Multi-Year Tariff Order
for
BASPA II HEP
for
FY 2019-20 to FY 2023-24

Himachal Pradesh Electricity Regulatory Commission

Date: 29th June 2019

BEFORE THE HIMACHAL PRADESH ELECTRICITY REGULATORY COMMISSION, SHIMLA

Petition No. 30/ 2019

CORAM

Sh. S.K.B.S. Negi

Sh. Bhanu Pratap Singh

IN THE MATTER OF:

Determination of Tariff for FY 2019-20 to 2023-24 for Sale of Power from Baspa II 300 MW HEP to Himachal Pradesh State Electricity Board Limited (HPSEBL)

AND

IN THE MATTER OF:

JSW Hydro Energy Limited
Karcham Wangtoo H.E. Project
Sholtu Colony, PO, Tapri 172104
District Kinnaur (H.P.) **APPLICANT/ PETITIONER**

M/s JSW Hydro Energy Limited (hereinafter referred as 'Petitioner') has filed a Petition with the Himachal Pradesh Electricity Regulatory Commission (hereinafter referred to as 'the Commission' or 'HPERC') for determination of tariff for sale of power from Baspa II, 300 MW Hydro Power Plant located on River Baspa (tributary of River Satluj), District Kinnaur (H.P.) to Himachal Pradesh State Electricity Board Ltd. for the period FY 2019-20 to FY 2023-24.

The Commission, after considering the Petition filed by the Petitioner (also referred to as the Generating Company), the facts presented in its various submissions/filings, objections/suggestions received by the Commission from various stakeholders, the responses of the Petitioner to the objections/suggestions and documents available on record and in exercise of the powers vested in it under Section 62 and Section 86 of the Electricity Act, 2003 (Act No. 36 of 2003) read with HPERC (Terms & Conditions for Determination of Hydro Generation Supply Tariffs) Regulations, 2011, along with its subsequent amendments, and in terms of the Power Purchase Agreement signed between the Himachal Pradesh State Electricity Board Limited (also referred to as the Distribution Licensee) and the Generating Company on 04th June 1997, passes the following Order for determination of tariff for 300 MW Baspa II Hydro Power Plant for the fourth Control Period FY 2019-20 to FY 2023-24.

	Sd/-	**Sd/-**
Shimla	**(Sh. Bhanu Pratap Singh)**	**(Sh. S.K.B.S. Negi)**
Dated: 29th June 2019	**Member**	**Chairman**

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1. BACKGROUND

1.1 M/s JSW Hydro Energy Limited (hereinafter referred to as the "Petitioner" or "Applicant"), Karcham Wangtoo H.E. Project Sholtu Colony, PO, Tapri 172104, District Kinnaur H.P. is a "generating company" falling within the definition of Section 2 (28) of the Electricity Act, 2003 (hereinafter referred to as the "Act").

1.2 The Baspa II hydro-electric project is a 300 MW plant with three units each of 100 MW which was commissioned by M/s JaiPrakash Power Ventures Limited (JPVL) in the FY 2003-04. The COD of the last unit of the project was 08.06.2003.

1.3 On 04.06.1997, a Power Purchase Agreement (PPA) was executed between Jaiprakash Hydro-Power Limited and HPSEBL for sale of Power from Baspa II HEP. Pursuant to a scheme of arrangement approved by Hon'ble High Court, Shimla, 300 MW Baspa II Hydroelectric Project located in Himachal Pradesh has been transferred by M/s. Jaiprakash Power Ventures Limited to the Petitioner w.e.f. 1.09.2015.

1.4 The Petitioner has filed a Petition on 30th November, 2018 with the Himachal Pradesh Electricity Regulatory Commission (hereinafter referred to as the "Commission") under sections 37 of the Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Hydro Generation Tariff) Regulations, 2011 and its amendments, seeking determination of tariff for sale of electricity generated at Baspa II 300 MW hydro power plant on River Baspa, a tributary of River Satluj, District Kinnaur, Himachal Pradesh (hereinafter referred to as "Baspa II") to the Himachal Pradesh State Electricity Board Limited (hereinafter referred to as the "HPSEBL"), a "deemed licensee" under the Act, engaged in generation and distribution of electricity in the State of Himachal Pradesh for FY 2019-20 to FY 2023-24.

