff for hydro plants has been taken as 450 paise / unit, while that for upcoming thermal plants has been considered as 350 paise / unit based on the tariff of newly commissioned Rihand III plant in FY15.

c. The Petitioner has submitted that the power purchase rate approved by the Commission for procurement of free power during FY14 has been considered for projecting the power purchase cost of free power.

d. The Petitioner has submitted that the historical escalation factor for NHPC plants has also been around 9% from FY 2010 to FY 2013. For purpose of projections an escalation factor of 3% has been considered. For new upcoming plants no escalation has been considered for the Control Period and the cost the power has been taken as 450 paise / unit.

e. The Petitioner has considered an escalation of 5% in the tariff of THDC in view of the petition for tariff increase due to additional capitalization filed by the THDC.

f. For projections in the Control Period, the Petitioner has considered an escalation factor of 5% for BBMB and other plants. The power available from Khara has been considered at the UPERC approved rate of 37 paisa per unit.

g. The cost of contingency purchase has been considered equal to the overall cost of procurement of power from own and inter-state generation. An additional 10% premium has been kept on the cost as the procurement is going to be short term.

4.6.2 The tables below shows the Power purchase cost from various sources as proposed by the Petitioner:

Table 37: Total Power Purchase Cost from Own Generation (Rs. Cr.)

Stations	FY14	FY15	FY16	FY17	FY18	FY19
	RE	Proj.	Proj.	Proj.	Proj.	Proj.
Bhaba	27.7	34.1	41.4	45.4	51.4	54.0

Stations	FY14	FY15	FY16	FY17	FY18	FY19
	RE	Proj.	Proj.	Proj.	Proj.	Proj.
Bassi	32.4	34.2	36.4	37.3	38.3	39.2
Giri	21.5	23.4	25.6	32.7	55.1	58.8
Andhra	8.1	9.0	10.0	12.4	16.5	17.4
Ghanvi	12.0	18.3	18.3	18.3	18.3	18.3
Baner	8.4	9.1	9.8	10.4	11.1	11.7
Gaj	10.8	11.6	12.4	13.3	14.2	15.1
Larji	130.2	126.4	124.4	122.6	125.2	129.0
Khauli	15.0	17.7	9.0	9.0	9.0	9.0
Binwa	5.1	6.0	7.3	9.8	10.4	11.0
Thirot	6.2	4.0	4.0	4.0	4.0	4.0
Gumma	2.7	2.6	2.6	2.6	2.6	2.6
Holi	2.6	2.6	2.6	2.6	2.6	2.6
Bhaba Aug	3.9	4.0	4.0	4.0	4.0	4.0
Nogli	2.3	2.7	3.1	3.6	4.7	5.1
Rongtong	1.8	1.9	2.2	2.3	2.5	2.7
Sal-II	1.3	1.8	1.8	1.8	1.8	1.8
Chaba	1.9	2.2	2.8	3.1	3.3	3.6
Rukti	0.6	0.7	1.1	1.2	1.3	1.4
Chamba	0.4	0.4	0.4	0.5	0.5	0.5
Killar	0.4	0.3	0.3	0.3	0.3	0.3
Uhl III - BVPCL	0.0	0.0	154.4	154.4	154.4	154.4
Ghanvi II	0.0	16.0	15.1	13.9	13.2	12.6
Total	**295.3**	**328.7**	**488.9**	**505.2**	**544.4**	**559.0**

Note: In the case of Khauli HEP, the Hon' HPERC had approved a cost of Rs. 8.72 Cr. (including the carrying cost) as past ROE to be realized in the future. The same has been considered in its AFC for FY15

Table 38: Total Power Purchase Cost from free power of HP (Rs. Cr.)

Stations	FY14	FY15	FY16	FY17	FY18	FY19
	RE	Proj.	Proj.	Proj.	Proj.	Proj.
Baira Siul	8.9	0.0	0.0	0.0	0.0	0.0
Chamera-I	23.6	0.0	0.0	0.0	0.0	0.0
Chamera-II	25.9	0.0	0.0	0.0	0.0	0.0
Chamera-III	6.0	0.0	0.0	0.0	0.0	0.0
Shanan Share	0.8	0.8	0.8	0.8	0.8	0.8
Ranjeet Sagar Dam Share	22.1	20.3	20.3	20.3	20.3	20.3
Malana	16.4	21.4	21.4	21.4	21.4	21.4
Baspa (Primary & Sec.)	46.7	44.9	44.9	44.9	44.9	44.9
Nathpa Jhakri HEP	201.0	0.0	0.0	0.0	0.0	0.0
Ghanvi	2.8	3.2	3.2	3.2	3.2	3.2
Baner	1.6	2.1	2.1	2.1	2.1	2.1
Gaj	1.6	1.3	1.3	1.3	1.3	1.3
Larji	20.8	19.9	19.9	19.9	19.9	19.9
Khauli	1.6	1.6	1.6	1.6	1.6	1.6
Budhil	1.0	0.0	0.0	0.0	0.0	0.0
Allian Duhangan	2.7	0.0	0.0	0.0	0.0	0.0

Karcham Wangtoo	23.4	0.0	0.0	0.0	0.0	0.0
Uhl-III	0.0	0.0	13.7	13.7	13.7	13.7
Ghanvi II	0.0	1.8	1.8	1.8	1.8	1.8
Malana II	1.1	0.0	0.0	0.0	0.0	0.0
SHEP Allocated	12.1	11.6	12.6	13.6	14.6	15.6
Total	**420.2**	**128.9**	**143.6**	**144.6**	**145.6**	**146.6**

Table 39: Total Power Purchase Cost from NTPC Stations (Rs. Cr.)

Stations	FY14	FY15	FY16	FY17	FY18	FY19
	RE	**Proj.**	**Proj.**	**Proj.**	**Proj.**	**Proj.**
Anta (G)	33.9	42.9	46.3	50.0	54.0	58.4
Anta (L)	0.0	0.0	0.0	0.0	0.0	0.0
Anta (LNG)	0.1	0.0	0.0	0.0	0.0	0.0
Auriya (G)	35.4	62.8	67.9	73.3	79.2	85.5
Auriya (L)	0.0	0.0	0.0	0.0	0.0	0.0
Auriya (LNG)	0.2	0.0	0.0	0.0	0.0	0.0
Dadri (G)	51.1	74.1	80.0	86.4	93.3	100.8
Dadri (L)	0.0	0.0	0.0	0.0	0.0	0.0
Dadri (LNG)	0.1	0.0	0.0	0.0	0.0	0.0
Unchahar-I	15.8	20.4	22.0	23.7	25.6	27.7
Unchahar-II	31.1	36.5	39.5	42.6	46.0	49.7
Unchahar-III	20.5	26.3	28.4	30.7	33.2	35.8
Rihand-1 STPS	50.7	60.1	64.9	70.1	75.7	81.7
Rihand-2 STPS	48.0	61.4	66.3	71.6	77.3	83.5
Singrauli STPS	15.3	0.0	0.0	0.0	0.0	0.0
Kahalgaon - II	45.8	50.5	54.5	58.9	63.6	68.7
Rihand-3 Units-1,2	58.0	102.9	111.1	120.0	129.6	139.9
Dadri-II TPS	20.4	0.0	0.0	0.0	0.0	0.0
Jhajjar TPS	16.6	0.0	0.0	0.0	0.0	0.0
Singrauli Solar	0.0	44.8	62.6	65.8	69.1	72.5
Kol dam HEP	0.0	22.9	45.1	45.1	45.1	45.1
North Karanpura	0.0	0.0	0.0	0.0	0.0	106.6
Meja	0.0	0.0	0.0	57.3	61.9	66.9
Lata Tapowan HEP	0.0	0.0	0.0	0.0	4.6	4.6
Rupsia Bagar HEP	0.0	0.0	0.0	6.6	6.6	6.6
Singrauli III	0.0	0.0	0.0	0.0	0.0	61.6
Tanda II	0.0	0.0	0.0	0.0	0.0	162.5
Tapovan Vishnugarh HEP	0.0	0.0	13.2	13.2	13.2	13.2
Gider Baha	0.0	0.0	0.0	0.0	135.8	146.6
Unchahar IV	0.0	0.0	0.0	30.2	32.6	35.2
Bilhaur	0.0	0.0	0.0	0.0	0.0	69.6
Total	**442.8**	**605.5**	**701.8**	**845.5**	**1046.3**	**1522.7**

Table 40: Total Power Purchase Cost from NPCIL Stations (Rs. Cr.)

Stations	FY14	FY15	FY16	FY17	FY18	FY19
	RE	Proj.	Proj.	Proj.	Proj.	Proj.
NAPP	24.5	22.2	22.2	22.2	22.2	22.2
RAPP (V & VI)	58.4	56.0	56.0	56.0	56.0	56.0
RAPP (VII & VIII)	0.0	0.0	0.0	0.0	78.7	78.7
Total	**82.9**	**78.1**	**78.1**	**78.1**	**156.8**	**156.8**

Table 41: Total Power Purchase Cost from NHPC Stations (Rs. Cr.)

Stations	FY14	FY15	FY16	FY17	FY18	FY19
	RE	Proj.	Proj.	Proj.	Proj.	Proj.
Salal	4.3	4.4	4.5	4.7	4.8	5.0
Tanakpur	3.5	3.8	3.9	4.0	4.1	4.3
Chamera I	10.6	8.2	8.5	8.7	9.0	9.2
Chamera II	19.1	17.6	18.1	18.6	19.2	19.8
Chamera III	18.4	16.9	17.4	17.9	18.4	19.0
Uri	13.0	13.7	14.1	14.5	15.0	15.4
Dhauliganga	4.4	13.6	14.0	14.4	14.9	15.3
Dulhasti	6.8	0.0	0.0	0.0	0.0	0.0
Sewa	1.1	0.0	0.0	0.0	0.0	0.0
Parbati II	0.0	0.0	0.0	38.8	38.8	38.8
Parbati III	0.0	25.3	29.5	29.5	29.5	29.5
Kotli Behal	0.0	0.0	50.9	50.9	50.9	50.9
Total	**81.2**	**103.5**	**160.9**	**202.1**	**204.6**	**207.2**

Table 42: Total Power Purchase Cost from THDC Stations (Rs.Cr.)

Stations	FY14	FY15	FY16	FY17	FY18	FY19
	RE	Proj.	Proj.	Proj.	Proj.	Proj.
Tehri	62.0	54.4	57.1	60.0	63.0	66.1
Koteshwar	16.3	14.9	15.6	16.4	17.2	18.1
Total	**78.3**	**69.3**	**72.7**	**76.4**	**80.2**	**84.2**

Table 43: Total Power Purchase Cost from Other CGS and Shared Stations (Rs.Cr.)

Stations	FY14	FY15	FY16	FY17	FY18	FY19
	RE	Proj.	Proj.	Proj.	Proj.	Proj.
BBMB Old	3.8	4.1	4.6	5.0	5.5	6.0
BBMB New	22.1	18.4	19.3	20.3	21.3	22.4
Dehar	15.0	14.8	15.5	16.3	17.1	18.0
Pong	1.8	1.6	1.7	1.8	1.8	1.9
Shanan	0.2	0.2	0.2	0.3	0.3	0.3
Shanan Ext	1.0	1.0	1.1	1.1	1.2	1.2
Yamuna	28.8	28.6	30.6	32.8	35.1	37.5
Khara	3.8	4.2	4.3	4.4	4.6	4.7

Total	**76.5**	**73.0**	**77.3**	**81.9**	**86.8**	**92.0**

Table 44: Total Power Purchase Cost from SJVN (Rs. Cr.)

Stations	FY14	FY15	FY16	FY17	FY18	FY19
	RE	Proj.	Proj.	Proj.	Proj.	Proj.
Nathpa Jhakri SOR	60.6	52.3	53.3	54.4	55.5	56.6
Nathpa Jhakri Equity	70.6	465.8	475.1	484.6	494.3	504.2
Rampur	0.0	26.0	26.0	26.0	26.0	26.0
Luhri	0.0	0.0	0.0	0.0	0.0	37.7
Total	**131.2**	**544.1**	**554.4**	**565.0**	**575.8**	**624.5**

Table 45: Total Power Purchase Cost from other sources (Rs. Cr.)

Stations	FY14	FY15	FY16	FY17	FY18	FY19
	RE	Proj.	Proj.	Proj.	Proj.	Proj.
Unallocated share from CGS	0.0	124.4	131.8	139.7	148.2	157.3
UI	19.8	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	0.0
Contingency Power purchase at periphery	29.6	7.7	30.0	65.7	58.9	19.1
Total	**49.4**	**132.1**	**161.8**	**205.4**	**207.1**	**176.4**

Table 46: Other Stations (Rs. Cr.)

Stations	FY14	FY15	FY16	FY17	FY18	FY19
	RE	Proj.	Proj.	Proj.	Proj.	Proj.
Small HEP/ Private Micro	342.0	374.5	407.0	439.5	472.0	504.5
Small HEP/ Private Micro – REC	30.7	24.5	27.9	31.7	35.7	40.1
Baspa - II	364.4	340.4	340.4	340.4	340.4	340.4
Additional Solar Power	12	2	0	10	15	32
Total	**749.0**	**741.5**	**775.4**	**821.7**	**863.5**	**917.4**

4.6.3 The Petitioner has proposed the following average power purchase cost (in Rs/ unit) for the Third MYT Control Period:

Table 47: Average Cost of Power Procurement (Rs/ Unit)

Rs/ Unit	FY13	FY14	FY15	FY16	FY17	FY18	FY19
Average Cost of Power Procurement	1.80	2.20	2.41	2.59	2.72	2.89	3.09

4.6.4 The total power purchase cost as summarised by the Petitioner in its petition is shown in the following table:

Table 48: Total Power Purchase Cost (Rs Cr.)

Stations	FY14	FY15	FY16	FY17	FY18	FY19
	RE	Proj.	Proj.	Proj.	Proj.	Proj.
Own generation	295.3	328.7	488.9	505.2	544.4	559.0
Free power	420.2	128.9	143.6	144.6	145.6	146.6
NTPC	442.8	605.5	701.8	845.5	1046.3	1522.7
NPCIL	82.9	78.1	78.1	78.1	156.8	156.8
NHPC	81.2	103.5	160.9	202.1	204.6	207.2
THDC	78.3	69.3	72.7	76.4	80.2	84.2
SJVN Stations	131.2	544.1	554.4	565.0	575.8	624.5
Other sources	49.4	133.2	162.3	202.3	205.7	173.0
Shared Stations	76.5	73.0	77.3	81.9	86.8	92.0
Other Stations	749.0	741.5	775.4	821.7	863.5	917.4
Total	**2406.9**	**2805.7**	**3215.5**	**3522.9**	**3909.8**	**4483.4**

Transmission and Other charges

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

Table 49: Summary of Transmission Charges (in Rs Cr.)

Description	FY14	FY15	FY16	FY17	FY18	FY19
	(Est)	(Proj.)	(Proj.)	(Proj.)	(Proj.)	(Proj.)
PGCIL Charges	217	304	346	382	455	639
HPPTCL Charges Payable	12	12	17	20	22	24
ULDC Charges	9	6	6	6	3	1
STOA Charges	26	49	53	67	77	6
O&M Charges	2	2	2	2	2	2
Total	**267**	**373**	**425**	**477**	**559**	**670**

4.7 Operation & Maintenance Expenses (O&M)

Employee Expenses

4.7.1 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;

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

Table 50: CPI Calculation

FY	CPI Index	Growth in CPI
2009-2010	162.75	
2010-2011	179.75	**10.45%**
2011-2012	194.83	**8.39%**
2012-2013	215.17	**10.44%**
Average		9.76%

'EMPn-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;

'Gn' - is a growth factor for the nth year. Value of Gn 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;

4.7.3 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 51: Projected Growth factor for Employee Costs

Particulars	FY13	FY14	FY15	FY16	FY17	FY18	FY19
	Actuals	RE	Proj.	Proj.	Proj.	Proj.	Proj.
Number of Employees	19357	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%

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

Table 7: Projected Employee Costs (Rs Cr.)

Particulars	FY14	FY15	FY16	FY17	FY18	FY19
	RE	Proj.	Proj.	Proj.	Proj.	Proj.
Salaries (Basic)	335.6	366.8	400.9	438.3	479.2	523.9
Grade pay	82.3	90.0	98.4	107.5	117.6	128.5

Particulars	FY14	FY15	FY16	FY17	FY18	FY19
	RE	Proj.	Proj.	Proj.	Proj.	Proj.
DA	266.5	291.3	318.4	348.1	380.6	416.1
Arrears of previous years	0.0	0.0	0.0	0.0	0.0	0.0
Other Allowances	35.3	38.6	42.2	46.1	50.4	55.1
Overtime	2.8	3.1	3.4	3.7	4.0	4.4
Bonus	0.0	0.0	0.0	0.0	0.0	0.0
Total Salaries	**724.1**	**791.4**	**865.0**	**945.6**	**1033.9**	**1130.5**
Other Staff Cost	0.0	0.0	0.0	0.0	0.0	0.0
Incentives/Awards	0.2	0.2	0.2	0.3	0.3	0.3
Incentives/Awards	1.6	1.7	1.9	2.0	2.2	2.4
Earned Leave Encashment	93.3	101.9	111.4	121.8	133.2	145.6
Medical Expense Re-Imbursement	10.0	10.9	11.9	13.0	14.3	15.6
Leave Salary Contribution	0.0	0.0	0.0	0.0	0.0	0.0
Payment Under Workman's Compensation And Gratuity	1.2	1.3	1.4	1.5	1.7	1.8
Staff Welfare Expenses	0.4	0.4	0.4	0.5	0.5	0.6
Gross Other Staff Cost	106.6	116.5	127.3	139.2	152.2	166.4
Terminal Benefits	530.4	556.9	584.8	614.0	644.7	676.9
Gross Employee Cost	**1361.0**	**1464.8**	**1577.1**	**1698.8**	**1830.8**	**1973.8**
Chargeable To Construction Works	39.9	43.6	47.6	52.1	56.9	62.2
Net Employee Cost	**1321.2**	**1421.2**	**1529.5**	**1646.8**	**1773.9**	**1911.6**

Administrative and General Expenses

4.7.5 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 52: 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**

4.7.6 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 53: Basis for A&G Norms

	FY14	FY15	FY16	FY17	FY18	FY19
	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	50.00%					
Weightage of A&G/ 1000 Consumers	50%					
WPI	8.61%					

4.7.7 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 54: Projected A&G Expenses for Third Control Period (Rs. Cr.)

Particulars	FY14	FY15	FY16	FY17	FY18	FY19
	RE	Proj.	Proj.	Proj.	Proj.	Proj.
Rent, Rates & Taxes	0.9	1.0	1.1	1.2	1.3	1.4
Telephone, Postage & Telegrams	2.9	3.1	3.5	3.8	4.2	4.6
Consultancy Charges	0.8	0.9	1.0	1.1	1.2	1.3
Conveyance & Travel	16.6	18.2	20.0	22.0	24.2	26.6
Regulatory Expenses	1.3	1.4	1.6	1.7	1.9	2.1
Income Tax Updating Charges	0.0	0.0	0.0	0.0	0.0	0.1
Consumer Redressal Forum & Ombudsman	0.1	0.1	0.1	0.1	0.1	0.1
Insurance	0.1	0.2	0.2	0.2	0.2	0.2
Purchase Related Expenses & Other Charges	0.4	0.4	0.4	0.5	0.5	0.6
Administration Charges - Total	**23.1**	**25.4**	**27.9**	**30.6**	**33.6**	**37.0**
Other Charges						
Fees & Subscriptions, Books & Periodicals	0.3	0.3	0.4	0.4	0.4	0.5
Printing & Stationery	0.8	0.9	1.0	1.1	1.2	1.3
Advertisement Expenses	0.4	0.4	0.5	0.5	0.6	0.6
Donation/ Contribution	0.0	0.0	0.0	0.0	0.0	0.0
Electricity Charges	3.4	3.7	4.1	4.5	4.9	5.4
Water Charges / Cold weather expenses	0.3	0.4	0.4	0.4	0.5	0.5
Miscellaneous Expenses	2.7	3.0	3.3	3.6	4.0	4.4
Legal Charges	0.8	0.9	1.0	1.1	1.2	1.3
Audit Fee/Statutory Audit Fee	0.3	0.3	0.3	0.4	0.4	0.4
Freight Material related Expenses	3.0	3.3	3.6	4.0	4.3	4.8
Entertainment Charges	0.2	0.2	0.3	0.3	0.3	0.3
Training to Staff	0.1	0.1	0.1	0.1	0.1	0.1
Public Interaction Program	0.2	0.6	0.6	0.7	0.8	0.9

Particulars	FY14	FY15	FY16	FY17	FY18	FY19
	RE	Proj.	Proj.	Proj.	Proj.	Proj.
Public Expenses / Other professional charges	0.0	0.0	0.0	0.0	0.0	0.0
GIS / GPS expenses related to High level Committee	1.0	1.0	1.2	1.3	1.4	1.5
Expense for providing cost free CFL bulbs to domestic consumers	12.2	13.4	14.7	16.1	17.7	19.5
Fee for SSA Examination	0.0	0.0	0.0	0.0	0.0	0.0
A&G – Total	**49.4**	**54.6**	**59.9**	**65.8**	**72.4**	**79.6**
Less: Capitalization	3.1	3.4	3.7	4.1	4.5	4.9
Net A&G Costs	**46.3**	**50.8**	**55.8**	**61.3**	**67.4**	**74.0**

Repair and Maintenance Expenses

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

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

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;

4.7.9 '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 55: Proposed K factor for R&M Expenses for Third Control Period (Rs. Cr.)

Particulars	FY11	FY12	FY13
Opening GFA (INR Cr.s)	2424.56	2345.07	3226.58
Closing GFA (INR Cr.s)	2475.25	3226.58	3803.16
Average GFA (INR Cr.s)	2449.91	2785.83	3514.87
GFA added during the year (INR Cr.s)	116.32	881.51	576.58
R&M Costs as % of GFA	1.14%	1.09%	0.92%
Average K Factor for the assets	**1.05%**		

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

Table 56: Details of Historical WPI

Year	WPI	% Increase
FY 2009-10	130.82	
FY 2010-11	143.33	9.56
FY 2011-12	156.13	8.94
FY 2012-13	167.58	7.33
Average		**8.61**

4.7.11 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.

4.7.12 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 57: Proposed R&M expenses for Third Control Period (Rs. Cr.)

Particulars	FY14	FY15	FY16	FY17	FY18	FY19
	RE	Proj.	Proj.	Proj.	Proj.	Proj.
Plant & Machinery	0.05	0.06	0.07	0.07	0.08	0.11
Buildings	1.77	2.24	2.28	2.56	2.79	3.85
Civil Works	0.61	0.77	0.79	0.88	0.96	1.33
Hydraulic Works	0.01	0.01	0.01	0.01	0.02	0.02
Lines, Cables Networks	64.54	81.61	83.19	93.38	101.61	140.29
Vehicles	13.80	17.45	17.79	19.97	21.73	30.00
Furniture & Fixtures	0.04	0.05	0.06	0.06	0.07	0.09
Office Equipments	1.13	1.43	1.46	1.64	1.78	2.46
R&M Cost – Total	81.96	103.63	105.65	118.58	129.04	178.16
Any other Items (Reallocated to Capital Works)	-3.30	-4.17	-4.25	-4.77	-5.19	-7.16
R&M Costs after Capitalization	78.66	99.47	101.40	113.81	123.85	171.00
Less: Cost Reallocated to Employee Cost & A&G Expenses	23.50	29.71	30.29	33.99	36.99	51.08
Less: Cost Reallocated to Depreciation & Recovery of cost of vehicle from O&M and other units	14.13	17.87	18.21	20.44	22.25	30.71
Overall R&M Expenses	**41.04**	**51.89**	**52.90**	**59.38**	**64.61**	**89.21**

4.7.13 The total O&M expense proposed by the Petitioner for the Third MYT Control Period is shown in the following table:

Table 58: Projected O&M cost for the Control Period (Rs Cr.)

Particulars	FY15	FY16	FY17	FY18	FY19
Net Employee Cost	1421.2	1529.5	1646.8	1773.9	1911.6
Net A&G Cost	50.8	55.8	61.3	67.4	74.0
Net R&M Cost	51.89	52.90	59.38	64.61	89.21
Net O&M Cost (In Rs Cr.)	1523.89	1638.2	1767.48	1905.91	2074.81

4.8 Capital Investment Plan for distribution schemes

4.8.1 The Petitioner has provided the details of the Capital Investment Plan proposed to be implemented and commissioned during the Third MYT Control Period. A summary of the proposed capital expenditure by the Petitioner during the Control Period FY15 to 2018-19 is presented in the table below:

Table 59: Proposed Capex Addition (Rs Cr.)

Heads	FY14	FY15	FY16	FY17	FY18	FY19
EHV Works	134.6	366.9	371.4	296.4	291.9	227.4
Distribution Schemes - OP North	35.2	101.6	36.3	41.4	45.0	37.2
Distribution Schemes - OP Central	30.9	64.5	40.2	24.9	21.6	10.4
Distribution Schemes - OP South	43.7	56.8	51.2	50.3	42.1	36.2
Consumer Services & Electrification Schemes	47.0	100.6	93.9	118.0	124.0	125.3
Centrally Sponsored Schemes	140.3	157.8	60.4	19.5	15.4	15.5
IT Works	99.5	68.5	79.7	86.1	80.4	66.8
GoHP Schemes	0.7	3.3	6.4	5.6	4.8	3.5
New Buildings	4.8	7.8	14.0	13.0	9.6	8.9
Minor works	9.4	12.5	13.4	16.1	17.0	18.8
ALDC Works	1.2	0.5	18.0	23.5	0.0	0.0
Total CAPEX	**547.4**	**940.8**	**784.7**	**694.9**	**651.8**	**550.0**

4.8.2 The Petitioner has provided the following details of the ongoing and proposed capital investment plans:

EHV Distribution Schemes (66KV and Above)

4.8.3 HPSEBL has planned its EHV Distribution Network for intra sub-station transfer of power. The following are the key initiatives taken by the Petitioner:

- A 220kV ring interconnecting all the seven 220kV sub stations in the HP system in a phased manner has been proposed along with construction of 400kV

transmission line from Nalagarh (PGCIL's sub-station to link Nalagarh) to Kunihar with 400/220kV sub-station at Nalagarh. The Petitioner has stated that this 220kV ring along with 400kV system will strengthen the existing power delivery system to the extent of 500 MW from one corner to another corner in the State within minimum lines.

- An outlay of Rs. 3.00 Cr. has proposed for construction of 22 KV main line from Pooh to Kaza on 66KV Towers (in sliding zone) under BADP- 13th Finance Commission subject to actual by GoHP.

Distribution schemes 33 KV and below:

4.8.4 For improvement of HV & LV Distribution System, the Petitioner has planned the following works:

- Rural electrification and RE & system Improvement Plans
- Consumer Service and Electrification (Circle-wise)
- Centrally Sponsored Schemes (RGGVY & APDRP Part-B)

RGGVY Scheme: Under RGGVY scheme the Petitioner has envisaged strengthening of Distribution System in rural areas of all the 12 Districts by providing 2092 new Distribution Sub Stations of adequate capacity and lines. The RGGVY Schemes covering all the 12 Districts has been approved by REC, GoI worth Rs. 341.00 Cr., out of which Rs.319.00 Cr. shall be under 90% assistance.

R-APDRP Scheme: The major works proposed under this scheme are new 66kV, 33kV, 22kV, 11kV lines and 66/11kV, 66/33kV, 66/22kV, 33/11kV Sub-stations. The Power transformers having loading more than 70% has been proposed to be augmented; the lengthy HT/LT lines has been proposed to be reduced by installing new DTRs. Under R-APDRP scheme, 14 towns have qualified the criteria laid down. Schemes worth Rs.322.00 Cr. have been approved by GoI. 90% of the outlays, which shall be available as a loan in the first instance, shall be converted into grant, if HPSEB Ltd. is able to adhere to time lines specified for the purpose. Now the schemes have been revised to Rs.589.47 Cr. An outlay of Rs. 149.47 Cr. has been proposed for FY 13-14.

- GOHP Schemes

  The Petitioner has proposed an outlay of Rs. 3.25 Cr. under the Tribal Sub Plan for FY 13-14, which is 100% aided by GoHP and an outlay of Rs. 4 Cr. under Scheduled Cast Sub Plan for FY 13-14 subject to actual grant by GoHP.

Other schemes proposed by the Petitioner

- **ALDC, system operation, communication systems**

  An outlay of Rs. 0.55 Cr. has been proposed for up- gradation & establishment of ALDC, System Operations & Communication System for FY14.

  A lump-sum individual provision of outlay worth Rs.0.31 Cr. has been proposed during the FY14.

- **Minor Capital works** – The Petitioner has proposed lump-sum indivisible provisions (outlays) are proposed for which block funding for minor capital works. Accordingly, an outlay of Rs 4.00 Cr has been proposed in EHV works and of Rs. 8 Cr. has been proposed for distribution works below 33 kV for FY14

- **New Buildings** – The Petitioner has proposed new building in order to provide proper accommodation to the staff of the Board at all places.

- **IT Projects** – To fund the existing programs as well as new initiatives; HPSEBL has proposed investment in IT projects during the Third MYT Control Period. The proposed investment for FY18 and FY19 has been tentatively proposed as the HPSEBL is currently under process for detailed scheme wise capex preparation.

4.8.5 The Capex summary and its funding is shown in the table below:

Table 60: CAPEX summary

Capex details (Rs. Cr.)	FY14	FY15	FY16	FY17	FY18	FY19
Opening CWIP	353	858	815	1244	1550	1801
Addition during the year	547	941	785	695	652	550
Capitalized during the year (incl IDC)	44	983	355	389	401	2351
Closing CWIP	858	815	1244	1550	1801	0

Capex details (Rs. Cr.)	FY14	FY15	FY16	FY17	FY18	FY19
Opening GFA	0	44	1028	1383	1772	2173
Addition during the year, incl IDC	44	983	355	389	401	2351
Closing GFA	44	1028	1383	1772	2173	4524
Opening GFA	0	43	756	1112	1449	1849
Addition during the year, incl IDC (excl grants)	43	713	355	337	401	2275
Closing GFA	43	756	1112	1449	1849	4125

Table 61: Funding summary

Funding of CAPEX (Rs. Cr.)	FY14	FY15	FY16	FY17	FY18	FY19
Opening debt	312	691	1405	2051	2597	3054
Addition during the year	381	720	655	608	573	482
Debt repayment	2	6	9	61	116	183
Closing debt	691	1405	2051	2597	3054	3353
Interest	*4*	*64*	*120*	*157*	*198*	*413*
IDC	*66*	*125*	*135*	*174*	*208*	*215*
Opening Equity	0	4	72	107	140	179
Addition during the year	4	68	35	33	39	214
Closing Equity	4	72	107	140	179	394
Opening Grant	0	1	271	271	324	324
Addition during the year	1	270	0	52	0	75
Closing grant	1	271	271	324	324	399

4.9 Depreciation

4.9.1 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.

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

Table 62: Proposed GFA for depreciation calculation for the Control Period (Rs Cr.)

Particulars	FY14	FY15	FY16	FY17	FY18	FY19	Rate of
	RE	Proj.	Proj.	Proj.	Proj.	Proj.	Dep
Land & Land Rights	70.5	85.9	94.1	102.0	111.4	159.0	0.0%

Particulars	FY14	FY15	FY16	FY17	FY18	FY19	Rate of
Building & civil works	121.2	171.9	198.9	225.0	255.6	412.2	1.8%
Hydraulic Works	16.9	19.9	21.5	23.0	24.8	34.0	5.3%
Towers, Poles, Fixture, overhead, conductors devices	1587.1	1843.2	1979.4	2111.0	2265.6	3056.4	3.6%
Switchgears, control gears & protection	598.7	721.9	787.4	850.7	925.1	1305.6	3.6%
Plants & Machinery	1258.0	1459.7	1567.0	1670.7	1792.5	2415.4	3.6%
Vehicles	14.5	18.4	20.4	22.4	24.8	36.7	18.0%
Furniture Fixture	7.5	9.6	10.8	11.9	13.2	19.8	6.0%
Office equipments incl intangibles	31.8	36.4	38.8	41.2	44.0	58.1	6.0%
Assets not belonging to the Board	3.1	3.9	4.3	4.6	5.1	7.4	
Others civil works	171.1	265.9	316.3	365.1	422.3	715.1	1.8%
Total	**3880.5**	**4636.7**	**5039.1**	**5427.6**	**5884.3**	**8219.7**	
Assets not in use	5.2	0.0	0.0	0.0	0.0	0.0	
G. Total	**3885.7**	**4636.7**	**5039.1**	**5427.6**	**5884.3**	**8219.7**	

4.9.3 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 63: Details of depreciation projected for the MYT Control Period (Rs Cr.)

Particulars	FY14	FY15	FY16	FY17	FY18	FY19
	Proj.	Proj.	Proj.	Proj.	Proj.	Proj.
Depreciation	133.8	143.8	155.8	167.2	180.7	249.6

4.10 Interest and Finance charges

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

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

Table 64: Summary of the proposed Interest and Finance charges for the MYT Control Period (Rs Cr.)

Particulars	FY14	FY15	FY16	FY17	FY18	FY19
	Proj.	Proj.	Proj.	Proj.	Proj.	Proj.
RGGVY	3.3	3.0	2.7	2.4	2.1	1.8
LIC	11.5	9.5	7.5	5.3	3.3	2.0
REC - Existing loans as on 31 march 2013	92.2	83.3	74.5	65.7	57.0	48.4
PFC	0.1	0.1	0.1	0.0	0.0	0.0

Particulars	FY14	FY15	FY16	FY17	FY18	FY19
Short Term Bank Loans as per FRP Restructuring Plan	104.4	122.5	115.8	108.0	144.2	80.9
Non SLR Bonds	20.8	26.7	24.5	23.3	23.3	23.3
Other Negotiated Loan	0.0	0.0	0.0	0.0	0.0	0.0
Cost of Raising Finances	7.6	14.4	13.1	12.2	11.5	9.6
Interest on Consumer Deposits	23.0	23.6	24.3	24.9	25.5	26.2
Interest on new CAPEX loans	69.8	189.6	255.3	331.9	406.3	628.4
Interest on WC Borrowings	80.7	88.5	100.9	107.8	115.6	127.5
Interest & Finance Charges - Total	**413.4**	**561.2**	**618.5**	**681.4**	**788.8**	**948.1**

4.11 Interest on working capital

4.11.1 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 65: Proposed Interest on working capital for the Third Control Period (Rs Cr.)

Particulars	FY14	FY15	FY16	FY17	FY18	FY19
	RE	**Proj.**	**Proj.**	**Proj.**	**Proj.**	**Proj.**
O&M expenses	1451.5	1571.2	1690.0	1824.0	1967.8	2142.7
R&M expenses	41.0	51.9	52.9	59.4	64.6	89.2
A&G expenses	49.4	54.6	59.9	65.8	72.4	79.6
Employee expenses	1361.0	1464.8	1577.1	1698.8	1830.8	1973.8
O&M expenses for 1 month	121.0	130.9	140.8	152.0	164.0	178.6
Annual revenues from tariffs and charges	4443.6	4771.1	5312.9	5597.4	5921.2	6407.4
Receivables equivalent to 2 months average billing	740.6	795.2	885.5	932.9	986.9	1067.9
Maintenance Spares (40% of R&M Expense of 1 Month)	1.4	1.7	1.8	2.0	2.2	3.0
Less: Consumer Security Deposit (CSD)	256.1	262.7	269.5	276.4	283.6	291.0
Total Working Capital Requirement	**606.8**	**665.2**	**758.6**	**810.5**	**869.4**	**958.4**
Interest on Working Capital	**80.7**	**88.5**	**100.9**	**107.8**	**115.6**	**127.5**

4.12 Provision for Bad and Doubtful Debt

4.12.1 The Petitioner has calculated Provision for Bad and Doubtful Debt based on the average percentage of provision for bad debt of receivables for FY11, FY12 and FY13 i.e. 0.7%.

4.12.2 The provision for bad and doubtful debts as projected by the Petitioner is shown in the table below:

Table 66: Provision for Bad and Doubtful Debt for Third Control Period (Rs. Cr.)

Particulars	FY14	FY15	FY16	FY17	FY18	FY19
	RE	Proj.	Proj.	Proj.	Proj.	Proj.
Receivable from customers as at the beginning of the year	417.3	438.94	469.48	518.92	551.58	584.01
Revenue billed for the year	4443.6	4771.1	5312.9	5597.4	5921.2	6407.4
Collection for the year						
Against current dues	4088.1	4389.4	4887.8	5149.6	5447.5	5894.8
Against arrears upto previous year	333.8	351.2	375.6	415.1	441.3	467.2
Gross receivable from customers as at the end of the year	438.9	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	6.3
Receivables	432.6	463.2	512.6	545.3	577.7	623.1
% of provision	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%
Provision for bad and doubtful debts	**3.0**	**3.2**	**3.6**	**3.8**	**4.1**	**4.4**

4.13 Non-tariff Income

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

Table 67: Non Tariff Income for Third Control Period (Rs. Cr.)

Particulars	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19
	Actuals	Actuals	Actuals	RE	Proj.	Proj.	Proj.	Proj.	Proj.
Meter Rent/Service Line Rentals	31.6	36.8	41.4	44.6	48.0	51.7	55.7	60.0	64.7
Recovery for theft of Power / Malpractices	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Wheeling Charges Recovery	43.1	64.4	81.3	89.0	98.6	109.3	121.2	134.4	149.1
Miscellaneous Charges from Consumers	8.7	5.4	5.6	7.2	8.0	8.8	9.8	10.9	12.1
Non-tariff Income - Total	**83.4**	**106.6**	**128.4**	**140.8**	**154.6**	**169.9**	**186.8**	**205.4**	**225.9**
Other Income									
Interest on Staff loans & Advances	0.5	1.3	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Income from Investments	7.1	28.0	18.2	19.2	20.1	21.1	22.2	23.3	24.4

Particulars	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19
Delayed Payment Charges from Consumers	14.2	18.8	29.9	31.5	33.8	37.7	39.7	42.0	45.4
Interest on Advances to Suppliers / Contractors	0.1	0.2	0.3	0.5	0.8	0.7	0.6	0.5	0.5
Income from Trading	1.0	0.8	1.7	1.7	1.8	1.9	2.0	2.1	2.3
Miscellaneous Receipts	60.1	63.8	77.1	67.0	67.0	67.0	67.0	67.0	67.0
O&M Charges Recovery from HPPTCL	0.0	0.0	0.0	6.4	6.8	7.2	7.6	8.0	8.5
PLVC charges	30.7	30.3	35.1	36.1	0.0	0.0	0.0	0.0	0.0
Gain on sale of fixed assets	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Income - Total	**113.8**	**143.6**	**162.8**	**163.0**	**131.0**	**136.2**	**139.7**	**143.6**	**148.7**
Total Non-tariff Income & Other Income	**197.2**	**250.2**	**291.2**	**303.8**	**285.6**	**306.1**	**326.4**	**349.0**	**374.6**

4.14 Return on equity

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

Table 68: Proposed Return on Equity for Third Control Period (Rs. Cr.)

Particulars	FY14	FY15	FY16	FY17	FY18	FY19
	RE	Proj.	Proj.	Proj.	Proj.	Proj.
Opening Equity	229.00	293.3	361.4	396.2	429.1	468.4
Equity Infusion	64.32	68.0	34.8	32.9	39.3	214.5
Closing Equity	293.32	361.4	396.2	429.1	468.4	682.9
Rate of Return on Equity	16.00%	16.00%	16.00%	16.00%	16.00%	16.00%
Return on Equity	**41.79**	**52.4**	**60.6**	**66.0**	**71.8**	**92.1**

4.15 Aggregate Revenue Requirement

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

Table 69: Details of the ARR proposed by the Petitioner for the MYT Control Period (Rs Cr.)

Particulars	FY14	FY15	FY16	FY17	FY18	FY19	FY14
	Approved	RE	Proj.	Proj.	Proj.	Proj.	Proj.
Purchase of Power from Own Stations	2274.2	295.3	328.7	488.9	505.2	544.4	559.0

Particulars	FY14	FY15	FY16	FY17	FY18	FY19	FY14
Purchase of Power from Other Sources (Including UI)		2111.5	2477.0	2726.6	3017.7	3365.4	3924.4
Transmission Charges	248.5	266.8	372.9	424.5	476.9	558.5	670.2
R&M Expense	36.5	41.0	51.9	52.9	59.4	64.6	89.2
Employee Expenses	1070.1	1361.0	1464.8	1577.1	1698.8	1830.8	1973.8
A&G Expense	42.3	49.4	54.6	59.9	65.8	72.4	79.6
Depreciation	109.0	133.8	143.8	155.8	167.2	180.7	249.6
Interest & Finance Charges	121.2	413.4	561.2	618.5	681.4	788.8	948.1
Less: Interest & other expenses capitalized	-48.1	-109.0	-172.2	-186.4	-230.5	-269.6	-282.6
Other Debits (incl. Prov for Bad debts)	0.0	3.0	3.2	3.6	3.8	4.1	4.4
Extraordinary Items (True Up / carrying cost for FY 13)	725.2	0.0	801.4	0.0	0.0	0.0	0.0
Total	**4578.8**	**4566.4**	**6087.3**	**5921.4**	**6445.8**	**7140.1**	**8215.8**
Reasonable Return	30.2	41.8	52.4	60.6	66.0	71.8	92.1
Other Income	309.2	303.8	285.6	306.1	326.4	349.0	374.6
Annual Revenue Requirement	**4299.9**	**4304.4**	**5854.0**	**5676.0**	**6185.4**	**6863.0**	**7933.3**

4.16 Revenue Gap at Existing Tariff

4.16.1 The Petitioner has proposed revenue gap for each year of the Third Control Period as shown in table below:

Table 70: Revenue Gap proposed by the Petitioner for the Third Control Period (Rs Cr.)

Particulars	FY 14	FY14	FY15	FY16	FY17	FY18	FY19
	Approved	RE	Proj.	Proj.	Proj.	Proj.	Proj.
Annual Revenue Requirement	4299.9	4304.4	5854.0	5676.0	6185.4	6863.0	7933.3
Revenue from existing tariffs		4444	4771	5313	5597	5921	6407
Surplus / (Gap)		**139**	**-1083**	**-363**	**-588**	**-942**	**-1526**

4.17 Allocation of ARR into wheeling and retail supply

4.17.1 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 71: 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 received from other states)	0%	100%
Wheeling charges received from other states	100%	0%
Addition items (Prior period / true up, etc)	50%	50%

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

Table 72: Wheeling ARR for Third Control Period (Rs. Cr.)

Particulars	FY14	FY15	FY16	FY17	FY18	FY19
	RE	Proj.	Proj.	Proj.	Proj.	Proj.
Power Purchase Expenses	0.0	0.0	0.0	0.0	0.0	0.0
Transmission Charges	0.0	0.0	0.0	0.0	0.0	0.0
Employee Expenses	952.7	1025.3	1104.0	1189.2	1281.6	1381.7
R&M Expenses	36.9	46.7	47.6	53.4	58.2	80.3
A&G Expenses	29.5	32.4	35.6	39.1	43.0	47.2
Interest & Financing Charges (other than interest on working capital)	332.7	472.7	517.6	573.6	673.2	820.6
Less : Interest & Other Expenses Capitalised	-109.0	-172.2	-186.4	-230.5	-269.6	-282.6
Interest on Working Capital	8.1	8.8	10.1	10.8	11.6	12.7
Depreciation	133.8	143.8	155.8	167.2	180.7	249.6
Other Debits (incl. Prov for Bad debts)	0.0	0.0	0.0	0.0	0.0	0.0
Return on Equity on Wheeling Business	41.8	52.4	60.6	66.0	71.8	92.1
Public Interaction Program	0.0	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	0.0

Wheeling charges received from other states	0.0	0.0	0.0	0.0	0.0	0.0
Addition items (Prior period / true up, etc)	0.0	400.7	0.0	0.0	0.0	0.0
ARR Requirement	**1426.5**	**2010.6**	**1744.9**	**1868.9**	**2050.4**	**2401.7**

Table 73: Retail Supply ARR for Third Control Period (Rs. Cr.)

Particulars	FY14	FY15	FY16	FY17	FY18	FY19
	RE	Proj.	Proj.	Proj.	Proj.	Proj.
Power Purchase Expenses	2406.9	2805.7	3215.5	3522.9	3909.8	4483.4
Transmission Charges	266.8	372.9	424.5	476.9	558.5	670.2
Employee Expenses	408.3	439.4	473.1	509.7	549.2	592.2
R&M Expenses	4.1	5.2	5.3	5.9	6.5	8.9
A&G Expenses	19.7	21.6	23.7	26.1	28.6	31.5
Interest & Financing Charges (other than interest on working capital)	0.0	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	0.0
Interest on Working Capital	72.6	79.6	90.8	97.0	104.1	114.7
Depreciation	0.0	0.0	0.0	0.0	0.0	0.0
Other Debits (incl. Prov for Bad debts)	3.0	3.2	3.6	3.8	4.1	4.4
Return on Equity on Wheeling Business	0.0	0.0	0.0	0.0	0.0	0.0
Public Interaction Program	0.2	0.6	0.6	0.7	0.8	0.9
Non Tariff Income (excluding wheeling charges received from other states)	303.8	285.6	306.1	326.4	349.0	374.6
Wheeling charges received from other states	0.0	0.0	0.0	0.0	0.0	0.0
Addition items (Prior period / true up, etc)	0.0	400.7	0.0	0.0	0.0	0.0
ARR Requirement	**2877.9**	**3843.4**	**3931.1**	**4316.5**	**4812.6**	**5531.6**

4.18 Tariff Proposal

4.18.1 The Petitioner has not submitted a tariff proposal along with the petition for meeting the revenue gap. The Petitioner had stated that the tariff proposal has been submitted for approval of the BoD and shall be submitted shortly. However, the Petitioner did not submit any tariff proposal for meeting the proposed revenue deficit during the Third Control Period.

5 Objection filed and Issues raised by Consumers during Public Hearing

5.1 Introduction

5.1.1 15 objectors filed written objections to the Multi-Year Tariff petition for the 3rd Control Period 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. Diwan Singh	S/o Sh. Sangat Ram, Vill. Naraish, P.O. Pipla aage, Teh.Bhunter, Distt. Kullu-175125.
4	Sh. Sanjay Kumar	S/o Lt. Sh. Kaushal Kumar, Village Ruaru, P.O. Pipla aage, Teh.Bhunter, Distt. Kullu-175125.
5	Sh. Devi Ram	S/o Sh. Patu Ram, Vill. Bhatagtan, P.O. Pipla aage, Teh.Bhunter, Distt. Kullu-175125.
6	Sh. M.R.Rana	Vill. Chhilga, P.O. & Teh Khundian, Distt. Kangra, H.P. – 176030.
7	Laghu Udyog Bharati	66, D.I.C., Industrial Area, Baddi – 173205.
8	Bonafied Himachalies Hydro Power Developers Association	Shivani Bhawan, Sector-IV, Phase-II, New Shimla, Shimla, H.P.-171009,
9	M/S Confederation of Indian Industry / M/S BBN Industries Association / M/S Parwanoo Industries Association	Himachal Pradesh State Council Northern Region, Sector – 31 A, Chandigarh. C/o. Single Window Clearance Agency, Industrial Area, Baddi, Distt. Solan HPCED Building, Department of Industries Complex, Sector – 1, Parwanoo, Distt. Solan
10	M/S Ranbaxy	Industrial Area, Phase VIII-A, Sahibjada Ajit Singh Nagar, Mohali, Punjab-160071.

Sl.	Objector	Address
11	M/S Ambuja Cements Ltd.	Vill. Navagraon, P.O. Jajhra, Teh-Nalagarh, Distt. Solan, H.P.-174101,
12	M/S H.M. Steel Limited	Office at Trilokpur Road, Kala Amb, Distt. Sirmour, HP
13	M/S Vardhman Textiles Ltd.	Sai-Road, Baddi, Tehsil Nalagarh, Distt. Solan, H.P.-173205
14	M/S Jai Bharat Steel	Kala Amb, Distt. Sirmaur, H.P.
15	M/S Jaiprakash Associates Ltd.	Vill. Baga, P.O. Kandhar, Tehsil Arki, Distt. Solan, H.P.-171102.