1.5 The Petitioner has also filed additional submissions with the Commission on 24th April, 2019 for approval of an additional claim allowed by Arbitral Tribunal vide its Order dated 21.06.2018 in arbitration Case no. 69 of 2014.

1.6 In this Order, the Commission has reviewed the operational and financial performance of the Petitioner based on the PPA for supply of power to HPSEBL, reviewed and analysis of the past records, information filed by the Petitioner in the Petition and various other submissions in response to queries raised by the Commission and views expressed by the stakeholders.

Multi Year Tariff Regulations

1.7 As per Section 61 of the Electricity Act, 2003, the Appropriate Commission shall specify the terms and conditions for the determination of tariff, and in doing so, shall be guided by the principles and methodologies specified by the Central Commission for determination of tariff applicable to generating companies and also by the National Tariff Policy formulated under the said Act.

1.8 The Commission, in view of the principles and methodologies specified by the Central Electricity Regulatory Commission, had issued Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Hydro Generation Tariff) Regulations, 2011 vide notification dated 1.04.2011.

1.9 Subsequently, the Commission came out with amendments to these regulations for determination of tariff from hydro generating projects for the next Control Period starting from 1st April, 2014. The Commission in exercise of the powers conferred by clauses (zd), (ze) and (zf) of sub-section (2) of Section 181, read with sections 61, 62 and 86, of the Electricity Act, 2003 (36 of 2003) issued the Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Hydro Generation Tariff) (Second Amendment) Regulations, 2013 vide notification dated 1.11.2013 and HPERC (Terms and Conditions for Determination of Hydro Generation Tariff) (Third Amendment) Regulations, 2018 vide notification 22.11.2018, determines the tariff for hydro generation projects.

Procedural Background

1.10 The Commission had issued an Order dated 24.02.2007, approving the capital cost of the Baspa II 300 MW Hydro Electric Project at Rs.1533.96 Cr. for the purpose of determination of tariff and had approved the tariff for the initial 5 years from FY 2003-04 to FY 2007-08. Subsequently, the Commission vide its Order dated 30.03.2009 and vide Review Orders dated 10.09.2009 and 23.06.2010 approved the tariff for the First Control Period FY 2008-09 to FY 2010-11 and trued up the tariff for the period FY 2003-04 to FY 2007-08.

1.11 The Commission by an Order dated 24.01.2011, passed in Petition No. 11/2010, revised the Annual Revenue Requirement for the FY 2006-07 to FY 2010-11 on account of additional capitalization allowed due to Force Majeure event, expenditure on Inter-Connection facility and additional O&M Expenses on Inter-Connection facility.

1.12 Subsequently, the Commission issued the Second MYT Order dated 15.07.2011 approving the tariff for sale of power from 300 MW Baspa II HEP to the HPSEBL for each year of the Control Period i.e. FY 2011-12 to FY 2013-14.

1.13 The Petitioner, moved a Petition bearing No. 135/11 dated 08.02.2011 before the Commission to revise the tariff for the Control Period (FY2011-12 to FY2013-14) in compliance to the Order dated 21.10.2011 passed by Hon'ble Appellate Tribunal for Electricity in Appeal No. 39 of 2010 and re-compute the arrears payable by the HPSEBL to the Petitioner from FY 2003-04 onwards till date of actual payment by the HPSEBL to the Petitioner. The Commission issued an Order dated 6 September 2012 on the said Petition and revised the tariff for Second MYT Control Period taking into consideration new facts brought on record by the Petitioner, which were unavailable at the time of issuance of MYT Order dated 15 July 2011.

1.14 The Commission issued Third MYT Order dated 06.06.2014 approving the tariff for sale of power from 300 MW Baspa II HEP to the HPSEBL for each year of the Control

Period i.e. FY 2014-15 to FY 2018-19. The Commission also undertook true-up of the ARR for the first Control Period i.e. FY 2008-09 to FY 2010-11 vide its Order dated 23.04.2012, true-up for the second Control Period i.e. FY 2011-12 to FY 2013-14 vide its order dated 30.03.2015 and true-up for partial years of the third Control Period i.e. FY 2014-15 to FY 2016-17 vide its Order 'True Up for FY 2014-15 to FY 2016-17 and Mid Term Review for FY 2017-18 to FY 2018-19' dated 31.10.2018 (hereinafter referred to as MTR Order dated 31.10.2018).

Admission of Petition

1.15 The Petitioner has filed a Petition vide MA No. 136/2018 on 30th November 2018 and additional submission vide MA No. 101/2019 on 24th April 2019, with the Commission for determination of tariff for the period FY 2019-20 to FY 2023-24.

1.16 The Commission admitted the petition through its Interim Order dated 25th February 2019 and directed the Petitioner to publish the salient features of the Petition on or before 2nd March 2019 in a manner and as per the disclosure formats attached with the Interim Order. The petition was registered as petition number 30 of 2019.

1.17 The Petitioner published the salient features of the Petition in a public notice in the following newspapers:

Table 1: Details of public notices in newspapers

Sl.	Name of News Paper	Date of Publication
1.	The Tribune (English)	06.03.2019
2.	Dainik Bhaskar (Hindi)	06.03.2019
3.	The Tribune (English)	07.03.2019
4.	Dainik Bhaskar (Hindi)	07.03.2019

1.18 The Commission, on carrying out a preliminary scrutiny of the Petition conveyed deficiencies vide Letter. No. HPERC/-F(1)-8/2018/2406 dated 12.12.2018, directing the Petitioner to file the additional information and clarifications to make the Petition as complete. The Commission directed petitioner to submit further additional clarifications vide its Letter No. HPERC/-F(1)-8/2018/228 dated 25.4.2019.

1.19 During the period, the Petitioner made several submissions through various filings in Order to address the data/information gaps and clarifications raised by the Commission. The details of the additional submissions are provided in table below:

Table 2: Details of additional submissions made by Petitioner

M.A. No.	Date of Filing
12 of 2019	21.02.2019
101 of 2019	24.04.2019
108 of 2019	01.05.2019
114 of 2019	13.05.2019

Technical Validation Session

1.20 The Commission conducted a Technical Validation Session (TVS) on 01st May 2019 in the Commission's office on the petition filed by the Petitioner for ensuring that appropriate information is available for processing of the Petition and at the same time giving sufficient opportunity to the Petitioner to explain its stand on various issues.

Public Hearing

1.21 The Commission also invited suggestions and objections from the public on the Petition filed by the Petitioner in accordance with Section 64(3) of the Act, subsequent to the publication of salient features by the Petitioner. The public notice, issued by the Commission, inviting objections/ suggestions was published in the following newspapers:

Table 3 Details of publications in newspapers

Sl.	Name of News Paper	Date of Publication
1.	Divya Himachal (Hindi)	08.03.2019
2.	Hindustan Times (English)	09.03.2019

1.22 Through the aforementioned publications, the interested parties/ stakeholders were asked to file their objections and suggestions on the Petitions and rejoinders to the Replies filed by the Petitioner for which dates were specified by the Commission through the publications. The Commission received objections/ suggestions from the major stakeholder, HPSEBL and two consumer representatives Mr. K.S. Dhaulta and Mr. Arun Kumar. The Petitioner responded to the objections of the HPSEBL through response dated 16th April 2019 which was registered as M.A. No 94 of 2019. Further the Petitioner responded to the objections raised by Mr. K.S. Dhaulta and Mr. Arun Kumar through its response dated 13.04.2019.