5.1.2 The public hearing was held on 26th March, 2014 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.

5.1.3 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 of this chapter:

5.2 Power Purchase

5.2.1 The objectors have made the following objections and observations on the Petition filed by the Petition for the 3rd MYT Control Period:

a) As per the past trend the average power purchase per unit during FY 2013-14 should be Rs. 2.25 per unit and around Rs. 2.15 per unit during FY 2014-15. The utility has projected power purchase at an average price of Rs. 2.80. This difference of Rs. 0.65 paisa per unit will directly bring down the ACS from 7.05 to 6.40 only on this account. While there is reduction in power purchase cost by HPSEBL with state share of SJVN being now sold at Rs. 3 per unit as against Rs. 3.63 per unit last year, the ARR should be examined accordingly.

b) The free power available to HPSEBL through State Government out of their share from various hydel projects in HP has been taken at RS. 2.92/ unit in the ARR. As the average power purchase cost per unit is working out to be about Rs. 2.50/unit in FY 2013-14, the price of State Government power should be reduced. It should be reduced to Rs. 2.00 as the State Government is also getting electricity duty on the power sold through HPSEB.

c) HPSEBL has estimated free power of 1439.2 MU for FY 2013-14(R.E) However, thereafter, the free power supply is reduced significantly to 441.5 MUs and is proposed to remain in the range of 450-500 MUs. Therefore, it is submitted that the Commission may evaluate if the free power is proposed to be surrendered, then commercial aspect and merit order dispatch of the same be examined.

d) The Objectors questioned the need for power procurement from certain plants such as Anta, Auria and Dadri etc., which were at a substantially higher tariff.

e) The projections of power purchase cost during 3rd Control Period have been unrealistically estimated and should be set in order.

Petitioner's Response

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

a) The power purchase agreements with these plants are already in place. HPSEBL would like to mention here that power from Thermal Power plants is needed as it is firm power. Also, sincere efforts are made by HPSEBL to surrender the costly power from gas / thermal plants in real time operation.

b) The rate of free power is determined by the Hon'ble Commission and hence no comments.

c) Based on discussions with the State Government, it was decided that HPSEBL would continue to avail free power from only those generating plants that are directly connected to its network. This reduction in availing of free power was decided by the Govt. of HP when it approved that HPSEBL shall henceforth procure additional 22% of the power coming from Nathpa Jhakri HEP, which shall benefit the consumers as the tariff of equity power would reduce dramatically once the debt servicing is completed.

d) The power purchase agreements with the said thermal power plants are already in place. HPSEBL would like to mention here that power from thermal power plants is needed as it is firm power. Also, sincere efforts are made by

HPSEBL to surrender costly power from certain gas / thermal plants in real time operation.

Commissions Observations

5.2.3 The Commission will take into consideration the actuals recorded during FY 2012-13 and FY 2013-14 after examining the proposals made by the Petitioner with regard to power purchase cost from various sources accordingly.

5.2.4 The free power made available to the HPSEBL through 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 followed by the Commission in the previous Tariff Orders.

5.2.5 The Commission is of the opinion that the HPSEBL needs to maintain an optimal mix of power purchase from different sources 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 has time and again impressed upon the management of HPSEBL the need for devising a mechanism for short term sale and purchase of power so as to reduce the power purchase cost of HPSEBL. The Commission in this Order has suggested HPSEBL for considering power purchase cost including unit rate of purchase from alternate sources i.e. GoHP free power, unallocated quota of CGS, market purchases etc., which are reasonably priced as compared to some of the costly generation sources. The Commission will look into isolating the retail tariff from the impact of costly power purchase, in merit order, in excess of State requirement.

5.3 Average Cost of Supply

5.3.1 The following objections were received regarding the average cost of supply proposed by the Petitioner for the 3rd Control Period:

a) The basis of the proposal of HPSEBL to show average cost of supply at Rs. 7.05 per unit against the approved rate of Rs. 5.18 per unit including previous gap of true-up needs to be provided.

b) While sales have been projected to grow at about 10%, which is in line with the past trend, the utility has proposed an increase in the ARR by 36.4%. There is no parity between sales growth and increase in ARR.

Petitioner's Response

5.3.2 For FY 2014-15, 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.

Commissions Observations

5.3.3 The Commission is of the opinion that the gap approved during the true-up exercise for previous years needs to be passed on in tariff in an expeditious manner, keeping in view the sensitivities and paying ability of consumers. Accumulation of any regulatory asset would result in further charging of interest cost (in form of carrying cost) on account of deferment of revenues and will only further increase the average cost of supply. The Commission agrees that demand and sales estimate consumer category wise should be prudent based on experiences. Past liabilities of pay and pension revision arrears are now cleared and hence such liabilities will not be there in true up.

5.4 Late Payment Surcharge & Interest on Consumer Security Deposit Objections:

a) Late payment surcharge of 24% is very high. Interest at the bank rate may be charged from consumers, since interest on security deposit by consumers is paid on bank rate of interest by the utility.

b) Huge amount of security deposit is lying idle with HPSEBL. HPSEBL is requested to pay interest on security deposits back to the consumers.

Petitioner's Response

5.4.1 The Petitioner has not provided any specific response on this issue to the Objector(s).

Commissions Observations

5.4.2 The Commission is of the opinion that the late payment surcharge applicable for delays in making payments beyond the due date specified in the electricity bill, as applicable in the State, is in accordance with the practice followed across the country. Also, the same is applicable only in instances where a consumer fails to make payment of the electricity bill before the given due date.

5.4.3 The interest on security deposit is duly payable to consumers by the HPSEBL at the bank rate. In case of any deviation from the same by the HPSEBL, consumers are encouraged to bring the same to knowledge of the Commission.

5.5 Interest Charges & Impact of FRP

5.5.1 The following objections have been received regarding the interest on loan amount proposed by the Petition for the 3rd Control Period:

a) What proportion of the interest proposed by the Petition pertains to loans which were not approved by the Commission is not clear from the Petition. Further, it is also not clear if the loan raised/proposed to be raised by the Petitioner strictly belong to those assets which are commissioned or whether those against CWIP are also included.

b) As per the recent Central Policy, subsequently followed in state budget, the State Government was to take over liability of Rs. 564 crores of losses outstanding against HPSEBL. Accordingly, this amount should not be reflected in the ARR filed before Commission.

c) If liabilities exceed the asset, it is apparently a case of funds having been borrowed to meet the revenue expenses rather than for creating assets for service to the consumers and in this case the cost of such borrowings cannot be lawfully passed on to the consumers.

Petitioner's Response

5.5.2 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) The principle repayment of short term loan amount has not been considered in ARR derivation. Only the interests of such loans have been taken in to account after considering the impact of FRP Scheme over the short term loans. True up amount of Rs. 801 Cr. for FY -2012-13, will have to be considered for ARR determination for FY – 2014-15. The surplus of Rs. 139 Cr. As shown in table 69 is just revised estimate for current year 2013-14 and will be carried forward only during the true up of FY -2013-14.

Commissions Observations

5.5.3 The Commission has approved interest on loans with adequate due-diligence and with due cognizance to past practices. Detailed analysis regarding the same is provided in the Chapter 7.

5.5.4 Also, the Commission has been approving any past revenue gap based on the actual expenditure at the time of true-up as per the applicable Regulations including arrears on account of 5th Pay Commission revisions. The Commission has undertaken the truing up exercise for FY 2012-13 in this Order and the gap determined has been carried forward for recovery during FY 2014-15. Therefore, the requirement of short-term loans is primarily for the purpose of meeting the funding requirement for the period between actual expenditure and truing-up which is generally allowed by Commission by way of carrying cost, therefore, no short term loans have been considered in this approved interest and finance charges.

5.6 Recovery of Bad Debts

5.6.1 Details of bad debts and the efforts made to recover the same have not been given. Officers/officials responsible for not taking timely action to recover the utilities dues may also be identified and suitably penalized.

Petitioner's Response

5.6.2 Total assessment including outstanding amount up to 31st December 2013 was Rs. 3257.64 Cr. out of which Rs. 2873.52 Cr has been realized up to 31st December 2013. This shows that about 88% revenue including outstanding amount as on 31.3.2013 has been realized. The major outstanding is Rs. 270 Cr. of I&PH and other Government departments while the outstanding of industrial and commercial consumers is approximately Rs. 70 Cr. Further, the outstanding amount in respect of I&PH and other Government Department is expected to be received in the month of March, 2014 which will further reduce the outstanding amount. The HPSEBL is making sincere concrete efforts to recover all outstanding dues from the defaulting consumers.

Commissions Observations

5.6.3 The Commission appreciates the efforts made by the Petitioner to recover outstanding dues. Further, the Commission is of the view that the Petitioner should

take action in accordance with the relevant provisions of the Electricity Act, 2003 and Himachal Pradesh Electricity Supply Code, 2009, in instances where consumers are delaying payment of legitimate dues. The Petitioner is directed to keep the Commission updated on the status of the same.

5.7 Return on Equity

5.7.1 HPSEBL has projected an increase in equity base of INR 68 crores in FY 2014-15. However, it is not clear that how this equity will be infused and if the same is proposed to be met from internal cash generation of the HPSEBL.

Petitioner's Response

5.7.2 The mentioned regulation is clear in its direction on the applicability of Return on Equity. The second para of Regulation 20 of the Tariff Regulations for the 3rd Control Period says "*Provided that return on equity invested in works in progress shall be allowed from the date of commercial operation*". In other words, HPSEBL shall not charge Return on Equity on assets, till the time they are put into operations. There is no such regulation that the ROE would not be charged to the present consumers of the state, as mentioned by the Petitioner. Also, the equity contribution has been projected based on the Regulation 19 of the above mentioned regulations. The provisional equity infusion of 30% would be subject to periodic true-ups.

Commissions Observations

5.7.3 It has been observed that in the past all capex undertaken by the Petitioner is being funded through grants and debt. Therefore, the Commission has considered the same approach while approving funding for capital expenditure approved for the third Control Period and any equity infused for funding of the capex shall be considered during the mid-term review or review at the end of Control Period. The Commission shall allow for Return on Equity on equity base arrived at as per actual equity contribution made by the HPSEBL, subject to a maximum of up to 30% of the capital cost incurred, on commissioning/ capitalization against specific schemes.

5.8 Capital Expenditure

a) Expenditure incurred for electrification in new areas and strengthening of supply should be borne by the State /Central Government and should not be part of ARR.

b) The details of the proposed capital expenditure plan, which is of interest to consumers, have not been provided in the Petition.

Petitioner's Response

5.8.1 The Petitioner has not provided any specific response on this issue to the Objector(s).

Commissions Observations

5.8.2 The GoHP has been providing grants for electrification in tribal areas, etc. which has been considered by the Commission towards funding of approved capital expenditure. Apart from projects funded by the GoHP, the Petitioner has been undertaking various system augmentations and strengthening projects which are being funded by centrally sponsored schemes, REC loans, etc.

5.9 Energy Sales

5.9.1 The energy sales projections need to be revisited. The projections need to be based on actual monthly category wise energy sales recorded in the previous years.

Petitioner's Response

5.9.2 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

5.9.3 The Commission has examined the sales projections proposed by the Petitioner in detail. The same is provided in the Chapter 7.

5.10 T&D Losses

5.10.1 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 have been defined as controllable parameter under MYT Framework. The T&D losses stand at 13.2%, whereas as per the Commissions' directive the same has to be no more than 12%. The 1.2% excessive loss should be borne by HPSEBL and should not be passed on to the consumers.

b) The T&D losses should not be imposed flat on all categories of consumers as already explained on page number 27 point 4.1.5 of the ARR, the same is mainly due to scattered population and difficult terrain in HP. Only LT consumers should bear high T&D losses and HT consumers should be relaxed from the same.

c) Clubbing Transmission and Distribution Losses is disastrously disadvantageous to the IPPs in the state who need to adopt Open Access route to sell energy generated by their plants. It may not be out of place to mention that the very provision of Open Access facility to power generators is defeated by the pattern adopted by the HPSEBL. The Commission is requested to undertake segregation of transmission and distribution losses.

Petitioner's Response:

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

a) HPSEBL has mentioned in its MYT petition the reasons why the losses are at that level. Without considering the ground conditions in which HPSEBL is operating, it would not be justified to apply the approved loss trajectory.

b) 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.

c) The same are mentioned in Chapter 7 of the MYT petition.

Commissions Observations

5.10.3 Regarding T&D losses being higher than approved, the Commission views with concern the higher T&D losses reported in FY 2011-12 and FY 2012-13 and the revised (higher) T&D loss trajectory proposed by the Petitioner for FY 2013-14.

HPSEBL has mentioned reasons like lower than expected hike in sales to industrial consumers, higher sales to domestic category resulting from execution of RGGVY Schemes, etc. for higher than approved losses. However, the Commission expects the utility to make stronger compensatory efforts to rein in the increase in losses due to such factors. Further, the Commission has undertaken reforms in supply code and tariff schedule that should provide an impetus to the industrial consumption. The Commission has dealt with the issue on T&D losses in detail in the Chapter 7 of this Tariff Order.

5.10.4 On the issue of determination of category wise cost reflective tariff, in absence of any information on voltage level losses and cost, 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.

5.10.5 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.

5.10.6 The Commission has approved voltage-wise differential T&D losses in this Order for open access consumers.

5.11 Wheeling Charges

5.11.1 The current wheeling charges have been classified in three categories, namely, for the EHT (66 KV and above), HT (11 KV to 33 KV) and other voltage levels (up to 11 KV). The Commission is required for classification of wheeling charges separately for each voltage.

5.11.2 The system for which wheeling charge is intended to be recovered is being paid by the consumer who is embedded into the system by way of fixed charges. The deemed charge is recovered for keeping the system in readiness to supply energy and is charged whether or not a consumer draws any energy from the utility. The

wheeling charges should be applicable only if it exceeds the fixed charges and only to the extent of excess.

Petitioner's Response:

5.11.3 The Petitioner has not provided any specific response on this issue to the Objector(s).

Commissions Observations:

5.11.4 The HPSEBL has not been able to provide the necessary information to the Commission necessary for the same. 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 will consider allocation of costs and losses at different voltage levels in this MYT Order.

5.11.5 In this Order, the Commission has approved applicability of about 50% of the wheeling charges for embedded consumers who are already paying demand charges to the HPSEBL and have maintained their contracted demand while availing short term open access.

5.12 Issues being faced by Small SHEPs

5.12.1 Imposition of power scheduling on R-O-R based Small HEPs takes away the economic viability of the SHPs. Power scheduling may be restricted to large projects which are based on dams/ reservoirs only. It is not practical and viable for Small R-O-R HEPs to be scheduled without eroding their financial viability.

5.12.2 IPPs in general and IPPs up to 5 MW capacity in Himachal Pradesh are small operators, who are in no capacity to bear losses caused by mounting project costs and unfavourable state policies for Small HEPs. IPPs with capacity exceeding 5 MW are left to fend themselves to sell their power and in such case they are left with no option but to take recourse to Open Access. HPSEBL is reluctant to sign PPAs even for projects between 2 MW and 5 MW. It is requested that pragmatic dispensation be made to take care of the just and equitable interests of the small HEPs.

Petitioner's Response:

5.12.3 The Petitioner has not provided any specific response on the above issues raised by the Objector(s).

Commissions Observations:

5.12.4 The Commission is of the view that the HPSEBL shall refrain from scheduling of R-O-R based Small HEPs. The same may be resorted to only in situations of extreme grid emergencies.

5.12.5 The HPSEBL should come out with its power procurement policy from SHPs.

5.13 Employee Cost

5.13.1 A sum of Rs. 1361 crores towards employee cost for FY14 as against approved amount of Rs. 1070.1 crores should be not 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.

Petitioner's Response:

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

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

b) It is submitted that HPSEBL has been constantly endeavouring to reduce the employee cost burden by bringing efficiencies in its operations. It would be prudent to see that while the employee cost percentage is 32% of the total ARR in FY 2014, the same has been projected to reduce to 25% by end of the 3rd Control Period.

d) Basic Salary: There is net decrease of 5% which clearly indicates the fact that the HPSEBL is making all efforts to curtail the employee costs by not hiring new employees despite the fact that there are large scale retirements.

e) DA: There is increase in net DA payout in FY 2012-13 over FY 2011-12 which is attributable to the fact that the DA is directly linked with DA percentage as announced by HP Government and is beyond the control of HPSEBL.

f) Earned Leave Encashment: The increase in Earned Leave Encashment is attributable to the increase in retirements in FY 2012-13 and consequential increase in pay-outs due to enhanced pay scales (in line with the 5th Pay Commission Recommendations) and is beyond the control of HPSEBL.

g) Terminal Benefits: There is nearly 100% increase in the Terminal Benefits which is due to complete pass through of 5th Pay Commission recommendations in FY 2012-13 along with substantial increase in No. of pensioners due to large scale retirements in recent years (at enhanced pay scales as per 5th pay commission arrears) and is beyond the control of HPSEBL.

Commission's Observations:

5.13.3 The Commission has provided its detailed analysis and approval of the employee cost for each year of the Control Period in Chapter 7 of this Tariff Order. HPERC MYT Regulations provide for setting norms for employees cost under O&M cost and HPSEBL has to work out accordingly for approval of the Commission,

5.14 True-Up

a) It has been observed that the HPSEBL has been asking for huge amounts by way of true-up. That means that the estimates and projections made initially by HPSEBL are totally incorrect. The HPERC is requested to fix a ceiling of 5% or so, on the maximum variation by way of true-up.

b) 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.

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

Petitioner's Response:

5.14.1 The suggestion for putting a ceiling of 5% of True up is not justified and would not conform to the spirit of the MYT tariff conditions. The true up gap is on account of

variation in projections vis-à-vis actuals and HPSEBL has already incurred such costs.

Commission's Observations:

5.14.2 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.

5.15 Tariff Related Aspects

a) 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.

b) Electricity rate of Rs. 0.30 paisa to be deposited for energy generated by diesel generating sets for own consumption should be abolished.

c) The electricity duty which is already on higher side as compared to other states should be reduced to avoid the additional burden on consumers.

d) The minimum demand charges, which are presently 90% of total contract demand, should be reduced to avoid unnecessary burden on consumers.

e) 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.

f) Consumption beyond 300 units per KVA presently attracts a surcharge of 25 paisa per unit. On the other hand the tariff tries to encourage night

consumption. These provisions are contradictory. On one hand while consumers are getting concession on night consumption, they are also getting penalized on the same in several instances. The excess consumption charge needs to be done away with.

g) 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.

h) Periodic inspection charges should be eliminated as the same is carried out by the Chief Electrical Inspector. Simultaneous charging by HPSEBL is leading to duplicity of charges and inspection. Periodic testing of meters is for utilities own revenue safeguards and should not be charged on the consumers.

i) A limited demand to the extent of 40% of the contract demand may be allowed to the industries at normal tariff during peak hours to keep the process in hot condition. Similar facilities are available in several other states.

j) Peak Load Exemption Contract Demand interpretation needs to be clarified by the Commission. Consumers should be allowed to twice increase/ decrease the PLE Contract Demand in year. The process for the same needs to be simplified as the present process leads to fresh paper work every time. Further PLEC Demand Charges are duplication over the normal demand charges and should be done away with.

k) The demand charges for the EHT category are abnormally high and need to be reduced.

l) Tariff of subsidized class of consumers should be brought to 85% of the average cost of supply.

m) Since, all motors, heaters, lighting and other electrical appliances draw current in amperes and consumption is recorded in KVAH, the billing should also be done in KVAH and KVA only for all industrial consumers. The sanctioning of load in KW should be done away with as is the case in several other states.

n) Most of the Micro & Small Enterprises are in the category of Small & Medium Power Consumers i.e. up to 100 KW. This category consumes 4-5% of total power consumption in the state. Any special treatment/ incentive provided to this category shall not give any major loss to the HPSEB.

o) The night concession charges for HT-1 and HT-2 should be at the same level, if not more for HT-2. Both have to incur more expenditure on additional salary for night shift besides transport etc. and deserve a better deal in the form of night concessions for being able to shift the consumption pattern.

p) The voltage of connectivity should be determined on contract demand and not on sanctioned connected load. The infrastructure dedicated/ required is determined by the actual load drawl/ contract demand of establishments and the connected load has no bearing on the same. Several industries have unnecessarily with high connected load have been connected on HE/ EHV supply voltage.

q) The contract demand violation charges have been increased excessively by the Commission. For industries which are not able to utilize their contract demand in full, during any particular period, the rate per unit get abnormally impact due to the flat charging of the contract demand charges. Accordingly, a ceiling rate per unit of energy should be fixed by the Commission.

r) The Demand charges for the private agricultural consumers under LT category need to be reviewed as these charges being fixed in nature are to born even for the months when there is no agricultural activity.

Petitioner's Response:

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

a) Electricity Duty falls under the purview of the Government of Himachal Pradesh. HPSEBL merely is the conduit to collect the Electricity Duty and pass it over to the Government. However, the State Government has recently reduced the electricity duty on industries vide its notification dated 4th March 2014.

b) 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.

c) HPSEBL has no objection to the methodology or approach for category-wise tariff setting. However, the tariff determination done by Hon'ble HPERC is in conformity with the National Tariff Policy. The same advocates that "…tariffs are within ± 20 % of the average cost of supply". Hence using the principal of average cost of supply is in full conformation to the National Electricity Policy.

d) It is submitted that the Tariff Regulations for the current control period mention that the cross subsidy burden be brought down "…with a target that by the end of the control period starting from 1.4.2014 tariffs for the consumer categories, other than the life line category, are within (-) 15% to (+) 10% of the average cost of supply". Hence, HPSEBL submits that it shall endeavour to meet the targets laid down in the regulations.

e) HPSEBL prepares it power procurement plan based on the contracted load and the expected demand thereof. Hence, it is important for the consumer to accurately measure and contract the connected load. Otherwise deviations in contracted load and actual drawl would lead to severe mismanagement of power procurement plans of HPSEBL. The two part tariff, in force in the state, has a fixed and variable component and demand charges are aimed at recovering the fixed costs incurred by the HPSEBL. Therefore, any such ceiling being proposed by the objector is not tenable.

f) 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.

g) HPSEBL would like to submit to the Hon'ble Commission that in case the demand of industry to have supply voltage on the basis of contract demand is accepted, there shall be following implications: -

- At present a consumer can change his contract demand twice in a year. As such there exists a possibility of frequent change in the category of consumer i.e. from MS to SP from HT -1 to MS and HT -2 to HT -1 and vice –versa in case of revision of contract demand by the consumer.

- The distribution infrastructure is normally designed on the basis of sanctioned connected load of the consumer and not contract demand. This can lead to overloading the system and frequent tripping in case the contract demand is violated by the consumer.

- The connected load in kW is only used for reference to define the consumer category. It has no recurring impact on any consumer since he is billed on his contract demand and energy charges.

- In view of above, the criterion for supply voltage with reference to connected load is justified.

h) Few points relates to tariff rationalization and simplification. The proposal in line with the discussions held with the industry groups in the meeting convened by the Hon'ble Commission, to simplify tariff, is pending approval of the State Government and shall be submitted to the Hon'ble Commission once the approval from the GoHP is received.

Commission's Observations:

a) The Electricity Duty is a separate State Government subject and cannot be dealt with in the Tariff Order being approved by the Commission. However, the Commission had been interacting with the State Govt. officers on this issue and electricity duty has been reduced for certain industrial categories substantially.

b) While determining tariffs, the Commission would consider all the suggestions in the light of provisions under Section 61 of the Electricity Act 2003, the National Electricity Policy, the National Tariff Policy and the MYT principles laid down in the regulations framed by the Commission.

c) The Commission in the last Tariff Order has already clarified its stand on the connected load in kW versus the Contract Demand in kVA. It is reiterated here that both the connected load and the Maximum Demand have different perspectives. At the time of creating infrastructure for release of connections, the distribution licensee designs the electrical system based on the connected load (in kW) which is the maximum load that may be required by the consumer getting connected to the system. In order to prevent indiscriminate load growth on the electrical system, a check is exercised by the distribution licensee, through this connected load. This connected load remains constant over larger periods of time unlike the Maximum Demand (in kVA) which is based on production factors of the respective industry and may accordingly vary seasonally.

d) 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%.

e) Regarding night time concession, the Commission shall consider the proposals given by HPSEBL and Consumer Associations while finalising the tariff.

f) With regard to ceiling rate, the Commission has approved two part tariff for recovery of fixed and variable charge of the licensee. Therefore, in case of varying consumption, the distribution licensee is able to recover its fixed cost i.e. O&M of the network, contract requisite demand with generator, etc. through fixed charges.

g) The Commission has rationalised the Supply Voltage by providing suitable modifications in the Himachal Pradesh Electricity Supply Code, 2009.

h) Based on the feedback/ suggestions, some of the measures undertaken by the Commission in this Order are abolishing peak load exemptions, removal of PLVC charges, elimination of separate tariff for up to and above 300 units

per kVA in LIS Category, abolishing of service charges for two part tariff category consumers, rationalizing demand charges for LT consumers under WIPS category, segregation and redefining the limits of Small and Medium Category industries, Tariff classifications on the basis of Contract Demand instead of KW basis etc.. The Commission has dealt with the various tariff related issues in the Chapter 7 of this Order.

5.16 Other/ General Objections

5.16.1 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) Room heaters in areas with non-sub-zero temperature should not be allowed.

b) Effective maintenance practices should be followed.

c) Manual calculations of monthly bill should be avoided and strict reading schedule for monthly meter reading be prepared and informed to the consumers. Due to two part tariff structure, consumers are being billed on higher tariff i.e. on consumption beyond Contract Demand, in case the consumption period exceeds 30-31 days. Also while taking the meter reading through CMRI, presence of consumer representative must be ensured to avoid any future disputes.

d) It is suggested that uninterrupted power should be available 24x7 including peak hours and availability of power has not been as required and needs to be improved upon. It has been noted that the sanctions which are granted to consumers references is made of previous orders, sale manuals, instructions etc. In general, the references quoted there in are even not available in the filed units and thus becomes beyond the preview and knowledge of consumers, which should be made available on the web sites of HPSEBL as well as that of commission.

e) The software for generating energy bill is not being updated from time to time as per prevailing tariff and bills are corrected by hand through overwriting/ cutting.

f) Commissioning of 2nd 132 circuit for Kala Amb: at present 132/33/11 Kv grid substation is catering the power demand of Kala Amb industries and is getting supply through 132 Kv single circuit from Giri Nagar. The line is over loaded and frequent load shedding is being done. It is understood that work on the 2nd circuit is in progress for the past one year. Request to kindly expedite the process.

Petitioner's Response:

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

a) The usage of room heaters is being done judiciously by the personnel of HPSEBL. Measures have been introduced to economize on the consumption of power due to room heaters. However, considering the conditions prevalent in HP during the winter months, the Board cannot completely do away with room heaters to ensure employee productivity.

b) HPSEBL has increased efforts for regular maintenance of equipment. However, the consumers should bear in mind that, all electrical and mechanical equipment have a designed life and are subject to wear and tear. Therefore, replacement of such ageing machinery is required to be addressed by the Board to ensure reliable and quality supply to its consumers.

c) IT systems within HPSEBL are being deployed not only to reduce the costs of stationary and manpower, but also to bring in more efficiencies in the day to day workings of the Board.

Commission's Observations:

5.17.1 The Commission directs the HPSEBL to take into cognizance the various issues and complaints highlighted by consumers/ consumer representatives during the ARR/ Tariff determination process and take appropriate actions to resolve the same.

6 True-up for FY13 under the Second MYT Control Period

6.1 Background

6.1.1 HPSEBL has submitted a petition for true up for FY13 on the basis of variation in actual expenses and revenue in FY13 vis-à-vis the expenses and revenue approved for FY13 in the APR Order dated April 24, 2012. It has also provided provisional accounts for the period April 1, 2012 to March 31, 2013.

6.1.2 The Commission has reviewed the operational and financial performance of HPSEBL for FY13 based upon the accounts made available, and has finalised the true up in line with the Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2011 (hereinafter referred to as the 'MYT Regulations, 2011'), taking into account all the information, data submissions and necessary clarifications submitted by the licensee as well as views expressed by stakeholders.

6.1.3 The Commission is provisionally approving expenses and revenue on the basis of the accounts submitted by HPSEBL. The Commission wishes to highlight that since this true-up is based on provisional accounts for the period 01.04.2012 to 31.3.2013, this is a provisional true-up and may be reviewed once the audited accounts are made available for the entire period of FY13.

6.1.4 As per Clause 11 of the Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2011:

"(1) The true up across various controllable and uncontrollable parameters shall be conducted as per principles stated below: -

(a) Variation in revenue / expenditure on account of uncontrollable sales and power purchase shall be trued up every year. Truing-up shall be carried out based on the actual/audited information and prudence check by the Commission:

Provided that if such variations are large, and it is not feasible to recover in one year alone, the Commission may take a view to create a regulatory asset, as per the guidelines provided in clause 8.2.2 of the National Tariff Policy;

Provided further that under business as usual conditions, the Commission, to ensure tariff stability, may include the opening balances of uncovered gap / trued-up costs in the subsequent Control Period's ARR instead of including in the year succeeding the relevant year of the Control Period after providing for transition financing arrangement or capital restructuring.

(b) for controllable parameters –

(i) any surplus or deficit on account of O&M expenses shall be to the account of the licensee and shall not be trued up in ARR; and

(ii) at the end of the Control Period –

I. the Commission shall review actual capital investment vis-à-vis approved capital investment.

II. depreciation and financing cost, which includes cost of debt including working capital (interest), cost of equity (return) shall be trued up on the basis of actual/ audited information and prudence check by the Commission.

Notwithstanding anything contained in these regulations, the gains or losses in the controllable items of ARR on account of force majeure factors after adjusting for proceeds from any insurance scheme, if any, shall be passed on as an additional charge or rebate in ARR over such period as may be specified in the order of the Commission."

6.1.5 The following sections contain details of true-up for FY12, based on the provisional accounts of HPSEBL.

6.2 Energy Sales and Revenue

6.2.1 HPSEBL in its true up petition for FY13 has submitted the actual sales for FY13 as 7,223.51 MU as compared to 7,533.08 MU approved by the Commission in the APR Order for FY13. It is observed that the actual total sales have been lower by 309.56 MU as compared with the approved sales. The Commission accepts the actual figures given by utility at this stage.

6.2.2 The following table shows the sales approved by the Commission in the APR Order for FY13, sales submitted as actual by HPSEBL in its true up petition for FY13, and trued up (approved) sales for FY13.

Table 74: Energy Sales for FY13 within the State (in MUs)

Category	Approved in APR Order	True-up Petition	Now Approved (Trued up)	Difference (Actual - Approved)
Domestic	1,440.96	1,618.45	1,618.45	177.49
Non Domestic Non Commercial	104.44	106.82	106.82	2.38
Commercial	406.33	408.73	408.73	2.40
Public Lighting	14.10	13.91	13.91	(0.19)
Small Power	216.65	61.48	61.48	(10.48)
Medium Power		144.69	144.69	
Large Supply	4,569.89	4,173.16	4,173.16	(396.73)
Irrigation & Agriculture	476.11	453.98	453.98	24.49
Govt. Irrigation & Water Pumping		46.62	46.62	
Temporary	31.20	25.90	25.90	(5.30)
Bulk Supply	273.40	169.78	169.78	(103.62)
Total Energy Sales	**7,533.08**	**7,223.51**	**7,223.51**	**(309.56)**

6.3 Revenue from Sale of Power

6.3.1 Revenue from sale of power includes revenue from sale of power within state (sale of power to own consumers) and revenue from sale of power outside state (sale of surplus power outside state).

6.3.2 Based on the data provided by HPSEBL for FY13, the revenue generated from sale of power within the state is presented in the table below.

Table 75: Revenue from sale of power within State (Rs.Cr.)

Categories	Revenue as per Accounts
Domestic	551.01
Non Domestic Non Commercial	64.56
Commercial	218.05
Public Lighting	8.26
Small Power	27.73
Medium Power	79.59
Large Supply	2,011.29
Irrigation & Agriculture	24.62
Govt. Irrigation & Water Pumping	254.09
Temporary	15.82
Bulk Supply	98.23
Total Revenue	**3,353.24**

6.3.3 The Petitioner has submitted that revenue of Rs. 227.99 Cr. from sale of power outside state (excluding banking). As per the audited accounts, an amount of Rs. 217.02 Cr. could be validated towards revenue from sale of power outside State. During the discussions, the Petitioner clarified that the difference is on account of adjustments in cost from power purchased from exchange which have not been accounted in the provisional accounts. Therefore, the Commission has provisionally considered the claimed amount of Rs. 227.99 Cr. towards revenue from sale of power outside state (excluding banking).

6.3.4 The Commission provisionally approves total revenue of Rs. 3581.23 Cr. arising from sale of power both within the State and outside State as summarized in table below:

Table 76: Revenue from sale of power within State (Rs.Cr.)

Categories	Approved in APR Order	True-up Petition	Now Approved (Trued up)
Revenue at existing tariff	3,459.98	3,353.24	3,353.24
Revenue from sale outside state	374.92	227.99	227.99
Total Revenue	**3,834.90**	**3,581.23**	**3,581.23**

6.4 Power Purchase

6.4.1 HPSEBL has claimed total power purchase cost of Rs. 2357.47 Cr. for true-up of FY13. The Petitioner has not included the ARR of the own generating station and instead added the various components of ARR of the generation business in the

distribution business ARR. Further, the arrears approved by the Commission in the review/ truing up Order of Baspa is also included in the power purchase cost.

6.4.2 The summary of power purchase cost claimed by the Petitioner is provided in table below:

Table 77: Power purchase cost proposed by Petitioner for true-up (Rs. Cr.)

Source	Units	Amount	Rate
Own Generation	1,707.65	-	-
BBMB	596.61	34.32	0.58
NTPC	1,458.73	432.72	2.97
NHPC	353.30	92.93	2.63
Other Stations	2,215.77	554.45	2.50
Free Power and Equity Power	1,207.48	350.17	2.90
Private Micro Stations	1,023.05	274.82	2.69
Purchase from Banking, Market and Bilateral Purchase & UI			
Banking	1,170.46	-	-
Bilateral	0.02	0.01	5.00
PXI	61.89	20.48	3.31
UI	211.57	50.01	2.36
Gross Power Purchase Cost	**10,006.53**	**1,809.91**	**1.81**
PGCIL Charges		246.94	
HPPTCL Charges		12.05	
ULDC Charges (Including POSCO)		6.81	
ST Open Access Charges		39.65	
Other Charges		35.89	
Baspa Arrears		106.01	
CPSU Arrears		66.07	
Other Arrears		34.14	
Total Power Purchase Cost (including transmission and other charges)	**10,006.54**	**2,357.47**	**2.36**

6.4.3 The above amount towards power purchase claimed by the Petitioner did not reconciled with the power purchase cost reflected in the provisional accounts for FY13. The Petitioner was asked to clarify the difference.

6.4.4 During the discussion, the Petitioner submitted that invoices amounting to Rs. 53.10 Cr. have not been accounted for in the provisional accounts which have been received from various sources for FY13. The same would be included in the final audited accounts. Further, the Petitioner submitted the following reconciliation of power purchase claim with the audited accounts:

Table 78: Reconciliation of Power Purchase Cost Submitted by Petitioner (Rs. Cr.)

Source	Units
Power Purchase Cost as per audited accounts (excluding banking cost)	2088.60
Add:	
Arrears accounted separately	215.77
Power purchase invoice for FY13 not accounted in the provisional accounts	53.10
Total Power Purchase Cost claimed for true-up	**2357.47**

6.4.5 Distribution Loss is a controllable parameter and reflects the performance of the Distribution Licensee. Clauses 4 (c) to (e) of the Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2011 state that:

"Trajectory for specific parameters shall be stipulated by the Commission, where the performance of the applicant is sought to be improved through incentives and disincentives; and Annual review of performance shall be conducted vis-à-vis the approved forecast and categorization of variations in performance into controllable factors and uncontrollable factors; and Profit sharing shall be applied on the profits arising from the distribution licensee's better performance vis-à-vis distribution loss targets and targets for the other controllable parameters specified by the Commission. The distribution licensee shall be free to utilise its share in the profit."

6.4.6 Further Clause 7 (a) of the Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2011 states that:

"The Commission shall set targets for each year of the Control Period for the items or parameters that are deemed to be "controllable" and which will include- Distribution losses, which shall be measured as the difference between total energy input for sale to all its consumers and sum of the total energy billed in its licence area in the same year."

6.4.7 The Commission observes that T&D losses achieved by the Petitioner for sale of energy within state is 13.62% vis-à-vis the approved T&D loss level of 12.40% for FY13 (which was based on T&D losses of 12.66% in FY11). HPSEBL has submitted that increase in T&D loss levels in FY13 as compared to FY12 is due to the increase

in the LT/HT Ratio and lower EHT sales in FY13. The Commission directed the Petitioner to substantiate its claim with the details like voltage-wise losses, LT/HT Ratio, past trends etc, which the Petitioner failed to provide.

6.4.8 The loss trajectory was decided with the consensus of HPSEBL and there is no merit to revise the trajectory. Therefore, Commission does not accept HPSEBL submission and has retained the T&D loss trajectory as 12.40% for FY13.

6.4.9 Accordingly, the Commission approves the power purchase quantum at 9675 MUs as shown below:

Table 79: Approved Power Purchase Quantum

Particulars	Now Approved (Trued-up)
Energy Sales within state (MU)	7223.51
T&D Losses (%)	12.40%
Power Purchase Requirement to meet state requirement (MU)	8,246
Inter – State Sale (MU)	
1. For Banking arrangements	877
2. Sale outside state	
a) Sale through UI Mechanism	117
b) Sale through IEX	174
c) Sale through PIEX	3
d) Bilateral Sales	258
Total Power Purchase Quantum Approved at State Periphery (MU)	**9,675**
Actual Power Purchase Quantum at State Periphery (MU)	9,791
Disallowed Power Purchase Quantum (MU)	**116.59**

6.4.10 Out of 1429 MU shown against interstate sale; 877 MU has been towards banking whereas 552 MU have been sold at an average rate of Rs. 4.13 per unit.

6.4.11 The Petitioner has submitted total power purchase (excluding own generation, other charges and arrears) as Rs 1,809.91Cr. The total power purchase quantum at state periphery (excluding own generation) is 8,083.65 MU. The average rate of this power purchase is Rs 2.24/unit. The Commission, therefore, disallows power purchase cost of Rs 26.11 Cr. on account of disallowance in power purchase quantum at average power purchase rate. The Commission would have disallowed the power purchase quantum at the rate of merit order at the margin, but has considered the average power purchase rate and directs HPSEBL to improve the performance in future.

6.4.12 The Commission has made following adjustments in the power purchase cost claimed by the Petitioner for FY13:

a. It is observed that the arrears claimed in the power purchase cost included an amount of Rs. 73.96 Cr. towards BBMB payable towards R&M for past years. The Commission has excluded the same from the total power purchase cost as per the Order of the Commission dated December 28, 2013 in Petition no. 57/2013.

b. ARR for the own generating stations was approved separately in the MYT Order for HPSEBL for Second Control Period. Therefore, the Commission has included the ARR of the generation plants approved as per the MYT Order for FY13.

c. The Commission further observes that PGCIL charges include Rs. 73.43 Cr. on account of transmission charges recovered from PTC. The net transmission charges payable by HPSEBL has been included in the trued-up power purchase cost.

6.4.13 The power purchase cost as approved by the Commission in the MYT Order, as submitted by the Petitioner in its true-up Petition of FY13 and now provisionally approved by the Commission while truing-up for FY13 is given below:

Table 80: Break-up of Power Purchase Cost for FY13 (Rs. Cr.)

Particulars	Approved in APR Order	Petitioner Claim	Now Approved (trued-up)
Cost of own generation	261.06	2,357.47	261.06
Cost of purchase from other sources	2,173.16		2,080.88
PGCIL Charges	169.74		190.58
HPPTCL Charges	12.05		12.05
Power Purchase Expense	**2,616.01**	**2,357.47***	**2,544.57***
Arrears approved towards Power Purchase Cost			
Baspa Revision of second MYT	35.00		
Arrears payable to Baspa till 31 March 2011	56.40		
Provisional allowance towards revised MAT of Baspa	50.00		
Total Power Purchase Cost	**2,757.41**	**2,357.47**	**2,544.57**
Less: Power Purchase cost due to under-achievement of T&D loss			26.11
Net Power Purchase Cost	**2,757.41**	**2,357.47**	**2,518.46**

** Inclusive of arrears on account of Baspa*

6.5 Energy Balance

6.5.1 The Commission has analyzed the energy balance of HPSEBL based on the sales and power purchase data submitted by HPSEBL. The utility has submitted in its petition that the overall T&D losses for FY13 stood at 13.62%.

6.5.2 The energy balance for FY13, based on the data submitted by HPSEBL and the accounts for the year, and approved by the Commission is shown in the table below:

Table 81: Energy Balance for FY13 (MU)

Energy balance for FY13	True up Petition	Approved (trued-up)
Power Availability		
Net own Generation Sources	1,707.65	1,707.65
Net Power Purchase from Other Sources (CGS, Inter-state etc.)	8,083.66	7,967.07
Total Availability at Discom periphery	**9,791.31**	**9,674.72**
Inter-State Sales (MU)	1,428.70	1,428.70
Power Requirement for sale within the State (MU)	8,362.31	8,246.02
Sales within the State (MU)	7,223.51	7,223.51
T&D Loss % within the State	**13.62%**	**12.40%**

6.6 True up of Controllable Parameters

6.6.1 The following sections deal with truing-up of controllable parameters.

6.7 O&M Expenses

6.7.1 In the Tariff Order for FY13 dated 24 April 2012, the Commission had revised the O&M trajectory based on audited accounts for FY08 and availability of CPI and WPI figures for FY08. The other two events i.e. unbundling of Board and implementation of 5th Pay Commission recommendations have also happened during FY10 and FY11 respectively.

6.8 Employee Cost

6.8.1 HPSEBL has submitted that the increase in the employee cost during FY13 is 32.43% due to the fact that all the pending 5th pay commission arrears were reimbursed in the year.

6.8.2 During the true-up for FY12, the Commission had stated

"The Commission had approved Employee Expenses for the second Control Period based on data collected from HPSEBL on March 2011 salary, assuming that it reflected the impact of revision in pay due to the Pay Commission's recommendations. However, the Commission observes that the impact of pay revision due to Pay Commission recommendations was not implemented fully in March 2011 salary and revisions kept happening during FY12 as well. Therefore, the Commission has reviewed the Employee Expenses for FY12.
In respect of terminal benefits, the Commission had escalated these at the rate of 5%, and is subject to true-up at the end of every year during the Control Period."

6.8.3 Therefore, the Commission is reviewing the employee cost for FY13 in the current truing up for FY13.

6.8.4 HPSEBL has submitted actual total Employee Expenses (including generation) for FY13 as Rs 1439.07 Cr.

Table 82: Employee Cost claimed by the Petitioner for FY13 (Rs. Cr.)

Particulars	Actual
Salaries – Total	730.21
Other Staff Cost	101.8
Terminal Benefits	505.88
Arrears	150.89
Gross Employee Cost	**1488.78**
Less : Employee Cost Capitalization	49.71
Net Employee Cost	**1439.07**

6.8.5 The Commission notes that the employee cost of Rs. 1439.07 Cr. is inclusive of Projects and I&P wings. The Commission is of the opinion that employee expenses on account of Projects wing should be on account of the respective projects and I&P wing should work on self-sustaining basis and in fact should be a source of additional income for HPSEBL. The Commission, therefore, has not considered these expenses while approving the employee expenses for the distribution business. However, the Commission has considered the revenue recovered from Project and I&P wing after adjusting for the employee cost for Projects and I&P wings in the non-tariff income.

6.8.6 The employee cost claimed by the Petitioner is for HPSEBL as a whole and therefore includes the employee cost for the generation business of HPSEBL. In the MYT Order, the Commission had approved the ARR for the generating business of

HPSEBL and had considered the same as power purchase cost for HPSEBL distribution business. As per the MYT Regulations 2011, O&M expense for generation business shall not be trued-up during the Control Period. Therefore, the employee cost for generation business has been excluded from the employee cost of distribution business of licensee. However, the ARR of the owned generating stations has been included in the power purchase cost of the Petitioner.

6.8.7 Further, the total employee cost includes a provision of Rs. 201.62 Cr. towards unfunded pension liabilities for erstwhile Board employees. It is observed that the unfunded pension liabilities of erstwhile Board do not pertain to FY13. Further, the Commission is of the view that the Board/ Govt of HP should have made appropriate provisions at the time of unbundling for these unfunded liabilities. Consideration of such past unfunded liabilities in the ARR shall put unnecessary burden on the existing consumers of HPSEBL. Therefore, the Commission has disallowed the amount of provision for Rs. 201.62 Cr. in the true-up for FY13. The Commission directs the Petitioner to take up the matter of unfunded past pension liabilities of erstwhile Board employees with the Govt of HP.

6.8.8 The Petitioner has submitted total arrear pay out of Rs. 150.89 Cr. for 5th Pay Commission revision during FY13. It is noted that the Commission had provided for Rs. 189 towards these arrears in the APR for FY13. The Commission has therefore considered the actual arrears of Rs. 150.89 Cr. in the truing up of employee cost for FY13.

6.8.9 Accordingly, the Commission approves the following trued up Employee Expenses for FY13.

Table 83: Employee Cost Approved for FY13 (Rs. Cr.)

Particulars	Approved in APR Order	Actual	Now Approved (trued-up)
Salaries - Total		730.21	738.45
Other Staff Cost	871.78	101.8	
Terminal Benefits		505.88	505.18
Arrears	189.00	150.89	150.89
Gross Employee Cost	**1060.78**	**1488.78**	**1,394.52**
Less: Provision for unfunded pension liabilities			201.62
Approved Gross Employee Cost	**1060.78**	**1488.78**	**1,192.91**

6.9 Repairs and Maintenance (R&M) and Administrative and General (A&G) Expenses

6.9.1 As per Regulation 11 of the Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2011, R&M and A&G expense are controllable parameter and any surplus or deficit on account of actual R&M and A&G expense compared shall be to the account of the Petitioner and shall not be trued up.

6.9.2 Therefore, the Commission has approved R&M and A&G expense at the same level for the distribution business as approved in the MYT as well as the APR Order for FY13.

Table 84: Proposed and Approved R&M and A&G expense for FY13 (Rs. Cr.)

Particulars	Approved in APR Order	Actual	Now Approved (trued-up)
R&M Cost	32.83	56.82	32.83
A&G Cost	38.71	42.70	38.71

6.10 Capitalization of Expenses

6.10.1 The Petitioner has claimed total employee capitalization of Rs. 49.71 Cr. of which Rs. 32.07 Cr. is towards distribution business. In the MYT Order, the Commission had approved employee capitalization of Rs. 86.39 Cr. During the discussions, the Petitioner has submitted that the employee capitalization has reduced as most of the projects are being executed on turn-key basis. The Commission has therefore considered the amount of Rs. 32.07 Cr. actual capitalization of employee cost towards the distribution business.

6.11 Other Controllable Parameter

6.11.1 According to Clause 11 of the Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2011:

"(b) at the end of the Control Period –

i. the Commission shall review actual capital investment vis-à-vis approved capital investment.

ii. depreciation and financing cost, which includes cost of debt including working capital (interest), cost of equity (return) shall be trued up on the basis of actual/audited information and prudence check by the Commission."

6.11.2 As per the HPERC MYT Regulations, 2011, any variation in actual capital expenditure and subsequent variations in depreciation, interest cost and return on equity with respect to the figures approved in the MYT Order shall be considered at the end of the MYT Control Period.

6.11.3 Therefore, the Commission has considered the depreciation, interest cost and return on equity at the same level as approved in the MYT Order / APR Order for FY13.

Table 85: Proposed and Approved R&M and A&G expense for FY13 (Rs. Cr.)

Particulars	Approved in MYT Order	Approved APR Order	Petitioner Claim	Now Approved (Trued-up)
Interest & Financing Charges	92.47	92.47	385.71	92.47
Depreciation	97.11	97.11	209.12	97.11
Return on Equity	30.24	30.24	159.63	30.24

6.12 Non-Tariff Income (NTI)

6.12.1 The non-tariff income is required to be deducted from the ARR of the Petitioner. The Petitioner has claimed a non-tariff income of Rs. 291.22 Cr.

6.12.2 The Petitioner has requested the Commission to exclude the Late Payment Surcharge (LPSC) while considering the NTI as additional interest cost is incurred on the additional working capital requirement due to non-payment of the consumer dues on time. As per the applicable MYT Regulations, 2011, LPSC should be considered as part of NTI and therefore the same has been considered while in the trued-up non-tariff income of the Petitioner.

6.12.3 The Commission observes that the NTI submitted by the Petitioner also includes recovery of Rs. 73.43 Cr. from PTC on account of PGCIL charges. As the Commission has already reduced the PGCIL charges for FY13 by this amount, the same has not been considered in the NTI.

6.12.4 It is observed that the Petitioner has not included the amount recoverable from HPPTCL on account of maintenance of transmission lines on their behalf. In the

absence of any mutually agreed charges for maintenance of transmission lines by HPSEBL, the Commission has included the approved O&M amount of HPPTCL ARR (Rs. 5.18 Cr.) in the NTI of the Petitioner.