1.23 A public hearing was held at Commission's court room at Shimla on 29th April 2019 for providing adequate opportunity to all the stakeholders for expression of their opinions, suggestions and objections in the matter.

1.24 The objections, issues and concerns raised by the stakeholders, consumer representatives and HPSEBL, the responses along with the submissions of the Petitioner and the views of the Commission is detailed in Chapter 3 of this Order.

2. SUMMARY OF THE PETITION

2.1 This Chapter summarizes the Petition No. 30 of 2019 filed by the Petitioner on 30th November 2019 and MA No. 101 of 2019 filed on 24th April 2019, along with the subsequent submissions made, for determination of tariff for sale of power from the Baspa II, 300 MW Hydro Electric Project located on River Baspa, District Kinnaur (H.P.) for the fourth Control Period FY 2019-20 to FY 2023-24.

Details of the Project

2.2 The Baspa II Hydro-electric project is a 300 MW plant with three units of 100 MW each which was commissioned by M/s JPVL in the FY 2003-04 and transferred to the Petitioner in FY 2015-16.

2.3 It is a diurnal peaking plant with 4 hours of peaking supported by diurnal pondage. The power house is underground with static excitation. The Government of Himachal Pradesh receives 12% of energy generated as free energy. The details of the plant submitted by the Petitioner are as given below:-

Table 4: 300 MW BASPA II - Project Details

Particular	Details
Name of the Company	JSW Hydro Energy Limited (Formerly Himachal Baspa Power Company Limited)
Name of the Station	Baspa II Hydro Electric Project
Installed Capacity (MW)	3 X 100 = 300
Free power to home state	12%
Date of Commercial Operation	
Unit-1	24.05.2003
Unit-2	29.05.2003
Unit-3	08.06.2003
Type of Station	
Surface/underground	Underground
Purely ROR/ Pondage/Storage	Diurnal Pondage
Peaking/non-peaking	Diurnal Peaking
No. of hours of peaking	4
Type of excitation	Static excitation
Design Energy	1213.18 MU
Transformation Losses (as per PPA)	0.50%
Auxiliary Losses	0.50%
Transmission Losses	0.65%

2.4 The Commission had passed an Order dated 24.02.2007 approving the capital cost of the Baspa II 300 MW Hydro-electric Project at Rs.1533.96 Cr. for the purpose of determination of tariff.

2.5 The Commission also approved the additional capital cost of Rs 95.88 Cr. vide its Order dated 24.01.2011.

2.6 Further, the Commission vide para no. 4.16 of its Order dated 06.06.2014 had approved the additional capital cost of Rs. 2.57 Cr. making the aggregate approved Capital cost at Rs. 1632.41 Cr. (Equity of Rs. 489.72 Cr. and Debt of Rs. 1142.69 Cr.).

Details of the Tariff Petition

2.7 The Petitioner has filed the Petition for determination of Tariff for the Third Control period i.e. FY 2019-20 to FY 2023-24 as prescribed under the multi-year tariff filing procedures set out under the PPA, HPERC (Terms & Conditions for Determination of Hydro Generation Tariff) Regulations, 2011 and amendments thereto.

2.8 The Petitioner has proposed an additional capital expenditure of Rs. 11.05 during the period FY 2018-19 to FY 2023-24 and has therefore not submitted any Business Plan along with the MYT Petition.

2.9 The Petitioner has claimed the additional capital expenditure under the following heads –

a. **Obsolescence:** of then technology on which equipment was manufactured and hence unavailability of essential spares & services for the same in the market or with OEM (Original Equipment Manufacturer).

b. **Upgradation in Technology:** Availability of new, higher and user-friendly versions of software & equipment in market, which cannot be integrated with old equipment / system as such, but needs complete replacement / upgradation.

c. Prudent utility practices compliance: as per Article 2, section 2.2.100 of the PPA, prudent utility practices means those practices, method, techniques and standards as changed from time to time, that are generally accepted internally for use in electrical utility industries (taking into account conditions in India) and commonly used in prudent electrical utility engineering and operations to design, engineer, construct, test, operate and maintain equipment lawfully, safety, efficiently and economically as applicable to power station of size, service and type of the project and maintenance guidelines.