6.12.5 The Commission had approved an amount of Rs. 150 Cr. as recoverable on account of the work done by Petitioner towards survey and investigation and project preparation activities. As per the information supplied by the Petitioner the Commission in its review order dated 26.11.2013, had noted:

"Out of total of Rs 467 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 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;"

6.12.6 The Commission has therefore considered the recovered amount of Rs. 118.67 Cr. as part of NTI for FY13 after excluding the employee cost (Rs. 4.24 Cr.) of Projects and I&P wings.

6.12.7 NTI as approved by the Commission in the MYT Order, as submitted by the Petitioner in its true-up Petition of FY13 and now provisionally approved by the Commission while truing-up for FY13 is given below: .

Table 86: Non-Tariff Income for FY13 (Rs. Cr.)

Particulars	Approved APR Order	Petitioner Claim	Now Approved (trued-up)
Interest Income from Investments	11.06	18.24	18.24
Interest on loans and Advances to staff	0.64	0.52	0.52
Interest on Advances to Suppliers / Contractors	0.20	0.27	0.27
Income from Trading (other than Electricity)	1.28	1.65	1.65
Income/Fee/Collection against staff welfare activities	0.07	0.09	0.09
Miscellaneous receipts	40.82	77.06	3.63
Delayed payment charges from consumers	12.77	29.87	29.87
Meter Rent	44.02	41.41	41.41
Recovery from theft of energy	33.73	35.23	35.23
Wheeling charges	44.83	81.29	81.29
Misc. charges from consumers	4.38	5.59	5.59
Survey and Investigation fees reimbursement	150.00	-	114.43
O&M Charges from HPPTCL	5.18	-	5.18
Total NTI	**349.00**	**291.22**	**337.40**

6.13 Annual Revenue Requirement

6.13.1 The ARR approved by the Commission in the MYT Order, ARR as submitted by the Petitioner in its true-up petition and ARR now approved by the Commission for FY13 are shown in the table below:

Table 87: Annual Revenue Requirement for FY13 (Rs. Cr.)

Particulars	Approved in APR Order	True-up Petition	Now Approved (Trued-up)
Power Purchase Expenses*	2,757.41	2,357.47	2,518.46
Operation & Maintenance Costs	1,132.32	1,588.30	1,264.45
Employee Cost#	*1,060.78*	*1,488.78*	*1,192.91*
R&M Cost	*32.83*	*56.82*	*32.83*
A&G Cost	*38.71*	*42.70*	*38.71*
Interest & Financing Charges	92.47	385.71	92.47
Depreciation	97.11	209.12	97.11
Return on Equity	30.24	159.63	30.24
Less: Non-Tariff Income	349.00	291.22	337.40
Less: Capitalisation of Expenses	92.00	49.71	37.68
Aggregate Revenue Requirement (ARR)	**3,668.55**	**4,359.30**	**3,627.65**
Adjustments:			
Total trued-up gap approved for 1st Control Period (including FY11 uncontrollable factors)	303.59	-	303.59
Additional Employee Cost for FY11	76.71	-	50.91
Impact of review order – Arrear payout in FY12	106.00	-	-
Impact of review order – Call centre operation cost	0.85	-	0.85
Total ARR after Adjustments	**4,155.70**	**4,359.30**	**3,983.00**

**includes all arrears on account of Baspa review order and revisions*
#employee cost is inclusive of arrears on account of 5th Pay Commission

6.13.2 The impact of arrears payout of Rs. 106.00 Cr. has been provided in the truing up of FY12 based on actual payments in the Second APR Order of Second Control Period and has therefore been excluded.

6.13.3 With regard to the additional employee expense of Rs. 76.71 Cr. provided in the ARR of FY13, the Commission had left an uncovered gap of Rs. 320.80 Cr. which included employee arrears Rs. 189 Cr. for FY13, Rs. 106 Cr. towards arrears of FY12 and Rs. 25.80 Cr. towards arrear payout for FY11. Therefore, the balance amount of Rs. 50.91 Cr. (Rs. 76.71 less Rs. 25.80) was covered in the ARR approved for FY13 and has been considered in the truing up for FY13.

6.13.4 The Petitioner has not considered the trued-up gap for first Control Period (including FY11 uncontrollable factors) resulting in lower trued-up ARR for FY13. The Commission has considered the gap of Rs. 303.59 Cr. approved after truing up of past Control Period in the trued-up ARR of FY13.

6.14 Revenue Gap

6.14.1 The Commission approves the trued-up revenue gap of Rs. 401.77 Cr. for FY13. The ARR approved by the Commission in the 1st APR Order and ARR now approved by the Commission for FY13 is shown in the table below:

Table 88: Trued-up Revenue Surplus/ (Gap) for FY13 (Rs. Cr.)

Particulars	Approved in APR Order	True-up Petition	Now Approved (Trued-up)
ARR after Adjustments	4,155.70	4,359.30	3,983.00
Revenue from sale of power	3,834.90	3,581.23	3,581.23
Revenue Surplus / (Gap)	**(320.80)**	**(778.07)**	**(401.77)**

6.15 Carrying Cost

6.15.1 In the Tariff Order dated 24 April 2012, the Commission had provisionally allowed Rs 106 Cr paid by HPSEBL towards arrears in FY12 and Rs 189 Cr to be paid out in FY13. In the APR Order for FY13 dated 24 April 2012, Rs 76.71 Cr were also allowed on account of additional employee expenses approved for FY11 after accounting for past adjustments.

6.15.2 As detailed in the above paras, the Commission has approved a revenue gap of Rs. 401.77 Cr. for FY13. Of the total gap of Rs. 401.77 Cr., an amount of Rs.150.90 Cr. and Rs. 50.91 Cr. is towards arrears paid on account of 5th pay commission revision during FY13 and FY11. Inclusion of the employee arrear amount of Rs. 201.81 Cr. has resulted in an uncovered gap of Rs. 401.77 Cr. for FY13. This amount on account of pay and pension arrears (due to pay revision) was allowed to be spent by HPSEBL as per GoHP financing mechanism mentioned under items 8.82 and 8.83 of the Tariff Order for FY13 dated 24 April 2012. The Government of Himachal Pradesh had agreed to provide suitable funding mechanism to avoid carrying cost on the same. Therefore, the amount of Rs. 201.81 Cr. is not eligible for carrying cost.

6.15.3 The Commission is allowing carrying cost on the balance amount of Rs 199.96 Cr. for a period of 2 years (average 'incurred period' being 6 months in FY13, 12 months

of FY14 and average of recovery period being 6 months in FY15). The SBI Advance Rate as on 1 April 2012, 1 April 2013 and 1 April 2014 was 14.75%, 14.45% and 14.75% respectively. The carrying cost approved is shown below:

Table 89: Approved Carrying Cost

Particulars	FY13	FY14	FY15	Total
Opening Principal Amount	199.96	214.71	245.74	
Interest Rate	14.75%	14.45%	14.75%	
Carrying Cost	14.75	31.03	18.12	63.90

7 Analysis of Aggregate Revenue Requirement (ARR) for the Third Control Period

7.1 Background

7.1.1 The Commission has analyzed the Multi Year Tariff (MYT) Petition submitted by the Petitioner for approval of Aggregate Revenue Requirement (ARR) for the Third Control Period (FY15-FY19) and determination of Wheeling and Retail Supply Tariff for FY15.

7.1.2 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.

7.1.3 This chapter contains detailed analysis of the MYT petition and various parameters approved by the Commission for determination of ARR for the HPSEBL distribution business.

7.2 Determination of Annual Revenue Requirement

7.2.1 The Commission has analyzed all the components of the Aggregate Revenue Requirement (ARR) submitted by the Petitioner to approve suitable values for each component, for each year of the Control Period. As per the MYT Regulations, 2011 the ARR includes the following uncontrollable and controllable components:

7.2.2 Uncontrollable Components

- Sales

- Power Purchase Cost (including inter-State and intra-State transmission charges)

7.2.3 Controllable Components

- Operations and Maintenance Expenses;
- Interest and Finance Charges
- Return on Equity;
- Depreciation, including Advance against Depreciation;

7.3 Energy Sales

7.3.1 For projecting the energy sales of HPSEBL for the Third Control Period, 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.

7.3.2 HPSEBL has projected energy sales by applying the category-wise CAGR of 3 and 5 years, current economic environment and the sustainability of high historical growth rate in certain categories.

7.3.3 HPSEBL has estimated sales for FY14 at 7529 MU as base for projection and projected energy sales within the State at 7946 MU, 8288 MU, 8858MU, 9356 MU and 9886 MU for FY15, FY16, FY17, FY 18 and FY19 respectively.

7.3.4 For more realistic projections, the Commission has sourced the 10 months actual sales for FY14 from the Petitioner along with estimated sales for balance 2 months. The revised estimate for FY14 has been considered as the base for the purpose of projections of sales for various categories of the consumers for the third Control Period.

7.3.5 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.

7.3.6 On the basis of such analysis, the Commission approves total sales of 8,217 MU, 8,654 MU, 9,118 MU, 9,612 MU and 10,136 MU for FY15, FY16, FY17, FY18 and FY19 respectively, which shows a growth rate of 8.5%, 5.3%, 5.4%, 5.4%and 5.5% respectively over the previous year. The Commission approves sale for each category of consumer as detailed below.

Domestic Supply

7.3.7 The energy sales to domestic category have shown a significant increase of nearly 15% in FY13, whereas such increase has been nearly 10.7% during FY14 over previous year.

7.3.8 The analysis of sales in this category shows that the year-on-year variation in sales ranges between 2.11% to 15.3% in recent years. The long term analysis of growth presents that the CAGR of sales has been in the range of 8.6% to 15.0% for a period of 10 years to 1 year respectively.

7.3.9 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 uniform rate of 8.0% for the third Control Period sales projections in domestic category.

Non Domestic Non Commercial Supply (NDNCS)

7.3.10 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.

7.3.11 The CAGR for a period of 3 to 5 years has been in the range of 5.9% to 7.3%, with 5 year CAGR being 6.7%. Thus, the Commission has adopted the 5 year CAGR as the uniform growth rate for projections of energy sales for the entire Control Period.

Commercial Supply

7.3.12 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 10.5% and 10.2% respectively.

7.3.13 It is important to note that the sales growth has somewhat tapered down in the last 2 years, which may be due to larger issues related to slowing down of Indian economy. Considering the revival in economic cycle, the Commission is of the view that the growth of sales in commercial category is bound to remain high and expected to follow its long term CAGR over the Third Control Period. Therefore, the Commission has considered a 3 years CAGR of10.2% for the projection of energy sales.

Industrial Power Supply

7.3.14 During the recent years it is observed that the sales in this category are more or less stagnant with marginal increase. In order to boost the consumption of energy by the industrial consumers, the Commission has approved changes in the tariff structure leading to rationalization and reduction in tariff which are detailed in the Tariff Design chapter. Amendments in Standard Supply Voltage and other reforms will help in increasing demand and consumption. HPSEBL also needs to be proactive to increase consumption in this category to increase its business volumes. The Commission expects that the structural measures and reforms in the tariff design shall encourage the industrial consumers to draw higher quantum of power.

Small and Medium Industrial Power Supply

7.3.15 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.

7.3.16 In order to account for the expected increase due to tariff rationalization, the Commission has considered a higher growth rate of 11% for the first year i.e. FY15, whereas the year on year growth rate of 3.6% has been considered for the balance tenure of Third Control Period, which is in line with the 5 year CAGR.

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

Large Industrial Power Supply

7.3.18 An 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 2 years recording a lower growth rate of 1% -3% only. The growth in sales during FY14 is also expected to be in the range of 3%.

7.3.19 Accordingly, the Commission has considered a higher growth of 9% during the first year of the Third Control Period and a moderate rate of 4% year on year growth thereon for rest of the Control Period.

7.3.20 In order to segregate the sales between HT and EHT categories, the Commission has considered the proportion of sales to HT and EHT consumers based on the last two years average proportion of sales in the respective sub-categories.

Govt. Irrigation and Water Supply

7.3.21 The sales to this category have been steady with CAGR ranging from 3% to 7% y-o-y for last six years. Considering the changes proposed in tariff design and elimination of PLVC charges, the Commission has projected sales for FY15 at a rate of 8%, whereas a growth rate of 5.2% (equal to CAGR of last three years) has been considered for the balance Control Period.

Public Lighting

7.3.22 In case of public lighting the Commission has considered a moderate growth of 2% based on the CAGR for 5 years.

Agricultural Supply

7.3.23 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 order to project sales, the Commission has considered a moderate growth rate of 3% for the MYT Control Period.

Bulk Supply

7.3.24 The sales in this category has witnessed a declining trend with reduction of nearly 18% and 12% during FY12 and FY13 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 to remain constant for projections during the Third Control Period.

Temporary Supply

7.3.25 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.

7.3.26 The Commission estimates the following sales to retail consumers within the State for the Third Control Period:

Table 90: Category-wise Approved Sales for the Third Control Period

Consumer Category		FY 15	FY 16	FY 17	FY 18	FY 19
1.	**Industrial Power Supply**	**4,918**	**5,114**	**5,317**	**5,529**	**5,749**
a.	Small Industrial Power Supply	68	70	73	75	78
b.	Medium Industrial Power Supply	162	168	174	180	186
c.	HT Industrial Power Supply	2,618	2,723	2,832	2,945	3,063
d.	EHT Industrial Power Supply	2,070	2,153	2,239	2,329	2,422
2.	Domestic	1,934	2,089	2,256	2,437	2,632
3.	**Irrigation and Drinking Water**	**554**	**582**	**611**	**642**	**675**
a.	Govt., Irrigation & Water Supply	510	537	565	595	626
b.	Private Agricultural Irrigation	44	45	46	48	49
4.	Commercial	492	542	597	658	725
5.	Bulk Supply	157	157	157	157	157
6.	Non Domestic Non Commercial	122	130	139	148	158
7.	Public Lighting	13	13	13	14	14
8.	Temporary	27	27	27	27	27
	Total	**8,217**	**8,654**	**9,118**	**9,612**	**10,136**

Note: In this Order the Commission has 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.

7.4 Transmission and Distribution Losses

7.4.1 The Petitioner has proposed T&D losses based on the actual loss of 13.62% for FY13 and estimated loss of 13.30% for FY14. The segregation of intra-state transmission losses and the distribution losses occurring on the HPSEBL's distribution system has not been provided.

7.4.2 The Commission in its MYT Order for Second Control Period dated July 19, 2011 observed that:

"It was mutually decided between the HPSEBL and the HPPTCL that the HPSEBL will continue to operate and maintain the transmission lines so vested in the HPPTCL with effect from 10th June 2010. However, a formal agreement in this respect was entered into between the HPPTCL and the HPSEBL on 20th November 2010. In accordance with the terms of the agreement, the HPPTCL was required to pay annual charges to the HPSEBL for O&M of transmission lines. ***This in effect means that in addition to HPSEBL's own EHV network, the operation and maintenance of these transmission lines remain with the distribution licensee for all practical purposes. Therefore, the Commission has decided not to set the separate target for intra-transmission losses and the trajectory set out as follows includes the transmission losses on account of lines transferred to the transmission licensee:****"*

7.4.3 It is observed by the Commission that appropriate metering arrangement between the transmission and distribution interfaces has still not been undertaken and the transmission losses reported by HPPTCL in the MYT Petition are inaccurate. HPPTCL has proposed to install its own meters to have a greater accuracy for energy balance which has also been approved by the Commission in the Order for the transmission utility. Further, there has been no addition in intra-state transmission network and HPSEBL continues to maintain the existing intra-state transmission network on behalf of HPPTCL. Therefore, the Commission has decided to continue with the T&D loss trajectory for the HPSEBL.

7.4.4 The Petitioner has stated that the T&D loss has increased due to high level of growth in domestic and agricultural category. Also, the Petitioner has stated that T&D loss trajectory should be set at realistic level keeping in view the following:

a. Inherent disadvantage of the State due to scattered population, difficult terrain, low load density and long sub-transmission & distribution lines.

b. Other utilities have advantage of underground cabling, which is not realistic in the case in HP.

7.4.5 In the MYT Order for Second Control Period, the Commission had approved the T&D loss trajectory of 14.00%, 13.50% and 12.50% for FY12, FY13 and FY14, respectively based on the provisional T&D loss figure of 14.25% for FY11 submitted by the Petitioner. In the First APR Order for Second Control Period, the Commission had revised the trajectory based on the actual T&D loss of 12.66% for FY11 and the proposal of the Petitioner. The revised T&D loss for the Second Control Period was fixed at 12.55%, 12.40% and 12.00% for FY12, FY13 and FY14, respectively.

7.4.6 As per the submissions of the Petitioner, the approved and actual T&D loss for the Second Control Period is summarized in table below:

Table 91: Approved and Actual T&D loss submitted by Petitioner for Second Control Period

Particulars	FY12	FY13	FY14
Approved T&D loss	12.55%	12.40%	12.00%
Actual T&D loss	13.36%	13.62%	13.00%*
Underachievement in T&D loss	**0.81%**	**1.22%**	**1.00%**

**provisional as per 9 months information submitted by the Petitioner*

7.4.7 The Commission is of the view that the underachievement in T&D loss is unacceptable as the trajectory was approved by the Commission based on the proposal of the Petitioner. Further, the underachievement reflects the inefficiency of the Petitioner and the justification provided is unsatisfactory. The Commission observes that even after approval of large amount of capital expenditure for strengthening and augmentation of the distribution network during last two Control Periods, the Petitioner has not been successful in implementing the schemes timely and has therefore not been able to meet the T&D loss trajectory.

7.4.8 Since this is the start of a new Control Period comprising of five years, the Commission is of the view that the T&D loss trajectory should be realistic, so that licensee is incentivized for better performance. Therefore, the Commission has taken a fair approach while fixation of the T&D trajectory for the Third Control Period and has approved losses as per the past performance and proposal of the Petitioner. At the same time, the Petitioner should also take appropriate measures to ensure that they meet the year on year loss levels approved by the Commission in order to ensure sustainable tariff for the consumers in the State.

7.4.9 For the Control Period, the Commission has considered the T&D loss of 13.00% for FY14 submitted by the Petitioner as the base and considered a reduction of 0.20% each year to reach a level of 12.00% by the end of the Control Period.

Table 92: 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%

7.4.10 The gain/ loss arising from the over-achievement / under-achievement in T&D loss shall be treated as per Regulation 15 of MYT Distribution Regulations for the Third Control Period.

7.5 Energy Requirement

7.5.1 The Commission's estimates of energy requirement at distribution periphery for the Control Period are based on the sales and T&D loss reduction trajectory approved by the Commission. The Commission's estimates for power requirement are tabulated as follows:-

Table 93: Approved Energy requirement for Third Control Period

Energy Requirement	FY15	FY16	FY17	FY18	FY19
Sales (MU)	8,217	8,654	9,118	9,612	10,136
Approved Loss (%)	12.80%	12.60%	12.40%	12.20%	12.00%
Energy Requirement at State Periphery for own consumption (MU)	9,423	9,902	10,409	10,947	11,519

7.6 Power Purchase

7.6.1 The power purchase expense is the single largest component in the ARR. Hence, it is imperative that this element of cost is estimated with utmost care based on the most efficient and prudent way of procuring power from the numerous sources and generating stations through long term, short term arrangements and through bilateral purchase agreements. A mechanical approach does lead to higher tariff to consumer or loss to utility which will either lead to unsustainable tariff or an unsustainable HPSEBL.

7.6.2 The Commission has exercised due caution in estimating power purchase cost of the Petitioner. The Commission has made reasonable assumptions for PLF, auxiliary consumption and transmission losses to arrive at the quantum of energy available to the HPSEBL during the Control Period.

7.6.3 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;

7.6.4 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

7.6.5 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.

7.6.6 The Commission has considered energy availability from the HPSEBL's owned generating stations based on the availability approved in the MYT Order for the Third 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 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 94: 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	464.70	100%	0.20%	463.77
Bassi	60.00	346.83	100%	0.20%	346.14
Giri	60.00	289.55	100%	0.20%	288.97
Total Energy Available					**1614.25***

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

Allocation and Energy Availability from Shared Generating Stations

7.6.7 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 the Third Control Period. For power availability from Yamuna, the Commission has considered the approved power generation as per the Order for UJVNL Hydro Stations for FY15. In case of energy available from Khara, the Commission has considered the target energy as per the CEA report.

Table 95: Energy Availability from Shared Generating Stations

Name of Generating Station	Expected PLF/ Energy Generated	Aux Cons.	HPSEB Share	Annual Energy available to HPSEBL (FY15 to FY19)
Shanan	60%	-	Fixed at 1 MW	5.26
Shanan (Extension)	-	-	Fixed 45MU	45.00
Yamuna	-	1%	24.68%	367.86

Name of Generating Station	Expected PLF/ Energy Generated	Aux Cons.	HPSEB Share	Annual Energy available to HPSEBL (FY15 to FY19)
Khara	-	1%	20%	72.31
Total Available from Shared Generating Stations				**490.43**

Allocation and Energy Availability from IPP with Long-term PPA

7.6.8 The total energy available from Baspa-II HEP has been considered as per the MYT Order for the Third Control Period of Baspa approved by the Commission. The table below summarizes the energy availability for HPSEBL from Baspa-II:

Table 96: Energy Availability from IPP and Private SHPs

Name of Generating Station	Energy Available to HPSEBL				
	FY15	FY16	FY17	FY18	FY19
Baspa II	1050	1050	1050	1050	1050

Allocation and Energy Availability from Free Power

7.6.9 The GoHP has free power entitlement from various generating stations of 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.

7.6.10 The GoHP has 12% free power share in five of the HPSEBL own generating stations viz. Ghanvi, Baner, Gaj, Larji and Khauli, in three NHPC plants (i.e. Bairasiul, Chamera-I and Chamera-II), Shanan (500 KW), Baspa II, Nathpa Jhakri, Patikari, Budhil, Allian Duhangan, 15% in Malana and 4.6% in Ranjeet Sagar Dam. In addition to this, GoHP is scheduled to receive free power from various new stations as and when they get commenced.

7.6.11 However, as per the proposal of Petitioner 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.

7.6.12 For projection of power availability during the Third Control Period, the Commission has considered the free power to be available to the Petitioner throughout the year from the stations submitted by the Petitioner. The table as follows shows the Commission's estimates of plant-wise energy availability to the HPSEBL:

Table 97: Energy Availability from Free Power (MU)

Free Power	FY15	FY16	FY17	FY18	FY19
Shanan Share (Fixed)	2.63	2.63	2.63	2.63	2.63
Ranjeet Sagar Dam Share (4.60%)	68.63	68.63	68.63	68.63	68.63
Malana (20%)*	64.49	64.49	64.49	64.49	64.49
Baspa-II	143.18	143.18	143.18	143.18	143.18
Ghanvi	11.07	11.07	11.07	11.07	11.07
Baner	7.21	7.21	7.21	7.21	7.21
Gaj	4.55	4.55	4.55	4.55	4.55
Larji	70.28	70.28	70.28	70.28	70.28
Khauli	5.95	5.95	5.95	5.95	5.95
Uhl-III	-	46.78	46.78	46.78	46.78
Ghanvi II	6.24	6.24	6.24	6.24	6.24
Small HEP/ Private Micro – Free	40.24	40.24	40.24	40.24	40.24
Total Power Available from GoHP share of Free Power	**424.47**	**471.25**	**471.25**	**471.25**	**471.25**

** 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

7.6.13 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 98: Allocation HPSEBL share and Energy Availability from BBMB for Third Control Period

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 (FY15 to FY19)
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%	182.56

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 (FY15 to FY19)
Pong	1,448	1.00%	1433.52	2.97%	42.62
Total					**603.27**

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

7.6.14 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 is detailed in the para 9.8 of this Order.

Renewable Power (Non-solar)

7.6.15 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 Third 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 HPSEBL's share, generation and auxiliary consumption considered by the Commission for the projection of power purchase quantum from own generating stations (less than 25MW capacity) for the MYT Control Period:

Table 99: Allocation, HPSEBL share and Energy Availability from Own Generating Stations for Third Control Period

Name of Generating Station	Capacity (MW)	Generation (MUs)	HPSEBL Share	Auxiliary Consumption	Annual Energy available to HPSEBL (FY15 to FY19)
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
Khauli	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

Name of Generating Station	Capacity (MW)	Generation (MUs)	HPSEBL Share	Auxiliary Consumption	Annual Energy available to HPSEBL (FY15 to FY19)
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					**427.16**

7.6.16 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. The list of these SHPs/ private micro hydel projects along with installed capacities is provided below:

Table 100: List of SHEPs and Private Micro Hydel projects along with Installed Capacity

Name of Project.	Installed Capacity
Raskat	0.8 MW
Titang	0.9 MW
Dehar	5 MW
Baragran	4.9 MW
Maujhi	4.5 MW
Ching	1.00 MW
Manal/Chandni	3 MW
Aleo	3.00 MW
Manjhal	1.00 MW
Salag	0.15 MW
Jiwa Kothari	1.00 MW
Marhi	5 MW
Kothi	200 KW
Juthed	100 KW
Taraila	5 MW
Gharola	100 KW
Bramganga	5 MW
Sahu	5 MW
Sarbari -1	4.5 MW
Upper Awa	5 MW
Purthi	100 KW

Name of Project.	Installed Capacity
Sural	100 KW
Lingti	400 KW
IKU-II	5.00 MW
Shyang	3.00 MW
Tarella-II	5.00 MW
Luni-III	5.00 MW
Andhra Stage-II	5.00 MW
Lower Baijnath Kuhl	1.00 MW
Upper Tarella	5 MW
Luni-II	5.00 MW
Baner-III	5.00 MW
Manglad	4.5 MW
Drinidhar	5 MW
Sainj	5 MW
Gurahan	1.5 MW
Maujhi-II	5.00 MW
Palor-I	3.00 MW
Tangling	5.00 MW
Gaj-II	1.5 MW
Brahal	4.00 MW
Upper Khauli	5 MW
IQU-I	4.5 MW
Rakchad	5.00 MW
Chirchand	5.00 MW
Timbi	3 MW
Binua Parai	5.00 MW
Dehar-II	1.5 MW
Tarella-III	5.00 MW
Sach	900 KW
Rukti-II	5.00 MW
Sechi	4.5 MW
Chakshi	2.00 MW
Belij	5.00 MW
Suman Sarwari Unit-I	2.5 MW
Suman Sarwari Unit-II	2.5 MW
Masli	5MW
Dunali	5MW
Panwi	4MW
Dikleri	2MW
Binwa-IV	4MW
Total Capacity (<5MW)	**191.15 MW**

Name of Project.	Installed Capacity
Patikari	16 MW
Toss	10 MW
Sarbari-II	5.4 MW
Neogal	15 MW
Total Capacity (>5MW)	**31.4 MW**
Grand Total	**222.55 MW**

7.6.17 The Commission has considered submission of the Petitioner with respect to the power procured from existing SHEPs during FY14 and considered the same during the Control Period. For projecting the energy availability from private small hydro projects (SHPs), the Commission has considered additional quantum of 100 MU each year as per submission of the Petitioner. The table below summarizes energy availability for HPSEBL from own and private small and micro hydel projects:

Table 101: Energy Availability from Small Hydro Own and IPPs/ Private Stations

Name of Generating Station	Energy Available to HPSEBL				
	FY15	FY16	FY17	FY18	FY19
Small Hydro Own Generation	427.16	427.16	427.16	427.16	427.16
Small HEP/ Private Micro <5MW	941.81	1,021.81	1,101.81	1,181.81	1,261.81
Small HEP/ Private Micro >5MW	174.97	194.97	214.97	234.97	254.97
Total Non-solar Renewable Power	**1543.94**	**1643.94**	**1743.94**	**1843.94**	**1943.94**

Renewable Power (Solar)

7.6.18 The Petitioner has entered into an agreement with NTPC for supply of 15 MW bundled power from a 15 MW Solar thermal power plant. The Petitioner shall be procuring solar power from NTPC that the generator is taking up Singrauli Solar PV Power Project (15 MW) for bundling with thermal power, in which 15 MW of power would be made available to HPSEBL from FY15 onwards (expected commissioning of the plant). The bundling ratio of solar & conventional thermal would be 1:1 in MW terms. Balance solar power shall be procured from other sources or RECs shall be purchased to meet the RPPO. The Commission has considered the submission of the Petitioner in this regard and has approved the following solar power purchase for the Third Control Period:

Table 102: Energy Availability from Solar Power

Name of Generating Station	Energy Available to HPSEBL				
	FY15	FY16	FY17	FY18	FY19
Singrauli Solar*	18.72	24.97	24.97	24.97	24.97
Other Solar Sources	4.83	-	1.06	29.77	61.42

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

7.6.19 The Petitioner also purchases power at APPC rate from small and micro hydel projects which are under the REC framework. The details of such plants along with the installed capacity are provided in table below:

Table 103: List of small and micro HEPs along with Installed Capacity

Name of Project.	Installed Capacity
Jirah	4.00 MW
Balsio	5.00 MW
Upper Joiner	12.00 MW
Sumez	14 MW.
Beas Kund	9 MW

7.6.20 In case of power available from micro hydro projects under REC mechanism, the Commission has considered an increase of 10 MU every year during the Third Control Period as per the submission of the Petitioner. The details of the same are provided below;

Table 104: Energy Availability from IPPs and Private SHPs

Name of Generating Station	Energy Available to HPSEBL				
	FY15	FY16	FY17	FY18	FY19
Small HEP/ Private Micro – REC	154.95	164.85	174.75	184.65	194.55

Energy Availability from Equity Share in Generating Plants

7.6.21 The GoHP has equity share of 22% in the Nathpa Jhakri. The Commission has considered the average energy generated based on the energy generated during the last two years. The GoHP share of 22% has been considered on the energy

projected from the NJPS station. The table below summarizes the equity share of energy available from NJPS during the MYT Control Period.

Table 105: HPSEBL share and Energy Availability from NJPS for Third Control Period

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 (FY15 to FY19)
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)

7.6.22 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).

7.6.23 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.

7.6.24 The Commission has considered allocation of firm power from CGS in accordance with latest allocations issued by the Northern Regional Power Committee.

7.6.25 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 (FY12 to FY14), 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.

7.6.26 In case of generating stations of NHPC, THDC 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 the MYT Control Period.

Table 106: Allocation, Total Generation, HPSEBL share and Energy Availability from Central Generating Stations for each year of the Third Control Period

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 (FY15 to FY19)
SJVNL					
Nathpa Jhakri SOR	6,985	1.20%	6,901.18	2.47%	170.46
THDC					
Tehri	3,715.6	1.20%	3,671.01	2.80%	102.79
Koteshwar	1,342.9	1.00%	1,329.47	2.50%	33.24
Total					**136.02**
NPCIL					
NAPP	62.45%	9.50%	2,178.40	3.18%	69.27
RAPP (V & VI)	87.11%	9.50%	3,038.48	3.41%	103.34
Total					**172.61**
NTPC – Thermal					
Anta (G)	62.04%	3.00%	2,210.44	3.58%	79.13
Auriya (G)	48.45%	3.00%	2,730.72	3.32%	90.66
Dadri (G)	84.62%	3.00%	5,966.39	3.01%	179.59
Unchahar-I	89.50%	9.00%	2,996.64	1.67%	50.04
Unchahar-II	89.50%	9.00%	2,996.64	2.86%	85.70
Unchahar-III	89.50%	9.00%	1,498.32	3.81%	57.09
Rihand-1 STPS	87.41%	8.50%	7,006.53	3.50%	245.23
Rihand-2 STPS	87.41%	6.50%	7,159.68	3.30%	236.27
Rihand-3 Units-1,2	87.41%	9.00%	6,968.24	1.70%	118.46
Total					**1142.17**
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
Chamera III	937.1	1.00%	927.73	4.36%	40.41
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					**326.43**
Grand Total					**1,947.71**

Energy Availability from Unallocated Power from CGS

7.6.27 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 400 MU from this unallocated quota has been considered to be utilized towards meeting the banking requirement as a substitute for costly power. However, 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

7.6.28 The Commission has considered the commissioning schedule of the future stations based on data available from CEA, as per information submitted by the HPSEBL and other sources. The Commission has considered only those plants for which commissioning schedule are available from the information in CEA report or public domain. It is important to note that for some of the new projects submitted by the Petitioner i.e. North Karanpura, Singrauli III, Tanda II, Gider Baha, Bilhaur and Kotli Behal, few of the projects have been discontinued or no status is available in public domain which basically implies delay in commissioning beyond the Control Period. Therefore, no availability from such stations have been considered while projecting power from new stations during the Control Period.

7.6.29 The Commission has also considered energy availability from two new own generating stations of HPSEBL i.e. Uhl-III and Ghanvi-II as per the proposal of the Petitioner. Power availability from these stations has been considered as per the design energy of the respective plants. The allocation from these stations has been considered as 88% after deducting 12% share of free power to the GoHP.

7.6.30 Energy availability from future stations has been considered as per the allocation submitted by the Petitioner. The Commission has assumed PLF of 85% for thermal and 45% PLF for hydro plants while the auxiliary consumption has been assumed at 9% for coal based thermal projects and 1.2% for hydro projects (including 0.5% transformational loss). The table below summarizes the power availability from new generating stations projected for the third Control Period:

Table 107: Energy Availability from New Generating Stations (MU)

Name of Plant	Installed (MW)	Financial Year of commissioning	Share of HPSEBL %age	HPSEB Share (MU)				
				FY 15	FY16	FY 17	FY 18	FY 19
Own Station								
Uhl III - BVPCL	100	2015-16	88%	-	343.09	343.09	343.09	343.09
Ghanvi II	10	31-Mar-15	88%	45.77	45.77	45.77	45.77	45.77
NTPC								
Singrauli*	15	31-Mar-15	100%	80.80	107.62	107.62	107.62	107.62
Kol dam HEP	800	2014-15	3.36%	15.76	100.25	100.25	100.25	100.25
NPCIL								
RAPP (VII & VIII)	1400	31-Mar-18	3.00%	-	-	-	171.48	171.94
NHPC								
Parbati II	800	2016-17	2.75%	-	-	86.29	86.29	86.29
Parbati III	520	2013-15	3.36%	56.24	65.55	65.55	65.55	65.55
Other CGS								
Rampur	412	2013-15	2.81%	45.09	45.09	45.09	45.09	45.09
Luhri	775	31-Mar-19	2.47%	-	-	-	-	74.55
Total Power from New Plants				**262.39**	**732.33**	**818.62**	**990.09**	**1065.11**

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

7.6.31 Including the plants mentioned in the para 7.6.28, the Commission has not considered the following projects submitted by the Petitioner for inclusion in the energy availability during the Control Period.

Table 108: Energy Availability from New Generating Stations (MU)

Name of Plant	Installed (MW)
North Karanpura	1980
Singrauli III	500
Tanda II	1320
Gider Baha	2640
Bilhaur	660
Kotli Behal	1045
Meja	1320
Lata Tapowan HEP	171
Rupsia Bagar HEP	261
Tapovan Vishnugarh HEP	520

Name of Plant	Installed (MW)
Unchahar IV	500

7.6.32 The Commission feels that sufficient hydro-electric power is available within the State and therefore PPAs with such costly stations should be avoided in normal course. However, if HPSEBL plans to enter into a PPA with these stations, prior approval of the Commission should be taken.

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

7.6.33 Over and above the energy availability from various sources discussed above, the Petitioner has availability from GoHP free and equity power, HPPCL future stations, CGS stations located in HP, 15% unallocated quota in CGS stations. Based on the analysis undertaken by the Commission in section 7.7, it is observed that the Petitioner shall have adequate availability of power in the future (short term as well as long term) which shall be in excess of the demand. Therefore, the Petitioner is required to undertake proper planning with respect to the power procurement from various sources.

7.6.34 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 each year of the Third Control Period.

7.6.35 For the Control Period, 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 power, 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 the Control Period is shown in the tables as follows:

Table 109: Monthly Demand Supply Position – FY15

Month	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
Sales (MU)	624.37	654.30	659.67	691.91	673.11	690.48	669.37	678.75	697.01	706.44	712.45	759.28	8,217.15
Losses	12.80%	12.80%	12.80%	12.80%	12.80%	12.80%	12.80%	12.80%	12.80%	12.80%	12.80%	12.80%	
Monthly Demand (MU) Discom Periphery	716.02	750.34	756.51	793.47	771.92	791.84	767.62	778.38	799.33	810.14	817.03	870.73	9,423.33
Monthly Availability (MU) Discom Periphery	646.22	931.15	1,100.72	1,244.08	1,301.07	1,076.83	716.82	527.15	437.15	401.51	416.77	613.86	9,413.33
Deficit Power (MU) Discom Periphery	69.80	-	-	-	-	-	50.80	251.24	362.18	408.63	400.26	256.87	1,799.78
Deficit Power (MU) Ex Bus	72.25	-	-	-	-	-	52.58	260.07	374.91	422.99	414.33	265.90	1,863.05
Surplus Power (MU) Discom Periphery	-	180.81	344.21	450.61	529.15	284.99	-	-	-	-	-	-	1,789.77
Surplus Power (MU) Ex Bus	-	187.17	356.31	466.45	547.75	295.01	-	-	-	-	-	-	1,852.69
Net Suplus/ (Deficit) (Ex Bus)	**(72.25)**	**187.17**	**356.31**	**466.45**	**547.75**	**295.01**	**(52.58)**	**(260.07)**	**(374.91)**	**(422.99)**	**(414.33)**	**(265.90)**	**(10.36)**

Table 110: Monthly Demand Supply Position – FY16

Month	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
Sales (MU)	656.45	688.36	694.80	728.73	709.02	727.36	704.74	714.73	733.81	744.23	750.88	800.99	8,654.10
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	751.09	787.59	794.97	833.78	811.24	832.22	806.34	817.77	839.60	851.52	859.13	916.46	9,901.71
Monthly Availability (MU) Discom Periphery	703.75	1,008.07	1,189.31	1,338.50	1,404.39	1,139.04	749.66	546.92	453.29	418.55	435.42	644.11	10,030.98
Deficit Power (MU) Discom Periphery	47.35	-	-	-	-	-	56.68	270.86	386.31	432.98	423.71	272.36	1,890.24
Deficit Power (MU) Ex Bus	49.01	-	-	-	-	-	58.68	280.38	399.89	448.20	438.60	281.93	1,956.69
Surplus Power (MU) Discom Periphery	-	220.47	394.34	504.71	593.15	306.82	-	-	-	-	-	-	2,019.50
Surplus Power (MU) Ex Bus	-	228.22	408.20	522.46	614.00	317.61	-	-	-	-	-	-	2,090.49

Month	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
Net Suplus/ (Deficit) (Ex Bus)	**(49.01)**	**228.22**	**408.20**	**522.46**	**614.00**	**317.61**	**(58.68)**	**(280.38)**	**(399.89)**	**(448.20)**	**(438.60)**	**(281.93)**	**133.81**

Table 111: Monthly Demand Supply Position – FY17

Month	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
Sales (MU)	690.48	724.50	732.12	767.84	747.17	766.54	742.31	752.96	772.87	784.39	791.74	845.38	9,118.30
Losses	12.40%	12.40%	12.40%	12.40%	12.40%	12.40%	12.40%	12.40%	12.40%	12.40%	12.40%	12.40%	
Monthly Demand (MU) Discom Periphery	788.21	827.06	835.76	876.53	852.94	875.05	847.38	859.54	882.28	895.42	903.81	965.04	10,409.02
Monthly Availability (MU) Discom Periphery	719.19	1,027.40	1,211.59	1,367.62	1,435.58	1,163.61	762.29	555.34	459.39	423.76	442.34	657.16	10,225.26
Deficit Power (MU) Discom Periphery	69.03	-	-	-	-	-	85.10	304.20	422.88	471.66	461.47	307.88	2,122.22
Deficit Power (MU) Ex Bus	71.45	-	-	-	-	-	88.09	314.90	437.75	488.24	477.69	318.70	2,196.83
Surplus Power (MU) Discom Periphery	-	200.35	375.83	491.09	582.64	288.56	-	-	-	-	-	-	1,938.46
Surplus Power (MU) Ex Bus	-	207.39	389.04	508.35	603.12	298.70	-	-	-	-	-	-	2,006.61
Net Suplus/ (Deficit) (Ex Bus)	**(71.45)**	**207.39**	**389.04**	**508.35**	**603.12**	**298.70**	**(88.09)**	**(314.90)**	**(437.75)**	**(488.24)**	**(477.69)**	**(318.70)**	**(190.22)**

Table 112: Monthly Demand Supply Position – FY18

Month	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
Sales (MU)	726.57	762.87	771.80	809.41	787.73	808.20	782.21	793.58	814.37	827.10	835.21	892.63	9,611.68
Losses	12.20%	12.20%	12.20%	12.20%	12.20%	12.20%	12.20%	12.20%	12.20%	12.20%	12.20%	12.20%	
Monthly Demand (MU) Discom Periphery	827.53	868.88	879.04	921.87	897.19	920.50	890.90	903.85	927.53	942.02	951.26	1,016.66	10,947.25
Monthly Availability (MU) Discom Periphery	745.83	1,054.80	1,238.67	1,397.30	1,467.33	1,193.64	786.45	576.74	478.95	442.51	463.00	683.33	10,528.55

Month	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
Deficit Power (MU) Discom Periphery	81.69	-	-	-	-	-	104.45	327.11	448.58	499.51	488.26	333.34	2,282.95
Deficit Power (MU) Ex Bus	84.57	-	-	-	-	-	108.13	338.61	464.35	517.07	505.43	345.06	2,363.21
Surplus Power (MU) Discom Periphery	-	185.92	359.63	475.42	570.14	273.14	-	-	-	-	-	-	1,864.25
Surplus Power (MU) Ex Bus	-	192.45	372.27	492.13	590.19	282.74	-	-	-	-	-	-	1,929.79
Net Suplus/ (Deficit) (Ex Bus)	**(84.57)**	**192.45**	**372.27**	**492.13**	**590.19**	**282.74**	**(108.13)**	**(338.61)**	**(464.35)**	**(517.07)**	**(505.43)**	**(345.06)**	**(433.42)**

Table 113: Monthly Demand Supply Position – FY19

Month	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
Sales (MU)	764.88	803.63	814.00	853.60	830.87	852.49	824.62	836.79	858.48	872.52	881.48	942.96	10,136.33
Losses	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	
Monthly Demand (MU) Discom Periphery	869.18	913.22	924.99	970.00	944.17	968.74	937.07	950.89	975.55	991.50	1,001.68	1,071.55	11,518.55
Monthly Availability (MU) Discom Periphery	763.71	1,078.18	1,263.09	1,424.55	1,496.31	1,217.69	802.19	588.39	487.36	449.84	471.71	698.47	10,741.49
Deficit Power (MU) Discom Periphery	105.46	-	-	-	-	-	134.88	362.50	488.18	541.66	529.97	373.08	2,535.74
Deficit Power (MU) Ex Bus	109.17	-	-	-	-	-	139.62	375.25	505.34	560.70	548.60	386.20	2,624.88
Surplus Power (MU) Discom Periphery	-	164.96	338.09	454.55	552.14	248.94	-	-	-	-	-	-	1,758.68
Surplus Power (MU) Ex Bus	-	170.76	349.98	470.53	571.55	257.69	-	-	-	-	-	-	1,820.51
Net Suplus/ (Deficit) (Ex Bus)	**(109.17)**	**170.76**	**349.98**	**470.53**	**571.55**	**257.69**	**(139.62)**	**(375.25)**	**(505.34)**	**(560.70)**	**(548.60)**	**(386.20)**	**(804.38)**

7.7 Strategic shift in Power Procurement Policy towards Total Green Energy

7.7.1 Experience of 2nd MYT control period FY 2012-14 and filings made by HPSEBL for the next 5 years period ending FY 2019 reveal the following facts, which are critical to the State, to evaluate the need and possibilities of shifting to sustainable 100% green energy consumption and resultant procurements:-

a) In the present energy availability basket of HPSEBL under long term purchase contracts, share of energy from sources outside H.P. is marginal i.e. thermal (coal and gas) about 1140 MUs, Hydel (NHPC and Teri Corp.) about 300 MUs and Nuclear about 170 MUs. Therefore, thermal sources constitute about 10% of total availability. After meeting its annual requirements, about equal quantum of power is surplus. Therefore, the State is already meeting its full requirement from green/clean sources.

b) There is volatility in price of thermal power and also they are the costliest among the power portfolio of the licensee.

c) The tariff of CPSU stations and network are determined by CERC and therefore it is difficult to make reasonable projections in cost of procurement and leads to huge arrear backlogs.

d) Procurement from outside the State has additional transmissions costs, including losses and operations cost.

e) There is a huge surplus power available in the State, today, as well as overtime. The Power potential of water in our river systems is about 25000MW, generating about 100,000 Million units, which is about 10 times are present requirements. Even today there is a huge untied (non-contracted) surplus in the State to meet our demands during next 25 to 40 years, GoHP free power & equity power, new generation in State sector by HPPCL/HPSEBL, IPPs particularly developing SHPs etc., which have not been fully accounted for by the licensee in its procurement plans.

f) Free power available with GoHP is much cheaper than thermal power and new hydro stations outside Himachal Pradesh.

7.7.2 Power availability under long term contracts of HPSEBL, including from thermal sources of NTPC, and requirements and surplus are as under:-

Table 114: Power Availability during MYT Period (FY15 to FY19)

Particular	FY15	FY16	FY17	FY18	FY19
Total availability (MUs)	**10,296**	**10,793**	**11,344**	**11,917**	**12,535**
Share of Thermal (MUs)	1,257	1,375	1,375	1,375	1,375
Requirement in State (grossed up with T& D losses at 13% to 12%)	9,423	9,902	10,409	10,947	11,519
Surplus	873	891	935	970	1,016

7.7.3 These figures demonstrate that, in our energy mix, thermal is just about 10%, which is almost equal to net surpluses of already contracted power and these surpluses are being purchased only due to purchase contract obligations.

7.7.4 The Commission has worked out scenario for next 25 years leading to the outcome that supply from within the State sources, are adequate to meet the demand fully and tariff will be stable and lower on sustained basis.

7.7.4.1 For the projection of sales figures at the end of 25 years, the Commission has considered the average growth rate projections of the Third MYT Control Period and extrapolated the same growth rate. By these projections, the sales figures at the end of 25 years are expected to be approximately 29,000 MU (million units) against present level of about 7,600 MUs.

7.7.4.2 Currently, the power availability to HPSEBL from different sources is as follows:

Table 115: Power Availability from Different Sources

Sr. No.	Source of Supply	App. Quantum (MU)
1.	Own Generation	2000
2.	NTPC	1350
3.	NPCIL	250
4.	NHPC	300
5.	THDC	155
6.	SJVNL SOR (Nathpa Jhakari)	200
7.	Shared Projects (BBMB, Yamuna etc)	1260
8.	SHPs	1200
9.	Baspa	1200
Sub-Total		**7915**

Sr. No.	Source of Supply	App. Quantum (MU)
11.	SJVNL Equity (Nathpa Jhakari, Rampur HEP)	2000
12.	Existing quantum of GoHP Free Power	2500
TOTAL		**12415**

7.7.4.3 The details of hydroelectric projects under construction, obtaining clearances and under investigation stage in H.P. are as follows:

Table 116: Status of Hydro Potential in Himachal Pradesh

Sr. No.	Sector	Under const.		Obtaining Clearances		Under Investigation		Total	
		No. of Projects	Cap. in MW	No. of Projects	Cap. in MW	No. of Projects	Cap. in MW	No. of Projects	Cap. in MW
1	Himurja	51	182.6	124	365.42	257	509.79	432	1057.81
2	HPSEBL	2	110	-	-	4	70.5	6	180.5
3	HPPCL	5	856	8	1285	7	963	20	3104
4	Central & Joint	4	2532	1	66	1	588	6	3186
5	Private	24	765.5	24	865.5	30	3354.5	78	4985.5
	Total	**86**	**4446.1**	**157**	**2581.92**	**299**	**5485.79**	**542**	**12513.81**

Source: Deptt. Of Energy, GoHP

7.7.4.4 The total capacity of the projects of Himurja, HPSEBL and HPPCL under various stages is more than 4000 MW. Considering a power availability of 4 MUs per MW, the approximate power available from these projects at a rate of 88% will be about 14000 MU.

7.7.4.5 The GoHP free power availability at a rate of 12% (conservative estimates) from all the upcoming projects of approximate capacity of 12000 MW shall be approximately 6000 MUs.

7.7.4.6 In accordance with the terms of the implementation agreement, the quantum of free power from most of the hydroelectric projects in the state will increase after 12 and 30 years of their commercial operation. Therefore the quantum of GoHP free power from existing/ upcoming projects in the State in longer time will be more than the above conservative estimates.

7.7.4.7 Therefore in longer time period of about 25 years the expected availability and demand scenario of power in the State of HP will be as follows:

Table 117: Long term Availability and Demand Scenario in Himachal Pradesh

Sr. No.	Source of Supply	App. Quantum Million Units (MUs)
1.	Existing Sources/PPAs of HPSEBL	12,400
2.	Expected Availability in future from Himurja, HPSEBL and HPPCL Projects	14,000
3.	Expected Additional Availability in future from GoHP Free Power	6,000
	TOTAL Availability	32,400 MUs
4.	Estimated Demand	29,000 MUs

In addition to the above, HPSEBL will also have shares in various projects of CPSUs like NTPC, NHPC, NPCIL, SJVNL etc. outside the State.

7.7.4.8 HPSEBL can meet most of its power requirement from the current tied up sources of power and from the hydro power potential available/ being harnessed in the State. Since in case of hydroelectric power projects, after the initial period of loan repayment, the power is available at very cheaper rates, the average power purchase rate of HPSEBL over longer periods is expected to be largely stable.

7.7.4.9 Power purchase cost is one of the major components of Annual Revenue Requirement and in today's context it constitutes approximately 65% to 70% of the total revenue requirement of HPSEBL. Stability in power purchase costs of the distribution licensee is therefore indicative of the tariff stability in longer time horizon.

7.7.5 The Commission, keeping in view the availability of hydel power from projects within the State on long term basis and also huge perennial potential of power from water in its river systems, is of the view that the HPSEBL should have power procurement policy where in it shall procure only the clean energy from hydel sources within the State, supplemented by renewable sources like solar and wind set up in the State only. It shall also have a choice of procuring clean energy from Nuclear power stations of CPSUs outside H.P., if it so merits. This policy of Green Energy purchase will also provide the customer of the State of required energy security on sustainable basis.

7.7.6 The hydel energy, apart from providing energy security on sustained availability basis, has attendant strength of stability of price over the life of the generating station and also its long term visibility. Electricity prices from hydel sources are also always cheaper and much cheaper. There is regulated tariff regime for hydel sources and there are no raw material inputs, unlike in thermal, nuclear, biomass etc., which have huge variation causing volatility. During the minimum project life of 40 years, there is levelized tariff for 40 years or periodic tariff wherein price is higher in the first and last 10 years and lowest during the intervening 20 years. Various sources having different life cycles will eventually balance the tariff and therefore aggregate tariff from all sources balance out, remain stable and near constant.

7.7.7 In the present portfolio average rate from hydel purchase is less than Rs.2.00 per unit (as low as 40 paise in some stations) and from thermal sources is more than Rs.4.00 per unit (as high as Rs.10.00 from some gas based stations). Even though average cost of hydel may rise due to increased capital cost and higher equity component, the difference will continue because thermal is also on rise. Procurement from within the State will also save costs of transmission, including losses and operators charges.

7.7.8 Accordingly, the Commission feels that futuristic policy of power consumption from Green and Clean Sources and technologies is desirable and feasible and therefore proceeds with strategy to procure 100% green power and such procurements will be from sources within the State only; i.e. hydel sources supplemented with solar and wind. Purchase from outside could be from nuclear sources of Centre Govt. PSU stations, if so merits. Licensee can meet its base load requirements from these sources by making prudent management. Hydel sources shall inherently have surpluses always, during summer and monsoon when power requirements are very high for agriculture and climate needs outside Himachal. Since hydel power is cheaper, stable and predictable generally, surpluses can be used as a powerful commercial tool for banking or sale for making cheaper power available during deficit winter season and also for profits for strength of the licensee. Tariff stability based on cheaper power and long term visibility of availability on cheaper rates of such power is important for investment decisions by the private sector in industry, services and infrastructure projects for development and growth and also by individual consumers for accessing services and technology from diversification of farm production,

development of services, improvement of incomes and enhancement of quality of life particularly in rural areas and Himachal is near 100% rural.

7.8 Power Purchase Cost

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

Generation cost of HPSEBL own stations

7.8.2 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 Third Control Period for the HPSEBL Generation.

7.8.3 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, Thirot, Gumma, Holi, Bhaba Aug, Sal-II and Killar.

Cost of Free Power

7.8.4 As per the Commission's Order dated 23.05.2014, the purchase rate of free power available to the HPSEBL from GoHP has been fixed at 287paise/unit (inclusive of trading margin, if any) for FY15. Therefore, in order to project the power purchase cost for the Control Period the Commission has considered 287paise/unit as the rate of free power available to the HPSEBL from GoHP for the entire Control Period. The Commission would like to clarify that the rate of free power considered by the Commission for FY16 to FY19 is provisional and would be trued up as per the free power rate orders for respective years.

Cost of Power from NPCIL Stations

7.8.5 The cost of power for NPCIL plants for FY15 has been considered as per CEA notification dated 1.07.2012. The projection of cost for remaining years of MYT Control Period has been done considering an annual escalation of 3%.

7.8.6 In case of new generating station of NPCIL, i.e. RAPP- VII & VIII, the Commission has considered charge of Rs.3.50/kWh for FY15 which is escalated at 3%p.a. for each following year of MYT Control Period.

Cost of Power from BBMB and Other Plants

7.8.7 The cost of power from BBMB, Dehar, Pong, Shanan, and Khara has been considered based on the actual power purchase cost during FY14 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

7.8.8 In absence of a final tariff approved for Nathpa Jhakri, the Commission has considered the provisional annual charges approved by CERC and has considered the fixed and variable charges as per the applicable CERC tariff regulations. The other charges have been considered based on actual for FY14 as submitted by the Petitioner.

Cost of Power from IPPs and Private SHPs

7.8.9 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.

7.8.10 The average rate of power from private SHP during FY14 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 the third Control Period, 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.

7.8.11 APPC for purchase of power from SHPs generator in the State availing REC facility has been considered as per petition for determination of APPC i.e. Rs. 2.24/ unit.

Cost of Additional Solar Power

7.8.12 In addition to the solar power being procured by HPSEBL from Singrauli solar power plant, the additional quantum has been considered from other sources. Since the power from Singrauli solar plant is bundled with Singrauli thermal power, a rate of Rs.4.50 per unit has been considered. For purchase of the balance solar quantum from meeting the RPPO obligation, the Commission has considered the floor rate of REC approved by CERC in addition to the APPC approved by the Commission for FY14.

7.8.13 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. The additional quantum of solar power to be purchased during FY16 and FY17 is 0.74 MU and 18.40 MU, respectively. Since the Petitioner is expected to have availability of higher than the required RPPO obligation for FY16 from Singrauli solar, the Commission has considered the balance quantum of 0.53 MU to be purchased additionally during FY16. The floor price of solar REC has been considered for approving the cost of the additional quantum of solar power.

Cost of Power from NTPC stations

7.8.14 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 the Third Control Period.

7.8.15 The variable cost for existing NTPC thermal generating stations, including Fuel Price Adjustment (FPA) for the Control Period has been based upon the actual power purchase data for FY14, as submitted by the HPSEBL in Form 4a. An escalation of 5% has been applied to arrive at the variable cost for subsequent years. Other Charges (per unit) have been considered to be at the same level as those paid in FY14 by the HPSEBL as submitted in Form 4a.

7.8.16 In case of generating stations including thermal and hydro which are expected to be commissioned during the MYT period, the Commission has considered a flat tariff of Rs.4.50/kWh during the entire MYT Control Period.

Cost of Power from NHPC Plants

7.8.17 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 Third Control Period. The other charges paid by NHPC are considered to be at the level as actually paid by HPSEBL during FY14, although tariff from these stations may go down.

7.8.18 In line with cost of generation from new plants of NTPC, the Commission has considered a flat charge of Rs.4.50/kWh for the new hydro projects of NHPC which are expected to be commissioned during the MYT Control Period.

Cost of Power from THDC Plant

7.8.19 The cost of power from Tehri and Koteshwar Hydro project has been projected for each year of MYT Control Period based on the actual cost paid during FY14, as per the submissions of the Petitioner.

7.8.20 Based on the principles discussed above, the table below summarizes power purchase cost of each plant for the MYT Control Period.

Table 118: Source wise Power Purchase Cost for the Third Control Period

Name of Plant	FY 15		FY 16		FY 17		FY 18		FY 19	
	MU s	Cost (Rs.Cr.)	MU s	Cost (Rs.Cr.)	MU s	Cost (Rs.Cr.)	MU s	Cost (Rs.Cr.)	MU s	Cost (Rs.Cr.)
Own Generation										
Bhaba	463.77	28.55	463.77	28.32	463.77	30.58	463.77	33.06	463.77	35.76
Bassi	346.14	24.89	346.14	25.24	346.14	25.71	346.14	26.31	346.14	27.05
Giri	288.97	24.08	288.97	20.38	288.97	21.87	288.97	23.79	288.97	26.01
Andhra	86.43	8.83	86.43	9.57	86.43	10.38	86.43	11.27	86.43	12.24
Ghanvi	81.15	18.26	81.15	18.26	81.15	18.26	81.15	18.26	81.15	18.26
Baner	52.86	8.77	52.86	9.27	52.86	9.81	52.86	10.41	52.86	11.07
Gaj	33.38	9.15	33.38	9.67	33.38	10.24	33.38	10.87	33.38	11.55
Larji	515.37	129.40	515.37	124.95	515.37	120.69	515.37	112.43	515.37	114.21
Khauli	43.65	9.82	43.65	9.82	43.65	9.82	43.65	9.82	43.65	9.82
Binwa	29.05	4.71	29.05	5.14	29.05	5.60	29.05	6.11	29.05	6.67
Thirot	17.58	3.96	17.58	3.96	17.58	3.96	17.58	3.96	17.58	3.96
Gumma	11.71	2.64	11.71	2.64	11.71	2.64	11.71	2.64	11.71	2.64
Holi	11.71	2.64	11.71	2.64	11.71	2.64	11.71	2.64	11.71	2.64
Bhaba Aug	17.58	3.96	17.58	3.96	17.58	3.96	17.58	3.96	17.58	3.96
Nogli	9.75	2.53	9.75	2.77	9.75	3.03	9.75	3.31	9.75	3.62
Rongtong	7.56	1.87	7.56	2.02	7.56	2.19	7.56	2.37	7.56	2.57
Sal-II	7.79	1.75	7.79	1.75	7.79	1.75	7.79	1.75	7.79	1.75
Chaba	7.59	0.73	7.59	0.79	7.59	0.87	7.59	0.95	7.59	1.04
Rukti	6.47	1.48	6.47	1.62	6.47	1.77	6.47	1.94	6.47	2.12
Chamba	1.75	0.29	1.75	0.31	1.75	0.34	1.75	0.38	1.75	0.41
Killar	1.15	0.26	1.15	0.26	1.15	0.26	1.15	0.26	1.15	0.26
Uhl III - BVPCL	-	-	343.09	154.39	343.09	154.39	343.09	154.39	343.09	154.39
Ghanvi II	45.77	14.53	45.77	14.53	45.77	14.53	45.77	14.53	45.77	14.53
Total - Own Generation	**2,087.18**	**303.08**	**2,430.27**	**452.24**	**2,430.27**	**455.27**	**2,430.27**	**455.39**	**2,430.27**	**466.51**
Free Power										

Name of Plant	FY 15		FY 16		FY 17		FY 18		FY 19	
	MU s	Cost (Rs.Cr.)	MU s	Cost (Rs.Cr.)	MU s	Cost (Rs.Cr.)	MU s	Cost (Rs.Cr.)	MU s	Cost (Rs.Cr.)
Shanan Share	2.63	0.75	2.63	0.75	2.63	0.75	2.63	0.75	2.63	0.75
Ranjeet Sagar Dam Share	68.63	19.70	68.63	19.70	68.63	19.70	68.63	19.70	68.63	19.70
Malana	64.49	18.51	64.49	18.51	64.49	18.51	64.49	18.51	64.49	18.51
Baspa (Primary & Sec.)	143.18	41.09	143.18	41.09	143.18	41.09	143.18	41.09	143.18	41.09
Ghanvi	11.07	3.18	11.07	3.18	11.07	3.18	11.07	3.18	11.07	3.18
Baner	7.21	2.07	7.21	2.07	7.21	2.07	7.21	2.07	7.21	2.07
Gaj	4.55	1.31	4.55	1.31	4.55	1.31	4.55	1.31	4.55	1.31
Larji	70.28	20.17	70.28	20.17	70.28	20.17	70.28	20.17	70.28	20.17
Khauli	5.95	1.71	5.95	1.71	5.95	1.71	5.95	1.71	5.95	1.71
Uhl-III	-	-	46.78	13.43	46.78	13.43	46.78	13.43	46.78	13.43
Ghanvi II	6.24	1.79	6.24	1.79	6.24	1.79	6.24	1.79	6.24	1.79
Small HEP/ Private Micro – Free	40.24	11.55	40.24	11.55	40.24	11.55	40.24	11.55	40.24	11.55
Total	**424.47**	**121.82**	**471.25**	**135.25**	**471.25**	**135.25**	**471.25**	**135.25**	**471.25**	**135.25**
NTPC										
Anta (G)	79.13	31.33	79.13	32.51	79.13	33.75	79.13	35.05	79.13	36.42
Auriya (G)	90.66	39.38	90.66	40.93	90.66	42.55	90.66	44.26	90.66	46.05
Dadri (G)	179.59	72.43	179.59	75.56	179.59	78.85	179.59	82.30	179.59	85.93
Unchahar-I	50.04	18.34	50.04	19.04	50.04	19.78	50.04	20.56	50.04	21.38
Unchahar-II	85.70	31.48	85.70	32.68	85.70	33.94	85.70	35.26	85.70	36.65
Unchahar-III	57.09	23.50	57.09	24.30	57.09	25.13	57.09	26.00	57.09	26.92
Rihand-1 STPS	245.23	53.97	245.23	55.66	245.23	57.43	245.23	59.29	245.23	61.25
Rihand-2 STPS	236.27	54.11	236.27	55.73	236.27	57.43	236.27	59.21	236.27	61.09
Rihand-3 Units-1,2	118.46	26.67	118.46	27.47	118.46	28.32	118.46	29.20	118.46	30.13
Singrauli Solar	99.53	44.79	132.58	59.66	132.58	59.66	132.58	59.66	132.58	59.66
Kol dam HEP	15.76	7.09	100.25	45.11	100.25	45.11	100.25	45.11	100.25	45.11
Total NTPC	**1,257.46**	**403.09**	**1,375.01**	**468.65**	**1,375.01**	**481.96**	**1,375.01**	**495.93**	**1,375.01**	**510.59**
NPCIL										

Name of Plant	FY 15		FY 16		FY 17		FY 18		FY 19	
	MU s	Cost (Rs.Cr.)	MU s	Cost (Rs.Cr.)	MU s	Cost (Rs.Cr.)	MU s	Cost (Rs.Cr.)	MU s	Cost (Rs.Cr.)
NAPP	69.27	16.80	69.27	17.31	69.27	17.83	69.27	18.36	69.27	18.91
RAPP (V & VI)	103.34	35.22	103.34	36.28	103.34	37.37	103.34	38.49	103.34	39.64
RAPP (VII & VIII)	-	-	-	-	-	-	171.48	65.58	171.94	67.73
Total NPCIL	**172.61**	**52.03**	**172.61**	**53.59**	**172.61**	**55.19**	**344.09**	**122.43**	**344.55**	**126.29**
NHPC										
Salal	31.79	5.38	31.79	5.38	31.79	5.38	31.79	5.38	31.79	5.38
Tanakpur	17.14	3.84	17.14	3.84	17.14	3.84	17.14	3.84	17.14	3.84
Chamera I	71.04	11.46	71.04	11.46	71.04	11.46	71.04	11.46	71.04	11.46
Chamera II	52.54	13.85	52.54	13.85	52.54	13.85	52.54	13.85	52.54	13.85
Chamera III	40.41	15.82	40.41	15.82	40.41	15.82	40.41	15.82	40.41	15.82
Uri	73.06	13.06	73.06	13.06	73.06	13.06	73.06	13.06	73.06	13.06
Dhauliganga	40.45	11.49	40.45	11.49	40.45	11.49	40.45	11.49	40.45	11.49
Parbati II	-	-	-	-	86.29	38.83	86.29	38.83	86.29	38.83
Parbati III	56.24	25.31	65.55	29.50	65.55	29.50	65.55	29.50	65.55	29.50
Total NHPC	**382.67**	**100.21**	**391.98**	**104.40**	**478.27**	**143.23**	**478.27**	**143.23**	**478.27**	**143.23**
THDC										
Tehri	102.79	40.75	102.79	40.75	102.79	40.75	102.79	40.75	102.79	40.75
Koteshwar	33.24	10.99	33.24	10.99	33.24	10.99	33.24	10.99	33.24	10.99
Total THDC	**136.02**	**51.73**	**136.02**	**51.73**	**136.02**	**51.73**	**136.02**	**51.73**	**136.02**	**51.73**
CG and shared stations										
BBMB Old	43.80	3.77	43.80	3.77	43.80	3.77	43.80	3.77	43.80	3.77
BBMB New	334.30	14.93	334.30	14.93	334.30	14.93	334.30	14.93	334.30	14.93
Dehar	182.56	12.72	182.56	12.72	182.56	12.72	182.56	12.72	182.56	12.72
Pong	42.62	1.62	42.62	1.62	42.62	1.62	42.62	1.62	42.62	1.62
Shanan (available to HPSEB)	5.26	0.21	5.26	0.21	5.26	0.21	5.26	0.21	5.26	0.21
Shanan Ext (available to HPSEB)	45.00	0.93	45.00	0.93	45.00	0.93	45.00	0.93	45.00	0.93

Name of Plant	FY 15		FY 16		FY 17		FY 18		FY 19	
	MU s	Cost (Rs.Cr.)	MU s	Cost (Rs.Cr.)	MU s	Cost (Rs.Cr.)	MU s	Cost (Rs.Cr.)	MU s	Cost (Rs.Cr.)
Yamuna	367.86	29.23	367.86	29.23	367.86	29.23	367.86	29.23	367.86	29.23
Khara	72.31	2.68	72.31	2.68	72.31	2.68	72.31	2.68	72.31	2.68
Total Others	**1,093.69**	**66.09**	**1,093.69**	**66.09**	**1,093.69**	**66.09**	**1,093.69**	**66.09**	**1,093.69**	**66.09**
SJVNL and others										
Nathpa Jhakri SOR	170.46	43.08	170.46	43.08	170.46	43.08	170.46	43.08	170.46	43.08
Nathpa Jhakri Equity	1,518.29	383.67	1,518.29	383.67	1,518.29	383.67	1,518.29	383.67	1,518.29	383.67
Rampur	45.09	20.29	45.09	20.29	45.09	20.29	45.09	20.29	45.09	20.29
Luhri	-	-	-	-	-	-	-	-	74.55	33.55
Private & IPPs										
Small HEP/ Private Micro <5MW	941.81	262.26	1,021.81	286.08	1,101.81	309.90	1,181.81	333.71	1,261.81	357.53
Small HEP/ Private Micro >5MW	174.97	43.73	194.97	49.51	214.97	55.29	234.97	61.07	254.97	66.85
Small HEP/ Private Micro – under REC framework	154.95	34.71	164.85	36.93	174.75	39.14	184.65	41.36	194.55	43.58
Baspa - II	1,049.98	283.93	1,049.98	247.18	1,049.98	142.31	1,049.98	145.46	1,049.98	145.51
Additional Solar Power	4.83	5.54	-	0.49	1.06	18.32	29.77	34.15	61.42	70.45
Total SJVN & Others	**4,060.39**	**1,077.21**	**4,165.46**	**1,067.22**	**4,276.42**	**1,012.00**	**4,415.03**	**1,062.78**	**4,631.14**	**1,164.50**
Grand Total	**9,614.51**	**2,175.26**	**10,236.30**	**2,399.17**	**10,433.55**	**2,400.72**	**10,743.64**	**2,532.83**	**10,960.21**	**2,664.19**

Merit Order Purchase including for Banking

7.8.21 As per the monthly demand supply analysis detailed in para 7.6.35, it is observed that the Petitioner would be surplus during summer months and deficit during winter months. Therefore, appropriate banking market and bilateral arrangement including additional free power of GoHP 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.

Banking Subject to Prudency

7.8.22 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.****"*

7.8.23 However, it is observed that the Petitioner has not undertaken any significant steps in this matter. The Commission is of the view that the Petitioner should be able to bank only such surplus power which are cheaper or at the price as near as power available in the market or bilateral sources or under unallocated quota of Government of India in a manner that it is able to get a minimum of 20% additional power at the time of return during winters, which would compensate for additional cost of banking transaction and carrying cost of 4-6 months and the acceptable differential between summer and winter market prices. Accordingly, the Commission has considered 1.20 units at the time of every unit of return of banked power by the Petitioner for the Control Period.

7.8.24 As per the demand-supply analysis, the Commission has observed that after meeting the power requirement within the State (including the losses and contingency reserve of additional 350 units) and banking requirements at a reasonable purchase rates for meeting the deficit power during winters, the utility shall be left with surplus power. This surplus power is the most expensive power in the merit order which is primarily available from thermal CGS. The Petitioner should either avoid purchasing power from such stations by surrendering their allocation on longer time periods or 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.

7.8.25 The merit order for each year has been prepared based on the power purchase cost from each station and considering the status of plant i.e. owned generating station, must run stations, power purchase towards renewable power obligations, etc. The merit order for each year of the third Control Period is summarized in tables below:

Table 119: Merit Order for FY15

Stations	Units	Cost	Per Unit
Must Buy Power			
Own Generating Stations*	2,087	303	145

Stations	Units	Cost	Per Unit
Free Power	424	122	287
NPCIL	173	52	301
BBMB & Others	1,094	66	60
NJPS	1,689	427	253
SHPs including at APPC	1,272	341	268
Baspa	1,050	284	270
Singrauli Solar	100	45	450
Solar Power	5	6	1,147
Parbati III	56	25	450
Rampur	45	20	450
Kol dam HEP	16	7	450
Total (Must Buy Plants)	8,010	1,697	212
Chamera I	71	11	161
Salal	2	0	169
Total Power at State Periphery	8,083	1,709	211
Contingency power			
Salal	30	5	169
Uri	73	13	179
Rihand-1 STPS	245	54	220
Tanakpur	2		224
Total Contingency	350	72	206
Banking Power			
Tanakpur	15	3	224
Rihand-3 Units-1,2	118	27	225
Rihand-2 STPS	236	54	229
Chamera II	53	14	264
Dhauliganga	40	11	284
Koteshwar	33	11	331
Unallocated Power	400	134	334
Unchahar-I	50	18	366
Unchahar-II	86	31	367
Chamera III	40	16	391
Anta (G)	79	31	396
Tehri	103	41	396
Banking Power	1,254	392	312
Remaining Banking power- (Free Power)	298	86	287
Total Banking Power	1,553	477	308
Surplus Power			
Dadri (G)	180	72	403
Unchahar-III	57	24	412
Auriya (G)	91	39	434

Stations	Units	Cost	Per Unit
Surplus Power	327	135	413
Grand Total	**10,313**	**2,394**	**232**

*including own generation from less than 25MW projects

Table 120: Merit Order for FY16

Stations	Units	Cost	Per Unit
Must Buy Power			
Own Generating Stations*	2,430	452	186
Free Power	471	135	287
NPCIL	173	54	310
BBMB & Others	1,094	66	60
NJPS	1,689	427	253
SHPs including at APPC	1,382	373	270
Baspa	1,050	247	235
Singrauli Solar	133	60	450
Parbati III	66	29	450
Rampur	45	20	450
Kol dam HEP	100	45	450
Total at State Periphery	8,632	1,909	2.21
Contingency power			
Chamera I	71	11	161
Salal	32	5	169
Uri	73	13	179
Tanakpur	17	4	224
Rihand-1 STPS	12	3	227
Total Contingency power	205	36	178
Banking Power			
Rihand-1 STPS	233	53	227
Rihand-3 Units-1,2	118	27	232
Rihand-2 STPS	236	56	236
Chamera II	53	14	264
Dhauliganga	40	11	284
Koteshwar	33	11	331
Unallocated Power	400	137	343
Unchahar-I	50	19	381
Unchahar-II	86	33	381
Chamera III	40	16	391
Tehri	103	41	396
Remaining Banking power- (Free Power)	237	68	287
Total Banking Power	1,631	486	298
Surplus Power			
Anta (G)	79	33	411
Dadri (G)	180	76	421
Unchahar-III	57	24	426
Auriya (G)	91	41	451
Surplus Power	406	173	426
Grand Total	**10,874**	**2,605**	**240**

*including own generation from less than 25MW projects

Table 121: Merit Order for FY17

Stations	Units	Cost	Per Unit
Must Buy Power			
Own Generating Stations*	2,430	455	187
Free Power	471	135	287
NPCIL	173	55	320
BBMB & Others	1,094	66	60
NJPS	1,689	427	253
SHPs including at APPC	1,492	404	271
Baspa	1,050	142	136
Singrauli Solar	133	60	450
Solar Power	1	18	17,343
Parbati III	66	29	450
Rampur	45	20	450
Kol dam HEP	100	45	450
Total (Must Buy Plants)	8,743	1,858	212.53
Remaining power at State Periphery			
Chamera I	55	9	161
Total at State Periphery	**8,797**	**1,867**	**2.12**
Contingency power			
Chamera I	16	3	161
Salal	32	5	169
Uri	73	13	179
Tanakpur	17	4	224
Rihand-1 STPS	212	50	234
Total Contingency power	**350**	**74**	**213**
Banking Power			
Rihand-1 STPS	34	8	234
Rihand-3 Units-1,2	118	28	239
Rihand-2 STPS	236	57	243
Chamera II	53	14	264
Dhauliganga	40	11	284
Koteshwar	33	11	331
Unallocated Power	400	141	353
Chamera III	40	16	391
Unchahar-I	50	20	395
Unchahar-II	86	34	396
Tehri	103	41	396
Banking Power	1,193	381	320
Remaining Banking power- (Free Power)	637	183	287
Total Banking Power	**1,831**	**564**	**308**
Surplus Power			
Anta (G)	79	34	427

Stations	Units	Cost	Per Unit
Dadri (G)	180	79	439
Unchahar-III	57	25	440
Parbati II	86	39	450
Auriya (G)	91	43	469
Surplus Power	**493**	**219**	**445**
Grant Total	**11,471**	**2725**	**238**

*including own generation from less than 25MW projects

Table 122: Merit Order for FY18

Stations	Units	Cost	Per Unit
Must Buy Plants			
Own Generating Stations*	2,430	455	187
Free Power	471	135	287
NPCIL	344	122	356
BBMB & Others	1,094	66	60
NJPS	1,689	427	253
SHPs including at APPC	1,601	436	272
Baspa	1,050	145	139
Singrauli Solar	133	60	450
Solar Power	30	34	1,147
Parbati III	66	29	450
Rampur	45	20	450
Kol dam HEP	100	45	450
Total (Must Buy Plants)	**9,053**	**1,976**	**218.30**
Chamera I	71	11	161
Salal	32	5	169
Uri	48	9	179
Total at State Periphery	**9,204**	**2,002**	**2.17**
Contingency Power			
Uri	25	4	179
Tanakpur	17	4	224
Rihand-1 STPS	245	59	242
Rihand-3 Units-1,2	63	16	246
Total Contingency Power	**350**	**83**	**237**
Banking Power			
Rihand-3 Units-1,2	56	14	246
Rihand-2 STPS	236	59	251
Chamera II	53	14	264
Dhauliganga	40	11	284
Koteshwar	33	11	331
Unallocated Power	400	145	363
Chamera III	40	16	391
Tehri	103	41	396

Stations	Units	Cost	Per Unit
Remaining Banking power- (Free Power)	1,008	289	287
Total Banking Power	**1,969**	**600**	**305**
Surplus Power			
Unchahar-I	50	21	411
Unchahar-II	86	35	411
Anta (G)	79	35	443
Parbati II	86	39	450
Unchahar-III	57	26	456
Dadri (G)	180	82	458
Auriya (G)	91	44	488
Total Surplus Power	**629**	**282**	**449**
Grand	**12,152**	**2,967**	**244**

*including own generation from less than 25MW projects

Table 123: Merit Order for FY19

Stations	Units	Cost	Per Unit
Must Buy Plants			
Own Generating Stations*	2,430	467	192
Free Power	471	135	287
NPCIL	345	126	367
BBMB & Others	1,094	66	60
NJPS	1,689	427	253
SHPs including at APPC	1,711	468	273
Baspa	1,050	146	139
Singrauli Solar	133	60	450
Solar Power	61	70	1,147
Parbati III	66	29	450
Rampur	45	20	450
Kol dam HEP	100	45	450
Total (Must Buy Plants)	**9,195**	**2,059**	**223.97**
Chamera I	71	11	161
Salal	32	5	169
Uri	73	13	179
Tanakpur	17	4	224
Rihand-1 STPS	172	43	250
Total at State Periphery	**9,560**	**2,136**	**2.23**
Contingency Power			
Rihand-1 STPS	73	18	250
Rihand-3 Units-1,2	118	30	254
Rihand-2 STPS	159	41	259
Total Contingency Power	**350**	**89**	**255**
Banking Power			

Stations	Units	Cost	Per Unit
Rihand-2 STPS	78	20	259
Chamera II	53	14	264
Dhauliganga	40	11	284
Koteshwar	33	11	331
Unallocated Power	400	149	373
Chamera III	40	16	391
Tehri	103	41	396
Remaining Banking power- (Free Power)	1,440	413	287
Total Banking Power	**2,187**	**676**	**309**
Surplus Power			
Unchahar-I	50	21	427
Unchahar-II	86	37	428
Luhri	75	34	450
Parbati II	86	39	450
Anta (G)	79	36	460
Unchahar-III	57	27	472
Dadri (G)	180	86	478
Auriya (G)	91	46	508
Total Surplus Power	**703**	**326**	**463**
Grand Total	**12,801**	**3,227**	**252**

*including own generation from less than 25MW projects

7.8.26 It is observed from the merit order table above that the average power purchase cost from existing PPAs for meeting the sales requirement during the Control Period is in the range of Rs. 2.10/kWh to Rs. 2.24/kWh while the cost of power banked by the utility is higher than Rs. 2.24/kWh and going above Rs. 4.00/kWh. As discussed in the paras above, the Petitioner has number of alternative sources to avoid costly power i.e. GoHP free power, unallocated quota from CGS stations, market purchase, etc. Therefore, the Commission does not find merit in approving cost of power procured from costly sources for banking purposes and has accordingly restricted the power purchase up to the ceiling rate of Rs. 4.00 per unit. The Commission also expects that the rate of the power procured for banking can be lower than the approved power if the Petitioner is able to plan effectively. The balance units have been considered to be procured through the unallocated quota (approx. 400 MUs) and GoHP free share. This is the power purchase quantum and cost of power required for supply within the State by the Licensee and shall be treated accordingly. Any surplus is an obligation under PPA to purchase and has to be managed differently.

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

7.8.27 The cost of the surplus power is the most expensive which ranges from Rs. 4.03/kWh to Rs. 4.34/kWh during FY15. As per the submissions of actual power purchase and sales for FY14, it is observed that the sale of surplus power by the Petitioner in IEX is at an average rate of Rs. 2.19/kWh which is substantially lower than the average procurement cost. The Commission therefore directs the Petitioner to 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.

No Future PPAs from Sources Outside Himachal Pradesh

7.8.28 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 form upcoming thermal sources shall be made in future without prior approval of the Commission.

7.8.29 During summer season when the power is surplus, HPSEBL can bank that power for its usage during winter season for meeting the base load. The Petitioner can thus avoid purchase of costly power from new thermal generating plants by such banking arrangement. If however HPSEBL feels that it needs thermal power to meet its base load requirements, it should observe financial prudency in doing so.

7.8.30 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.

7.8.31 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.

7.8.32 In line with the direction provided in the APR Order for FY14, the Commission has considered contingency surplus of 350 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 of 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.

7.8.33 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.

7.8.34 In view of the above, the merit order for 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 124: Power Purchase Approved for Third Control Period

Power Purchase Summary	FY15			FY16			FY17			FY18			FY19		
	Units	Cost	Per Unit	Units	Cost	Per Unit	Units	Cost	Per Unit	Units	Cost	Per Unit	Units	Cost	Per Unit
Total own generation	2,087	303	145	2,430	452	186	2,430	455	187	2,430	455	187	2,430	467	192
Total free Power	723	207	287	709	203	287	1,108	318	287	1,479	425	287	1,912	549	287
Total NTPC thermal	930	268	288	969	295	305	969	302	311	833	252	303	833	257	309
Total NPCIL	173	52	301	173	54	310	173	55	320	344	122	356	345	126	367
Total NHPC	383	100	262	392	104	266	392	104	266	392	104	266	392	104	266
Total THDC	136	52	380	136	52	380	136	52	380	136	52	380	136	52	380
Total Other CG Stations	1,094	66	60	1,094	66	60	1,094	66	60	1,094	66	60	1,094	66	60
Total SJVNL & Others	4,060	1,077	265	4,165	1,067	256	4,276	1,012	237	4,415	1,063	241	4,557	1,131	248
Total Unallocated power	400	134	334	400	137	343	400	141	353	400	145	363	400	149	373
Grand Total (inc. banking purchase)	**9,985**	**2,259**	**226**	**10,467**	**2,431**	**232**	**10,978**	**2,506**	**228**	**11,523**	**2,685**	**233**	**12,098**	**2,901**	**240**
Banking Power Return	1,863			1,957			2,197			2,363			2,625		
Banking power purchased	1,553			1,631			1,831			1,969			2,187		
Additional Banking Power Return	311	-	-	326	-	-	366	-	-	394	-	-	437	-	-
Total Energy	**10,296**	**2,259**	**219**	**10,793**	**2,431**	**225**	**11,344**	**2,506**	**221**	**11,917**	**2,685**	**225**	**12,535**	**2,901**	**231**

7.9 PGCIL & HPPTCL Charges

7.9.1 PGCIL charges have been approved considering the actual per unit charge as submitted by HPSEBL for FY14 (after netting off any amount recoverable from PTC on account of PGCIL wheeling charges) with an escalation of 10% each year and the quantum of energy projected to be transmitted through the network during each year of the Third Control Period.

7.9.2 The Commission would true up the PGCIL charges for each year of the Control Period based on actual amount paid at the end of each year.

7.9.3 HPPTCL charges 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 Third Control Period are summarized in table below:

Table 125: Approved PGCIL & HPPTCL Charges for Third Control Period

Particulars	FY15	FY16	FY17	FY18	FY19
PGCIL Charges	230.51	258.53	288.29	326.97	365.45
HPPTCL Charges	3.45	3.47	3.32	3.36	3.46

7.10 Other Power Purchase Related Charges

7.10.1 The SLDC charges are considered as approved in the MYT Order for the Third Control Period for HPSLDS.

7.10.2 The short-term open access charges (PTC) have been approved based on the actual open access charges submitted by the Petitioner for FY14 with an annual escalation of 10%. The same would be trued up along with other power purchase cost, based on actual amount paid at the end of each year. The summary of SLDC charges and open access charges are provided in table below:

Table 126: Approved SLDC & Short-term Open Access Charges for Third Control Period

Particulars	FY15	FY16	FY17	FY18	FY19
SLDC Charges	8.37	10.88	11.32	8.89	7.34
Open Access charges	53.12	58.43	64.28	70.71	77.78

Particulars	FY15	FY16	FY17	FY18	FY19
Total	**61.50**	**69.32**	**75.60**	**79.59**	**85.12**

7.11 Operation and Maintenance (O&M) Expenses

7.11.1 As per Regulation 17 (1-a) of the MYT Distribution Regulations, the licensee is required to propose separate trajectories of norms for each component of O&M expenses i.e. employee cost, R&M expense and A&G expense.

7.11.2 The Petitioner has considered a mixed approach wherein few component have been projected as per norms while others have been projected as per actual cost for past years.

7.11.3 It is observed that the Petitioner is not maintaining segregated accounts for its generation and distribution business. Therefore, the Commission is of the view that in absence of segregated accounts for the generation and distribution business, approval of norm based O&M may not be appropriate. The HPERC MYT Distribution Regulations also provide for alternative approach for determination of O&M expense based on actual costs for previous years till such time the norms are fixed by the Commission. The Commission feels appropriate to compute the O&M expense as per Regulation 17 (3) of the MYT Distribution Regulations.

7.11.4 The escalation factor to be applied for projecting the O&M parameters has been considered as per the HPERC MYT Distribution Regulations. The Commission has calculated the Consumer Price Index (CPIinflation) and Wholesale Price Index (WPIinflation) based on the average increase for the preceding three years. The summary of the escalations considered is provided in table below:

Table 127: Average Increase in CPI and WPI Index for past three years

Particulars	CPI inflation	WPI inflation
Average increase in last three years	9.76%	8.62%

7.12 Employee Cost

7.12.1 The Commission has considered the actual employee expense of FY13 as per provisional accounts submitted by the Petitioner as the base for projecting the employee cost for the Third Control Period. The Commission observed that the

salary expense of HPSEBL also includes salary expense for generation function as well as for other functions which are not linked to the distribution function of the Petitioner, like salary expense for Projects and I&P wings and needs to be segregated. Also, the Petitioner was asked to exclude all prior period arrears paid during FY13 from the employee cost of FY13.In response to the queries of the Commission, the Petitioner has submitted the break-up of employee expense between the various functions and has also provided the details of the arrears paid during FY13. The Petitioner has also submitted that the employee expense of FY13 also include provisioning of Rs. 201.62 Cr. towards unfunded pension liabilities of the erstwhile Board. The Commission has excluded the same for the purpose of projection of employee cost.

7.12.2 The Commission also feels that I&P wing should work on self-sustaining basis and be a source of additional income for the HPSEBL. Therefore, though the employee expense has not been considered in the employee expense for the distribution business, yet such expenses have been provided in the ARR because incomes of S&I costs are being received as income from other businesses.

7.12.3 The base year employee cost considered by the Commission for projecting the employee cost for the Control Period is summarized below:

Table 128: Employee Cost for Base Year FY13 (Rs. Cr.)

Particulars	HPSEBL	S&I	Projects	Generation	HPSEBL-Distribution
Gross Salaries and Others Expense (as per provisional accounts)	831.20	4.13	13.32	76.12	737.63
Less: Provision for Employee Benefits	36.00	-	-	-	36.00
Gross salary after adjustment	**795.20**	**4.13**	**13.32**	**76.12**	**701.63**
Terminal Benefits (as per provisional accounts)	593.38	-	0.05	0.63	592.70
Less: Pension-5th Pay Commission Arrears	86.70				86.70
Less: Provision for Employee Benefits	165.62	-	-	-	165.62
Terminal Benefits after adjustment	**341.07**	**-**	**0.05**	**0.63**	**340.39**
Gross Employee Cost	**1,136.26**	**4.13**	**13.37**	**76.75**	**1,042.01**
Less: Capitalization	49.71	4.28	8.98	4.38	32.07
Net Employee Cost	**1,086.55**	**(0.15)**	**4.39**	**72.37**	**1,009.94**

7.12.4 The Commission has determined the employee expense of the Petitioner for the Third Control Period using the methodology provided in the HPERC MYT Distribution Regulations.

7.12.5 The Petitioner was asked to submit human resource plan for the distribution business during the Third Control Period which shall include the number of employees retiring during each year, number of employee required to be recruited, etc. After several reminders, the Petitioner has not been able to submit details required by the Commission. Therefore, the Commission has not considered any addition or retirees in the computation of the employee cost and the same shall be considered at the time of truing-up. Moreover, extension has been granted for 1 year by increase in retirement age.

Pension Expense

7.12.6 For the Third Control Period, the Commission approves the following methodology for approval of pension cost:

a. Pension of all the employees transferred to HPSEBL under transfer scheme June 2010 can be fully recovered under distribution tariff, including leave encashment and gratuity.

b. Pension contribution recoverable as per FR & SR from all employees working w.e.f. 1.04.2010 till date on other business like generation, S&I projects, BVPCL should be recovered from such businesses on normative basis annually to be adjusted against payable pension of employees retired after 31.03.2014.

c. Pension contribution received from deputationists recoverable should be adjusted against current pension liability. Any arrear w.e.f. 1.04.2010 on this account to be fully recovered.

d. Non-recovery of the above pension contributions shall be to the account of HPSEBL.

e. Pension of employees retired before reorganisation cannot be recovered through tariff under O&M expenses or under capital expenses as it is neither the current O&M cost nor there is any regulatory provision (Regulations)

enabling the Commission to recover such costs. Such cost has to be borne by HPSEBL or GoHP as per transfer scheme. The relevant provisions of Transfer Scheme dated 10.6.2010 for such arrangements are as under:-

(1) Clause 5(2) provides that all the personnel of erstwhile Board as on 10.6.2010 shall stand transferred to HPSEBL.

(2) Clause 5(5) and 5(7) (a) provide for protection of pensioner benefits of all employees transferred to HPSEBL.

(3) Clause 5(1) provides for responsibility of HPSEBL and State Govt. to make appropriate arrangements for funding of pension and related benefits for the past employees and also past service of present employees. The provision is substantive and self speaking as under:-

"(10) The HPSEBL shall make appropriate arrangement is regard to the funding for the provision of pension and other related funds of the personnel of the erstwhile Board, including for the due payment of the amounts to personnel who retire till the date of re-vesting and thereafter. The transferees jointly and severely shall make appropriate arrangements to ensure to make such payments to the personnel. In the event of any failure to fulfil above commitments, these obligations shall be discharged by the Government."

7.12.7 Further, the Commission has observed that the pension expense for the HPSEBL includes pension of employees retired prior to unbundling of the erstwhile HPSEB. The Commission had issued directions to HPSEBL to make appropriate arrangements for the unfunded pension liabilities for employees retired prior to unbundling. It is observed that certain efforts were made by the Board to set up Pension Trust and also obtain GoHP contribution. However, no concrete outcome has been witnessed so for. Therefore, either HPSEBL or GoHP should fully provide for such pension cost and if contribution through tariff is required appropriate regulations are required to be in place enabling the HPSEBL to recover such cost through tariff.

7.12.8 Pending such decision of HPSEBL/GoHP, since pension cost has to be met by HPSEBL fully, the Commission suggest that return on equity invested by the State

Govt. in the Generation projects and in the erstwhile Board before reorganisation should be adjusted towards pension cost of pre 2010 retirees and the balance cost may be provisionally provided in the ARR to be recovered through tariff. This ROE amount is Rs. 30.24 Cr. in distribution and Rs. 17.26 Cr. in generation (commissioned projects) totalling to Rs. 47.50 Cr. In case Government of HP and HPSEBL are not able to fully meet this liability on annual basis, HPSEBL may file petition making appropriate provisions in the Regulations or frame new Regulations providing for recovery of uncovered gaps to meet pension liability of pre 2010 retirees through distribution, generation and HPPTCL tariff, as it deems appropriate, within 3 months of this Tariff Order for following the due process for framing the Regulations.

7.12.9 The Petitioner was directed to submit the amount of pension cost for pre and post reorganization of HPSEB by the Commission. The Petitioner has submitted the following details with regard to the same:

Table 129: Detail of Pensioners Pre and Post Reorganization (nos.)

Particulars	Nos
Total pensioners as on 31.3.2010	17,682
Total employees as on 31.3.2010 eligible for Govt. Pension Scheme	21,800
Total employees covered under CPS as on date.	1351

Table 130: Pension Cost of Pre-reorganization retirees/service period proposed in Employee Cost for the Third Control Period (Rs. Cr.)

Particulars	FY15	FY16	FY17	FY18	FY19
Pension of pre-2010 retirees	195	234	258	283	312
Pension contribution for past service upto 31.3.2010 of serving employees as on 1.4.2010.	149	149	149	149	149
Total pension cost	**344**	**383**	**407**	**432**	**461**

7.12.10 The Petitioner has submitted that the pension cost with respect to the retired employees cannot be projected with certainty as the pension is being increased frequently by the Govt. due to grant of dearness relief from time to time, additional pension admissible to pensioners above the age of 80 years and Pension allowance to the pensioners between the age of 65 years to 80 years and the

revision of pension and also the next Pay Commission recommendation, implementation. Therefore, the Commission for the purpose of projection of terminal benefits has considered the FY13 actual terminal benefits (excluding provision for unfunded liabilities and arrears on account of 5th Pay Commission as per the provisional accounts and escalation of 9.76% per annum. Any changes shall be dealt at the time of true-up / mid-term review.

7.12.11 Further, for bifurcation of the pension cost for per 2010 and post 2010 retirees, the Commission has considered the submission of the Petitioner for FY15 for the pre-2010 retirees and has provided a 9.76% increase per annum on the same, based on the CPI as computed above. The balance amount has been treated as pension cost towards post 2010 retirees.

7.12.12 The amount of pension approved in the ARR for Control Period is provided in table below:

Table 131: Pension Cost proposed by Employee Cost Approved for the Third Control Period (Rs. Cr.)

Particulars	FY15	FY16	FY17	FY18	FY19
Pension of employee retired till 31.3.2010	195.00	214.03	234.91	257.83	282.99
Pension and Terminal benefits of employee retired after 31.3.2010	215.87	236.94	260.06	285.43	313.29
Total Pension and Terminal Benefits	**410.87**	**450.97**	**494.97**	**543.27**	**596.28**
Less: Return on Equity of Pre 2010 GoHP in erstwhile Board	47.50	47.50	47.50	47.50	47.50
Net Pension Cost	**363.37**	**403.47**	**447.47**	**495.77**	**548.78**

7.12.13 For capitalizing the employee expenses for the Control Period, the Commission has considered the average capitalization of employee expenses during the last two years as submitted by the Petitioner.

7.12.14 The gross employee cost has been projected based on the actual employee expenses in FY13, as detailed in para 7.12.3 above, with an annual escalation of 9.76% in line with the CPI inflation rate.

7.12.15 The summary of employee expenses only relevant to distribution business approved by the Commission for the Third Control Period is as follows:

Table 132: Employee Cost Approved for the Third Control Period (Rs. Cr.)

Particulars	FY15	FY16	FY17	FY18	FY19
Employee Cost	845.23	927.71	1,018.23	1,117.59	1,226.64
Pension and Terminal benefits	410.87	450.97	494.97	543.27	596.28
Pension of employee retired till 31.3.2010	195.00	214.03	234.91	257.83	282.99
Pension & Terminal benefits of employee retired after 31.3.2010	215.87	236.94	260.06	285.43	313.29
Gross Employee Cost	**1,256.11**	**1,378.67**	**1,513.20**	**1,660.85**	**1,822.91**
Less: Return on GoHP Equity approved for Generation and Distribution	47.50	47.50	47.50	47.50	47.50
Less: Capitalization	42.24	46.36	50.88	55.85	61.30
Net Employee Cost	**1,166.37**	**1,284.81**	**1,414.82**	**1,557.50**	**1,714.12**

7.12.16 Since, the Commission has already provided for pension contributions of the employees engaged in the generation business in the ARR approved for the Third Control Period for the HPSEBL generation business, the pension contribution approved in the ARR for generation business has been included in the non-tariff income of distribution business. Similarly the pension contribution received from employees on deputation has also been included in the non-tariff income. The detail of pension contribution from employees on deputation or in generation business is as under:

Table 133: Pension contribution of Employees in Generation wing and on Deputation

Particulars	FY15	FY16	FY17	FY18	FY19
Pension Contribution of employee on deputation	8.39	8.39	8.39	8.39	8.39
Pension Contribution of generation employees	6.69	7.34	8.06	8.84	9.71
Pension Contribution of BVPCL, Projects & S&I employees	2.56	2.81	3.09	3.39	3.72

7.13 Repairs and Maintenance (R&M) Expense

7.13.1 As per HPERC MYT Distribution Regulations, the R&M expenses are determined based on the following formula:

$$R\&M_n = K * GFA_{n-1}$$

7.13.2 Where, 'K' is a constant (expressed in %) governing the relationship between R&M costs and Gross Fixed Assets (GFA) for the nth year.

7.13.3 The Commission has computed a K-factor of 1.15% being the average of 3 years R&M expenses as a percentage of opening GFA of the respective years. The R&M expense has been considered as per actual submitted by the Petitioner and the opening GFA for the respective year has been considered based on the trued-up GFA for FY11 and approved addition in GFA for FY12 and FY13 for distribution business.

7.13.4 The summary of R&M Expenses approved by the Commission for the Control Period is as shown as follows:

Table 134: R&M Expense Approved for the Third Control Period (Rs. Cr.)

Approved	FY15	FY16	FY17	FY18	FY19
Opening GFA *	3,785.27	4,070.80	4,496.34	5,047.65	5,662.45
Average K Factor	1.15%	1.15%	1.15%	1.15%	1.15%
R&M Expense	43.51	46.79	51.69	58.02	65.09

**GFA includes Rs. 199 Cr. of transmission assets transferred to HPPTCL for computation of R&M expense.*

7.14 Administrative and General (A&G) Expense

7.14.1 The Commission has determined the A&G expenses of the Petitioner for the Control Period using the methodology detailed in the HPERC Distribution MYT Regulations. Hence, the A&G expenses for the nth year of the Control Period (A&Gn) shall be determined using the A&G expenses for the (n-1)th year (i.e. A&Gn-1) and the average increase in the Wholesale Price Index (WPI) for immediately preceding three years before the base year.