The Petitioner has stated in its Petition that as per Article 7, section 7.1 of the PPA the company shall operate and maintain, and if required, effect improvement (within the overall scope of project implementation) in the project in accordance with:-

(i) Prudent Utility Practices.

(ii) All applicable laws and directives.

(iii) *The manuals, instructions and manufacturer's guidelines supplied by construction contractors, manufacturers of equipment / suppliers etc.*

(iv) *The grid technical parameters as described in Schedule VIII.*

(v) *Despatch Instructions.*

Also Article 13, Section 13.1((h), (i) & (p)) of the PPA states that hereby Company covenants to and agree the Board to the following

………..

(h) Operate and maintain the project in accordance with the dispatch instructions and Prudent Utility Practices

(i) Design, construct and complete the project in a good workman-like manner, only with materials and equipment that are new and of international Utility-grade quality, in such a manner that the useful life of the project will be at least equal to the term of this Agreement and in accordance with

(i) the plans and specifications prepared in accordance with this Agreement,

(ii) all applicable laws rules, regulations, permits and licenses, and

(iii) sound engineering and constructions, and Prudent Utility Practices;

……….

(p) at the end of the term of this agreement, transfer the project in the good working condition to the Board as per provisions of this Agreement.

d. **Change in Law:** As per Article 20 of the PPA signed between the Distribution Licensee and Generating Company, "Change in Law" means: -

   i. any enactment and enforcement of any new law,

   ii. any amendment, alternation, modification or repeal of any existing law by a competent court, Tribunal or legislature in India which is contrary to the existing accepted interpretation thereof.

Further as per section 20.21 (e) and (h) of the PPA, the Petitioner is allowed to incur additional capitalization to comply with change in law, along with change in tariff required as follows –

'20.21 (e) Additional facilities and modifications

Where any change in law coming into force after unit 3 commercial operation date requires the construction of any additional facilities and modifications of any existing facilities of the project, the company may incur such expenditure thereon as may be reasonably required to comply with such change in law and the amount of such expenditure shall be added to the capital cost subject to approval by Board/SG/Authority. The

Company shall provide the Board with as much prior notification of such additional modifications and their costs as is reasonably practicable. To the extent amount of any such expenditure shall have been funded with debt, the interest on debt and debt payment attributable thereto shall be reflected in the tariff, and to the extent the amount of any such expenditure shall have been funded with equity, the return on equity attributable thereto shall be reflected in the tariff. Benefits, if any, with regard to tariff, accrued due to change in law shall go towards reduction in tariff.

….

(h) Change in tariff due to change in law

If there is any change in tariff as per Section 20.21, due to change in law, then, the same would be got approved from the Board.'

2.10 The petitioner has cited Regulation 13 (2) of the Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Hydro Generation Tariff) Regulation, 2011 (amended in 2011 & 2013), dealing with additional capitalization.

'13. 2) The capital expenditure incurred on the following counts after the cut-off date may, in its discretion, be admitted by the Commission, subject to prudence check, -

a) liabilities to meet award of arbitration or for compliance of the order or decree of a court;

b) change in law;

c) any expenditure which has become necessary on account of damage caused by natural calamities (but not due to flooding of power house attributable to the negligence of the generating company) including due to geological reasons after adjusting for proceeds from any insurance scheme, and expenditure incurred due to any additional work which has become necessary for successful and efficient plant operation:

Provided that in any expenditure on acquiring the minor items or the assets like tools and tackles, furniture, air-conditioners, voltage stabilizers, refrigerators, coolers, fans, washing machines, heat convectors, mattresses, carpets etc. brought after the cut-off date shall not be considered for additional capitalization for determination of tariff w.e.f. 1.4.2011.