7.14.2 The Commission has considered the actual A&G expense for FY13 as per the provisional accounts submitted by the Petitioner. The A&G expense on account of generation business has been excluded. Further, an expenditure of Rs 10.91 Cr. as a part of A&G cost for providing cost-free CFL bulbs to domestic consumers during the FY13 has also been excluded.

7.14.3 The A&G expense for FY13 includes an amount of Rs. 0.05 Cr. towards 'Ombudsman & Consumer grievance redressal forum'. This amount has been excluded from the A&G expense and the planned cost towards 'Ombudsman & Consumer grievance redressal forum' has been considered separately for the Third Control Period.

7.14.4 The adjusted A&G expense considered for FY13 is summarized in table below:

Table 135: A&G Expense considered for FY13 (Rs. Cr.)

Particulars	Amount
Gross A&G Expense for HPSEBL (as per provisional accounts)	45.55
Less:	
A&G Expense for Generation function	1.39
Expense for providing cost free CFL bulbs to domestic consumers	10.91
Ombudsman & Consumer grievance redressal forum	0.05
Gross A&G Expense for HPSEBL distribution business	**33.20**

7.14.5 Capitalization has been considered as per actual capitalization during FY13. The A&G expense approved by the Commission for the Third Control Period is shown in table below:

Table 136: A&G Expense Approved for the Third Control Period (Rs. Cr.)

Approved	FY15	FY16	FY17	FY18	FY19
Gross A&G Expense	39.17	42.55	46.21	50.20	54.52
Capitalization	3.13	3.40	3.69	4.01	4.35
Net A&G Expense	**36.04**	**39.15**	**42.52**	**46.19**	**50.17**
Add: Ombudsman & Consumer grievance redressal forum	0.31	0.33	0.36	0.39	0.43
A&G Expense Approved	**36.35**	**39.48**	**42.89**	**46.58**	**50.60**

7.15 Capital Investment

7.15.1 The Petitioner has submitted a Business Plan for the distribution business for the Third Control Period reflecting the capital investment plan for each year of the Control Period. The Petitioner has proposed various capital works with a total expenditure of Rs. 3622 during the Third Control Period. However, during the scrutiny of the business plan it was observed that the Petitioner has not provided the complete details of the works. The Petitioner was asked to submit the details of capital expenditure undertaken during the second Control Period, capital work in progress, etc. In the reply dated 07.04.2014, the Petitioner stated that the details regarding capital expenditure and capitalization is being prepared and will be submitted separately. No such detail has been received.

7.15.2 In view of the large capital investment proposed by the Petitioner, the Commission is of the view that expenditure against many schemes proposed by the Petitioner during

the Third Control Period had been approved in the previous MYT Order. Due to delay in implementation of these schemes, capital expenditure on these schemes have been included in the Third Control Period by the Petitioner. The Commission has not trued-up the capital investment and capitalization for the Second Control Period. The Commission, in the event of absence of detailed information and considering the past experience of implementation of capital expenditure, has provisionally considered an amount of Rs. 2,220 Cr. towards capital expenditure for the Control Period for the purpose of ARR projections as against an amount of Rs. 3622 Cr. submitted by the Petitioner. However, the schemes amounting to Rs. 3622 Cr. submitted by the Petitioner are approved as per Annexure II.

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.

b. The Commission approves this large amount of capex because of equity in priorities in the entire State, pre-operative time involved, evacuation network etc. and actual expenditure will be less because some schemes will roll over to next MYT Control Period.

c. The licensee shall streamline its process for decision making, financing, tendering and contracting to enhance its capacities for speedy execution of schemes for cost efficiency and quality of service enhancement.

d. The licensee shall undertake only such works as considered viable based on the cost benefit analysis.

e. The licensee shall ensure the capital cost recoverable from the prospective consumer as per the relevant regulations.

f. 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.

g. This does not include the deposit works which shall be undertaken only after receipt of estimated cost from the concerned persons.

h. The Petitioner shall submit the quarterly progress report of actual capital investment within one month of the respective quarter.

i. The Commission shall review the capital investment for each year during the mid-term review and at the end of the Control Period based on the actual capital investment carried out by the Petitioner

7.15.3 The Commission in its APR Order for FY 14 under Second MYT Control Period had stated the following:

"The Commission, vide its Second MYT Tariff Order dated 19 July 2011, had provisionally approved the Capital Investment Plan of Rs 1485.50 Cr for the Control Period. The same was reiterated by the Commission vide its letter HPERC/476-Vol-VI/2011-12/2493 dated 4 November 2011 while disallowing the Capital Investment for 400 kV sub-station at Kunihar and IT schemes. The list of works in hand to be completed by FY14 at a total cost of Rs. 1510.11 Cr is annexed at Annexure III HPSEBL has prepared a list of works with cost of about Rs 350.00 Cr to be approved by the Government of India under National Electricity Fund (NEF) Interest Subsidy scheme wherein 7% interest subsidy is provided to all schemes for distribution reforms up to 66 kV systems. The scheme of subsidy is admissible for only those schemes which are approved by the Government of India till March, 2014. HPSEBL has taken a good initiative to send the first batch of schemes for Government of India approval. ***The Commission directs HPSEBL to prepare all such proposals/ schemes that are required within next few years and send them well in time for approval of Government of India. If such proposals include schemes which are not approved by Commission for the second MYT period, HPSEBL will send these schemes for prior approval of the Commission to be rolled over to third***

MYT period for execution. The Commission also makes it clear that it will not approve any scheme in the next MYT period under CAPEX unless they are approved in NEF interest subsidy scheme. However, if any scheme is eligible under revised guidelines of R-APDRP or RGGVY, these may be proposed in R-APARP/ RGGVY on first priority because these are grants and only when not covered, these may be proposed under NEF Interest subsidy scheme."

7.15.4 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.

7.15.5 The Petitioner vide M.A. No. 116/2014 dated 17.05.2014 made a representation regarding approval of additional capital expenditure of Rs. 12 Cr. towards establishment of ALDC during the Third Control Period. The Commission approves establishment of ALDC by the Petitioner and provisionally approves the amount of Rs. 12 Cr. for its construction. However, it is clarified that the approved cost towards establishment of ALDC is part of the approved capital expenditure of Rs. 2220 Cr. for the Third Control Period.

7.16 Asset Capitalisation

7.16.1 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.

7.16.2 For approving the capitalization for the Control Period, the Commission has considered the following:-

a. Closing CWIP approved in the end of the Second Control Period to be capitalised during the entire Control Period in equal proportion.

b. In absence details of capitalization submitted by the Petitioner for the distribution business during the Second Control Period, the Commission has considered new investment in any year of the Third Control Period to be capitalized in the ratio of 20:25:25:15:15 in the first, second, third, fourth and fifth year from the inception of the scheme.

7.16.3 Based on the above, the Commission has determined the following capitalization schedule for the investments proposed during the Control Period. The Commission would like to clarify that capitalization approved as follows is provisional and is subjected to true-up on the basis of actual capital investment made and the schemes commissioned by the Petitioner:

Table 137: Capitalization Schedule for the Third Control Period (Rs. Cr.)

Particulars	Investment	FY15	FY16	FY17	FY18	FY19
New Investment of FY15	429.88	85.98	107.47	107.47	64.48	64.48
New Investment of FY16	592.56	-	118.51	148.14	148.14	88.88
New Investment of FY17	480.78	-	-	96.16	120.19	120.19
New Investment of FY18	412.00	-	-	-	82.40	103.00
New Investment of FY19	305.20	-	-	-	-	61.04
Capitalization of Investment prior to FY15	997.80	199.56	199.56	199.56	199.56	199.56
Total Capitalization		**285.54**	**425.54**	**551.33**	**614.78**	**637.16**

7.17 Depreciation

7.17.1 For approving the depreciation for the Third Control Period, the Commission has first determined the opening and closing GFA of the distribution business. 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.

7.17.2 The Commission has calculated the depreciation on the average of GFA for the respective year and since the Petitioner has not prepared a Fixed Asset Register (FAR), the Commission has considered the rate of depreciation as 2.50% in line with the practice followed in the previous tariff orders.

7.17.3 As per the Regulation 23 of the HPERC MYT Distribution Regulations, the depreciation shall be computed as follows:

"Depreciation shall be calculated for each year of the Control Period, on the amount of original cost of the fixed assets of the corresponding year:

Provided that depreciation shall not be allowed on assets funded by capital subsidies/grants and consumer contributions:"

7.17.4 The Petitioner has not reduced the depreciation on assets funded from grants and consumer contribution in its petition. Therefore, the Commission directed the Petitioner to submit details of assets created from grants and consumer contribution. However, the Petitioner has provided the details of opening and closing balance of grants and consumer contribution for last three years.

7.17.5 In absence of appropriate information, the Commission has allocated the amount of grant and consumer contribution submitted by the Petitioner in ratio of the opening GFA and CWIP considered for the Third Control Period.

7.17.6 The summary of the GFA and depreciation approved by the Commission for the Control Period is shown in table below:

Table 138: Approved Depreciation for the Third Control Period (Rs. Cr.)

Particulars	FY15	FY16	FY17	FY18	FY19
Total GFA					
Opening GFA	3,586.18	3,871.71	4,297.25	4,848.58	5,463.36
Addition	285.54	425.54	551.33	614.78	637.16
Reduction	-	-	-	-	-
Closing GFA	3,871.71	4,297.25	4,848.58	5,463.36	6,100.52
Assets created from Grants/ Consumer Contribution					
Opening GFA	1,197.83	1,241.26	1,306.13	1,367.34	1,432.82
Addition	43.43	64.87	61.21	65.48	65.53
Closing GFA	1,241.26	1,306.13	1,367.34	1,432.82	1,498.35
Depreciation on Total Assets	93.22	102.11	114.32	128.90	144.55
Less:					
Depreciation on Assets created from Grants/ Consumer Contribution	30.49	31.84	33.42	35.00	36.64
Net Depreciation	**62.74**	**70.27**	**80.90**	**93.90**	**107.91**

7.18 Working Capital Requirement

7.18.1 The working capital requirement has been computed based on the Regulation 32 of HPERC MYT Distribution Regulations 2011, which states as:

"The Commission shall calculate the working capital requirement for the wheeling business containing the following components: -

(a) O&M expenses for one month;

(b) receivables for two months of the wheeling charges;

(c) maintenance spares @ 40% of R&M Expenses for one month; and

Less:

(i) power purchase costs for one month; and

(ii) consumer security deposit, if any."

7.18.2 Based on the approved O&M Expenses, expected receivables and consumer security deposits, the Commission approves the working capital requirement for the Control Period provided in the table as follows:

Table 139: Working Capital Requirement Approved by the Commission (Rs. Cr.)

Means of Finance	FY15	FY16	FY17	FY18	FY19
1/12th of total O&M Expenses	103.94	114.34	125.87	138.59	152.57
Receivables equivalent to 2 months average billing	727.42	761.32	799.93	840.90	884.40
Maintenance Spares 40% of the R&M expense for one month	1.45	1.56	1.72	1.93	2.17
Less: Consumer Security Deposit	297.48	319.71	341.93	364.16	386.38
Less: One Month Power Purchase	212.85	230.21	239.41	257.92	279.59
Working Capital Requirement	**322.48**	**327.30**	**346.18**	**359.35**	**373.16**

7.19 Interest and Financing Charges

7.19.1 The Commission has approved the true-up of the capital investment plan as well as its capitalization schedule, source of funding and financing for the first MYT Control Period. Further, the Commission has also approved the capital investment and capitalization schedule for the Second Control Period which shall be trued-up at the end of the second Control Period. Therefore, for the purpose of determining the funding and financing for the third Control Period, the Commission has considered the trued-up funding and financing of the first MYT Control Period, approved funding and financing for the capitalisation approved for the Second Control Period and the approved funding and financing for the additional capitalization for the Third Control Period.

7.19.2 Accordingly, the Commission has considered the outstanding loans at the end of FY14 approved in the second MYT Order, new loans approved for first and second Control Period and the repayment schedule of the respective loans during the Control Period in addition to the financing requirement for capital expenditure approved by the Commission for the Third Control Period

7.19.3 The Petitioner in its petition has proposed to fund the capital expenditure for the Control Period through debt, grant and equity.

7.19.4 The Commission has analyzed the means of finance for the distribution schemes approved for the Control Period and has considered the following:

a. As per the MYT Regulations, debt or normative loan would be allowed only on the capitalized assets and not on the capital works in progress. Thus, the Commission has considered the approved assets capitalization in each year as the funding requirement for that year of the Control Period.

b. For capitalization of CWIP of second Control Period, the Commission has considered the average ratio of grant and debt as approved in the previous Control Period.

c. The Commission has considered the proportion of debt, equity, normative loan and grant proposed by the Petitioner in various schemes for the Third Control Period and has considered the similar ratio of funding for the new capitalization. However, the Commission has considered the equity portion of the projects as debt in line with the methodology followed in the previous MYT Order.

7.19.5 The summary of means of finance approved by the Commission for distribution business is shown in the table as follows

Table 140: Means of Finance Approved by the Commission (Rs. Cr.)

Means of Finance	FY 15	FY 16	FY17	FY 18	FY19
Funding requirement	285.54	425.54	551.33	614.78	637.16
Less: Consumer Contributions/ Capital receipts	-	-	-	-	-
Less: Grants	43.43	64.87	61.21	65.48	65.53
Balance Remaining	242.11	360.67	490.11	549.30	571.63
Funded through Debt	242.11	360.67	490.11	549.30	571.63
Funded through Equity	-	-	-	-	-

7.19.6 The summary of proposed loans approved by the Commission for the Control Period is provided below:

Table 141: Loans Schedule Approved by the Commission (Rs. Cr.)

Loan Schedule		FY 14	FY15	FY16	FY17	FY18	FY19
PFC							
	Opening	7	7	6	5	5	4
	Addition	-	-	-	-	-	-
	Repayments	1	1	1	1	1	1
	Closing	7	6	5	5	4	3
REC							
	Opening	51	20	-	-	-	-
	Addition	-	-	-	-	-	-
	Repayments	32	20	-	-	-	-
	Closing	20	-	-	-	-	-
State Govt.							
	Opening	13	11	9	8	6	4
	Addition	-	-	-	-	-	-
	Repayments	2	2	2	2	2	2
	Closing	11	9	8	6	4	3
New Loans for FY 09-FY11 – First Control Period							
	Opening	64	53	42	31	20	8
	Addition	-	-	-	-	-	-
	Repayments	11	11	11	11	11	8
	Closing	53	42	31	20	8	-
New Loans for FY 12-FY14 – Second Control Period							
	Opening	377	781	687	594	500	407
	Addition	494	-	-	-	-	-
	Repayments	94	94	94	94	94	94
	Closing	781	687	594	500	407	313
New Loan Schedule FY15-19 – Third Control Period							
	Opening		-	218	518	899	1,284
	Addition		242	361	490	549	572
	Repayments		24	60	109	164	221
	Closing		218	518	899	1,284	1,634
Total							
	Opening		872	963	1,156	1,430	1,708
	Addition		242	361	490	549	572
	Repayments		151	167	216	271	326
	Closing		963	1,156	1,430	1,708	1,954

7.19.7 For calculation of interest charges, the Commission has considered the interest rate of the respective loans as approved in the second MYT Order, whereas the interest on new loans has been considered at 12.00%.

7.19.8 In the previous Order, the Commission had directed HPSEBL to prepare all such proposals/ schemes that are required within next few years and send them well in time for approval of Government of India. The Commission makes it clear that it will not approve any interest subsidy component in the ARR on such schemes which have been approved under the NEF interest subsidy scheme. The Petitioner is required to submit such details of schemes approved under NEF to the Commission along with the APR petition for FY16.

7.19.9 MNRE provides funding towards evacuation of power from SHPs which should be utilized by the petitioner. Non utilization of such sources of funding shall be to the account of the petitioner and alternative means of finance shall not be approved by the Commission for such schemes.

7.19.10 The interest on working capital has been considered as per the amendment in distribution regulations dated 1st November 2013. Accordingly, the average base rate of last six months plus 350 basis points have been considered for approving the interest on normative working capital requirement.

7.19.11 Interest of consumer security deposit has been considered at the rate of 9% as per the submission of the Petitioner.

7.19.12 The statement of interest charges approved by the Commission is presented below:

Table 142: Statement of Interest Approved for the Third Control Period (Rs. Cr.)

Interest Schedule	FY 14	FY15	FY16	FY17	FY18
PFC	0.16	0.14	0.13	0.11	0.09
REC	0.97	-	-	-	-
RGGY	-	-	-	-	-
State Govt.	1.20	1.00	0.81	0.61	0.42
New Loans for FY 09-FY11	4.86	3.72	2.57	1.43	0.43
New Loans for FY 12-FY14	88.10	76.87	65.64	54.42	43.19
New Loan Schedule FY15-19	13.07	44.17	85.04	131.00	175.12
Interest on Consumer Deposit	25.77	27.77	29.77	31.77	33.77
Interest on Working Capital	42.78	43.42	45.93	47.67	49.51
Total Interest Charges	176.92	197.10	229.90	267.01	302.53
Less: Interest on Loans transferred for HPPTCL assets	0.31	0.22	0.13	0.04	-

Interest Schedule	FY 14	FY15	FY16	FY17	FY18
Total Interest Expense Approved	**176.61**	**196.88**	**229.76**	**266.97**	**302.53**

7.20 Return on Equity

7.20.1 For the purpose of approval of Return on Equity for the Third Control Period, the Commission has considered the approved closing equity balance in the second MYT Control Period as no additional equity was approved for funding of capitalization for the first Control Period as per the true-up of the First Control Period.

7.20.2 During the third Control Period the Commission does not envisage any equity investment for the approved capitalisation by the Petitioner due to lack of surpluses/ internal accruals. The Commission has, thus, approved ROE at the rate of 16% on the same base of equity which was approved during the Second Control Period, as detailed in the table below:

Table 143: Statement of Return on Equity Approved for the Third Control Period (Rs. Cr.)

Return on equity	FY 14	FY15	FY16	FY17	FY18
Distribution Equity	189.00	189.00	189.00	189.00	189.00
Rate	16.00%	16.00%	16.00%	16.00%	16.00%
Approved RoE	30.24	30.24	30.24	30.24	30.24

7.20.3 The Commission shall, however, true-up the funding and financing approved at the end of the Third Control Period.

7.21 Non-tariff and Other Income

7.21.1 For the purpose of projection of non-tariff and other income, the Commission has considered an increase of 5% over FY13 non-tariff income.

7.21.2 While approving the non-tariff income, the Commission has considered the following:

a. Exclusion of delayed payment surcharge collected from consumers as part of non-tariff income in line with the amended Regulation 25 of the HPERC (Terms and Conditions for Determination of Wheeling Tariff and Retail

Supply Tariff) (Second Amendment) Regulation, 2013, issued in November 2013.

b. Inclusion of balance recoverable amount as income from S&I wing.

As per the information supplied by the Petitioner in the Review order no. 88/2013 decided on 26-11-2013, the Commission had noted:

"Out of total of Rs 467 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 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;"

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.

c. Inclusion of O&M charges recoverable from HPPTCL as per the approved R&M charges in the MYT Order of HPPTCL.

d. Inclusion of pension contribution from employee on deputations in other government departments.

e. Inclusion of pension contribution from generation wing, Projects and S&I for the employees engaged in these businesses.

f. No projections for PLVC charges as the Commission has approved abolition of peak-load violation charges as per the proposal of the Petitioner.

7.21.3 The Non-tariff and Other income approved by the Commission for the Third Control Period is summarized in table below:

Table 144: Statement of Non-tariff and Other Income Approved for the Third Control Period (Rs. Cr.)

Particulars	FY15	FY16	FY17	FY18	FY19
Meter Rent/Service Line Rentals	45.65	47.94	50.33	52.85	55.49
Recovery for theft of Power / Malpractices	0.11	0.11	0.12	0.12	0.13
Wheeling Charges Recovery	89.63	94.11	98.81	103.75	108.94
Miscellaneous Charges from Consumers	6.16	6.47	6.79	7.13	7.49
Sub-Total	**141.55**	**148.63**	**156.06**	**163.86**	**172.05**
Interest on Staff loans & Advances	0.57	0.60	0.63	0.66	0.69
Income from Investments	20.11	21.12	22.18	23.28	24.45
Interest on Loans & Advances to Licencees	-	-	-	-	-
Delayed Payment Charges from Consumers					
Interest on Advances to Suppliers / Contractors	0.28	0.29	0.30	0.32	0.34
Interest on Banks (other than on Fixed Deposits)	-	-	-	-	-
Income fee collected against Staff Welfare Activities	0.10	0.10	0.11	0.11	0.12
Miscellaneous Receipts	4.01	4.21	4.42	4.64	4.87
Recovery of Investigation & Survey Charges	-	-	-	-	-
PLVC charges					
Gain on sale of fixed assets	-	-	-	-	-
Sub-Total	**25.06**	**26.31**	**27.63**	**29.01**	**30.46**
Income from Other Businesses					
Commissioned Projects of Generation Business					
S&I Activity	19.95	19.46	18.92	18.33	17.67
- S&I Income	*25.00*	*25.00*	*25.00*	*25.00*	*25.00*
- Provision of Employee Cost	*5.05*	*5.54*	*6.08*	*6.67*	*7.33*
Income from Trading	1.82	1.91	2.01	2.11	2.22
O&M Charges Recovery from HPPTCL	1.12	1.21	1.32	1.43	1.56
Fee on account of MC Tax Collection					
Pension Contribution of employee on deputation	8.39	8.39	8.39	8.39	8.39
Pension Contribution of generation employees (tentative)	6.69	7.34	8.06	8.84	9.71
Pension Contribution of BVPCL, Projects & S&I employees	2.56	2.81	3.09	3.39	3.72
Sub-Total	**40.53**	**41.13**	**41.78**	**42.49**	**43.26**
Total Non-Tariff Income	**207.14**	**216.07**	**225.47**	**235.36**	**245.77**
Adjustment of Surplus for meeting Pay Revision					
Surplus Against Balance Recovery of S&I			33.66	33.66	33.66
Arrear of Pension Contribution of Employees in Generation, BVPCL, Projects and S&I from 2010 to 2014			12.33	12.33	12.33

Particulars	FY15	FY16	FY17	FY18	FY19
Net Balance			**45.99**	**45.99**	**45.99**

7.22 Aggregate Revenue Requirement

7.22.1 The table given as follows provides a summary view of the Aggregate Revenue Requirement of Distribution business as approved by the Commission for the Third Control Period:

Table 145: Approved ARR for the Third Control Period (Rs. Cr.)

Particulars	FY15	FY16	FY17	FY18	FY19
Power Purchase Expensesfor 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
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**

7.22.2 In addition to the Distribution ARR of Rs. 3999.16 Cr. approved for FY15, the Commission has considered the following adjustments in the ARR for FY15:

a. Revenue Gap on account of provisional true-up approved for FY13

The Commission has approved a revenue gap of Rs. 401.77 Cr. towards truing-up gap for FY13 along with carrying cost of Rs. 63.90 Cr. as detailed in Chapter 6.

b. Provisional amount towards truing-up of FY11 and FY12

The Petitioner has filed a petition on 24.03.2014 for final truing-up for FY11 and FY12 based on audited accounts. The Petitioner was asked to submit additional information in support of the variations in controllable parameters. In absence of required information, the Commission has provisionally approved an amount of Rs. 63.18 Cr. towards truing up for FY11 and FY12. This would help in reducing any carrying cost burden on the consumers at later stage when the final truing-up is undertaken. The Commission has not considered any carrying cost on the provisional gap and shall consider the same at the time of final truing up for the respective year.

c. Impact of Review Order

In accordance with its Review Order no. 88/2013 decided on 26.11.2013, the Commission has considered the approved gap of Rs. 14.55 Cr. to be adjusted in the ARR for FY15.

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

Table 146: Total Revenue Requirement for FY15 including Past Adjustments (Rs. Cr.)

Particulars	Amount
Annual Revenue Requirement approved for FY15	3999.16
Add:	
Trued-up Revenue Gap for FY13	401.77
Carrying Cost on Revenue Gap for FY13	63.90
Provisional amount towards true-up of FY11 & FY12	63.18
Gap approved in the Review Order	14.55
Total Revenue Requirement approved including ARR for FY15, past true-up and impact of Review Order	**4,542.56**

7.23 Allocation of Distribution ARR into Wheeling and Retail Supply

7.23.1 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.

7.23.2 The Petitioner has proposed the allocation of Distribution ARR into Wheeling and Retail Supply business based on the allocation approved by the Commission in the Order for Second Control Period. In absence of segregated information for wheeling and retail supply being maintained by the Petitioner, the Commission has no alternative but to continue with the segregation approved in the previous MYT Order with certain modifications. The revised allocation statement approved by the Commission is as under:

Table 147: 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%

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

Table 148: Approved ARR of Wheeling Business for the Third Control Period (Rs. Cr.)

Particulars	FY15	FY16	FY17	FY18	FY19
Operation & Maintenance Costs	878.43	966.17	1,063.62	1,171.42	1,289.82
Interest & Financing Charges	167.78	187.04	218.28	253.62	287.40
Depreciation	59.60	66.76	76.86	89.20	102.51
Return on Equity	30.24	30.24	30.24	30.24	30.24

Particulars	FY15	FY16	FY17	FY18	FY19
Aggregate Revenue Requirement	**1,136.05**	**1,250.21**	**1,389.00**	**1,544.49**	**1,709.98**

Table 149: Approved ARR of Retail Supply Business 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
Operation & Maintenance Costs	368.80	405.92	446.77	491.69	540.98
Interest & Financing Charges	8.83	9.84	11.49	13.35	15.13
Depreciation	3.14	3.51	4.05	4.69	5.40
Less: Non-Tariff & Other Income	207.14	216.07	225.47	235.36	245.77
Aggregate Revenue Requirement	**2,727.80**	**2,965.74**	**3,109.73**	**3,369.39**	**3,670.81**

8 Tariff Philosophy and Design

8.1 Tariff Principles

8.1.1 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. Guiding principles laid down in Section 61 of the Act are reproduced below:

a. the principles and methodologies specified by the Central Commission for determination of the tariff applicable to generating companies and transmission licensees;
b. the generation, transmission, distribution and supply of electricity are conducted on commercial principles;
c. the factors which would encourage competition, efficiency economical use of the resources, good performance and optimum investments;
d. safeguarding of consumers' interest and at the same time, recovery of the cost of electricity in a reasonable manner;
e. the principles rewarding efficiency in performance;
f. multi-year tariff principles;
g. that the tariff progressively, reflects the cost of supply of electricity, and also reduces and eliminates cross-subsidies within the period to be specified by the Appropriate Commission;
h. the promotion of co-generation and generation of electricity from renewable sources of energy;
i. the National Electricity Policy and Tariff Policy.

8.1.2 Apart from these principles, the National Electricity Policy and National Tariff Policy has also laid down emphasis on Multi-Year Tariff framework, segregation of technical and commercial losses, incentives for the use of pre-paid meters, putting in place the governance structure in distribution needed for ensuring recovery of cost of service from consumers, minimum level of support for consumers of poor categories, need to

correct the imbalance on account of cross subsidy progressively and gradually without giving tariff shock to the consumers and above all, to promote competition which is the very essence of the Electricity Act. The National Electricity Policy also emphasizes that advance subsidy be given by the State Government as per Section 65 of the Act to the power utility and mentions that necessary budgetary provision be made in advance so that the utilities do not suffer financial problems. The Electricity Policy further mentions of the need to make efforts to ensure that subsidies reach the targeted beneficiaries in the most transparent and efficient way.

8.1.3 For determination of tariff, most of the states are following the Average Cost of Supply model. In this regard, the National Tariff Policy in Clause 8.3 on tariff design provides as under:

"1. In accordance with the National Electricity Policy, consumers below poverty line who consume below a specified level, say 30 units per month, may receive a special support through cross subsidy. Tariffs for such designated group of consumers will be at least 50% of the average cost of supply. This provision will be re-examined after five years.

2. For achieving the objective that the tariff progressively reflects the cost of supply of electricity, the SERC would notify roadmap within six months with a target that latest by the end of year 2010-2011 tariffs are within ± 20 % of the average cost of supply. The road map would also have intermediate milestones, based on the approach of a gradual reduction in cross subsidy.

For example if the average cost of service is Rs 3 per unit, at the end of year 2010-2011 the tariff for the cross subsidised categories excluding those referred to in para 1 above should not be lower than Rs 2.40 per unit and that for any of the cross subsidising categories should not go beyond Rs 3.60 per unit."

8.1.4 The Commission has been following the provisions of National Tariff Policy which states that the tariffs should remain within +/-20% of the average cost of supply while determining the tariff under the first and second Control Period. In the earlier Tariff Orders, the Commission has consistently made an effort to reduce the extent of cross-subsidies in the system by reducing the differential between the average revenue realisation and the cost of supply at the respective voltage level. The

Commission has also tried to ensure that no consumer category is subject to a tariff shock and has thus attempted to reduce cross-subsidies in a gradual manner.

8.1.5 Subsequently, 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 added Regulation 41-B which states:

41-B. Cost of Supply and Cross Subsidy

(1) In accordance with the National Electricity Policy and National Tariff Policy, the Commission shall allow recovery of efficient and prudent cost of supply of electricity by the licensee from the consumers to make the power sector sustainable.

(2) The Commission shall be guided by the objective that the tariff progressively reflects the efficient and prudent cost of supply of electricity. The Commission shall also continuously endeavour to rationalise the tariff structures to encourage efficient and prudent end use of electricity.

(3) The Commission shall progressively and gradually reduce the existing cross subsidies without giving tariff shocks to any consumer category and to achieve the objective the Commission shall –

(a) restrict the cross subsidy, while fixing the tariff for 2014-15, for various consumer categories other than the life line domestic consumers, to a level of (±)20% of the average cost of supply;

(b) indicate a roadmap for reduction and/or rationalization of cross subsidies in the MYT Orders for the Control Periods starting from 1.4.2014 and thereafter. The road map shall be based on the approach of a gradual reduction/rationalization in cross subsidy, guided by the principles laid down in the National Tariff Policy, with a target that by the end of the control period starting from 1.4.2014 tariffs for the consumer categories, other than the life line category, are within (-)15% to (+) 10% of the average cost of supply and by the end of the subsequent control period, the same are within (-)10% to (+) 5%;

(c) The life line domestic consumers shall continue to receive a special support through cross subsidy:

Provided that the tariff of the life line domestic consumers shall not be less than 50% of the average cost of supply.

(4) Till such time the overall average per unit tariffs for various categories, other than Life line category, are brought within (-)10% to (+)5% of the average cost of supply as per sub regulation (3) the Commission shall base the tariff fixation exercise during such interim periods on the basis of average cost of supply.

……."

8.1.6 In accordance to the new MYT Distribution Regulations, the Commission has based the tariff fixation exercise for the first year of the Third Control Period keeping in mind the need for 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.

8.1.7 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 methodologies to be broadly followed for the allocation of costs for the purpose of cost to serve calculations have also been specified.

8.1.8 The Commission has been repeatedly giving directions to the Petitioner for submission of relevant data to enable computation of the voltage level cost of supply in a more scientific and robust manner. The Petitioner has submitted some information regarding voltage-wise losses. However, based on initial scrutiny, material irregularities and errors were observed by the Commission. The Commission conducted a meeting with the officials of HPSEBL for removal of the inconsistencies. However, no additional information was submitted by the Petitioner for resolving the inconsistencies observed by the Commission.

8.1.9 The Commission has carried out an exercise for calculating the voltage wise cost to serve with an objective of broadly assessing the trends and levels of voltage wise cost of supply for indicative purposes based on available estimated data, suitable assumptions and concept. This voltage wise cost to serve has been worked out for

indicative purposes only. The Commission does not find it prudent to fix tariff on the basis of this model, which involves many assumptions but could also lead to tariff shocks in the event of its adoption. Based on the availability of data, the Commission may consider progressively moving towards the cost to serve philosophy from next Control Period onwards.

8.1.10 The Commission has developed a Cost to Serve Model based on information provided by the Petitioner. In subsequent sections, the method of computation of the cost-of-supply for FY15 has been explained, along with details of the assumptions taken by the Commission.

8.1.11 The Commission has considered the following assumptions and methodology:

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 its cost-of-supply computation.

(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) As the Petitioner has failed to submit authentic information on losses at different voltage level, the Commission has considered reasonable loss for respective voltage level upon the sales.

(4) Data on cost segregation across voltage levels and consumer category wise is not available with the Commission. Hence, segregation has been done based similar to the previous Orders.

Methodology

8.1.12 Power Purchase Cost: The total cost of power purchase and own generation (reduced by the component of the sale outside the state) has been distributed over the energy sale grossed up for the losses at the respective level on per unit basis. The per unit power purchase cost has been assessed for various voltage level based on incremental costs corresponding to load factors for the consumption at various

levels by adopting merit order concept. Such a methodology has also been broadly envisaged in the Model Regulations of the Forum of Regulators as well as in the HPERC Regulations.

8.1.13 Losses in the distribution system have been allocated based on the voltage level, ranging from 4% for EHV level, 8.5% for HT level and 19% for LT level.

8.1.14 Cost of Supply to consumers at 66 kV and above has been determined by allocating the cost according to the sales in this network (66 kV and above) and power wheeled through this network. However, out of the total cost at 66 kV, a cost of Rs. 20 Cr has been only considered for the sales at 66 kV on account of expenses related to metering and billing related infrastructure / manpower cost only for 66 kV sales.

8.1.15 Cost of Supply to consumers at High Tension (11 kV and above) has been estimated by allocating costs to the sales to HT consumers and power wheeled to reach the LT network. However, out of the total cost at HT, a cost of Rs 40 Cr has been only considered for the sales at HT on account of expenses related to metering and billing related infrastructure/ manpower cost only for HT sales. It also proportionally includes the cost incurred during the wheeling of power at 66 kV and above network.

8.1.16 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 Level

8.1.17 The sales at various voltage levels have been estimated based upon assumptions mentioned above, and are presented in the table as follows:

Table 150: Sales at different Voltage Levels for FY15

Category	FY15			
	Total Sales	EHT (>=66 kV)	HT (>=11 kV & <66kV)	LT (< 11 kV)
Domestic	1,934.3	-	-	1,934.3
NDNCS	122.1	-	36.6	85.5
Commercial (CS)	492.2	-	73.8	418.4
Small & Medium Industrial Power (SMS)	229.4	-	-	229.4
Large Power Supply (LS)	4,688.4	2,070.3	2,618.0	-

Category	FY15			
	Total Sales	EHT (>=66 kV)	HT (>=11 kV & <66kV)	LT (< 11 kV)
Irrigation and Drinking Water Pumping (IDWP)	553.9	-	166.2	387.8
Street Lighting	13.0	-	-	13.0
Bulk supply	157.0	-	100.5	56.5
Temporary Supply	26.9	-	-	26.9
Total (within State)	**8,217.1**	**2,070.3**	**2,995.1**	**3,151.7**

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

Table 151: Cost to Serve

Particulars	Generation busbar	Transmission	Distribution		Total
		>= 66 kV	>=11 kV & <66kV	< 11 kV	
Energy Input (MU)	9,423.3	9,423.3	6,787.6	3,622.8	9,423.3
Loss (MU)		565.4	169.7	471.1	1,206.2
Sales at respective level (MU)		2,070.3	2,995.1	3,151.7	8,217.1
Cost at respective level (Rs. Crore)		476.8	466.9	461.3	
Cost Allocation					
Power Purchase Cost		2.79	2.71	1.84	
Cost of Losses		0.14	0.20	0.41	
Distribution Cost (> 66kV)		0.68	0.58	0.58	
Distribution Cost (> 11 kV)			0.89	0.76	
Distribution Cost (< 11 kV)				1.46	
Cost of Serve Model		**3.61**	**4.38**	**5.06**	**4.56**

**Rs 4.56 per unit is the average cost of supply without considering past gap and carrying cost*

8.1.19 The above cost does not include the impact of the expenses pertaining to the past periods which have been approved at Rs. 543.40 Cr. (on account of True up for FY13 along with carrying cost, provisional amount towards true-up for FY11 and FY12 and impact of review order). 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 66 paise per unit. If the past gap of Rs 543.40 Cr is taken into account, the average cost of supply comes out to Rs. 5.22 per unit as opposed to Rs. 4.56 per unit as shown in table above.

8.1.20 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.

8.1.21 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 first year of the Third Control Period i.e. FY15.

8.1.22 The average cost of supply computed for FY 15 is provided in table below:

Table 152: Average Cost of Supply for FY 2014-15 based on Approved ARR

Particulars	FY15
Approved Aggregate Revenue Requirement (Rs. Cr.)	3,999.16
Less: Sale of Surplus Power (Rs. Cr.)	255.15
Net Aggregate Revenue Requirement (Rs. Cr.)	3,744.01
Projected Sales (MU)	8,217
Average Cost of Supply (Rs./unit)	**4.56**

8.1.23 The average cost of supply for FY 2014-15 works out to Rs. 4.56 per unit which does not include the 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. These amounts of past gap shall also be required to be loaded to the above stated costs and shall increase the average cost of supply by about 66 paise per unit. Taking into account the past gap, the average cost of supply comes out to be Rs. 5.22 per unit.

Revenue from Existing Tariff

8.1.24 The revenue from sale of power and resulting revenue gap as projected by the Petitioner is provided in table below:

Table 153: Revenue Gap projected by the Petitioner (Rs. Cr.)

Particulars	FY15	FY16	FY17	FY18	FY19
	Proj.	Proj.	Proj.	Proj.	Proj.
Annual Revenue Requirement	5854.0	5676.0	6185.4	6863.0	7933.3
Revenue from existing tariffs	4771	5313	5597	5921	6407
Surplus / (Gap)	**-1083**	**-363**	**-588**	**-942**	**-1526**

8.1.25 It is observed that the Petitioner has considered unrealistic assumptions for computation of revenue from each category of consumer resulting in over projection of revenue as has been done in the past as well.

8.1.26 The Commission has computed the revenue from various categories as per the sales approved for FY15 and the existing applicable tariff in the respective categories. The summary of the estimated revenue for the Control Period is summarized in table below:

Table 154: Revenue for the Third Control Period based on Existing Tariff

Category	FY15	FY16	FY17	FY18	FY19
Industrial Power Supply	**2,771.54**	**2,864.87**	**2,977.68**	**3,095.18**	**3,217.56**
Small & Medium Industrial	129.69	133.99	138.45	143.06	147.83
Large Industrial	2,641.85	2,730.87	2,839.23	2,952.12	3,069.73
Domestic	806.18	866.57	931.68	1,001.88	1,077.57
Irrigation and Drinking Water Pumping	297.04	313.07	330.01	347.90	366.81
Commercial	292.22	319.66	349.81	382.96	419.41
Bulk Supply	97.34	98.64	100.04	101.52	103.12
NDNC	69.66	74.43	79.53	84.99	90.81
Public Lighting	6.57	6.70	6.84	6.98	7.13
Temporary Supply	23.97	23.97	23.97	23.97	23.97
Total	**4,364.52**	**4,567.92**	**4,799.56**	**5,045.39**	**5,306.38**

Revenue from Sale of Power Outside State

8.1.27 The Petitioner has not projected any revenue from surplus power to be available during the Third Control Period.

8.1.28 The Commission in Chapter 7 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 surplus power 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.

8.1.29 The Commission has also allowed for contingency buffer of 350 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 respective year. Further, the Commission has also considered availability of higher quantum with respect to the energy banked by the utility. The quantum required to meet the deficit during winter months may not be entirely arranged by the petitioner from banking arrangement; therefore, the Commission has considered only 50% of the additional energy quantum (20% of the energy banked) available under the banking arrangement to be sold as surplus. This additional power has been considered to be sold at a rate equal to average power purchase cost of the banked power for the respective year.

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

Table 155: Revenue from Sale of Power outside the State

Parameters	Units	FY15	FY16	FY17	FY18	FY19
Sale of contingency buffer	MU	350	350	350	350	350
Rate of sale	Rs./kWh	2.06	1.96	2.13	2.37	2.55
Revenue from sale of contingency buffer (A)	***Rs.Cr.***	**72.09**	**68.52**	**74.49**	**83.06**	**89.35**
Sale of additional Quantum from banking	MU	155.25	163.06	183.07	196.93	218.74
Rate of sale	Rs./kWh	3.08	2.98	3.08	3.05	3.09
Revenue from sale of additional quantum from banking (B)	***Rs.Cr.***	**47.74**	**48.61**	**56.43**	**60.03**	**67.55**
Sale of surplus power	MU	327	406	493	629	703
Rate of sale	Rs./kWh	4.13	4.26	4.45	4.49	4.63
Revenue from sale of surplus power (C)	***Rs.Cr.***	**135.31**	**173.29**	**219.11**	**282.27**	**325.73**
Total revenue from sale of power outside State (A)+(B)+(C)	**Rs.Cr.**	**255.15**	**290.42**	**350.03**	**425.37**	**482.64**

Revenue Gap at Existing Tariff for FY15

8.1.31 Taking into account the revenue from sale within state at existing tariffs and revenue estimated from sale of power outside state for FY15, the Commission estimates revenue gap in FY15 as follows:

Table 156: Revenue Gap for FY15 based on Existing Tariff (Rs. Cr.)

Parameters	FY15	FY16	FY17	FY18	FY19
Approved Annual Revenue Requirement	**3,998.16**	**4,389.11**	**4,717.70**	**5,196.01**	**5,706.37**
Add:					
Trued-up Revenue Gap for FY 2012-13	401.77	-	-	-	-
Carrying Cost on gap	63.90	-	-	-	-
Impact of Review Order	14.55	-	-	-	-
Provisional amount towards true-up of FY11 & FY12	63.18	-	-	-	-
Total Revenue Requirement	**4,542.56**	**4,389.11**	**4,717.70**	**5,196.01**	**5,706.37**
Less: Revenue from Sale of Power within State at Existing Tariff	4,364.52	4,567.92	4,799.56	5,045.39	5,306.38
Less: Revenue from sale of Power Outside State	255.15	290.42	350.03	425.37	482.64
Revenue Surplus / (Gap)	**77.11**	**469.10**	**431.75**	**274.61**	**82.51**

8.1.32 The above revenue surplus for FY15 estimated by the Commission also takes into account the past adjustments due to true-up of FY13 including carrying cost, provisional amount towards true-up for FY11 & FY12 and the impact of review order.

8.1.33 Based on the above table it is observed that the Petitioner is in surplus during the Third Control Period. Considering the future scenario that power purchase cost may remain more or less stagnant considering the availability of cheap power for alternative sources including GoHP free power and adequate provisioning of employee cost in the ARR for each year, the Commission feels that it would be appropriate to undertake tariff rationalization for various categories in order to reduce the cross subsidies. Therefore, the Commission in this Tariff Order has rationalized the tariff for various consumer categories which are detailed in the following section.

8.2 Issues related to Tariff Structure

Character of supply

8.2.1 The industries associations have been emphatically stressing that the standard supply voltage and character of supply should be linked with the contract demand instead of connected load as the burden on the distribution system is caused due to the contract demand and not due to the connected load. The licensee had, however, earlier expressed a view point that since the distribution systems are required to be designed on the basis of connected load, the standard supply voltage should continue to be linked with the connected load only and not with the contract demand.

The Industries have refuted the licensee's view point that if the distribution system is actually designed on the basis of connected load, there should not be any contract demand violation charges so long as the demand does not exceed the sanctioned connected load. The matter has been discussed in various interactive sessions as well during the course of public hearing wherein such viewpoints have been expressed.

8.2.2 In accordance with the provision of section 42 and 43 of the Act, it is duty of the licensee to develop and maintain an efficient and economical system for supply. The Commission felt that adherence to the existing provision for linkage of supply voltage with the connected load does lead to problems in some cases particularly right-of-way and the corridor constraints etc. The Commission also believes that inspite of these provisions being in place the deviation have been considered necessary by licensee, in view of such problems.

8.2.3 The Commission also feels that the Supply Voltage should normally be decided by taking into account various relevant factor including the following:

(i) the optimum use of the system as well as the available corridors.
(ii) problems, if any, experienced by the licensee in adhering to the existing standard voltages;
(iii) view point of the Industries and the licensee;
(iv) non existence of certain voltage levels in certain areas;
(v) reasonable technical limits assuming that the conductor of adequate size is used and the length of the line is not exorbitantly high;
(vi) typical pattern/relationship if any between connected load and contract demand for various types of industries;
(vii) need for having different technical limits for common feeder and the dedicated feeders;
(viii) need for having different technical limits in cases where the consumer is ready to compensate the licensee, in shape of low voltage surcharges, for the impact on account of release of connection at lower voltage; and
(ix) need for maintaining the prescribed voltage regulation;

8.2.4 The Commission after considering the view points of both the sides and other relevant factors, felt that even through the linkage of the connected load cannot be totally done away with, keeping in view the risk factor related to over loading of

system but the limits can certainly be relaxed in the manner which imposes ceiling limits for both connected load as well as contract demand for supply of power at a particular voltage. Moreover, it was felt that higher limits can be fixed in case of dedicated feeders or joint dedicated feeder i.e. in cases where supply is given through an independent feeder emanating from licensee's sub-station for supply of power to one or at the most two consumers.

8.2.5 The Commission accordingly made out a proposal in this regard which provides for linkage of supply voltage with the connected load as well as contract demand on which comments from the stakeholder were invited through prior publication. Moreover, the Review Panel under the Supply Code also deliberated on the proposal and gave its recommendations. All the members of the Panel were of the view that the proposed provisions not only take into account the problems related to right of way but also carefully balance the interest of the all stakeholders including the consumers and the licensee. The proposal was also accepted by the Review Panel. The provision of Supply Code relating to the standard supply voltage has already been amended and it is being followed for the purpose of this tariff order also. The detailed provision with regard to Standard Supply Voltage, the maximum limits for supply of power at a particular voltage by payment of LVSS have been depicted in a separate chapter (Part-II) of the schedule of tariff.

Applicability of tariffs (other than domestic supply) based on Contract Demand

8.2.6 Apart from insisting for determination of supply voltage on the basis of contract demand, the stakeholders from Industries Association have also been stressing that the tariff applicability should also be linked with contract demand instead of connected load, as per the existing pattern. Such a request was also made even during the discussions relating to Supply Code. It has been advocated that such a system shall not only facilitate better monitoring and transparency but would also facilitate recovery of expenses based on a parameter (i.e demand kVA) which measures the actual loading caused on the system. The licensee had initially supported the existing pattern of linkage of tariff applicability with connected load with the plea that the distribution system is designed on the basis of connected load and not contract demand. However, on subsequent discussions it also agreed to the linkage of tariff applicability to various categories of consumers, except domestic tariff, with the contract demand.

8.2.7 After considering the viewpoints of industries as well as the licensee, the Commission finds that there is merit in adopting such a pattern for all the categories, except domestic tariff where only single part tariff is applicable, as the same shall be more objective and transparent. This will also facilitate determination of tariff based on actual usage of power and loading on the distribution system. As regards the design of the distribution system, the Commission agrees that the distribution system has to be designed by providing adequate redundancies not only to take care of the situations where the system is over loaded due to violation in the contract demand by the consumer but also for the growth. It is however felt that with the introduction of infrastructure development charges at uniform normative rates as well as the capex plans being approved in a liberal manner, the licensee should not have any problem in meeting its obligations relating to designing of the system by providing adequate redundancy margin based on its normal experience. Moreover, in case of violations, the contract demand violation charges shall automatically be leviable based on the recorded maximum demand during the month. Similarly the service lines can be designed by taking adequate redundancies into account.

8.2.8 In view of above the Commission has linked the applicability of various schedules of tariff, except the domestic tariff with the contract demand. In this connection, the Commission would also like to clarity that the connected load shall continue to be relevant for the allied non-tariff purposes such as design of the distribution system and safety aspects etc. which shall not be ignored. As a result of such change some consumers may get shifted to the lower sub-categories of tariff e.g. from two part tariff to single part tariff and HT-2 to HT-1 category in case of large Industrial Power Supply Consumers. This may in some cases reduce their average tariff considerably. This shall however, be one time activity and it is expected that new pattern shall stabilize in due course of time. Even for the current tariff, a period at about 1 ½ months is available for the licensee as well as for the consumers to complete the formalities for shifting to the new categories as per this tariff. In order to facilitate a smooth transition , a provision is also being made that in cases, other than domestic supply consumers, where the contract demand of a consumer has not already been sanctioned at any stage, 90% of the sanctioned connected load, corrected into kVA by adopting power taken of 0.9, shall be considered as the deemed contract demand for the purpose of applicability of tariff and billing till such time the consumer informs the licensee about the quantum which he shall like to be considered as contract demand. This shall also ensure that a consumer being presently billed under single

part tariff does not get automatically shifted to two part tariff unless he has applied or now applies for a contract demand exceeding the cut off limit of 20 kVA. Such a provision for deemed contract demand shall also be applicable for determination of standard supply voltage/supply voltage, levy of demand charges and contract demand violation charges, if any.

Peak Load Charges and Night Time Concession

8.2.9 The Commission has rationalized the provisions relating to peak load charges to the extent that additional demand charges for such consumption shall now be charges on average demand. Moreover the contract demand charges have been deleted.

8.2.10 The night time concession which was earlier given at uniform rate for all 12 months of the year shall now be considered at differential rates. The concession for the months of June, July and August shall be considered at higher rates as compared to the rates applicable for other months. In the revised tariff for FY15, the concession shall be available at higher rates for the month of August only as the revised tariff for FY15 shall be applicable w.e.f. 1st August, 2014.

8.3 Approved Tariff

DS: Domestic Supply

8.3.1 The existing schedule is applicable to consumers using electrical energy for lights, fans, heaters, cooking ranges, ovens, refrigerators, air conditioners, stereos, radios, televisions, mixers, grinders, electric iron, sewing/embroidery/knitting machines, domestic pumping sets and other domestic appliances in a single private house/flat or any other residential premises; 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; 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.

8.3.2 The Commission has approved the following changes in slabs for domestic category tariff.

a. The slab for lifeline consumers has been increased from existing level of 0-40 units per month to 0-60 units per month.
b. The slab of 126-250 units per month has been revised to 126-300 units per month.
c. The consumer service charge for tribal and difficult areas as notified by GoHP under employees transfer policy is revised and fixed at par with lifeline consumers.

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. 4.70 per unit. Consumer service charge shall be Rs. (40x10).*

8.3.3 The comparison of existing tariff and tariff approved by the Commission for domestic category is given in the table below. The Commission, after a detailed analysis, approves the tariff for Domestic category as under:

Table 157: Existing Tariff for Domestic Category

Description	Existing	
Units/month	Energy Charges (Rs/kWh)	Consumer Service Charges (Rs/con/month)
Other		
0 -40 (Lifeline consumers)	2.85	30.00
0-125	3.50	40.00
126-250	4.40	40.00

Description Units/month	Existing Energy Charges (Rs/kWh)	Consumer Service Charges (Rs/con/month)
251 & above	4.70	40.00
Pre-paid meter	3.50	40.00

Table 158: Approved Tariff for Domestic Category

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

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

8.3.4 The Commission is continuing with the approach followed during the previous tariff order of FY 2014 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.

8.3.5 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

8.3.6 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.

8.3.7 In order to make the existing tariff more transparent and consumer oriented, the Commission has approved the change in standard supply voltage and classification of tariff is now based on contracted demand rather than connected load as explained earlier.

8.3.8 For single part tariff consumers up to 20 kVA, the Commission has marginally reduced the energy charges. In case of consumers above 20kVA, the Commission has abolished the consumer service charges order to simplify the tariff structure.

8.3.9 The Commission, after a detailed analysis, approves the tariff for NDNCS category as shown in the tables below. The comparison of existing tariff and approved tariff is also given below.

Table 159: Existing and Approved Tariff for NDNCS Category

Existing			Approved by Commission		
Slab	Energy Charges (Rs. /kWh)	Consumer Service Charges (Rs. /con/month)	Slab	Energy Charges (Rs. /kWh)	Consumer Service Charges (Rs. /con/month)
Up to 20kW	5.00	70.00	Up to 20kVA	4.70	70.00

Table 160: Existing and Approved Tariff for NDNCS Category: Above 20kVA

Existing				Approved by Commission			
Slab	Energy Charges (Rs/kVAh)	Consumer Service Charges (Rs/con/ month)	Demand Charge (Rs/kVA/ month)	Slab	Energy Charges (Rs/kVAh)	Consumer Service Charges (Rs/con/ month)	Demand Charge (Rs/kVA/ month)
Above 20kW	4.60	140.00	120.00	Above 20kVA	4.40	-	120

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

CS: Commercial Supply

8.3.11 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.

8.3.12 Apart from reduction in applicable tariff, the tariff classification for CS consumers has also been changed to be based on contracted demand as against the connected load in the existing tariff regime. The Commission has also approved abolishing of consumer service charges applicable to all consumers having contracted demand of or more than 20kVA. The Commission has reduced the energy charges of the consumers under this category to provide relief to them. In addition the demand charges of consumers under above 20kVA to 100 kVA category have been marginally reduced.

8.3.13 The Commission, after a detailed analysis, approves the tariff for the Commercial Supply category as shown in the tables below. The comparison of existing tariff and tariff approved by the Commission is also given below.

Table 161: Existing and Approved Tariff for CS Category

Existing			Approved by Commission		
Slab	Energy Charges (Rs. /kWh)	Consumer Service Charges (Rs. /con/month)	Slab	Energy Charges (Rs. /kWh)	Consumer Service Charges (Rs. /con/month)
Up to 20kW	5.25	70.00	Up to 20kVA	4.95	70.00

Table 162: Existing and Approved Tariff for CS Category

Existing				Approved by Commission			
Slab	Energy Charges	Service Charges (Rs/con/	Demand Charge (Rs/kVA/	Slab	Energy Charges	Service Charges (Rs/con/	Demand Charge (Rs/kVA/

	(Rs/kVAh)	month)	month)		(Rs/kVAh)	month)	month)
Above 20-100 kW	4.85	140	90	Above 20-100kVA	4.70	-	80
Above 100kW	4.75	275	140	Above 100kVA	4.60	-	140

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

8.3.15 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

8.3.16 In order to provide more clarity to the classification of consumers under Small and Medium categories, the Commission has segregated the existing Small and Medium Industrial Power Supply category in to separate Small Industrial Power Supply and Medium Industrial Power Supply.

8.3.17 In order to broaden the scope of Small industrial power supply, the consumers with contracted demand of 0-20kVA and above 20kVA to 50kVA have been included in this category.

8.3.18 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.

8.3.19 The Commission has also abolished consumer service charge for consumers having contracted demand of higher than 20kVA.

8.3.20 The Commission, after a detailed analysis, approves the tariff for the SIP category as shown in the tables below. The comparison of existing tariff and tariff approved by the Commission is also given in the following table.

Table 163: Existing and Approved Tariff for Small Industrial Supply

Existing			Approved by Commission			
Slab	Energy Charges (Rs. /kWh)	Service Charges (Rs. /con/ month)	Slab	Energy Charges	Service Charges (Rs. /con/ month)	Demand Charges
Upto 20kW	4.70	90.00	Up to 20kVA	4.70 (Rs./kWh)	90	-
-	-	-	Above 20kVA -50kVA	4.50 (Rs/kVAh)	-	80

8.3.21 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

8.3.22 The consumers with contracted demand above 50kVA and not exceeding 100kVA have been included in this category.

8.3.23 This schedule is applicable to industrial consumers with contracted demand 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.

8.3.24 The Commission has also abolished consumer service charge for consumers under this category. The demand charges under this category have been marginally hiked. However in real terms many consumers having contract demand of less than 100 kVA but connected load of more than 100 kW will be shifted from earlier HT1 category to this category and shall have to pay lesser demand charges.

8.3.25 The Commission approves the tariff for the MIP category as shown in the tables below. The comparison of existing tariff and tariff approved by the Commission is also given below.

Table 164: Existing and Approved Tariff for Medium Industrial Supply Category

Existing				Approved by Commission			
Slab	Energy Charges (Rs/kVAh)	Service Charges (Rs/con/ month)	Demand Charge (Rs/kVA/ month)	Slab	Energy Charges (Rs/kVAh)	Service Charges (Rs/con/ month)	Demand Charge (Rs/kVA/ month)
Above 20kW -100kW	4.50	175.00	80.00	Above 50kVA-100kVA	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

8.3.26 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".

8.3.27 The Commission approves the tariff for the Large Industrial Power Supply category as shown in the tables below. The comparison of existing tariff and tariff approved by the Commission is also given below.

8.3.28 In order to simplify the existing tariff schedule the Commission has abolished the consumer service charges and slabs under all three sub-categories, i.e. EHT, HT1 and HT2. The Commission has also abolished the consumer service charges for all three sub-categories.

Table 165: Existing Tariff for Large Industrial Power Supply Category

Slab	Existing		
	Energy Charges (Rs/kVAh)	Service Charges (Rs/con/ month)	Demand Charge (Rs/kVA/ month)
EHT			
Up to 300 kVAh/kVA per month	4.05	400.00	350.00
Balance kVAh during the month	4.30	400.00	350.00
HT-1 (up to 1 MW)			
Up to 300 kVAh/kVA per month	4.50	400.00	200.00
Balance units during the month	4.75	400.00	200.00
HT-2 (More than 1 MW)			
Up to 300 kVAh/kVA per month	4.15	400.00	350.00
Balance kVAh during the month	4.40	400.00	350.00

Table 166: Approved Tariff for Large Industrial Power Supply Category

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

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

BS: Bulk Supply

8.3.30 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.

8.3.31 The Commission has reduced the demand charges under LT category, energy charges under EHT category consumers and abolished the consumer service charges.

8.3.32 The Commission, after a detailed analysis, approves the tariff for Bulk Supply category as shown in the tables below. The comparison of existing tariff and tariff approved by the Commission is also given below.

Table 167: Existing and Approved Tariff for Bulk Supply Category

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)
LT	4.85	175.00	260.00	4.85	-	200.00
HT	4.35	175.00	300.00	4.35	-	300.00
EHT	4.15	175.00	300.00	4.00	-	300.00

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

SLS: Street Lighting Supply

8.3.34 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.

8.3.35 The Commission has marginally reduced the energy charges to keep them at par with the NDNC category.

8.3.36 The Commission, after a detailed analysis, retains Street Lighting as a separate category and approves the tariff for this category as shown in the tables below. The comparison of existing tariff and tariff approved by the Commission is also given below.

Table 168: 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)
5.00	70.00	4.70	70.00

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

TS: Temporary Metered Supply

8.3.38 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.

8.3.39 The Commission has changed the applicability of single and two part tariff on the basis of contracted demand rather than connected load and abolished the consumer service charges for two part tariff consumers.

8.3.40 The Commission, after a detailed analysis, approves the tariff for the Temporary Supply category as shown in the tables below. The comparison of existing tariff and tariff approved by the Commission is also given below.

Table 169: Existing and Approved Tariff for Temporary Meter Category (upto 20kVA)

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

Table 170: Existing and Approved Tariff for Temporary Meter Category (above 20 kVA)

Existing				Approved by Commission			
Slab	Energy Charges (Rs/kVAh)	Service Charges (Rs/con/mth)	Demand Charge (Rs/kVA/mth)	Slab	Energy Charges (Rs/kVAh)	Service Charges (Rs/con/mth)	Demand Charge (Rs/kVA/mth)
Above 20kW	6.00	200.00	350.00	Above 20kVA	6.00	-	350.00

8.3.41 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

8.3.42 The earlier categories of WPS and AAAS were merged together in the first APR Order issued by the Commission and were collectively termed as Water and Irrigation Pumping Supply (WIPS). This terminology has been revised in this Order to Irrigation and Drinking Water Power Supply (IDWPS).

8.3.43 The existing schedule is applicable to Government connections for water and irrigation pumping. The schedule also covers all consumption for bona fide Pump House lighting.

8.3.44 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.

8.3.45 The Commission has also changed the applicability of tariff slabs from existing connected load basis to contracted demand basis.

8.3.46 The Commission has reduced the demand charges of two part tariff consumers under LT category to provide relief to small farmers. The energy charges under HT and EHT category have been reduced and consumer service charges have been abolished whereas the demand charges for HT & EHT have been increased slightly.

8.3.47 The Commission, after a detailed analysis, approves the tariff for this category as shown in the tables below. The comparison of existing tariff and tariff proposed by the Petitioner is also given below.

Table 171: Existing and Approved Tariff for IDWPS up to 20 kVA

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

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

Table 172: Existing and Approved Tariff for IDWPS above 20 kVA

Existing				Approved by Commission		
Slab	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	150.00	80.00	4.60	-	40.00
HT	4.50	225.00	300.00	4.20	-	350.00
EHT	4.30	300.00	300.00	4.00	-	350.00

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

RT: Railway Traction

8.3.50 The energy charges have been slightly reduced for this category of consumers. The two-part tariff applicable for Railway Traction shall be as shown in the table as follows:

Table 173: Tariff for Railway Traction

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)
Railway Traction	5.00	400.00	350.00	4.50	400.00	350.00

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

Rate for Purchase of Renewable Power by Captive Generator/ Open Access Consumer

8.3.52 The minimum percentage of RPPO obligation is also applicable to captive generation/ open access consumers including DG sets of 1MW and above installed capacity. Since HPSEBL has surplus renewable power available in excess of the specified target of non-solar obligation, the captive/ open access consumers have an option to meet their respective RPPO obligations by purchasing renewable power from HPSEBL instead of purchasing certificates alone under REC framework. Accordingly, the Commission has fixed the price of Rs.0.75 per unit to be paid by captive generator / open access consumer to HPSEBL for fulfilling RPO obligations for FY15, as detailed in para 9.8.8.

8.4 Revenue Projection at Approved Tariff

8.4.1 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

8.4.2 For calculation of projected revenues for each category of consumers along with its slabs and sub-categories, actual past data has been taken into account for each consumer category. For other categories, estimation has been done to split sales across slabs and sub categories as proposed by the Petitioner and reasonable assumptions.

8.4.3 In view of the changes in applicability of two part tariff and categorization of consumers based on contracted demand, the projections for category-wise sales may differ from the trends of past data due to shift of consumers. The Commission has considered reasonable assumptions for the estimation of shift in sales within the slabs for estimation of revenue at the approved tariff.

8.4.4 The Commission has calculated the revenue from sale of power for FY15 across each consumer category at the revised approved tariff as shown in the table as follows:

Table 174: Projected Revenue for FY 15 at Approved Tariff

Consumer Category	Sales (MU)	Revenue (Rs. Cr.)	Avg. Realization (Rs./unit)
Industrial Power Supply	**4,918**	**2,706.41**	**5.50**
Small Industrial	172	92.22	5.36
Medium Industrial	57	32.01	5.58
Large Industrial	4,688	2,582.18	5.51
Domestic	1,934	792.11	4.10
Irrigation and Drinking Water	554	283.22	5.11
Commercial	492	276.81	5.62
Bulk Supply	157	96.67	6.16
NDNC	122	65.86	5.39
Public Lighting	13	6.18	4.76
Temporary Supply	27	23.89	8.89
Total	**8,217**	**4,251.16**	**5.17**

8.4.5 The average revenue realization as percentage of average cost based on the revised tariff as compared with the previous year is provided below:

Table 175: Comparison of Average Realization as % of Average CoS

Consumer Category	FY14	FY15 (Approved Tariff)
Industrial Power Supply	106%	105%
Domestic *	82%	82%
Irrigation and Drinking Water	108%	105%
Commercial	114%	108%
Bulk Supply	119%	118%
NDNC	114%	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*

8.4.6 Based on the above table it can be observed that the element of cross subsidy in the revised tariff has reduced with respect to the previous year. The Commission aims to

reduce the same in further Orders in line with the MYT Distribution Tariff Regulations to bring it in line with +10% and -15% by the end of this Control Period.

8.4.7 The Commission has also computed the revenue from sale of power for the balance years of the Control Period based on the average realization from each category of consumer as per approved tariff in the table below:

Table 176: Projected Revenue at Approved Tariff for the Third Control Period

Consumer Category	FY15	FY16	FY17	FY18	FY19	Total
Industrial Power Supply	**2,706.41**	**2,814.14**	**2,926.15**	**3,042.62**	**3,163.73**	**14,653.06**
Small Industrial	92.22	95.52	98.93	102.46	106.12	495.25
Medium Industrial	32.01	33.15	34.34	35.56	36.83	171.90
Large Industrial	2,582.18	2,685.46	2,792.88	2,904.60	3,020.78	13,985.91
Domestic	792.11	855.47	923.91	997.83	1,077.65	4,646.97
Irrigation and Drinking Water	283.22	297.55	312.60	328.43	345.08	1,566.88
Commercial	276.81	304.97	335.99	370.17	407.82	1,695.75
Bulk Supply	96.67	96.67	96.67	96.67	96.67	483.37
NDNC	65.86	70.26	74.95	79.95	85.28	376.29
Public Lighting	6.18	6.30	6.43	6.55	6.68	32.14
Temporary Supply	23.89	23.89	23.89	23.89	23.89	119.45
Total	**4,251.16**	**4,469.25**	**4,700.59**	**4,946.11**	**5,206.81**	**23,573.92**

Revenue from Sale of Power outside State

8.4.8 As detailed in Para 8.1.30 the sale of surplus power as estimated by the Commission for FY15 is summarized in table below:

Table 177: Revenue from Sale of Power outside the State (Rs. Cr.)

Parameters	FY15	FY16	FY17	FY18	FY19
Total revenue from sale of power outside State	255.15	290.42	350.03	425.37	482.64

8.5 Overall Revenue–Expenditure Position of HPSEBL at Approved Tariff

8.5.1 The Commission has computed the revenue surplus and gap for each year of the Control Period based on the approved ARR and approved tariff. Since the applicability of the approved tariff shall be from 1st August, 2014, the Commission has considered the total revenue from existing and approved tariff on pro-rata basis for

FY15. Thus the estimated revenue for FY15 is based on four months of existing tariff and eight months applicability of revised tariff.

8.5.2 Based on the above, the overall revenue and expenditure position of HPSEBL at the approved tariff is given in the table below:

Table 178: 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

8.5.3 Based on the above table it is observed that the Petitioner would have a minimal surplus for FY15 of Rs. 1.54 Crore due to adjustments on account of true-up and review order. However, in the subsequent year there is a surplus amount of Rs. 370.43 Crore which is declining in the future years and changing to revenue deficit in the last year. In view of the true-up liabilities amounts required to be adjusted in the past years, as has been the experience in the past, uncertainty in power purchase cost from CGS, etc., the Commission has not treated the revenue surplus quantum for the subsequent years of FY16 onwards and shall consider the same at the time of Annual Performance Review for each year.

8.6 Treatment of Revenue Surplus

8.6.1 The Commission directs the Petitioner to transfer any surplus revenue realised 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 already authorised 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.

8.7 Subsidy by Government of Himachal Pradesh

8.7.1 The existing subsidy towards the Domestic and Agricultural category shall continue as approved by the Commission in the APR Order for FY14 upto 31st July 2014. The Commission shall separately notify the revised tariff based on any revision in the subsidy communicated by the GoHP post issuance of this Tariff Order.

9 Open Access and Renewable Power Purchase Obligation

9.1.1 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.

9.1.2 Based on the wheeling ARR approved in para 7.23.3, the average wheeling charges for FY15 are as below:

Table 179: Wheeling Charges for FY15

Particulars	
Total ARR for Wheeling Business approved for FY15 (Rs. Cr.)	1,136.05
Approved Energy Sales (MU)	8217
Average Wheeling Charge (paisa per unit)	**138**

9.1.3 The above computed average wheeling charge of 138 paisa 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.

9.1.4 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.*"

9.1.5 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 7.23. The various charges payable by the consumers availing open access have been determined in this chapter.

9.2 Wheeling Charges

9.2.1 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. 1136.05 Cr. as determined in the para 7.23.3, 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:

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

Assumptions

9.2.3 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

9.2.4 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.

9.2.5 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.

9.2.6 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

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

Table 180: 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	1,934.3	-	-	-	1,934.3
NDNCS	122.1	-	14.7	22.0	85.5
Commercial	492.2	-	29.5	44.3	418.4
Small & Medium Industrial Power	229.4	-	-	-	229.4
Large Power Supply	4,688.4	2,070.3	1,309.0	1,309.0	-
Irrigation & Drinking Water Pumping	553.9	-	66.5	99.7	387.8
Street Lighting	13.0	-	-	-	13.0
Bulk supply	157.0	-	20.1	80.4	56.5
Temporary Supply	26.9	-	-	-	26.9
Total (within State)	**8,217.1**	**2,070.3**	**1,439.8**	**1,555.4**	**3,151.7**

Cost Segregation

9.2.8 The Commission has continued the existing practice of cost segregation as followed during the previous Orders. 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.

9.2.9 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 388.46 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.

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

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

Table 181: Approved Wheeling Charges for Open Access Consumers for FY15

Sr. No.	Description	EHT (≥66kV)	HT (33kV)	HT (>=11kV & <33kV)	LT (<11 kV)
(i)	Total cost apportioned (Rs in Crore)	374.90	178.28	192.60	390.27
(ii)	Cost allocation brought forward from the next higher voltage block) {(i)-(v)*vi)/1000}[Rs. In Crore]	-	280.44	351.28	364.16
(iii)	Total allocation (i) + (ii) (Rs. In Crore)	374.90	458.72	543.88	754.43
(iv)	Total Energy Quantum (Sales relevant to determination of per unit rate) in MU	8,217.15	6,146.80	4,707.04	3,151.68
(v)	Energy Sales	2,070.35	1,439.75	1,555.37	3,151.68
(vi)	Rate of wheeling Charges in Paisa/unit (iii)/iv) of previous column	46	75	116	239

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

9.2.13 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.

9.2.14 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.

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

9.3 Wheeling Charges for Renewable Generator

9.3.1 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. 46 paise/ unit for FY15. 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 to the open access consumers or in power exchange under Renewable Energy Certificate (REC) framework to avail the benefits of the REC as power is not being sold to the local distribution licensee on APPC rates which is lower.

9.4 Wheeling Charges for Short Term Open Access

9.4.1 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.

9.5 Additional Surcharge:

9.5.1 The additional surcharge payable by consumers availing open access has to be determined in accordance with sub-section (4) of section 42 of the Act and the Sub-regulation 3 of regulation 6 of HPERC (Cross Subsidy Surcharge, Additional Surcharge and Phasing of Cross Subsidy) Regulations, 2006. The Commission requested HPSEBL to submit the proposal for levying of additional surcharge to open access consumers and substantiate its claim in this regard. However, no proposal was submitted by HPSEBL.

9.6 Cross Subsidy Surcharge

9.6.1 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.

Based on the above methodology, the Cross Subsidy Surcharge as determined by the Commission for FY15 is tabulated below:

Table 182: Cross Subsidy Surcharge for Open Access Consumers

Sr. No.	Description of Consumers	Cross Subsidy Surcharge for Full day (Rs./ unit)
1	Large Industrial Power Supply EHT Consumers	0.09
2	Large Industrial Power Supply HT 2 Consumers	0.30
3	Irrigation & Drinking Water Supply Category - EHT Consumers	0.32
4	Irrigation & Drinking Water Supply Category - HT Consumers	Nil
5	Bulk Supply Category - EHT Consumers	0.54
6	Bulk Supply Category - HT Consumers	0.82

9.6.2 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 Commission, based on the average tariff of Peak Load hours and Non-Peak Load hours, also determines the rates of the Cross Subsidy Surcharge for the Peak load hours and non-peak load hours as tabulated below:

Table 183: Cross Subsidy Surcharge for Open Access Consumers during Peak and Non-Peak Hours

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	2.43

Sr. No.	Description of Consumers	Cross Subsidy Surcharge for Part of the Day	
		Non Peak Hours (Rs./ unit)	Peak Hours (Rs./ unit)
2	Large Industrial Power Supply HT 2 Consumers	0.30	2.18
3	Irrigation & Drinking Water Supply Category - EHT Consumers	0.32	2.36
4	Irrigation & Drinking Water Supply Category - HT Consumers	Nil	1.64
5	Bulk Supply Category - EHT Consumers	0.54	0.54
6	Bulk Supply Category - HT Consumers	0.82	0.82

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.

9.6.3 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.

9.7 Distribution Losses

9.7.1 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 184: 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

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

9.7.3 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.

9.8 Renewable Power Purchase Obligation (RPPO)

9.8.1 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 during the third MYT Control Period are as under:

Table 185: Minimum quantum of purchase from Renewable Sources

Financial Year	Minimum Quantum of Purchase (in %*) from renewable sources (in terms of energy in kWh) of total consumption.		
	Total RPPO %age.	Minimum Non-Solar RPPO %age of the total purchase	Minimum Solar RPPO %age of the total purchase
FY15	10.25	10	0.25
FY16	11.25	11	0.25
FY17	12.25	12	0.25
FY18	13.5	13	0.5
FY19	14.75	14	0.75

9.8.2 The Renewable power purchase obligation in terms of the actual quantum of energy sales (including T&D losses) projected for the third MYT Control Period is as under:

Table 186: Projected RPO Obligations

Financial Year	Total sales (including losses) MU	Total RPPO MU	Minimum Non-Solar RPPO MU	Minimum Solar RPPO MU
FY15	9,423	965.86	942.30	23.56
FY16	9,902	1113.98	1089.22	24.76
FY17	10,409	1275.10	1249.08	26.02
FY18	10,947	1477.85	1423.11	54.74
FY19	11,519	1699.05	1612.66	86.39

9.8.3 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.

9.8.4 HPSEBL in its submission has stated that it has abundant non-solar power to fulfill its non-solar RPPO obligation for the Third Control Period.

9.8.5 Regarding Solar RPPO, HPSEBL has submitted that it shall fulfill part of its obligation from NTPS's Singrauli Solar plant. Rest of the solar obligation shall be purchased from additional solar energy available in the market.

9.8.6 Accordingly in this MYT order the Commission has approved the purchase of solar power by HPSEBL during the third control period to meet its solar RPPOs. The year wise quantum of solar power purchase approved during the control period is as under:

Table 187: Approved Quantum of Solar Power Purchase

Source	FY15		FY16		FY17		FY18		FY19	
	MU	Rs Cr	MU	Rs Cr	MU	Rs Cr	MU	Rs Cr	MU	Rs Cr
Singrauli Solar	18.72	44.79*	24.97	59.66*	24.97	59.66*	24.97	59.66*	24.97	59.66*
Additional solar power purchase	4.83	5.54	--	--	1.06	1.21	29.77	34.15	61.42	70.45
RPPO for previous years (FY12 & FY13)	--	--	0.53	0.49#	18.4	17.11#	--	--	--	--

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

#Cost approved based on the floor price of Solar REC

9.8.7 In the current MYT order, HPSEBL has been provided with separate ARR for purchase of solar power or the RECs to meet the solar RPPO in addition to purchase from Singrauli Solar plant. In order to comply to these RPPO obligations, HPSEBL shall have to plan power procurement in advance. HPSEBL can buy solar power from IPPs, Solar Power Corporation of India or from other sources. However while purchasing such power HPSEBL should observe prudency in respect to the price of the solar power at the distribution periphery.

9.8.8 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. Since HPSEBL has surplus renewable power available in excess of the specified target of non-solar obligation, the captive/ open access consumers have an option to meet

their respective RPPO obligations by purchasing renewable power from HPSEBL instead of purchasing certificates alone under REC framework. In order to make the transaction operations simple and transparent, the Commission is of the view that such open access consumers can pay the differential price of renewable power against the quantum of energy required to meet its RPPO i.e. the price of procurement of renewable energy at the margin after meeting the licensee's RPPO adjusted with losses and the average power purchase cost of the licensee. Accordingly Commission fixes this price along with losses at actual voltage level as under for the year 2014-15:

Cost of renewable power per unit as per PPA

Including 6 paise per unit as administrative charges= 295 + 6 = 301 paise

Average power purchase cost = 226 paise

Differential price = (301 - 226) = 75 paise per unit.

Annexure – I

General Conditions of Tariff and Schedule of Tariff

PART-1: General Conditions of Tariff

A. This Schedule of Tariff shall come into force with effect from **1st August, 2014** 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 August, 2014** that was in force with effect from 1st April, 2013 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 Availed Supply Voltage.

Standard Supply	Actually Availed 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 Availed 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).

Explaination:

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 pat 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:

Power Factor = kWh / kVAh

In case of defective tri-vector meter/bi-vector meter/two part tariff meter, power factor will be assessed on the basis of average power factor recorded during last three consecutive months when the meter was in order. In case no such readings are available then the monthly average power factor of three months obtained after installation of correct tri-vector meter/ bi-vector meter/ two part tariff meter shall be taken for the purpose of power factor surcharge during the period the tri-vector meter/ bi-vector meter/ two part tariff meter remained defective.
iii) 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. 01.08.2014 under this mechanism but gets his sanctioned contract demand permanently reduced to 8 MVA w.e.f. 01.09.2014, he shall have to pay charges based on 6 MVA contract demand till 31.10.2014 (i.e. till the expiry of 3 months period from the date at which the contract demand was last revised i.e. from 01.08.2014). However, if the contract demand is to be reduced permanently to lesser than 6 MVA (say 4 MVA as on 01.09.2014), the demand charges would have been based on a contract demand of 4 MVA during the period upto 31.10.2014.

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) Monasteries;

i) "Home Stay Units" in rural areas duly registered with the District Tourism Development Officer; and

j) 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. 4.70 per unit. Consumer service charge shall be Rs. (40*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	40.00

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	4.70

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. **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. ***Night Time Concession (NTC):*** *Not Applicable.*

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

9. ***Disturbing L*oad Penalty (DLP):** *Applicable as per the provisions under 'Part-1 General Conditions of Tariff'.*

***SCHEDULE* - NON-DOMESTIC NON-C*OM*MERCIAL 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 ≤ 20 kVA

a) Consumer Service Charge (Charges-1)

Consumer Service Charge (Rs/month)	70.00

b) Energy Charge (Charges-2)

Energy Charge (Rs./kWh)	4.70

4. Two Part Tariff for contract demand > 20 kVA

a) Consumer Service Charge (Charges-1)

Consumer Service Charge (Rs/month)	Nil

b) Energy Charge (Charges-2)

Energy Charge (Rs./kVAh)	4.40

c) Demand Charge (Charges-3)

Demand Charge (Rs/kVA/month)	120.00

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.

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 ≤ 20 kVA

a) Consumer Service Charge (Charges-1)

Consumer Service Charge (Rs/month)	70.00

b) Energy Charge (Charges-2)

Energy Charge (Rs./kWh)	4.95

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 ≤ 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 INDUSTRI*AL 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 ≤ 20 kVA

a. Consumer Service Charge (Charges-1)

Consumer Service Charge (Rs/month)	90.00

b. Energy Charge (Charges-2)

Energy Charge (Rs./kWh)	4.70

4. Two Part Tariff for contract demand > 20 kVA ≤ 50 kVA

a) Consumer Service Charge (Charges-1)

Consumer Service Charge (Rs/month)	Nil

b) Energy Charge (Charges-2)

Energy Charge (Rs./kVAh)	4.50

c) Demand Charge (Charges-3)

Demand Charge (Rs/kVA/month)	80.00

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.

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 * (Rs./kVA/month)	Energy Charge for consumption during peak load hours
Contract Demand ≤ 20 kVA	Nil	1.5 times of the normal per kWh charges
Contract Demand > 20 kVA	100.00	Rs. 6.40/kVAh

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* 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 August 2014;

    (ii) 40 paise/kVAh for other months.

11. **Power Factor Surcharge (PFS):** *Applicable to single part tariff consumers 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

b) Energy Charge (Charges-2)

Energy Charge (Rs./kVAh)	4.50

c) Demand Charge (Charges-3)

Demand Charge (Rs/kVA/month)	100.00

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. Peak load charges (PLC)

Description	*Additional Charges on Average Demand	Energy Charge
	(Rs./kVA/month)	(Rs./kVAh)
> 50 kVA	100.00	Rs. 6.20

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* 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 August 2014;

   (ii) 40 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 - 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

	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 August; and 40 paise/kVAh for other months.*

   b) For HT-2 and EHT categories: *40 paise/kVAh for the month of August; 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 POWER 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.

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

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. Lower Voltage Supply Surcharge (LVSS): *Applicable as specified 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 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 August 2014;

(ii) 20 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):* *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:

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 - 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

b) Energy Charge (Charges-2)

Energy Charge (Rs./kWh)	4.70

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

b) Energy Charge (Charges-2))

Energy Charge (Rs./kWh)	7.50

4 Two Part Tariff for contract demand > 20 kVA

a) Consumer Service Charge (Charges-1)

Consumer Service Charge (Rs/month)	Nil

b) Energy Charge (Charges-2)

Energy Charge (Rs./kVAh)	6.00

c) Demand Charge (Charges-3)

Demand Charge (Rs/kVA/month)	350.00

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

3 Two Part Tariff for contract demand > 20 kVA

a) Consumer Service Charge (Charges-1)

Consumer Service Charge (Rs/month)	400.00

b) Energy Charge (Charges-2)

Energy Charge (Rs./kVAh)	4.50

c) Demand Charge (Charges-3)

Demand Charge (Rs/kVA/month)	350.00

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 buchuolz 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	

S. No.	Description		Approved by the Commission
(a)	Dielectric strength of oil of various equipment		Rs. 220/- per sample
(b)	Earth test of substation		Rs. 220/- per earth
(c)	Insulation resistance of cables/insulation of various equipment /installations		Rs. 220/- per cable/ equipment
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 (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. 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).			
(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	Rs. 50/- per month
(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)	Polyphase132 kV with CT/PT with 132 kV circuit breaker of HPSEBL	Rs. 20000/- per month
5. Reconnection of supply		

S. No.	Description	Approved by the Commission
(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.	
10. Supply of duplicate copies of the bills/ review of bills:		
(i)	Review of bills (all Categories)	Nil

S. No.	Description	Approved by the Commission
(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

Annexure – II: Capital Expenditure

Capital Expenditure Plan of HPSEBL for the Third MYT Control Period (FY15-FY19)

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
Centrally Sponsored Schemes										
	North	Kangra	RGGVY (90:10)	2019	-	703.93	711.44	718.27	723.66	2,857.29
	North	Una	RGGVY (90:10)	2019	-	351.96	355.72	308.86	311.12	1,327.65
	North	Dalhousie	RGGVY (90:10)	2019	-	502.81	508.17	513.05	516.90	2,040.92
	Central	Mandi	RGGVY (90:10)	2017	100.56	1,408.93	115.07	-	-	1,624.56
	Central	Kullu	RGGVY (90:10)	2017	100.56	2,515.10	129.47	-	-	2,745.13
	Central	Bilaspur	RGGVY (90:10)	2017	100.56	353.04	71.16	-	-	524.76
	Central	Hamirpur	RGGVY (90:10)	2017	100.56	202.19	63.45	-	-	366.21
	North	Kangra	R-APDRP (Part B)	2015	77.41	-	-	-	-	77.41
	North	Una	R-APDRP (Part B)	2015	66.94	-	-	-	-	66.94
	North	Dalhousie	R-APDRP (Part B)	2015	25.57	-	-	-	-	25.57
	Central	Mandi	R-APDRP (Part B)	2015	208.81	-	-	-	-	208.81
	Central	Kullu	R-APDRP (Part B)	2015	146.85	-	-	-	-	146.85
	Central	Bilaspur	R-APDRP (Part B)	2015	300.40	-	-	-	-	300.40
	Central	Hamirpur	R-APDRP (Part B)	2015	138.94	-	-	-	-	138.94
	South	Shimla	R-APDRP (Part B)	2015	4,773.34	-	-	-	-	4,773.34
	South	Solan	R-APDRP (Part B)	2015	2,808.39	-	-	-	-	2,808.39
	South	Nahan	R-APDRP (Part B)	2015	6,827.44	-	-	-	-	6,827.44

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
				Sub-Total	**15,776.34**	**6,037.96**	**1,954.47**	**1,540.18**	**1,551.67**	**26,860.62**
ES_Summ Schemes										
EHV		Shimla	C/O 220KV D/C line from PGCIL S/Stn. Reeru Majra to Nalagarh a/w 220/66KV, 2x100 MVA S/Stn. at Nalagarh. (REC CODE 60453)	2015	979.92	-	-	-	-	979.92
EHV		Shimla	Prov. 132/33KV, 25/31.5 MVA S/Stn.at Maliana & LILO of 132KV D/C line from Kunihar to Jutogh. (REC CODE 60458)	2015	1,352.47	-	-	-	-	1,352.47
EHV		Shimla	SOP to HPSIDC Davni C/O 66KV line from 66KV S/Stn. Akanwali to Davni a/w 66/11 KV, 2x10MVA S/Stn. at Davni(Partial 50:50 deposites)	2015	241.36	-	-	-	-	241.36
EHV		Shimla	C/O 220KVD/C line from T-61 of 132KV Giri-Solan line near Jamta (initially to be charged on 132KV) to Kala- amb via Devani (REC CODE 3910)	2015	734.96	-	-	-	-	734.96
EHV		Shimla	C/O 400KV D/C T/L from Nalagarh to Kunihar. (REC CODE 5837)	2019	6,841.64	6,649.06	7,479.94	8,371.84	11,834.98	41,177.45
EHV		Shimla	Const.of 220KV D/C line from 220KV S/Stn. Nalagarh to Baddi. (REC CODE 4068)	2015	775.82	-	-	-	-	775.82
EHV		Shimla	Aug. of 132/33kV, 8MVA Trf to 16MVA at Kunihar Sub-Station. (REC CODE 4567)	2019	4.42	4.99	5.41	5.66	5.95	26.44
EHV		Shimla	Aug. of 66/22KV, 2x6.3 MVA trf. 2x10MVA at Hulli Sub-Station. (REC CODE 3686)	2015	65.71	-	-	-	-	65.71

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
EHV		Shimla	Aug. of 220/66KV, 2x80/100 MVA transformer to 3x80 /100MVA at Baddi S/Stn. by providing addl. T/F of capacity 220/66KV, 1x80/ 100MVA. (REC CODE 3618)	2015	120.66	-	-	-	-	120.66
EHV		Shimla	Aug. of 220/132kV, 2x80/100 MVA Trf bank at Kunihar S/Stn. by installing additional Trf of capacity 220/132kV, 1x160/200MVA. (REC CODE 3617)	2015	220.23	-	-	-	-	220.23
EHV		Shimla	Aug. of 220/132KV, 2x63MVA Trf. to 2x80/100MVA at Girinagar S/Stn. (REC CODE 5180)	2015	170.58	-	-	-	-	170.58
EHV		Shimla	C/O 66/22kV Sub-Stn at Anni a/w 66kV LILO line from 66kV Gumma-Kumarsain line near Baragaon. (REC CODE 3286)	2015	713.13	-	-	-	-	713.13
EHV		Shimla	Aug. of 1no. 220/66KV, 25/31.5 MVA to 80/100MVA & 1x6.3MVA, 66/22KV to 25/31.5MVA T/Fs at Kotla S/Stn. (REC CODE 5845)	2015	290.58	-	-	-	-	290.58
EHV		Shimla	Addl. of 132/33kV, 1x25/31.5 MVA T/F at 132/33kV S/Stn Kala Amb. (REC CODE 5822)	2015	66.55	-	-	-	-	66.55
EHV		Shimla	C/O 2x6.3MVA, 66/22KV S/Stn. at Bago Sandhu in shimla district of Himachal Pradesh. (REC CODE 6105)	2016	1,077.35	249.29	-	-	-	1,326.65

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
EHV		Shimla	C/O 66/22kV,2x6.3 MVA S/Stn. at Chopal a/w 66kV S/C line from 66KV S/Stn. Sainj to Chopal. (REC CODE 5270)	2016	1,680.49	1,006.54	-	-	-	2,687.03
EHV		Shimla	Augmentation of one no. 132/11KV S/Stn.at Barotiwala with 1x25/31.5MVA T/F to replace 1x16/20MVA T/F . (REC Code 60439)	2015	40.91	-	-	-	-	40.91
EHV		Shimla	Add. Of 1 No. 1x16MVA, 132/33KV Transformer at Gaura S/Stn. (REC Code 5836)	2015	462.23	-	-	-	-	462.23
EHV		Shimla	C/O 66/22KV 2x10 MVA S/Stn.Bhoktoo.(REC Code 6104)	2015	1,901.91	-	-	-	-	1,901.91
EHV		Shimla	Installation of 25 MVAR Capacitor Banks in Baddi-Barotiwala area. (REC CODE 3918)	2015	50.46	-	-	-	-	50.46
EHV		Shimla	Prov. 1No. Addl. 132/33KV 1x16MVAT/F at 132/33KV S/Stn. Kondrori (REC CODE 3296)	2015	35.11	-	-	-	-	35.11
EHV		Shimla	Addition of 220/33KV,25/31.5MVA T/Fat existing 220/132/33kV Jassure Sub-Station (REC CODE 60439)	2015	71.96	-	-	-	-	71.96
EHV		Hamirpur	C/O 132kV, 25/31.5MVA S/Stn. Jahoo by LILO of 132kV Mattansidh-Kangoo line (REC CODE 3296)	2015	1,590.14	-	-	-	-	1,590.14

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
EHV		Hamirpur	Addl. of 220/132KV, 3x26.67/33.33 MVA Power Trf. Bank a/w Aug. of 132KV Bus Bar from Zebra Cond. to twin Tarantula conductor at 220KV S/Stn. Mattansidh (Hamirpur) for evacuation of Generation of 100 MW of Uhal-III HEP from M/Sidh	2015	266.15	-	-	-	-	266.15
EHV		Hamirpur	Aug. of 132/33KV+132/11KV, 16+16MVA T/F Gagret to 132/33KV + 132/11KV 2x25/31.5MVA Capacity (REC CODE 3296)	2019	71.89	81.04	87.97	91.96	96.76	429.63
EHV		Hamirpur	Const. of 132/33KV, 2x25/31.5MVA S/Stn. at Tahaliwala by prov. 132KV S/C line on D/C tower from Una to Tahliawala. (REC CODE 3917)	2015	879.40	-	-	-	-	879.40
EHV		Hamirpur	Augmentation of 16MVA, 33/132KV Power T/F to 25/31.5MVA capacity at 33/132KV S/Stn. Malana. (REC code 5416)	2019	31.32	35.31	38.33	40.06	42.15	187.17
EHV		Hamirpur	Prov. Addition of 220/132kV, 1x50/63MVA T/F Bank at 220kV Sub-Stn.Jassure. (REC CODE 5268)	2015	437.45	-	-	-	-	437.45
EHV		Hamirpur	C/O 132KV S/C line on D/C tower from132KV S/Stn. Dehan to 132KV S/Stn. Kangra & Aug. of 2x16MVA ,132/33KV T/F to 2x 25/31.5MVA T/F at Dehan. (REC CODE 5360)	2015	83.68	-	-	-	-	83.68

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
EHV		Hamirpur	Prov. 220/132kV, 2x100MVA Sub-station in between Una and Amb area a/w 220kV D/C line by LILOing of existing 220kVD/C line from Jallandhar to Hamirpur and 132KV D/C line from Amb to Una & 132KV S/C line fromUna to Tahliwala.	2016	5,850.13	4,552.78	-	-	-	10,402.91
EHV		Hamirpur	C/O 220KV D/C line from Rauri to Kunihar. (50:50 basis) (Hpseb share =Rs. 1953.85 lacs)	2018	106.37	566.65	617.52	1,008.51	-	2,299.04
EHV		Hamirpur	Aug. of 132/66KV, 3x10.5 MVA (31.5)to 132/66KV , 3x16.63MVA (50) with one spare 16.63MVA T/F at Jutogh. (REC CODE 5663)	2017	131.74	1,082.41	311.51	-	-	1,525.66
EHV		Hamirpur	Extension of 220KV yard for additional power arrangement at 220KV S/Stn Kangoo.	2015	567.38	-	-	-	-	567.38
EHV		Hamirpur	C/O of 132/33KV , 2x16/20MVA S/Stn.at Kanghain (Jaisinghpur) a/w 132KV D/C line from Chullah .	2016	2,080.91	1,081.82	-	-	-	3,162.73
EHV		Hamirpur	Aug. of 132/33KV, 2x16MVA PowerTr f to 2x25/31.5MVA a/wassociated equipments at 132/33KV S/Stn. Kandrori.	2016	531.83	235.86	-	-	-	767.69
EHV		Hamirpur	Aug. of 132/33KV T/F from 1x16+20 MVA Power T/F to 2x25/31.5MVAcapacity at 132/33KV S/Stn Bijni.	2015	335.03	-	-	-	-	335.03

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
EHV		Hamirpur	UP-gradation of 33/11 KV S/Stn. to 132/33 KV level at Sundernagar by LILOing 2nd CKT. Of 132 KV D/C Bajoura-Kangoo line.	2017	-	744.56	607.30	-	-	1,351.86
EHV		Hamirpur	Aug. of 33/11KV,2x4MVA T/F to 2x6.3MVA capacity 132/33KV S/Stn. Dehan.	2016	-	99.90	-	-	-	99.90
EHV		Hamirpur	Aug.of old existing Panther conductor of size 30/7/3.00mm of 132 KV S/C Trans. Line from Bassi to Hamirpur with new UPAS conductor (All Alluminum Alloy Conductor of size 37/3.58 mm).	2017	-	531.83	313.03	-	-	844.86
EHV		Hamirpur	Upgradation of existing 33/11 KV, 2x3.15MVA S/Stn. Dharmpur to 132/33KV, level by installing 132/33KV, 2x16MVA Power T/F at Dharmpur by LILOing of 132/33 KV S/C Bassi-Hamirpur line.	2017	-	531.83	787.22	-	-	1,319.05
EHV		Hamirpur	Aug. of 132/33 KV T/F from 1x16MVA Power T/F to 1x25/31.5 MVA capacity at 132/33KV S/Stn. Amb.	2016	-	309.25	-	-	-	309.25
EHV		Hamirpur	Upgradation of 132/33KV to 220/132KV S/Stn. at Tahliwala a/w 220KV LILO line.	2018	-	1,701.86	2,344.00	1,942.42	-	5,988.27
EHV		Hamirpur	Aug. of Old existing Panther Conductor of size 30/7/3.00mm of 132KV S/C Trans. Line from Amb to Una with new UPAS conductor (All Alluminum Alloiy Conductor of size 37/3.58mm)	2017	-	265.92	290.52	-	-	556.44

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
EHV		Hamirpur	Aug. of Old existing Panther Conductor of size 30/7/3.00mm of 132KV S/C Trans. Line from Jassure to Kandrori with new UPAS conductor (All Alluminum Alloiy Conductor of size 37/3.58mm)	2018	-	-	212.73	232.42	-	445.15
EHV		Hamirpur	Aug. of Old existing Panther Conductor of size 30/7/3.00mm of 132KV S/C Trans. Line from Jassure to Bathri with new UPAS conductor (All Alluminum Alloiy Conductor of size 37/3.58mm)	2017	-	212.73	490.13	-	-	702.86
EHV		Hamirpur	Aug. of Old existing Panther Conductor of size 30/7/3.00mm of 132KV S/C Trans. Line from Jassure to Bathri with new UPAS conductor (All Alluminum Alloiy Conductor of size 37/3.58mm)	2018	-	-	319.10	348.63	-	667.73
EHV		Hamirpur	Prov. 220/132KV S/Stn. at Kharsi, Bagga (50:50basis)	2019	-	-	425.46	586.00	839.18	1,850.65
EHV		Hamirpur	Aug. of Old existing Panther Conductor of size 30/7/3.00mm of 132KV S/C Trans. Line from Bassi to Dehanwith new UPAS conductor (All Alluminum Alloiy Conductor of size 37/3.58mm)	2017	-	319.10	451.71	-	-	770.81
EHV		Hamirpur	Upgradation of 33/11 KV, 2x5.00MVA S/Stn. Bijhar to 132/33KV, Voltage level by LILOing one ckt of 132KVD/C Kangoo-Hamirpur Trans. Line.	2019	-	585.01	606.31	683.51	746.76	2,621.60

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
EHV		Hamirpur	Aug.of existing Shunt capacitor bank at una, Amb, Kandrori and Sansarpur Terrace S/Stns. To 25.2 MVAR capacity to match with the augmented capacity of power transformers.	2019	-	-	-	106.37	116.21	222.58
EHV		Hamirpur	Providing 21.6MVAR new capacitor bank at 132/33KV S/Stn. Tahliwala at Fatehpur.	2017	-	159.55	45.46	-	-	205.01
EHV		Hamirpur	Prov. 400/132KV, 3x105MVA+1 spare, single-Phase Power Transformer Bank GIS S/Stn. at Kandrori.	2019	-	-	-	5,318.30	3,233.36	8,551.66
EHV		Hamirpur	Replacement of defective 132/66 KV, 3x10.5 MVA, + 1 No. as stand by 1-Ø Transformers bank with 132/66 KV 25/31.5 MVA, 3-Ø. Transformer a/w replacement of old 66 KV alied equipments at 132/66/33KV Sub station at Saproon Solan.	2015	309.25	-	-	-	-	309.25
EHV		Hamirpur	Aug. of 33/11KV , 2x4MVA T/F to 2x6.3MVA capacity at 132/33KV S/Stn. Dehan.	2016	126.42	29.61	-	-	-	156.02
EHV		Hamirpur	Aug. of 33/11KV , 2x5MVA T/F to 2x10MVA capacity at 132KV S/Stn. Anu	2016	159.55	102.60	-	-	-	262.15
EHV		Hamirpur	Aug. of 33/11KV , 2x4MVA T/F to 2x6.3MVA capacity at 132KV S/Stn.Dehra	2016	159.55	36.68	-	-	-	196.22
EHV		Hamirpur	C/O 66/33KV , 1x20MVA & 66/11KV, 2x10MVA S/Stn. at Dhabota a/w 66KV line from Nangal Uperla.	2017	212.73	1,090.75	1,780.30	-	-	3,083.78

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
EHV		Hamirpur	C/O 220/66KV, 160/200MVA S/Stn. at Nadokar a/w 66KV line from Nadokar to Gumma.	2018	531.83	1,663.20	2,938.62	1,696.26	-	6,829.91
EHV		Hamirpur	Upgradation of existing 33/11 KV, 2x3.15MVA S/Stn. Fatehpur to 132/33KV, 2x16MVA capacity at Fatehpur.	2015	695.62	-	-	-	-	695.62
EHV		Hamirpur	C/O 66KV D/C line on 132KV towers from Baddi to Nalagarh (via Akanwali) (REC code 060439)	2015	342.06	-	-	-	-	342.06
EHV		Hamirpur	C/O 66/33/11KV, 2x20MVA S/Stn. at Akanwali.	2015	297.94	-	-	-	-	297.94
EHV		Hamirpur	Replacement of 66/11KV, 1x20MVA T/f with 2x20MVA T/F at Nalagarh.	2015	72.55	-	-	-	-	72.55
EHV		Hamirpur	Add. of 132/11KV, 25/31.5MVA T/F at Barotiwala.	2015	323.61	-	-	-	-	323.61
EHV		Hamirpur	Aug. of wolf conductor of 66 KV single circuit Nogli -Gumma line with AAAC 37/3.05 mm size.	2017	-	744.56	916.55	-	-	1,661.11
EHV		Hamirpur	C/O 66/22KV, 2x10MVA S/Stn. alongwith 66KV S/C Trans. Line on D/C Towers from samoli to Hatkoti.	2017	-	1,595.49	538.67	-	-	2,134.16
EHV		Hamirpur	Const.of 220KV, 3x53.33/66.67 MVA Sub Station at Moginand.	2018	-	2,127.32	1,334.51	1,458.01	-	4,919.84
EHV		Hamirpur	Aug. of Panther Conductor of 132 KV S/C Giri Paonta- Kala Amb Line with AAAC 37/3.53mm size.	2018	-	-	212.73	438.59	-	651.32
EHV		Hamirpur	LILO of 66 KV S/C Barotiwala-Parwanoo Line at 220/66 KV Sub Station Mandhala.	2018	-	212.73	239.82	145.52	-	598.07

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
EHV		Hamirpur	Add. of 220/33 KV, 50/63 MVA Power Transformer at 220 KV Sub Station Uperla Nangal.	2017	-	1,063.66	337.42	-	-	1,401.08
EHV		Hamirpur	66/22 KV, 2x6.3 MVA SubStation at Akpa.	2018	11.91	651.63	202.20	200.78	-	1,066.52
EHV		Hamirpur	66/22 KV, 2x6.3 MVA SubStation at Pooh.	2018	-	212.73	452.55	288.26	-	953.54
EHV		Hamirpur	66/22 KV, 2x6.3 MVA SubStation at Tabo.	2019	-	-	212.73	452.55	288.26	953.54
EHV		Hamirpur	Aug. of 2x6.3 MVA 66/22KV to 2x10 MVA Trf. At 66 KV S/Stn. Kumarsain	2017	388.64	373.24	407.78	-	-	1,169.67
EHV		Hamirpur	Add. of 1 NO. 66/33KV, 1x10MVA Trf. At 66 KV S/Stn. Nalagarh	2015	72.16	-	-	-	-	72.16
EHV		Hamirpur	C/O 220 Kv D/C line from Mirpur Kotla to Moginand.	2019	-	212.73	239.82	483.08	321.62	1,257.25
EHV		Hamirpur	C/O 66 KV line on Multicircuit towers from Nangal Uperla to Davni Via Akanwali	2019	-	531.83	1,663.20	2,406.79	2,033.70	6,635.52
EHV		Hamirpur	C/O 220 KV D/C line from 400/220KV PGCIL S/Stn Mirpur Kotla to proposed 220/132 KV S/stn. Moginand (Devni) in Didtrict Sirmour.	2019	-	212.73	346.18	602.99	658.79	1,820.70
EHV		Hamirpur	(a) Pooh-Khab 10KM (sliding zone) 10KM.	2018	-	212.73	239.82	158.93	-	611.48
EHV		Hamirpur	(b) Khab-Ka (Glacier Zone) 3.08 KM.	2016	-	206.17	-	-	-	206.17
EHV		Hamirpur	(c) Ka- Samdhoo (Sliding Zone) 28 KM.	2019	-	319.10	359.73	511.89	559.26	1,749.98
EHV		Hamirpur	(d) Samdhoo- Hurling (Sliding Zone) 6.5 KM.	2019	-	-	-	106.37	322.38	428.75
EHV		Hamirpur	(e) Hurling- Kaza (55 KM.) Normal (Glacier zone already done 9.57KM)	2019	-	1,063.66	667.26	752.21	821.82	3,304.95

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
EHV		Hamirpur	(f) Kaza - Losar 50 KM.	2019	-	1,063.66	667.26	752.21	821.82	3,304.95
EHV		Hamirpur	C/O 22 KV trans line on 66 KV tower from Akpa to Pooh.	2016	2,122.93	809.11	-	-	-	2,932.04
EHV		Hamirpur	Scheme for replacement of existing 220/132 KV, 2X80/100 MVA Power Transformer Bank by Installation of Additional 220/66 KV, 160/200 MVA Power Transformer Bank at 220/132/33 KV S/Stn. Kunihar.	2017	-	1,595.49	453.76	-	-	2,049.25
				Sub-Total	**36,688.64**	**37,138.69**	**29,644.55**	**29,190.11**	**22,743.03**	**1,55,405.02**
IT _ Summ Schemes										
IT			**Existing Initiatives**							
IT			Computerized Billing	2016	256.60	257.67	-	-	-	514.28
IT			GIS/GPS	2019	361.34	207.38	230.55	238.41	253.08	1,290.77
IT			R-APDRP	2019	1,357.43	1,546.21	1,732.67	1,885.84	2,022.61	8,544.77
IT			ERP	2019	1,436.93	1,694.33	983.32	1,099.88	1,194.61	6,409.07
IT			**New IT Initiatives**							
IT			Smart Grid	2019	747.40	842.56	418.00	359.64	390.62	2,758.22
IT			Wi-Fi In Vidyut Bhawan Campus	2015	30.93	-	-	-	-	30.93
IT			Expansion of AMR	2019	531.83	1,131.37	1,275.42	585.18	637.70	4,161.51
IT			Expansion of Computerized Billing	2019	2,127.32	1,334.51	653.49	729.92	790.91	5,636.16
IT			GIS/GPS updation in Non RAPDRP area	2019	-	531.83	1,131.37	1,275.42	1,393.45	4,332.07
IT			SCADA/DMS	2018	-	-	1,063.66	646.67	-	1,710.33
IT			R-APDRP Next Phase	2018	-	425.46	1,117.83	1,221.28	-	2,764.57
				Sub-Total	**6,849.78**	**7,971.34**	**8,606.32**	**8,042.25**	**6,682.99**	38,152.67
DS_OP_north Summ										
33 KV New Substations and Associated Lines	North	Kangra	Const. of 33 KV double circuit link line between Khauli HEP & 33 KV Sub Station Gaj. (Code-3665)	2015	172.95	-	-	-	-	172.95

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
33 KV New Substations and Associated Lines	North	Kangra	C/o 33/11 KV, 1x3.15 MVA. Unmanned Sub Station at Bharoli Jadid along with associated 33 KV & 11 KV HT Lines. (Code-4368)	2015	280.81	-	-	-	-	280.81
33 KV New Substations and Associated Lines	North	Kangra	C/o 33/11 KV, 2x3.15 MVA. Unmanned Sub Station at Holta a/w associated 33 KV & 11 KV HT Lines. (Code-5520)	2015	375.38	-	-	-	-	375.38
33 KV New Substations and Associated Lines	North	Kangra	C/o 33/11 KV, 2x3.15 MVA. Unmanned Sub Station at Rajol a/w associated 33 KV & 11 KV HT Lines.	2017	-	106.37	208.99	-	-	315.35
33 KV New Substations and Associated Lines	North	Kangra	C/o 33/11 KV, 2x3.15 MVA. Unmanned Sub Station at Chamunda a/w associated 33 KV & 11 KV HT Lines.	2017	-	106.37	215.17	-	-	321.54
33 KV New Substations and Associated Lines	North	Kangra	C/o 33/11 KV,1x3.15 MVA. Unmanned Sub Station at Darini a/w associated 33 KV & 11 KV HT Lines.	2017	-	106.37	188.37	-	-	294.73
33 KV New Substations and Associated Lines	North	Kangra	C/o 33/11 KV,1x3.15 MVA. Unmanned Sub Station at Shantla a/w associated 33 KV & 11 KV HT Lines.	2018	-	-	106.37	219.29	-	325.66
33 KV New Substations and Associated Lines	North	Kangra	C/o 33 KV link line from 33/11 KV Sub Station. Jaisinghpur to 33/11 KV Chadhiar. (Code- 5624).	2015	96.98	-	-	-	-	96.98
33 KV New Substations and Associated Lines	North	Kangra	C/o 33 KV S/C link line from 33/11 KV Sub Station. Ranital (Darkata) to 33/11 KV Lanj. (Code-6106)	2015	126.86	-	-	-	-	126.86
33 KV New Substations and Associated Lines	North	Kangra	C/o 33 KV Link Line from 33/11 KV S/Stn. Nadaun (Maan Khad) to 33/11 KV S/Stn. Bharoli Jadid	2017	-	53.18	68.41	-	-	121.60

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
33 KV New Substations and Associated Lines	North	Una	Construction of 33/11 KV 2x3.15 MVA un-manned S/Stn. Chak Sarai also associated 33 & 11 KV HT Lines (Code-3780)	2015	152.99	-	-	-	-	152.99
33 KV New Substations and Associated Lines	North	Una	Const. of 33/11 KV 2x3.15 MVA un-manned Sub Station at Santoshgarh along with associated 33 & 11 KV HT lines(Code -5625)	2015	426.07	-	-	-	-	426.07
33 KV New Substations and Associated Lines	North	Una	Construction of 33/11 KV 2x10 MVA un-manned S/Stn. at Gondpur along with associated 33 & 11 KV HT lines (Code-7148).	2015	580.64	-	-	-	-	580.64
33 KV New Substations and Associated Lines	North	Una	Construction of 33 KV HT line from 33/11 KV 2x3.15 MVA S/Stn. Jeetpur Behari to 33/11 KV 2x3.15 MVA S/Stn. Bharwain along with terminal equipm ent at both ends.	2016	174.11	43.85	-	-	-	217.96
33 KV New Substations and Associated Lines	North	Una	C/o 33/11 KV 2x10 MVA un-manned Sub Station at Bathu along with 33 KV HT line for evacuation of power from 132/33 KV S/Stn. Gurplan (Tahliwala)	2016	531.99	581.23	-	-	-	1,113.22
33 KV New Substations and Associated Lines	North	Una	SOP to T/well under (OP) Circle, HPSEBL, Una (2nd phase)	2018	-	212.73	239.82	262.01	-	714.56
33 KV New Substations and Associated Lines	North	Una	C/o 33 KV line link from 33/11 KV Santoshgath to 33/11 KV S/Stn. Mehatpur	2018	-	-	53.18	42.64	-	95.83
33 KV New Substations and Associated Lines	North	Una	C/o 2x1.6 MVA 33/11 KV (Un-manned) S/Stn. at Raipur Maidan along with associated 33 & 11 KV HT lines.	2019	-	-	106.37	173.09	137.57	417.03

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
33 KV New Substations and Associated Lines	North	Una	C/o 33 KV link line from 33/11 KV Jeetpur Behari to 33/11 KV S/Stn. Daulatpur.	2019	-	-	-	106.37	64.67	171.03
33 KV New Substations and Associated Lines	North	Una	C/o 33/11 KV 1x3.15 MVA Un-manned S/Stn. at Saloh along with associated 33 & 11 KV lines.	2019	-	-	-	212.73	77.79	290.52
33 KV New Substations and Associated Lines	North	Dalhousie	Const. of 33 KV D/C line with WOLF Conductor from 33/11 KV Sub Station Salooni to 33/11 KV Sub Station Koti	2015	196.75	-	-	-	-	196.75
33 KV New Substations and Associated Lines	North	Dalhousie	Const. of 33 KV S/C line on D/C structures and cross arms with Wolf Conductor from 33/11 KV Sub Station Holi to 33/11 KV Sub Station Gharola	2015	533.04	-	-	-	-	533.04
33 KV New Substations and Associated Lines	North	Dalhousie	Const. of 33 KV S/C Line on D/C Structures and cross arms with WOLF Conductor from 33/11 KV Sub Station Bharmour to 33/11 KV Sub Station Gharola	2015	45.57	-	-	-	-	45.57
33 KV New Substations and Associated Lines	North	Dalhousie	Const. of 33 KV D/C line for LILO of 33 KV Chamba -Gharola line at proposed 33/132/220 KV Sub Station Karian	2015	39.02	-	-	-	-	39.02
33 KV New Substations and Associated Lines	North	Dalhousie	Const. of 33 KV D/C line for LILO of 33 KV Chamba -Gharola line at 33/11 KV Sub Station Jarangla	2015	36.29	-	-	-	-	36.29
33 KV New Substations and Associated Lines	North	Dalhousie	C/o 33/11 KV 2x1.6 MVA un-manned S/Stn. at Bhallie along with associated 33 & 11 KV HT lines.	2015	312.99	-	-	-	-	312.99
33 KV New Substations and Associated Lines	North	Dalhousie	Scheme for SOP to Tubewell under (OP) Circle, HPSEBL, Dalhousie.	2019	531.83	174.08	196.24	219.54	240.27	1,361.96

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
Augmentaion of 33/11 kV Substations and lines	North	Kangra	Aug. of 33/11 kv S/S Chadhair from 1X1 MVA to 1X1+1X3.15 MVA. (Code- 4334)	2015	148.50	-	-	-	-	148.50
Augmentaion of 33/11 kV Substations and lines	North	Kangra	Aug.of 33/11 Kv Unmanned S/S Darang from 1X1 MVA to 2X1.6 MVA (Code-5755)	2015	147.50	-	-	-	-	147.50
Augmentaion of 33/11 kV Substations and lines	North	Kangra	Scheme for prov. modernized control & Protection system to existing 33/11KV 1x2.5MVA(Unmanned) S/Stn at Chobin.	2015	14.09	-	-	-	-	14.09
Augmentaion of 33/11 kV Substations and lines	North	Kangra	System improvement scheme for augmentation of 33/11KV Sub-Station at Kural from 2x1.6 MVA to 2x3.15 MVA under ED, HPSEBL., Palampur	2015	24.11	-	-	-	-	24.11
Augmentaion of 33/11 kV Substations and lines	North	Kangra	System improvement scheme for augmentation of 33/11KV Sub-Station at Maranda from 2x4.0+1x2.5 MVA to 2x10.0 MVA under ED, HPSEBL., Palampur	2015	128.13	-	-	-	-	128.13
Augmentaion of 33/11 kV Substations and lines	North	Kangra	Strengthening/ up-gradation of existing line conductor from ACSR 6/1/4.72mm (100mm2) 'DOG' to ACSR 30/7/2.59mm (150mm2) 'WOLF' of 33KV S/C line from existing 33/11KV Sub-Station Sidhpur to Baner Power House switchyard from 33/11KV Sub-Station Sidhpur to 132/33 KV Sub Station Kangra under E.D. Dharamshala.	2015	261.03	-	-	-	-	261.03

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
Augmentaion of 33/11 kV Substations and lines	North	Kangra	Strengthening/ up-gradation of existing 33KV Single Circuit from Baner Power House EPI to EP 40 Gopalpur and additional construction of 33KV Single Circuit line from EP 40 Gopalpur to Darang via Garh Mata with ACSR 30/7/2.59mm (150mm2) 'WOLF' conductor under ED HPSEBL., Palampur.	2015	178.47	-	-	-	-	178.47
Augmentaion of 33/11 kV Substations and lines	North	Kangra	Strengthening/ up-gradation of existing Single Circuit 33KV feeder No.-II from Baner Power House to 132/33/11KV Sub-Station Dehan under ESD NO.-II, HPSEBL., Palampur.	2015	230.33	-	-	-	-	230.33
Augmentaion of 33/11 kV Substations and lines	North	Kangra	Strengthening/ up-gradation of existing 33KV Maranda-Nagrota Bagwan- Tanda-Kangra line from ACSR 6/1/4.72 (DOG) with ACSR 30/7/2.59 (WOLF) under ESD NO.-II, HPSEBL., Dharamshala.	2015	364.11	-	-	-	-	364.11
Augmentaion of 33/11 kV Substations and lines	North	Kangra	Scheme for augmentation of existing line conductor from ACSR 6/1/4.72mm (100mm sq.) 'DOG' with ACSR 30/7/2.59 (150 mm sq.) 'WOLF' of 33KV HT line from Switchyard of Bassi Power House to 33/11KV Sub-Station Baijnath under ED, HPSEBL., Baijnath. (Code-7147)	2015	97.92	-	-	-	-	97.92

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
Augmentaion of 33/11 kV Substations and lines	North	Kangra	Aug. of existing line conductor from ACSR 6/1/4.72 mm (100mm2) 'DOG' to ACSR 30/7/2.59 mm (150mm2) 'WOLF' of 33 KV HT line from 33/11 KV Sub-Station, Baijnath to Maranda under ED, Baijnath.	2017	-	41.48	46.35	-	-	87.84
Augmentaion of 33/11 kV Substations and lines	North	Kangra	Aug. of 33/11 KV S/Stn at Baijnath from 2x5+1x3.15 MVA to 2x10+1x5 MVA under Electrical Division HPSEBL., Baijnath	2015	107.70	-	-	-	-	107.70
Augmentaion of 33/11 kV Substations and lines	North	Kangra	Aug. of 3x2.5MVA to 2x6.3 MVA 33/11KV Nagrota Bagwan under Electrical Division HPSEBL., Dharamshala.	2015	111.58	-	-	-	-	111.58
Augmentaion of 33/11 kV Substations and lines	North	Kangra	Aug. of 2x3.15 MVA S/Stn. To 2x6.3 MVA S/Stn.Totarani under ED Dharamshala	2019	-	-	-	42.55	46.48	89.03
Augmentaion of 33/11 kV Substations and lines	North	Una	Augmentation of 33/11 KV Sub Station Khad from 1x2.5 MVA to 1x6.3 MVA. (Code-6174)	2015	96.89	-	-	-	-	96.89
Augmentaion of 33/11 kV Substations and lines	North	Una	Re-conductoring of 33 KV HT line Una to Amb from ACSR 6/1/4.72 Dog Conductor to ACSR 30/7/2.59 150mm2 WOLF Conductor. (Code-7541)	2015	204.65	-	-	-	-	204.65
Augmentaion of 33/11 kV Substations and lines	North	Una	Augmentation of 33/11 KV Sub Station from 1x2.5 MVA + 1x6.3 MVA to 2x6.3 MVA at Daulatpur under ED Gagret	2015	83.12	-	-	-	-	83.12

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
Augmentaion of 33/11 kV Substations and lines	North	Dalhousie	Augmentation of 33/11 KV Sub Station from 2x3.15 MVA to 2x6.3 MVA S/Stn. Thakurdwara. (Code 5622)	2015	66.21	-	-	-	-	66.21
Augmentaion of 33/11 kV Substations and lines	North	Dalhousie	Augmentation of 33/11 KV Sub Station from 2x2.5 MVA to 2x6.3 MVA S/Stn. Bhadukhar. (Code-6175)	2015	80.46	-	-	-	-	80.46
Augmentaion of 33/11 kV Substations and lines	North	Dalhousie	Augmentation of 33/11 KV Sub Station from 2x1.6 MVA to 2x3.15 MVA S/Stn. Thapkaur. (Code-6173)	2015	33.33	-	-	-	-	33.33
Augmentaion of 33/11 kV Substations and lines	North	Dalhousie	Augmentation of DOG Conductor with WOLF Conductor of 33 KV line from Lahru to 220/132 KV S/Stn. Jassore	2015	178.71	-	-	-	-	178.71
Augmentaion of 33/11 kV Substations and lines	North	Dalhousie	SI Schme for Augmentation of existing 33/11 KV Sub Station from 2x6.3 MVA to 2x10 MVA at Chamba under ED Chamba	2015	127.34	-	-	-	-	127.34
Augmentaion of 33/11 kV Substations and lines	North	Dalhousie	Augmentation of 33/11 KV Sub Station from 1x2.5 MVA + 1x1.6 MVA to 2x3.15 MVA at Koti under ED Chamba	2015	83.78	-	-	-	-	83.78
Augmentaion of 33/11 kV Substations and lines	North	Dalhousie	Aug. of 33/11 KV S/Stn. Salooni from 2x1.6 MVA to 2x3.15 MVA	2017	-	79.77	87.16	-	-	166.93
Augmentaion of 33/11 kV Substations and lines	North	Dalhousie	Aug. of 33/11 KV S/Stn. Sihunta from 2x1.6 MVA to 2x3.15 MVA	2018	-	-	79.77	87.16	-	166.93

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
Augmentaion of 33/11 kV Substations and lines	North	Dalhousie	Aug. of 33/11 KV S/Stn. Dalhousie from 2x5 MVA to 2x10 MVA	2019	-	-	-	106.37	116.21	222.58
Renovation & Modernization of 33/11 kV Subtstation Equipments	North	Kangra	Scheme for prov. 33KV VCB's along with control panels and 11 KV VCB's in place of old one at 33/11 KV S/Stn. Shahpur. (Code-6177)	2015	24.70	-	-	-	-	24.70
Renovation & Modernization of 33/11 kV Subtstation Equipments	North	Kangra	Scheme for prov. 33KV VCB's along with control panels and 11 KV VCB's in place of old MCOB's at Baijnath S/stn. (Code No. 6176)	2015	14.38	-	-	-	-	14.38
Renovation & Modernization of 33/11 kV Subtstation Equipments	North	Kangra	Scheme for prov. 33KV VCB's along with control panels and 11 KV VCB's in place of old MCOB's at Maranda S/Stn.(Code no. 5668)	2015	63.38	-	-	-	-	63.38
Renovation & Modernization of 33/11 kV Subtstation Equipments	North	Kangra	S.I. scheme for providing 1 No. 33 KV VCB along with 33 KV CR Panels, CT, PT unit and renovation/ replacement of retro- fitting i.e. 3 No. old 11 KV OCB's with new VCB'S panel (2 No. incomers & 1 No. outgoing) at 33/11 KV Sub-Station Thural under ESD Thural.	2015	31.35	-	-	-	-	31.35
Renovation & Modernization of 33/11 kV Subtstation Equipments	North	Kangra	S.I. scheme for renovation/ replacement of retro- fitting i.e. 1 No. 33 KV Panel with breaker and 9 No. old OCB's panels with new VCB'S panels (2 No. incomers & 1 No. outgoing and 1 No. Bus coupler panel) at 33/11 KV Sub-Station Jaisinghpur.	2015	71.73	-	-	-	-	71.73

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
Renovation & Modernization of 33/11 kV Subtstation Equipments	North	Kangra	Schem for prov. 33KV VCB's a/w control and relay panels and 11KV VCB's in place of old 33 KV MOCB's a/w CR panels and 11 KV OCB's at 33/11 KV 3x5 MVA Sub-Station Sidhpur under ED Dharamshala.	2015	61.50	-	-	-	-	61.50
Renovation & Modernization of 33/11 kV Subtstation Equipments	North	Kangra	Schem for prov. 33KV VCB's a/w control and relay panels and 11KV VCB's in place of old 33 KV MOCB's a/w CR panels and 11 KV OCB's at 33/11 KV 3x5 MVA Sub-Station Nagrota Bagwan under ED Dharamshala.	2015	67.23	-	-	-	-	67.23
Renovation & Modernization of 33/11 kV Subtstation Equipments	North	Kangra	Scheme for prov. 33KV VCB's a/w control and relay panels and 11KV VCB's in place of old 33 KV MOCB's a/w CR panels and 11 KV OCB's at 33/11 KV 3x5 MVA Sub-Station Baroh under ED Dharamshala.	2015	61.84	-	-	-	-	61.84
Renovation & Modernization of 33/11 kV Subtstation Equipments	North	Kangra	Replacement of old/obsolete switchgear equipment at 33/11 KV Sub Station Darkata (Ranital)	2015	72.48	-	-	-	-	72.48
Renovation & Modernization of 33/11 kV Subtstation Equipments	North	Kangra	Replacement of old/obsolete switchgear equipment at 33/11 KV Sub Station Nagrota Surian	2015	77.07	-	-	-	-	77.07
Renovation & Modernization of 33/11 kV Subtstation Equipments	North	Kangra	Demand side management scheme (DSM) of (OP) circe, HPSEBL, Kangra	2019	-	425.46	479.63	647.07	603.86	2,156.03

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
Renovation & Modernization of 33/11 kV Subtstation Equipments	North	Una	Demand side management scheme (DSM) of (OP) circe, HPSEBL, Una	2019	-	212.73	239.82	270.35	295.37	1,018.27
Renovation & Modernization of 33/11 kV Subtstation Equipments	North	Una	Providing system earthing in 33 KV 11 KV and LT line under (OP) Circle, HPSEBL, Una	2018	-	106.37	66.73	72.90	-	245.99
Renovation & Modernization of 33/11 kV Subtstation Equipments	North	Una	Replacement of defective tri-vector meters and GO switches under (OP) Circle, HPSEBL, Una	2019	-	-	106.37	226.27	92.59	425.23
Renovation & Modernization of 33/11 kV Subtstation Equipments	North	Dalhousie	Replacement of old /obsolete switchgear equipments of 33/11 KV S/Stn. Koti & Nakrod under ED Chamba	2015	144.32	-	-	-	-	144.32
Renovation & Modernization of 33/11 kV Subtstation Equipments	North	Dalhousie	Replacement of old /obsolete switchgear equipments of 33/11 KV S/Stn. Dalhousie & Bakloh under ED Dalhiousie	2015	247.40	-	-	-	-	247.40
Renovation & Modernization of 33/11 kV Subtstation Equipments	North	Dalhousie	Demand side management scheme (DSM) of (OP) circle, HPSEBL,Dalhousie	2019	-	106.37	173.09	195.13	254.42	729.01

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
Replacement of rotten wooden poles with steel tubular poles (2nd phase) under HPSEB Ltd, in all Distts. of H.P. (Code 4268) and 3rd phase scheme (N.Proposal) for FY 16-17, 17-18 & 18-19)	North	Kangra	Replacement of rotten wooden poles with steel tubular poles (2nd phase) under HPSEB Ltd, in all Distts. of H.P. (Code 4268) and 3rd phase scheme (N.Proposal) for FY 16-17, 17-18 & 18-19)	2015	135.20	-	-	-	-	135.20
Replacement of rotten wooden poles with steel tubular poles (2nd phase) under HPSEB Ltd, in all Distts. of H.P. (Code 4268) and 3rd phase scheme (N.Proposal) for FY 16-17, 17-18 & 18-19)	North	Una	Replacement of rotten wooden poles with steel tubular poles (2nd phase) under HPSEB Ltd, in all Distts. of H.P. (Code 4268) and 3rd phase scheme (N.Proposal) for FY 16-17, 17-18 & 18-19)	2017	62.37	17.12	49.63	-	-	129.13
Replacement of rotten wooden poles with steel tubular poles (2nd phase) under HPSEB Ltd, in all Distts. of H.P. (Code 4268) and 3rd phase scheme (N.Proposal) for FY 16-17, 17-18 & 18-19)	North	Dalhousie	Replacement of rotten wooden poles with steel tubular poles (2nd phase) under HPSEB Ltd, in all Distts. of H.P. (Code 4268) and 3rd phase scheme (N.Proposal) for FY 16-17, 17-18 & 18-19)	2019	153.43	385.70	232.29	249.57	269.40	1,290.39

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
Replacement of electomechanical meters with electronic meters for 2012-13 (Code 7015) & 2nd phase (N.proposal) for FY 16-17, 17-18 & 18-19.	North	Kangra	Replacement of electomechanical meters with electronic meters for 2012-13 (Code 7015) & 2nd phase (N.proposal) for FY 16-17, 17-18 & 18-19.	2019	651.74	468.80	528.15	592.31	644.45	2,885.46
Replacement of electomechanical meters with electronic meters for 2012-13 (Code 7015) & 2nd phase (N.proposal) for FY 16-17, 17-18 & 18-19.	North	Una	Replacement of electomechanical meters with electronic meters for 2012-13 (Code 7015) & 2nd phase (N.proposal) for FY 16-17, 17-18 & 18-19.	2019	428.37	163.81	290.70	325.33	363.77	1,571.97
Replacement of electomechanical meters with electronic meters for 2012-13 (Code 7015) & 2nd phase (N.proposal) for FY 16-17, 17-18 & 18-19.	North	Dalhousie	Replacement of electomechanical meters with electronic meters for 2012-13 (Code 7015) & 2nd phase (N.proposal) for FY 16-17, 17-18 & 18-19.	2019	407.10	171.74	289.00	323.48	351.50	1,542.82
Capacitor Bank	North	Kangra	Capacitor Bank	2019	-	63.82	93.22	126.36	158.67	442.07
				Sub-Total	**10,157.83**	**3,627.34**	**4,144.82**	**4,500.51**	**3,717.03**	**26,147.55**
DS_OP_Central_Summ										
33 KV New Substations and Associated Lines	Central	Mandi	Construction of 33/11 KV 2x1.6MVA S/Stn. at Mandap under ED- D/Pur (3605) S/A = Rs. 410.03 Lac.	2015	187.42	-	-	-	-	187.42

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
33 KV New Substations and Associated Lines	Central	Mandi	Construction of 33/11 KV 2x3.15MVA S/Stn. at Kalkhar under ED- S/Ghat(3923). S/ A = Rs. 527.06 Lac.	2015	122.87	-	-	-	-	122.87
33 KV New Substations and Associated Lines	Central	Mandi	Construction of 33/11 KV 2x1MVA S/Stn. at Bharaoo under ED-J/Nagar(4217).S/ A = Rs. 329.85 Lac.	2015	176.92	-	-	-	-	176.92
33 KV New Substations and Associated Lines	Central	Mandi	Const. of 33 KV HT Line from 33/22 KV S/Stn. Gohar to 33/11 KV S/Stn.Panodh under ED-Gohar.	2015	237.07	-	-	-	-	237.07
33 KV New Substations and Associated Lines	Central	Mandi	Construction of 33 KV HT line from 33/11 1x1.6 MVA Makriri to 33/11 KV 2x2.5 MVA S/Stn Lad Bharol underED Jogindernagar	2016	208.97	131.50	-	-	-	340.47
33 KV New Substations and Associated Lines	Central	Mandi	Construction of 33 KV HT line from Proposed 132/33 KV S/Stn Jahu to 33/11 KV S/Stn Barchwar under ED Sarkaghat.	2015	106.56	-	-	-	-	106.56
33 KV New Substations and Associated Lines	Central	Mandi	Construction of 33/11 KV 1x1.6MVA un-manned S/Stn. at Marhi and its associated Line.	2017	-	212.73	232.42	-	-	445.15
33 KV New Substations and Associated Lines	Central	Mandi	Construction of 33 KV interlinking line from 33/11 KV 2x3.15 MVA Sub-Station Dharampur to 33/11 KV 2x1.6 MVA Sub-Station Sandhole alongwith terminal equipments at bot ends.	2018	-	-	186.14	203.37	-	389.51
33 KV New Substations and Associated Lines	Central	Bilaspur	C/O 33/22 KV, 2x1.6 MVA New S/Stn. at Karsog and its associated Lines. S/ A = Rs. 543.45 Lac.	2015	354.44	-	-	-	-	354.44

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
33 KV New Substations and Associated Lines	Central	Bilaspur	C/O 33/11 KV, 1x3.15 MVA New S/Stn. at Jai Devi and its associated Lines.	2016	107.72	401.23	-	-	-	508.95
33 KV New Substations and Associated Lines	Central	Bilaspur	Prov. Additional 33/11 KV, 6.3 MVA Transformer at 33/11 KV Sub-Station Sundernagar	2015	77.31	-	-	-	-	77.31
33 KV New Substations and Associated Lines	Central	Bilaspur	Prov. Additional 33/11 KV, 3.15 MVA Transformer at 33/11 KV Sub-Station Engineering College Sundernagar alongwith 11 KV Feeder to Pungh with AB cable.	2018	-	-	-	82.47	-	82.47
33 KV New Substations and Associated Lines	Central	Bilaspur	Prov. 11KV overhead feeder with AB cable from 33/11 KV Sub-Station Sundernagar to Bhojpur with 1 No. spare cable.	2018	-	-	-	72.16	-	72.16
33 KV New Substations and Associated Lines	Central	Bilaspur	Prov. 6.3 MVA Transformer at 33/11 KV Sub-Station Sundernagar .	2015	72.16	-	-	-	-	72.16
33 KV New Substations and Associated Lines	Central	Bilaspur	C/O 33KV HT Line from 132 KV Sub-Station Jahu to 33KV Sub-Station Bharari.	2016	74.46	91.66	-	-	-	166.11
33 KV New Substations and Associated Lines	Central	Bilaspur	C/O 33/11KV, 2x1.6 MVA S/Stn. at Berthin (Chhatri).	2018	-	53.18	91.86	90.06	-	235.10
33 KV New Substations and Associated Lines	Central	Bilaspur	C/O 33KV HT Line from Naswal to proposed 33/11KV Sub-Station Berthin.	2017	-	106.37	33.74	-	-	140.11
33 KV New Substations and Associated Lines	Central	Bilaspur	C/O 33/11KV, 2x1.6 MVA S/Stn. at Bum.	2019	-	-	53.18	113.14	72.07	238.39

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
33 KV New Substations and Associated Lines	Central	Bilaspur	C/O 33KV HT Line from proposed 33/11KV, 2X1.6 MVA Sub-Station Bum.	2018	-	-	21.27	23.24	-	44.52
33 KV New Substations and Associated Lines	Central	Bilaspur	C/O 33/11KV S/Stn. at Jukhala alongwith its associate lines.	2018	-	-	159.55	174.31	-	333.86
33 KV New Substations and Associated Lines	Central	Bilaspur	C/O 33/11KV S/Stn. at Naina Devi Ji with its associate lines.	2019	-	-	-	159.55	174.31	333.86
33 KV New Substations and Associated Lines	Central	Kullu	Prov. 33 KV 2x3.15 MVA S/STN Sarabai. S/A = Rs. 337.32 Lac.	2016	169.03	150.98	-	-	-	320.01
33 KV New Substations and Associated Lines	Central	Kullu	Prov. 33/11 KV, 2x2.5 MVA S/Stn. Raison	2016	219.50	230.75	-	-	-	450.25
33 KV New Substations and Associated Lines	Central	Kullu	C/O 33 KV U/G HT line on XLPE cable from 33/11 KV 2x10 MVA Sub-Station Prini to proposed 33/220 KV Sub-Station of HPPTCL at AD Hydro yard	2016	184.88	86.13	-	-	-	271.01
33 KV New Substations and Associated Lines	Central	Kullu	Prov. 33/11 KV, 2x1.6 MVA S/tn. Bhutti (Lag valley)	2017	53.18	219.50	54.26	-	-	326.95
33 KV New Substations and Associated Lines	Central	Kullu	Interconnection of 33/11 KV 2x10 MVA Sub-Station Kullu and 33/11 KV, 2x5 MVA Sub-Station Naggar with 33/220 KV GIS Sub-Station Fozal by LILO of existing 33 KV Kullu- Naggar feeder	2017	53.18	70.59	65.24	-	-	189.01
33 KV New Substations and Associated Lines	Central	Hamirpur	Const.of 33/11KV 2x3.15MVAS/Stn. Bhareri (Naltu)(4218) S/A = Rs. 417.09 Lac	2015	186.48	-	-	-	-	186.48

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
33 KV New Substations and Associated Lines	Central	Hamirpur	Const. of 33KV HT Line from 132/33 KV S/Stn. Jahu to 33/11KV S/Stn Naltu (Bhereri)	2016	55.89	60.97	-	-	-	116.86
33 KV New Substations and Associated Lines	Central	Hamirpur	Const.of 33/11KV, 1x3.15 MVA S/Stn. Chakhmoh.	2017	-	106.37	116.21	-	-	222.58
33 KV New Substations and Associated Lines	Central	Hamirpur	Const.of 33/11KV, 1x3.15 MVA S/Stn. Dandroo.	2018	-	-	212.73	196.34	-	409.07
Augmentation of 33 kV substations and Lines	Central	Mandi	Aug. of 33/22 KV 2x3.15 MVA into 33/11 KV 2x5 MVA S/Stn. at Saulikhad under ED- Mandi.	2015	231.91	-	-	-	-	231.91
Augmentation of 33 kV substations and Lines	Central	Mandi	Aug. of 33/22 KV 2x3.15 MVA to 33/11 KV 2x6.3 MVA Sub-Station at Saigaloo alongwith conversion of existing 22/0.4 DTR to 11/0.4 KV DTR i/c other allied equipments/ items	2015	357.49	-	-	-	-	357.49
Augmentation of 33 kV substations and Lines	Central	Mandi	Aug. of 33/22 KV, 1x3.15 MVA to 33/11 KV, 2x3.15 MVA Sub-Station at Kataula alongwith conversion of existing 22/0.4 DTR to 11/0.4 KV DTR i/c other allied equipments/ items under ED- Mandi	2015	216.68	-	-	-	-	216.68
Augmentation of 33 kV substations and Lines	Central	Mandi	Aug. of existing 33/22 KV 1x1.6+1x2.5 to 33/11 KV, 2x3.15 MVA Sub-Station at Gohar alongwith conversion of existing 22/0.4 DTR to 11/0.4 KV DTR i/c other allied equipments/ items under ED- Gohar	2016	-	309.25	-	-	-	309.25

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
Augmentation of 33 kV substations and Lines	Central	Mandi	Aug. of 33/22 KV 1x1.6+1x1 MVA Sub-Station into 33/11 KV 2x1.6 MVA Sub-Station at Thunag alongwith conversion of existing 22/0.4 DTR to 11/0.4 KV DTR i/c other allied equipments/ items under ED- Gohar.	2016	-	257.71	-	-	-	257.71
Augmentation of 33 kV substations and Lines	Central	Mandi	Aug. of 33/22 KV 2x3.15 MVA to 33/11 KV 2x6.3 MVA Sub-Station at Baggi alongwith conversion of existing 22/0.4 DTR to 11/0.4 KV DTR i/c other allied equipments/ items under ED- Gohar.	2017	-	-	357.49	-	-	357.49
Augmentation of 33 kV substations and Lines	Central	Kullu	Aug. of 2x4 MVA to 2x6.30 MVA Power Transformer alongwith others equipment of 33/11 KV Sub-Station at Bhunter under ED- Kullu S/A = Rs. 144.42 Lac.	2015	58.92	-	-	-	-	58.92
Augmentation of 33 kV substations and Lines	Central	Kullu	Aug. of 33/11 KV 2x5 MVA to 2x10 MVA S/Stn. alongwith others equipments of 33/11 KV Sub-Station at Prini under ED- Manali. S/ A = Rs. 361.10 Lac.	2015	230.91	-	-	-	-	230.91
Augmentation of 33 kV substations and Lines	Central	Kullu	Conversion of existing 33 KV S/C HT Line into D/C HT line with AL-59 conductor from MPCL Jari to Barshaini.	2015	120.94	-	-	-	-	120.94
Augmentation of 33 kV substations and Lines	Central	Kullu	Conversion of 33KV S/C HT Line into D/C HT Line with Aug. of Cond. AL-59 form Bajoura to Naggar.	2016	323.16	406.67	-	-	-	729.83

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
Augmentation of 33 kV substations and Lines	Central	Bilaspur	Aug. of 33/11 KV, 2x2.5MVA to 2x6.30MVA Power Trans.at Jabli S/A = Rs. 313.61 Lac	2015	73.27	-	-	-	-	73.27
Augmentation of 33 kV substations and Lines	Central	Bilaspur	Augmentation of 1x1 MVA + 1x2.5 MVA to 2x3.15 MVA S/Stn at Jhandutta (3922) S/A = Rs. 136.80 Lac	2015	39.02	-	-	-	-	39.02
Augmentation of 33 kV substations and Lines	Central	Bilaspur	Augmentation of 2x1.6 MVA to 2x3.15 MVA Sub-Station at Bharari under ED- Ghumarwin	2015	85.09	-	-	-	-	85.09
Augmentation of 33 kV substations and Lines	Central	Bilaspur	Re-Cond. of 33 KV HT Line Kangoo to Sundernagar on Rail Pole with ACSR 6/1/4.72 mm to 30/7/2.59 mm.	2015	139.76	-	-	-	-	139.76
Augmentation of 33 kV substations and Lines	Central	Bilaspur	Re-Cond. of 33 KV HT Line on wooden pole from S/Nagar to 33 KV S/Stn Ner-Chowk with ACSR 6/1/4.72 to 33/7/2.59 (wolf)	2015	93.68	-	-	-	-	93.68
Augmentation of 33 kV substations and Lines	Central	Bilaspur	Aug. of 33/11 KV unmanned 1x2.5 MVA to 1x6.30 MVA Power Transformer at Beri under ESD No-I Bilaspur	2015	110.68	-	-	-	-	110.68
Augmentation of 33 kV substations and Lines	Central	Bilaspur	Aug. of 33/11 KV, 2.5 +2.5 MVA to 2x5.00 MVA Power Transformer at Slapper under ESD Slapper.	2015	145.63	-	-	-	-	145.63
Augmentation of 33 kV substations and Lines	Central	Bilaspur	Aug. of 33/11 KV, 2x2.5 MVA to 2x3.15 MVA Power Transromer at Namhol under ESD Namhol	2015	145.63	-	-	-	-	145.63
Augmentation of 33 kV substations and Lines	Central	Bilaspur	Augmentation of 2x1.6 MVA to 2.5 MVA S/Stn. Jhabola	2019	-	-	-	106.37	64.67	171.03

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
Augmentation of 33 kV substations and Lines	Central	Bilaspur	Augmentation of 33/11 KV S/Stn. Naswal from 1+4 MVA to 2x6.3 MVA S/Stn.	2017	-	106.37	64.67	-	-	171.03
Augmentation of 33 kV substations and Lines	Central	Bilaspur	Aug. of 33/11 KV, 1x2.5 MVA to 2x3.15 MVA Power Transformer at Swarghat under ESD- Kot	2015	144.32	-	-	-	-	144.32
Augmentation of 33 kV substations and Lines	Central	Bilaspur	Aug. of 33/11 KV, 2x6.3 MVA to 2x10.00 MVA Power Transformer at Jabli under ESD-III Bilaspur.	2019	-	-	-	-	154.63	154.63
Augmentation of 33 kV substations and Lines	Central	Bilaspur	Re- Conductoring of 33 KV HT Line Kangoo- Jabli Feeder No-II	2017	-	63.82	38.80	-	-	102.62
Augmentation of 33 kV substations and Lines	Central	Bilaspur	Re-Conductoring of 11 KV HT Line City area Circuit No- 1,2 & 3	2018	-	-	53.18	58.10	-	111.29
Augmentation of 33 kV substations and Lines	Central	Bilaspur	Re-Conductoring of 33 KV HT Line from Ganguwal to Bilaspur.	2019	-	-	-	-	30.93	30.93
Augmentation of 33 kV substations and Lines	Central	Bilaspur	Aug. of 33/11 KV S/Stn, 2x3.15 MVA to 2x6.3 MVA at Ratti and construction of 11 KV additional feeder.	2018	-	-	-	134.01	-	134.01
Augmentation of 33 kV substations and Lines	Central	Bilaspur	Aug. of 33/11 KV, 2x1.6 MVA S/Stn. Barsu into 2x6.3 MVA with additional 11 KV feeder 7.00 Kms.	2019	-	-	-	-	113.39	113.39
Augmentation of 33 kV substations and Lines	Central	Hamirpur	Aug. of 33/11 KV 2x1.0 MVA to 2x3.15 MVA Sub-Station Galore S/A = Rs. 93.32 Lac.	2015	42.89	-	-	-	-	42.89
Augmentation of 33 kV substations and Lines	Central	Hamirpur	Aug. of 33/11 KV Barsar feeder from Anu to Bhota and Bangana feeder from Anu to Puccapaaroh & Ext. of 33/11 S/stn. At Mattansidh under ESD Barsar.	2015	101.49	-	-	-	-	101.49

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
Augmentation of 33 kV substations and Lines	Central	Hamirpur	Aug. of 33/11KV Sub-Station 2x3.15 into 2x5.0 MVA Barsar.	2018	-	-	212.73	232.42	-	445.15
Renovation & Modernization of 33/11 kV substation Equipments	Central	Mandi	R/R of old equipments (such as MOCB, C&R Pannels and allied accessories 33/11 KV 2x5 MVA Sub-Station Barcharwar (S/Ghat) under ED- S/Ghat.	2016	-	82.47	-	-	-	82.47
Renovation & Modernization of 33/11 kV substation Equipments	Central	Mandi	R/R of old equipments (such as MOCB, C&R Pannels and allied accessories 33/11 KV 2x1.6 MVA Sub-Station Dharampur under ED-Dharampur.	2016	-	72.16	-	-	-	72.16
Renovation & Modernization of 33/11 kV substation Equipments	Central	Mandi	R/R of old equipments (such as MOCB, C&R Pannels and allied accessories 33/11 KV, 2x1.6 MVA Sub-Station L/Bharol under ED-Jogindernagar.	2016	-	72.16	-	-	-	72.16
Renovation & Modernization of 33/11 kV substation Equipments	Central	Mandi	R/R of old equipments (such as MOCB, C&R Pannels and allied accessories 2x3.15 MVA Sub-Station Khudla under ED- S/Ghat.	2016	-	72.16	-	-	-	72.16
Renovation & Modernization of 33/11 kV substation Equipments	Central	Mandi	Replacement of Battery and Battery Chargers 33/11 KV Sub-Station Sandhol under ED- Dharmpur	2015	1.55	-	-	-	-	1.55
Renovation & Modernization of 33/11 kV substation Equipments	Central	Mandi	Replacement of Battery and Battery Chargers 33/11 KV Sub-Station Dharampur under ED- Dharmpur	2015	1.55	-	-	-	-	1.55

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
Renovation & Modernization of 33/11 kV substation Equipments	Central	Bilaspur	S.I. Scheme for replacement of overhead conductor of HT/LT with AB Cable in MC Area of Sh. Naina Devi S/A = Rs. 89.15 Lac	2015	19.74	-	-	-	-	19.74
Renovation & Modernization of 33/11 kV substation Equipments	Central	Bilaspur	Renewal/ replacement of 33 KV, 22 KV & 11 KV Switchgear Panel and Oil circuit breakers and allied Accessories of 33/11 KV S/Stn. (2x5.00 MVA) & 33/22 KV S/Stn. (1x2.50+1x3.15) at Sundernagar under S/Stn. S/Divn. HPSEBL Sundernagar.	2015	147.41	-	-	-	-	147.41
Renovation & Modernization of 33/11 kV substation Equipments	Central	Bilaspur	Conversion of 22 KV DTRs system into 11 KV DTRs system under ESD- Ner-Chowk	2015	200.92	-	-	-	-	200.92
Renovation & Modernization of 33/11 kV substation Equipments	Central	Bilaspur	Prov. 11 KV Auto reclosures at 11 KV Control S/Stn. Bhojpur under ESD Sundernagar	2015	49.08	-	-	-	-	49.08
Renovation & Modernization of 33/11 kV substation Equipments	Central	Bilaspur	Renewal & Replacement of 11 KV outdoor Auto recloser, 12 KV Breaker of 33/11 KV S/sTn. Jhabola Bhareri & Naswal	2015	18.93	-	-	-	-	18.93
Renovation & Modernization of 33/11 kV substation Equipments	Central	Bilaspur	Renovation & Modernization of 33 KV Sub StationSwarghat	2015	44.46	-	-	-	-	44.46
Renovation & Modernization of 33/11 kV substation Equipments	Central	Bilaspur	Renovation and modernisation of 33/22 KV S/Stn. Pangna under ESD-Pangna.	2016	-	84.91	-	-	-	84.91

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
Renovation & Modernization of 33/11 kV substation Equipments	Central	Bilaspur	Prov. 11 KV Isolator at 8 Pole Sub-Station Changer (5 Nos.) and replacement of Bus-Bar and conductor.	2016	-	72.16	-	-	-	72.16
Renovation & Modernization of 33/11 kV substation Equipments	Central	Kullu	Scheme for stengthning, improvement and modernisation of distribution network under (OP) Circle Kullu.	2019	212.73	239.82	270.35	304.09	331.58	1,358.57
Renovation & Modernization of 33/11 kV substation Equipments	Central	Kullu	Renovation and modernisation of 33/11 KV Sub-Station equipments.	2018	-	63.82	71.95	99.22	-	234.98
Renovation & Modernization of 33/11 kV substation Equipments	Central	Kullu	Scheme for providing 100% continuous earth wire and guarding in distribution network.	2017	53.18	113.14	95.95	-	-	262.27
Renovation & Modernization of 33/11 kV substation Equipments	Central	Kullu	Prov. Communicable Auto re-closures on various 11 KV Spur/lines.	2019	-	85.09	95.93	108.14	97.53	386.69
Renovation & Modernization of 33/11 kV substation Equipments	Central	Hamirpur	Prov. Auto reclosures at different solid T-offs on 33 KV lines under (OP) Circle Hamirpur.	2015	206.17	-	-	-	-	206.17
Renovation & Modernization of 33/11 kV substation Equipments	Central	Hamirpur	Renovation and modernisation of 33/11 KV unmanned S/Stn. Bhota.	2015	142.08	-	-	-	-	142.08
Renovation & Modernization of 33/11 kV substation Equipments	Central	Hamirpur	R/R of 33/11 KV C&R Pannel and allied accessories at 33/11 KV S/Stn. Bhoranj	2015	36.08	-	-	-	-	36.08

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
Renovation & Modernization of 33/11 kV substation Equipments	Central	Hamirpur	R/R of 33/11 KV MOCB with VCB at 33/11 KV S/Stn. Barsar	2015	10.31	-	-	-	-	10.31
				Sub-Total	**6,453.73**	**4,023.66**	**2,487.66**	**2,156.99**	**1,039.10**	**16,161.14**
DS_OP_South_Summ										
33 KV New Substations and Associated Lines	South	Shimla	Providing VCB's a/w C.R. Panels and installation of on line auto. Re-closure under Electrical Division, HPSEB Ltd., Sunni.	2016	125.90	73.64	-	-	-	199.54
33 KV New Substations and Associated Lines	South	Shimla	Scheme for replacement of old OCB's with VCB's a/w CR panels etc. at 22 KV control point Theog & installation of on line auto reclosure under E/D Theog.	2016	163.13	78.23	-	-	-	241.36
33 KV New Substations and Associated Lines	South	Shimla	Const. of 22 KV C/P at Chailla.	2019	-	-	106.37	141.18	61.47	309.02
33 KV New Substations and Associated Lines	South	Solan	Construction of 2x3.15 MVA, 33/11 KV S/Stn. at Oachghat (Approved in STC).	2015	148.08	-	-	-	-	148.08
33 KV New Substations and Associated Lines	South	Solan	Construction of 33/11 KV, 1x3.15 MVA S/Stn. at Arki (Approved in STC).	2015	355.19	-	-	-	-	355.19
33 KV New Substations and Associated Lines	South	Solan	Construction of 2x1.6 MVA 33/11 KV, S/Stn. at Chail (Approved in STC).	2018	66.73	341.14	384.23	152.47	-	944.56
33 KV New Substations and Associated Lines	South	Solan	Construction of 2x3.15 MVA 33/11 KV, S/Stn. Basal(at Saproon) (Approved in STC).	2018	119.91	188.36	212.00	122.02	-	642.29

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
33 KV New Substations and Associated Lines	South	Solan	Construction of 2x3.15 MVA 33/11 KV, (unmanned) S/Stn. at Dharampur (Approved in STC).	2017	239.82	323.53	149.37	-	-	712.72
33 KV New Substations and Associated Lines	South	Solan	Construction of , 1x3.15 MVA33/11 KV S/Stn. at Goela (Approved in STC).	2018	161.20	357.23	295.90	340.39	-	1,154.72
33 KV New Substations and Associated Lines	South	Solan	Const. of 33/11 KV proposed s/stn. at Mamligh/Sayri	2019	-	-	-	212.73	335.50	548.24
33 KV New Substations and Associated Lines	South	Nahan	Construction of 1X3.15 MVA , 33/11 KV s/stn Khairi (BaruSahib)	2016	286.23	106.55	-	-	-	392.78
33 KV New Substations and Associated Lines	South	Nahan	Construction of 33/11 KV, 2x3.15 MVA S/Stn. at Burma Papri (Code-3926).	2016	346.18	120.51	-	-	-	466.69
33 KV New Substations and Associated Lines	South	Nahan	Construction of , 1x3.15MVA 33/11 KV S/Stn. at Sheelabag.	2018	64.02	125.35	247.41	123.66	-	560.43
33 KV New Substations and Associated Lines	South	Nahan	Construction of , 2x6.3 MVA 33/11 KV S/Stn. at Jagatpur Johoron (Approved in STC).	2018	45.45	232.06	314.45	138.09	-	730.05
33 KV New Substations and Associated Lines	South	Nahan	Construction of , 1x1.6 MVA 33/11 KV Sub-station (Unmanned) at Haripurdhar under ESD Charna.	2019	53.18	113.14	233.91	189.06	121.87	711.16
33 KV New Substations and Associated Lines	South	Nahan	Construction of, 33/11 KV S/Stn. at Kafota.	2019	-	-	85.09	191.66	291.86	568.61
33 KV New Substations and Associated Lines	South	Nahan	Const. of new Proposed 33/11 KV S/stn. under (OP) Nahan.	2019	-	-	-	-	309.25	309.25

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
33 KV New Substations and Associated Lines	South	Rampur	Construction of Control point Jeori	2016	117.00	32.99	-	-	-	150.00
33 KV New Substations and Associated Lines	South	Rampur	Construction of Control point Khnaneri	2016	172.89	75.50	-	-	-	248.40
33 KV New Substations and Associated Lines	South	Rampur	Construction of Control point Kingal	2017	160.90	75.02	74.75	-	-	310.68
33 KV New Substations and Associated Lines	South	Rampur	Construction of Control point Spillo	2018	79.77	73.98	72.76	182.58	-	409.09
33 KV New Substations and Associated Lines	South	Rampur	Construction of 22 KV Control point at Sangla	2019	79.77	73.98	72.76	81.77	53.01	361.29
33 KV New Substations and Associated Lines	South	Rohroo	Construction of, 2x1.6 MVA 33 KV (Manned) Sub-station at Kupvi with 33kV line from Charna to Kupvi under Electrical Division, Chopal.	2018	216.79	138.03	155.50	128.56	-	638.89
Augmentation of 33 kV substations and Lines	South	Shimla	Augmentation of 33/11kV Sub-station at Ashwani Khud.	2017	-	53.18	16.87	-	-	70.05
Augmentation of 33 kV substations and Lines	South	Shimla	Aug. of 33/11 KV S/stns. under (OP) Circle Shimla.	2019	-	-	-	106.37	116.21	222.58
Augmentation of 33 kV substations and Lines	South	Solan	Aug. of , 1x6.3+ 1x4 MVA to 2x10 MVA 33/11 KV S/Stn. at Manjholi (Approved in STC).	2016	303.14	68.33	-	-	-	371.47
Augmentation of 33 kV substations and Lines	South	Solan	Aug. of , 2x3.15 to 2x6.3 MVA 33/11 KV S/Stn. at Baglehar. (Approved in STC).	2016	106.37	28.59	-	-	-	134.95

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
Augmentation of 33 kV substations and Lines	South	Solan	Aug. of 33/11 KV S/stns. at Kanda Ghat .	2019	-	-	53.18	59.95	65.50	178.64
Augmentation of 33 kV substations and Lines	South	Solan	Aug. of 33/11 KV S/stns. under (OP) Circle Solan.	2019	-	-	53.18	113.14	175.15	341.47
Augmentation of 33 kV substations and Lines	South	Nahan	Augmentation of 2x1.6MVA to 2x3.15MVA at 33/11 kV S/Stn. Charna (Manned to unmanned)	2017	-	63.82	25.40	-	-	89.22
Augmentation of 33 kV substations and Lines	South	Nahan	Aug of 33/11 Kv S/stn. at Shillai	2017	106.37	66.73	72.90	-	-	245.99
Augmentation of 33 kV substations and Lines	South	Nahan	Aug of 33/11 Kv S/stn. at Rajgarh	2017	106.37	66.73	72.90	-	-	245.99
Augmentation of 33 kV substations and Lines	South	Nahan	Aug. of 33/11 KV S/stns. under (OP) Circle Nahan.	2019	-	-	-	106.37	116.21	222.58
Renovation & Modernization of 33/11 kV substation Equipments	South	Solan	Operation Circle Solan:(R & M of 33/11 KV S/stn. at Kunihar.	2017	-	63.82	59.42	-	-	123.24
Renovation & Modernization of 33/11 kV substation Equipments	South	Rampur	General services of control point at Nirth under ESD Taklech.	2016	17.31	13.76	-	-	-	31.07
Renovation & Modernization of 33/11 kV substation Equipments	South	Rampur	R&M of 22 KV control point at Thanedhar.	2016	34.62	28.54	-	-	-	63.16

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
Replacement of rotten wooden poles with steel tubular poles (2nd phase) under HPSEB Ltd, in all Distts. of H.P. (Code 4268) and 3rd phase scheme (N.Proposal) for FY 16-17, 17-18 & 18-19)	South	Shimla	Replacement of rotten wooden poles with steel tubular poles (2nd phase) under HPSEB Ltd, in all Distts. of H.P. (Code 4268) and 3rd phase scheme (N.Proposal) for FY 16-17, 17-18 & 18-19)	2019	107.35	280.57	314.94	350.63	380.12	1,433.62
Replacement of rotten wooden poles with steel tubular poles (2nd phase) under HPSEB Ltd, in all Distts. of H.P. (Code 4268) and 3rd phase scheme (N.Proposal) for FY 16-17, 17-18 & 18-19)	South	Solan	Replacement of rotten wooden poles with steel tubular poles (2nd phase) under HPSEB Ltd, in all Distts. of H.P. (Code 4268) and 3rd phase scheme (N.Proposal) for FY 16-17, 17-18 & 18-19)	2019	239.82	270.35	304.09	340.02	369.43	1,523.71
Replacement of rotten wooden poles with steel tubular poles (2nd phase) under HPSEB Ltd, in all Distts. of H.P. (Code 4268) and 3rd phase scheme (N.Proposal) for FY 16-17, 17-18 & 18-19)	South	Nahan	Replacement of rotten wooden poles with steel tubular poles (2nd phase) under HPSEB Ltd, in all Distts. of H.P. (Code 4268) and 3rd phase scheme (N.Proposal) for FY 16-17, 17-18 & 18-19)	2019	126.68	249.17	280.39	314.16	341.86	1,312.27

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
Replacement of rotten wooden poles with steel tubular poles (2nd phase) under HPSEB Ltd, in all Distts. of H.P. (Code 4268) and 3rd phase scheme (N.Proposal) for FY 16-17, 17-18 & 18-19)	South	Rampur	Replacement of rotten wooden poles with steel tubular poles (2nd phase) under HPSEB Ltd, in all Distts. of H.P. (Code 4268) and 3rd phase scheme (N.Proposal) for FY 16-17, 17-18 & 18-19)	2019	460.20	306.06	344.16	383.91	416.34	1,910.67
Replacement of rotten wooden poles with steel tubular poles (2nd phase) under HPSEB Ltd, in all Distts. of H.P. (Code 4268) and 3rd phase scheme (N.Proposal) for FY 16-17, 17-18 & 18-19)	South	Rohroo	Replacement of rotten wooden poles with steel tubular poles (2nd phase) under HPSEB Ltd, in all Distts. of H.P. (Code 4268) and 3rd phase scheme (N.Proposal) for FY 16-17, 17-18 & 18-19)	2019	401.71	346.49	388.54	430.53	465.13	2,032.39
Replacement of Meters	South	Solan	Replacement of Meters	2017	100.58	166.57	181.99	-	-	449.14
Replacement of Meters	South	Nahan	Replacement of Meters	2017	63.34	71.40	78.01	-	-	212.76
Replacement of Meters	South	Rampur	Replacement of Meters	2017	114.49	129.07	141.01	-	-	384.57
Replacement of Meters	South	Rohroo	Replacement of Meters	2017	113.14	127.54	139.35	-	-	380.02
Replacement of GI wire	South	Shimla	Replacement of GI wire	2017	10.64	6.67	4.30	-	-	21.61
Replacement of GI wire	South	Solan	Replacement of GI wire	2015	5.15	-	-	-	-	5.15

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
Replacement of GI wire	South	Nahan	Replacement of GI wire	2017	21.54	4.08	5.12	-	-	30.75
Replacement of GI wire	South	Rampur	Replacement of GI wire	2017	24.75	36.42	28.55	-	-	89.72
Replacement of GI wire	South	Rohroo	Replacement of GI wire	2017	218.15	139.56	61.91	-	-	419.62
				Sub-Total	**5,683.87**	**5,116.68**	**5,030.72**	**4,209.24**	**3,618.92**	**23,659.44**
Consumer Service schemes										
Consumer Service & Electrification	North	Kangra	a) 11 KV HT Lines new, Aug. & re-organisation	2019	786.39	333.41	393.95	443.78	466.99	2,424.52
Consumer Service & Electrification	North	Kangra	b) New DTRs 11/0.4 KV (Augmentation & new Capacitor Bank)	2019	906.07	393.87	459.63	533.44	587.64	2,880.64
Consumer Service & Electrification	North	Kangra	c) New LT, Augmentation / re-organisation, conversion of LT to HT, G.I. etc.	2019	1,198.40	542.60	616.47	708.87	721.47	3,787.81
Consumer Service & Electrification	North	Kangra	d) New Service Connection	2019	232.38	389.61	436.05	473.38	523.25	2,054.66
Consumer Service & Electrification	North	Kangra	e) Replacement.Aug/re-organisation of services	2019	109.07	18.72	21.04	23.17	24.84	196.85
Consumer Service & Electrification	North	Kangra	f) Metering on LT & HT	2019	55.89	41.73	51.23	63.76	70.39	283.01
Consumer Service & Electrification	North	Kangra	g) Any Major T&P	2019	53.18	12.09	14.69	16.39	17.75	114.11
Consumer Service & Electrification	North	Una	a) 11 KV HT Lines new, Aug. & re-organisation	2019	185.18	166.21	208.14	253.80	255.12	1,068.45
Consumer Service & Electrification	North	Una	b) New DTRs 11/0.4 KV (Augmentation & new Capacitor Bank)	2019	387.86	327.68	390.10	447.44	476.23	2,029.32

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
Consumer Service & Electrification	North	Una	c) New LT, Augmentation / re-organisation, conversion of LT to HT, G.I. etc.	2019	293.00	213.30	239.78	277.98	301.49	1,325.56
Consumer Service & Electrification	North	Una	d) New Service Connection	2019	273.06	121.68	147.50	159.16	172.44	873.83
Consumer Service & Electrification	North	Una	e) Replacement.Aug/re-organisation of services	2019	11.70	11.06	12.47	12.96	14.12	62.31
Consumer Service & Electrification	North	Una	f) Metering on LT & HT	2019	29.30	33.03	42.49	47.60	51.78	204.20
Consumer Service & Electrification	North	Una	g) Any Major T&P	2019	19.37	11.46	12.80	14.01	16.05	73.69
Consumer Service & Electrification	North	Dalhousie	a) 11 KV HT Lines new, Aug. & re-organisation	2019	442.82	201.38	225.84	250.08	269.99	1,390.12
Consumer Service & Electrification	North	Dalhousie	b) New DTRs 11/0.4 KV (Augmentation & new Capacitor Bank)	2019	351.76	183.81	216.91	246.16	245.65	1,244.29
Consumer Service & Electrification	North	Dalhousie	c) New LT, Augmentation / re-organisation, conversion of LT to HT, G.I. etc.	2019	436.88	226.59	274.78	313.85	338.41	1,590.52
Consumer Service & Electrification	North	Dalhousie	d) New Service Connection	2019	294.60	199.15	223.66	259.55	281.27	1,258.24
Consumer Service & Electrification	North	Dalhousie	e) Replacement.Aug/re-organisation of services	2019	-	1.06	1.20	2.42	2.64	7.32
Consumer Service & Electrification	North	Dalhousie	f) Metering on LT & HT	2019	35.16	92.82	115.19	118.87	139.91	501.95
Consumer Service & Electrification	North	Dalhousie	g) Any Major T&P	2019	55.89	15.14	17.00	18.79	20.22	127.05
Consumer Service & Electrification	Cental	Mandi	a) 11 KV HT Lines new, Aug. & re-organisation	2019	173.38	197.58	228.05	235.26	235.88	1,070.15
Consumer Service & Electrification	Cental	Mandi	b) New DTRs 11/0.4 KV (Augmentation & new Capacitor Bank)	2019	198.90	238.06	321.55	319.31	286.39	1,364.21

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
Consumer Service & Electrification	Cental	Mandi	c) New LT, Augmentation / re-organisation, conversion of LT to HT, G.I. etc.	2019	199.97	238.19	295.11	284.18	278.94	1,296.39
Consumer Service & Electrification	Cental	Mandi	d) New Service Connection	2019	186.14	236.43	293.13	297.94	309.48	1,323.12
Consumer Service & Electrification	Cental	Mandi	e) Replacement.Aug/re-organisation of services	2019	39.89	58.26	86.95	87.26	74.60	346.96
Consumer Service & Electrification	Cental	Mandi	f) Metering on LT & HT	2019	21.27	34.62	49.66	45.28	44.25	195.09
Consumer Service & Electrification	Cental	Mandi	g) Any Major T&P	2019	7.45	10.52	12.92	10.29	10.19	51.37
Consumer Service & Electrification	Cental	Kullu	a) 11 KV HT Lines new, Aug. & re-organisation	2016	98.66	71.60	-	-	-	170.26
Consumer Service & Electrification	Cental	Kullu	a) 11 KV HT Lines new, Aug. & re-organisation	2019	-	-	74.46	73.30	59.47	207.22
Consumer Service & Electrification	Cental	Kullu	b) New DTRs 11/0.4 KV (Augmentation & new Capacitor Bank)	2016	80.16	60.63	-	-	-	140.79
Consumer Service & Electrification	Cental	Kullu	b) New DTRs 11/0.4 KV (Augmentation & new Capacitor Bank)	2019	-	-	69.14	61.99	62.57	193.69
Consumer Service & Electrification	Cental	Kullu	c) New LT, Augmentation / re-organisation, conversion of LT to HT, G.I. etc.	2016	98.47	74.28	-	-	-	172.75
Consumer Service & Electrification	Cental	Kullu	c) New LT, Augmentation / re-organisation, conversion of LT to HT, G.I. etc.	2019	-	-	63.82	61.31	56.67	181.80
Consumer Service & Electrification	Cental	Kullu	d) New Service Connection	2019	79.77	95.25	86.10	75.54	226.60	563.27
Consumer Service & Electrification	Cental	Kullu	e) Replacement.Aug/re-organisation of services	2019	21.27	23.98	27.04	30.41	33.16	135.86

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
Consumer Service & Electrification	Cental	Kullu	f) Metering on LT & HT	2019	8.51	8.53	7.49	8.41	9.17	42.11
Consumer Service & Electrification	Cental	Kullu	g) Any Major T&P	2019	10.64	9.86	14.31	11.84	9.81	56.47
Consumer Service & Electrification	Cental	Bilaspur	a) 11 KV HT Lines new, Aug. & re-organisation	2019	53.18	91.86	114.20	117.93	118.37	495.55
Consumer Service & Electrification	Cental	Bilaspur	b) New DTRs 11/0.4 KV (Augmentation & new Capacitor Bank)	2019	117.00	142.54	235.14	200.89	177.88	873.45
Consumer Service & Electrification	Cental	Bilaspur	c) New LT, Augmentation / re-organisation, conversion of LT to HT, G.I. etc.	2019	178.69	203.57	272.04	268.88	262.28	1,185.47
Consumer Service & Electrification	Cental	Bilaspur	d) New Service Connection	2019	85.09	106.56	152.04	144.54	147.34	635.58
Consumer Service & Electrification	Cental	Bilaspur	e) Replacement.Aug/re-organisation of services	2019	10.64	43.90	60.13	57.11	52.06	223.83
Consumer Service & Electrification	Cental	Bilaspur	f) Metering on LT & HT	2019	5.67	16.68	13.48	9.86	12.82	58.51
Consumer Service & Electrification	Cental	Bilaspur	g) Any Major T&P	2019	10.64	10.93	13.38	12.92	12.03	59.90
Consumer Service & Electrification	Cental	Bilaspur	g) (M&T Bilaspur)	2017	134.02	229.80	302.60	-	-	666.42
Consumer Service & Electrification	Cental	Hamirpur	a) 11 KV HT Lines new, Aug. & re-organisation	2019	91.47	75.47	127.62	132.94	134.65	562.16
Consumer Service & Electrification	Cental	Hamirpur	b) New DTRs 11/0.4 KV (Augmentation & new Capacitor Bank)	2019	244.64	297.06	361.48	326.95	346.14	1,576.27
Consumer Service & Electrification	Cental	Hamirpur	c) New LT, Augmentation / re-organisation, conversion of LT to HT, G.I. etc.	2019	351.01	379.74	449.37	441.64	404.12	2,025.88
Consumer Service & Electrification	Cental	Hamirpur	d) New Service Connection	2019	53.18	81.23	123.48	117.76	123.34	498.99

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
Consumer Service & Electrification	Cental	Hamirpur	e) Replacement.Aug/re-organisation of services	2019	27.66	40.75	56.57	53.05	47.57	225.60
Consumer Service & Electrification	Cental	Hamirpur	f) Metering on LT & HT	2019	37.23	47.29	58.63	50.02	49.38	242.53
Consumer Service & Electrification	Cental	Hamirpur	g) Any Major T&P	2019	-	5.32	7.06	5.83	7.40	25.61
Consumer Service & Electrification	South	Shimla	a) 11 KV HT Lines new, Aug. & re-organisation	2019	63.52	135.11	184.07	207.31	195.49	785.50
Consumer Service & Electrification	South	Shimla	b) New DTRs 11/0.4 KV (Augmentation & new Capacitor Bank)	2019	59.66	126.92	172.91	194.74	183.66	737.89
Consumer Service & Electrification	South	Shimla	c) New LT, Augmentation / re-organisation, conversion of LT to HT, G.I. etc.	2019	106.58	226.73	308.88	347.87	328.09	1,318.15
Consumer Service & Electrification	South	Shimla	d) New Service Connection	2019	33.79	71.86	97.90	110.25	103.98	417.78
Consumer Service & Electrification	South	Shimla	e) Replacement.Aug/re-organisation of services	2019	15.95	33.94	46.24	52.08	49.12	197.33
Consumer Service & Electrification	South	Shimla	f) Metering on LT & HT	2019	12.15	25.84	35.20	39.65	37.39	150.23
Consumer Service & Electrification	South	Shimla	g) Any Major T&P	2019	5.32	11.31	15.41	17.36	16.37	65.78
Consumer Service & Electrification	South	Solan	a) 11 KV HT Lines new, Aug. & re-organisation	2019	63.33	134.72	183.53	206.70	194.97	783.26
Consumer Service & Electrification	South	Solan	b) New DTRs 11/0.4 KV (Augmentation & new Capacitor Bank)	2019	80.66	171.58	233.77	263.28	248.30	997.60
Consumer Service & Electrification	South	Solan	c) New LT, Augmentation / re-organisation, conversion of LT to HT, G.I. etc.	2019	95.58	203.33	277.02	311.99	294.24	1,182.16
Consumer Service & Electrification	South	Solan	d) New Service Connection	2019	33.79	71.87	97.91	110.27	104.00	417.83

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
Consumer Service & Electrification	South	Solan	e) Replacement.Aug/re-organisation of services	2019	15.95	33.94	46.24	52.08	49.12	197.33
Consumer Service & Electrification	South	Solan	f) Metering on LT & HT	2019	9.72	20.68	28.16	31.72	29.90	120.19
Consumer Service & Electrification	South	Solan	g) Any Major T&P	2019	6.38	13.58	18.50	20.83	19.65	78.93
Consumer Service & Electrification	South	Nahan	a) 11 KV HT Lines new, Aug. & re-organisation	2019	63.33	134.72	183.53	206.70	194.97	783.26
Consumer Service & Electrification	South	Nahan	b) New DTRs 11/0.4 KV (Augmentation & new Capacitor Bank)	2019	64.06	136.29	185.66	209.10	197.21	792.32
Consumer Service & Electrification	South	Nahan	c) New LT, Augmentation / re-organisation, conversion of LT to HT, G.I. etc.	2019	80.89	172.08	234.43	264.02	249.01	1,000.44
Consumer Service & Electrification	South	Nahan	d) New Service Connection	2019	22.54	47.95	65.31	73.55	69.36	278.70
Consumer Service & Electrification	South	Nahan	e) Replacement.Aug/re-organisation of services	2019	15.95	33.94	46.24	52.08	49.12	197.33
Consumer Service & Electrification	South	Nahan	f) Metering on LT & HT	2019	11.97	25.45	34.66	39.04	36.81	147.92
Consumer Service & Electrification	South	Nahan	g) Any Major T&P	2019	5.32	11.31	15.41	17.36	16.37	65.78
Consumer Service & Electrification	South	Rampur	a) 11 KV HT Lines new, Aug. & re-organisation	2019	37.68	80.15	109.20	122.98	115.98	465.99
Consumer Service & Electrification	South	Rampur	b) New DTRs 11/0.4 KV (Augmentation & new Capacitor Bank)	2019	47.33	100.66	137.14	154.45	145.66	585.25
Consumer Service & Electrification	South	Rampur	c) New LT, Augmentation / re-organisation, conversion of LT to HT, G.I. etc.	2019	47.00	99.97	136.20	153.40	144.67	581.24
Consumer Service & Electrification	South	Rampur	d) New Service Connection	2019	15.93	33.91	46.18	52.01	49.06	197.09

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
Consumer Service & Electrification	South	Rampur	e) Replacement.Aug/re-organisation of services	2019	12.76	27.15	36.99	41.66	39.29	157.86
Consumer Service & Electrification	South	Rampur	f) Metering on LT & HT	2019	6.73	14.31	19.50	21.96	20.70	83.20
Consumer Service & Electrification	South	Rampur	g) Any Major T&P	2019	5.32	11.31	15.41	17.36	16.37	65.78
Consumer Service & Electrification	South	Rohroo	a) 11 KV HT Lines new, Aug. & re-organisation	2019	72.00	153.19	208.70	235.04	221.47	890.39
Consumer Service & Electrification	South	Rohroo	b) New DTRs 11/0.4 KV (Augmentation & new Capacitor Bank)	2019	56.12	119.38	162.63	183.16	172.75	694.04
Consumer Service & Electrification	South	Rohroo	c) New LT, Augmentation / re-organisation, conversion of LT to HT, G.I. etc.	2019	65.84	140.04	190.80	214.89	202.66	814.23
Consumer Service & Electrification	South	Rohroo	d) New Service Connection	2019	16.57	35.24	48.04	54.10	51.01	204.96
Consumer Service & Electrification	South	Rohroo	e) Replacement.Aug/re-organisation of services	2019	12.76	27.15	36.99	41.66	39.29	157.86
Consumer Service & Electrification	South	Rohroo	f) Metering on LT & HT	2019	10.77	22.93	31.24	35.19	33.18	133.32
Consumer Service & Electrification	South	Rohroo	g) Any Major T&P	2019	5.32	11.31	15.41	17.36	16.37	65.78
				Sub-Total	**10,061.18**	**9,386.78**	**11,803.32**	**12,401.25**	**12,525.80**	**56,178.32**
GoHP Schemes										-
GOHP Schemes	North	Dalhousie	Tribal Area Sub-plan (GOHP) subject to actual GOHP	2019	1.00	2.00	3.00	4.00	5.00	15.00
GOHP Schemes	Central	Kullu	Tribal Area Sub-plan (GOHP) subject to actual GOHP	2017	200.00	187.00	100.00	-	-	487.00
GOHP Schemes	South	Rampur	Tribal Area Sub-plan (GOHP) subject to actual GOHP	2019	1.00	5.00	5.00	5.00	5.00	21.00
GOHP Schemes	North	Kangra	Schedule Caste Sub-plan (GOHP) subject to actual GOHP	2019	0.45	70.00	80.00	100.00	100.00	350.45

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
GOHP Schemes	North	Una	Schedule Caste Sub-plan (GOHP) subject to actual GOHP	2019	0.20	25.00	30.00	28.00	32.00	115.20
GOHP Schemes	North	Dalhousie	Schedule Caste Sub-plan (GOHP) subject to actual GOHP	2019	0.35	30.00	32.00	33.00	35.00	130.35
GOHP Schemes	Central	Mandi	Schedule Caste Sub-plan (GOHP) subject to actual GOHP	2019	0.50	100.00	100.00	100.00	0.23	300.73
GOHP Schemes	Central	Kullu	Schedule Caste Sub-plan (GOHP) subject to actual GOHP	2019	0.20	25.00	25.00	25.00	15.00	90.20
GOHP Schemes	Central	Bilaspur	Schedule Caste Sub-plan (GOHP) subject to actual GOHP	2019	0.20	30.00	30.00	30.00	20.00	110.20
GOHP Schemes	Central	Hamirpur	Schedule Caste Sub-plan (GOHP) subject to actual GOHP	2019	0.10	35.00	35.00	35.00	24.00	129.10
GOHP Schemes	South	Solan	Schedule Caste Sub-plan (GOHP) subject to actual GOHP	2019	40.00	40.00	38.00	38.00	37.21	193.21
GOHP Schemes	South	Nahan	Schedule Caste Sub-plan (GOHP) subject to actual GOHP	2019	32.00	32.00	30.00	30.00	28.00	152.00
GOHP Schemes	South	Shimla	Schedule Caste Sub-plan (GOHP) subject to actual GOHP	2019	15.00	16.00	16.00	16.00	15.82	78.82
GOHP Schemes	South	rohroo	Schedule Caste Sub-plan (GOHP) subject to actual GOHP	2019	25.00	28.00	28.00	28.00	26.50	135.50
GOHP Schemes	South	Rampur	Schedule Caste Sub-plan (GOHP) subject to actual GOHP	2019	10.00	12.00	12.00	12.00	10.78	56.78
				Sub-Total	**326.00**	**637.00**	**564.00**	**484.00**	**354.54**	**2,365.54**
New Building Schemes										
New Buildings	North	Kangra		2019	13.98	57.30	73.38	90.41	102.15	337.22
New Buildings	North	Una		2019	5.36	22.70	30.20	38.19	41.01	137.46
New Buildings	North	Dalhousie		2019	9.46	39.98	49.13	63.99	73.85	236.40

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
New Buildings	Central	Mandi	Const. of Addl. Alteration for AE office JE office cum complaint cell on 1st floor of existing SD office building at Kataula under ED- Mandi.	2015	15.69	-	-	-	-	15.69
New Buildings	Central	Mandi	Const. of JE(S/Stn) and SSA Qtr. at Thunag under ED- Gohar.	2015	18.78	-	-	-	-	18.78
New Buildings	Central	Mandi	Const of S/Division office building & AE residance at Janjehli under ED-Gohar.	2015	11.40	-	-	-	-	11.40
New Buildings	Central	Mandi	Const. of section office building Shilibaggi under ED- Gohar.	2015	25.88	-	-	-	-	25.88
New Buildings	Central	Mandi	Const. of S/Divn office building Baggi under ED- Gohar.	2016	14.92	12.08	-	-	-	27.00
New Buildings	Central	Mandi	Const. of JE office cum complaint room at Tatahar under ED- S/Ghat.	2016	2.76	2.47	-	-	-	5.23
New Buildings	Central	Mandi	Const. of JE office cum complaint room at Baldeara (Karni) under ED-S/Ghat.	2016	6.46	5.98	-	-	-	12.44
New Buildings	Central	Mandi	Const. of staff quarter at Cholthra under ED-D/Pur	2015	23.49	-	-	-	-	23.49
New Buildings	Central	Mandi	C/O AE Residence building at Nandli Kataula	2016	7.57	7.70	-	-	-	15.27
New Buildings	Central	Mandi	C/O JE office cum store/ complaint room at Kamand	2016	3.57	3.56	-	-	-	7.13
New Buildings	Central	Mandi	C/o store cum complaint room at Saulikhad	2016	2.17	2.87	-	-	-	5.04
New Buildings	Central	Mandi	C/o complaint cum rest room at Rewalsar	2016	3.25	3.84	-	-	-	7.09
New Buildings	Central	Mandi	C/o complaint cum rest room at Tikkar Lohardi, Harabag, Balakrupi, Bhararoo, Tikkan	2016	18.46	19.61	-	-	-	38.06

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
New Buildings	Central	Mandi	C/o Type-II Qtr. At 33/11 KV Sub-Station at Tikkan	2015	26.30	-	-	-	-	26.30
New Buildings	Central	Mandi	C/o Sub-Division offfice building at Padhar	2016	7.57	7.70	-	-	-	15.27
New Buildings	Central	Mandi	C/o SSA Qtr. At Chnahan under ED-Gohar	2015	4.70	-	-	-	-	4.70
New Buildings	Central	Mandi	Special repair of Sr. XEN residence at Sarkaghat	2015	0.94	-	-	-	-	0.94
New Buildings	Central	Kullu	Constuction of customer care centers at Dhalpur & Bhunter under ED- Kullu.	2016	11.14	11.03	-	-	-	22.18
New Buildings	Central	Kullu	Prov. 1 Nos. additional room for Executive Engineer residence at Keylong.	2017	12.31	23.06	17.70	-	-	53.07
New Buildings	Central	Kullu	Construction of SE residence at Kullu.	2018	1.13	32.82	36.19	18.38	-	88.52
New Buildings	Central	Kullu	Construction of SE office at Kullu	2016	11.14	6.91	-	-	-	18.06
New Buildings	Central	Kullu	Construction of consumer care centre, Senior citized care centre and Transit camp at Manali adjoing to Division office in the vacnat land of HPSEBL at Manali.	2016	39.11	76.01	-	-	-	115.12
New Buildings	Central	Kullu	Construction of Division office building at Keylong	2018	5.29	32.30	35.68	23.01	-	96.28
New Buildings	Central	Kullu	Construction of Sub-Division office building Bhunter	2018	5.29	16.43	18.11	9.21	-	49.04
New Buildings	Central	Kullu	Construction of Sub-Division office building cum customer care centre at HPSEBL, premises Larji	2018	5.29	16.43	18.11	9.21	-	49.04
New Buildings	Central	Kullu	Construction of S/D office building cum customer care centre at HPSEBL premises Banjar	2018	5.29	16.43	18.11	9.21	-	49.04

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
New Buildings	Central	Kullu	Construction of S/D office building cum customer care centre at HPSEBL premises Udaipur	2017	5.29	21.72	23.56	-	-	50.57
New Buildings	Central	Kullu	Construction of Type-III Qtr. (one Block of 4 Nos.) at Kullu	2018	5.29	21.72	23.97	20.68	-	71.65
New Buildings	Central	Kullu	Construction of Type -II Qtr. (one Block of 4 Nos.) at Barshaini	2018	5.29	21.72	23.97	10.38	-	61.35
New Buildings	Central	Kullu	Construction of Type-! Qtr. (one block of 4 Nos.) at Barshaini	2018	5.29	16.43	18.11	9.21	-	49.04
New Buildings	Central	Kullu	C/o Type-IV Qtr. (SDO Residence) at Banjar	2018	5.29	16.43	18.11	9.21	-	49.04
New Buildings	Central	Kullu	Construction of Type-IV Qtr. (SDO Residence) for ESD-II atAleo (Manali)	2018	5.29	16.43	18.11	9.21	-	49.04
New Buildings	Central	Kullu	C/o Costomer Care Center at Manali	2018	3.17	10.92	12.04	4.73	-	30.86
New Buildings	Central	Kullu	C/o of Staff Qtr. At Manali (Aleo)	2017	5.29	32.30	29.90	-	-	67.48
New Buildings	Central	Kullu	C/o parking facility & boundry wall etc. at HPSEBL office Complex Dhalpur	2018	3.17	5.63	6.18	3.56	-	18.54
New Buildings	Central	Kullu	C/o Boundry wall, land scapping & garrage at HPSEBL Colony at Dhalpur Kullu.	2018	3.17	5.63	6.18	3.56	-	18.54
New Buildings	Central	Kullu	C/o of Boundry wall, farrage & land scapping at HPSEBL Colony at Aleo Manali	2018	3.17	5.63	6.18	3.56	-	18.54
New Buildings	Central	Kullu	C/o Boundry wall etc. at HPSEBL premises at Sainj	2018	3.17	5.63	6.18	3.56	-	18.54
New Buildings	Central	Kullu	C/o Boundry wall, complaint room and store at Board land, HPSEBL Aut.	2018	3.17	5.63	6.18	3.56	-	18.54
New Buildings	Central	Bilaspur	Renovation of SE(OP) residence at Changer, under ED- Bilaspur.	2015	6.42	-	-	-	-	6.42

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
New Buildings	Central	Bilaspur	Renovation of Circle office Building at Changer Bilaspur.	2015	8.48	-	-	-	-	8.48
New Buildings	Central	Bilaspur	Construction of complaint cum store room at Kuthera and Barota under ED- Ghumarwin	2015	6.66	-	-	-	-	6.66
New Buildings	Central	Bilaspur	Const. of Electrical Divisional office building at Bhojpur under ED-Sundernagar	2016	10.92	24.20	-	-	-	35.12
New Buildings	Central	Bilaspur	Const. of S/Division building at Chhatri under ED- Karsog.	2016	2.57	22.33	-	-	-	24.90
New Buildings	Central	Bilaspur	C/O JE office on donated land at Bhrota under ESD- Bharari.	2016	2.12	3.33	-	-	-	5.44
New Buildings	Central	Bilaspur	Renovation of Type-III quarter at Jhandutta.	2015	4.24	-	-	-	-	4.24
New Buildings	Central	Bilaspur	Repair and maintenance of septie tank of SDO residence and Type-II Qtr. At Ner-Chowk under ED-Sundernagar.	2015	3.09	-	-	-	-	3.09
New Buildings	Central	Bilaspur	Providing of Sewerage connection for staff Qtr. At Bhojpur under ED-Sundernagar.	2015	2.06	-	-	-	-	2.06
New Buildings	Central	Bilaspur	Repair and maintenance of Rest Camp at Bhojpur under Electrical Division, Sundernagar.	2015	2.06	-	-	-	-	2.06
New Buildings	Central	Bilaspur	Repair and maintenance of complaint Room- Cum- JE office at Kangoo under ED- Sundernagar.	2015	0.52	-	-	-	-	0.52
New Buildings	Central	Bilaspur	Repair of maintenance of JE s residence at Chatrokhari Sundernagar under ED-Sundernagar.	2015	0.52	-	-	-	-	0.52

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
New Buildings	Central	Bilaspur	Repair and maintenance of Type-I , II and III Qtrs at BBMB Colony Sundernagar under ED-Sunernagar	2015	3.09	-	-	-	-	3.09
New Buildings	Central	Bilaspur	Repair/ Renovation of Sr. Executive Engineer residence building at Changer under ED- Bilaspur.	2016	3.17	2.42	-	-	-	5.59
New Buildings	Central	Bilaspur	Repair/ Renovation of Rest House building at Upper Nihal Bilaspur under ED- Bilaspur.	2016	3.17	2.42	-	-	-	5.59
New Buildings	Central	Bilaspur	Construction of 2 Nos. Toilet and Renovation of Divisional office building under ED- Bilaspur.	2015	2.58	-	-	-	-	2.58
New Buildings	Central	Bilaspur	Renovation of staff residential colony at Barmana, Kot, Namohal & Jabli under ED- Bilaspur	2017	5.29	21.72	8.10	-	-	35.11
New Buildings	Central	Bilaspur	Construction of S/Division No. II office building at Bilaspur under ED-Bilaspur.	2017	10.58	22.29	8.68	-	-	41.54
New Buildings	Central	Bilaspur	Providing Sewerage connection of residential Qtrs. At Dholra colony under ED- Bilaspur.	2015	3.09	-	-	-	-	3.09
New Buildings	Central	Bilaspur	Construction of Toilet for S/Division office building at Jabli under ED-Bilaspur.	2015	2.58	-	-	-	-	2.58
New Buildings	Central	Bilaspur	Construction of JE office cum Store cum complaint office at Swarghat under ED- Bilaspur.	2016	7.40	3.92	-	-	-	11.33
New Buildings	Central	Bilaspur	Repair & Renovation of residential building i.e. Sr. XEN Residence, AEE No-I & II Ghumarwin under ED-Ghumarwin.	2016	2.12	3.33	-	-	-	5.44

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
New Buildings	Central	Bilaspur	Repair & Renovation of various residence building at Kandrour under ED- Ghumarwin.	2015	3.09	-	-	-	-	3.09
New Buildings	Central	Bilaspur	Repair and Renovation of Division office building at Ghumarwin under ED- Ghumarwin.	2016	3.17	2.42	-	-	-	5.59
New Buildings	Central	Bilaspur	Repair and Renovation of residential building of AE & JE at Berthin under ED- Ghumarwin.	2015	3.09	-	-	-	-	3.09
New Buildings	Central	Bilaspur	Repair and Renovation of SSA Qtrs building 33/11 KV S/Stn. at Jhandutta under ED- Ghumarwin.	2015	5.15	-	-	-	-	5.15
New Buildings	Central	Hamirpur	Addition and alteration ESD- No-I Building at Hamirpur.	2015	17.87	-	-	-	-	17.87
New Buildings	Central	Hamirpur	C/o JE office Building-cum-Complaint office at Chhakmoh	2015	20.61	-	-	-	-	20.61
New Buildings	Central	Hamirpur	C/o complaint cum JE office at Bhota	2015	7.21	-	-	-	-	7.21
New Buildings	Central	Hamirpur	C/o of JE office Building-cum-complaint office at Ghaliyan	2016	-	20.61	-	-	-	20.61
New Buildings	Central	Hamirpur	C/o ofice building for C/s Sub-Division, HPSEBL No-II, Hamirpur at Dag-Quali.	2016	21.15	12.68	-	-	-	33.83
New Buildings	Central	Hamirpur	Renovation of HPSEBL, Colony at Anu (Dag-Quali, Hamirpur & Tauni-Devi.	2016	-	20.61	-	-	-	20.61
New Buildings	Central	Hamirpur	C/o RCC Roffed Stores Halls 2 No. (6.00x4.00 meter each) with RCC Shelfs to walls for housing of store material alongwith JE(Store) and store keeper room at Gagal by dismantling old CGI roof shed out lived its life under ESD- Nadaun	2015	15.45	-	-	-	-	15.45

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
New Buildings	Central	Hamirpur	C/o complaint Cum-AAE office and store at Jalari for (E) Section Jalari under ESD- Nadaun	2016	-	8.24	-	-	-	8.24
New Buildings	Central	Hamirpur	C/o complaint cum AAE office and store at Nadaun for (E) Section Nadaun under ESD- Nadaun	2017	-	-	8.24	-	-	8.24
New Buildings	Central	Hamirpur	C/o Sub-Division, office building at Majheen for ESD- Majheen including local JE office/ complaint and store under ESD-Majheen.	2019	-	21.15	2.27	23.34	4.59	51.35
New Buildings	Central	Hamirpur	C/o of complaint-AAE office and store at Lagru for (E) Section Lagru under ESD- Khundian	2018	-	-	-	9.27	-	9.27
New Buildings	Central	Hamirpur	C/o complaint- cum-AAE office at Store at Thill for (E) Section Thill under ESD- Khundian	2019	-	-	-	-	9.27	9.27
New Buildings	Central	Hamirpur	C/o SDO residence at Rangas on first floor of Sub-Division office building under ESD- Rangaus.	2019	-	-	-	-	12.36	12.36
New Buildings	Central	Hamirpur	C/o of SDO residence atDarang, J/Mukhi on first floor of S/Division office building under ESD No-II, J/Mukhi.	2019	-	-	-	-	12.36	12.36
New Buildings	Central	Hamirpur	C/o SDO residence at Khundian on first Floor of Sub-Division office building under ESD- Khundian	2019	-	-	-	-	12.36	12.36
New Buildings	Central	Bilaspur M&T Circle	Const. of Circle Office Building at Bilaspur.	2016	64.03	18.01	-	-	-	82.04
New Buildings	Central	Bilaspur M&T Circle	C/O M&T workshop and Sub-Division office building at Kangra.	2016	48.16	16.23	-	-	-	64.39

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
New Buildings	Central	Bilaspur M&T Circle	Providing boundary wall and fencing to newely shfted workwhop at Jia	2015	5.15	-	-	-	-	5.15
New Buildings	South	Solan		2019	47.72	181.19	244.83	160.54	170.32	804.61
New Buildings	South	Nahan		2019	11.64	136.18	229.53	145.79	155.40	678.54
New Buildings	South	Rampur		2019	20.97	138.83	179.21	142.59	152.16	633.75
New Buildings	South	Rohroo		2019	16.92	110.30	122.53	132.36	141.82	523.94
				Sub-Total	**778.86**	**1,395.44**	**1,298.68**	**956.70**	**887.65**	**5,317.31**
Minor works Schemes										
Minor Works Indivisible	North	Kangra		2019	168.48	247.08	294.92	344.84	420.14	1,475.46
Minor Works Indivisible	North	Una		2019	69.70	118.58	155.90	195.67	235.57	775.41
Minor Works Indivisible	North	Dalhousie		2019	118.80	182.56	225.15	270.00	314.72	1,111.23
Minor Works Indivisible	Central	Mandi		2019	113.70	151.20	154.11	150.12	149.48	718.61
Minor Works Indivisible	Central	Kullu		2019	54.59	70.77	87.89	74.17	68.69	356.10
Minor Works Indivisible	Central	Bilaspur		2019	71.96	89.04	107.01	94.13	89.67	451.80
Minor Works Indivisible	Central	Hamirpur		2019	87.26	100.77	119.84	118.58	136.59	563.04
Minor Works Indivisible	South	Shimla		2019	114.27	82.99	94.39	95.55	101.41	488.61
Minor Works Indivisible	South	Solan		2019	112.57	70.78	91.67	87.64	87.86	450.52
Minor Works Indivisible	South	Nahan		2019	111.44	69.68	90.62	86.63	86.83	445.20
Minor Works Indivisible	South	Rampur		2019	111.44	69.68	85.33	80.77	85.67	432.89

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
Minor Works Indivisible	South	Rohroo		2019	113.70	82.45	99.15	100.90	102.06	498.26
				Sub-Total	**1,247.91**	**1,335.58**	**1,605.97**	**1,698.98**	**1,878.68**	**7,767.13**
ALDC Schemes										
ALDC			**Major Capital Works**							
ALDC			Communication scheme for Monitoring of of Micro Remote Terminal Unit's at identified location by using GSM/GPRS on communication media for monitoring of flow of power in real time basis from Mini/Micro /small HEP's (25MW & below) at ALDC Shimla.	2015	9.83	-	-	-	-	9.83
ALDC			Prov.PLCC terminals link via 220 KV T/L Ckt-II between Majri-Khodri Sub-Staton.	2015	7.48	-	-	-	-	7.48
ALDC			Prov.PLCC terminals system on 220KV D/C Trans. linefrom 220/66 kV, Sub-Station Nalagarh to Baddi.	2015	17.58	-	-	-	-	17.58
ALDC			Other Major capital works	2017	-	1,230.12	1,608.89	-	-	2,839.01
ALDC			**Minor Capital Works**	2019	-	-	-	-	-	-
ALDC			Prov./Installation/commissioning of canalablized RTU's at different locations from new RTU's to be installed at 220KV S/Stn's under ULDC-Ph-II Scheme.	2015	5.67	-	-	-	-	5.67
ALDC			Providing/Installation/Commissioning of 220V-48V DC to DC converters at Kangoo, Jeori, Nogli, Rohroo & Andhra	2015	5.67	-	-	-	-	5.67

Category	Zone	Circle	Detail of scheme	Scheduled COD	Proposed Capex during MYT Control Period					
					2015	2016	2017	2018	2019	Total
ALDC			Other misc. works related with instrumentation, telemetary, computers & peripherals etc.	2015	5.15	-	-	-	-	5.15
ALDC			Other Minor capital works	2017	-	566.72	741.22	-	-	1,307.94
				Sub-Total	**51.38**	**1,796.84**	**2,350.11**	**-**	**-**	**4,198.33**
					94,075.52	78,467.32	69,490.61	65,180.21	54,999.41	3,62,213.06