2.11 Further, the Petitioner has mentioned Regulation 14 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 -

14. Additional Capitalization and De-capitalization:

The capital expenditure, in respect of existing generating station or the transmission system including communication system, incurred or projected *to be incurred on the following counts after the cut-off date, may be admitted by the Commission, subject to prudence check:*

………

(vii) Any additional capital expenditure which has become necessary for efficient operation of generating station other than coal / lignite-based stations or transmission system as the case may be. The claim shall be substantiated with the technical justification duly supported by the documentary evidence like test results carried out by an independent agency in case of deterioration of assets, report of an independent agency in case of damage caused by natural calamities, obsolescence of technology, up-gradation of capacity for the technical reason such as increase in fault level;

(viii) In case of hydro generating stations, any expenditure which has become necessary on account of damage caused by natural calamities (but not due to flooding of power house attributable to the negligence of the generating company) and due to geological reasons after adjusting the proceeds from any insurance scheme, and expenditure incurred due to any additional work which has become necessary for successful and efficient plant operation.'

2.12 Further the Petitioner has submitted the technical & financial details and information for tariff computation in formats specified by the Commission under Himachal Pradesh Electricity Regulatory Commission (Terms & Conditions for Determination of Hydro Generation Tariff) (Second Amendment) Regulations, 2013.

2.13 The details of year-on-year capital expenditure proposed by the Petitioner, under various heads as described above, is follows –

Table 5 Summary of Additional Capital Expenditure filed by Petitioner (Rs. Cr.)

Particulars	FY19	FY20	FY21	FY22	FY23	FY24	Total
Obsolescence	1.47	1.62	0.27	1.71	1.88	-	6.95
Prudent Utility Practices/ Upgradation in Technology	0.74	0.71	0.50	0.20	0.20	-	2.36
Change in Law	0.53	0.58	0.64	-	-	-	1.74
Total	**2.75**	**2.91**	**1.41**	**1.91**	**2.08**	**-**	**11.05**

2.14 The details of the Total Annual Charges claimed by the Petitioner in petition no. 30 of 2019 for period FY 2019-20 to FY 2023-24, are as under:

Table 6: Summary of Tariff Petition filed by Petitioner for FY20 to FY24 (Rs. Cr.)

Particulars	FY20	FY21	FY22	FY23	FY24
Capacity Charges					
Interest on Outstanding Loan	0.18	0.32	0.37	0.45	0.51
Depreciation + AAD	32.06	70.43	70.49	70.58	70.67
Application Fees	0.05	0.05	0.05	0.05	0.05
Total Capacity Charges	32.29	70.8	70.91	71.08	71.23
Primary Energy Charges					

Particulars	FY20	FY21	FY22	FY23	FY24
O&M Expenses	43.75	45.54	47.42	49.38	51.37
Return on Equity	78.63	78.70	78.79	78.89	78.89
Interest on Working Capital	6.23	7.52	7.62	7.73	7.83
Sub- Total Primary Charges	128.61	131.76	133.83	136	138.09
Incentive and Taxes					
Incentive for secondary energy	27.94	27.96	28.00	28.03	28.03
Incentive for Higher Plant Availability	9.83	9.84	9.85	9.86	9.86
Tax	25.97	39.39	39.43	39.48	39.51
Sub-Total Incentive and taxes	63.74	77.19	77.28	77.37	77.4
Total Annual Charges	**224.64**	**279.75**	**282.02**	**284.45**	**286.72**

2.15 The Petitioner has also submitted an additional claim on 24.04.2019 for tariff against additional capitalization of Rs. 6.58 Cr., allowed by Arbitral Tribunal vide its Order dated 21.06.2018 in arbitration Case No. 69 of 2014. The additional capital expenditure is allowed by the Tribunal on account of force majeure event of flash flood in July 2005.

2.16 The Commission, on carrying out a preliminary scrutiny of the Petition conveyed deficiencies vide Letter. No. HPERC/-F(1)-8/2018/2406 dated 12.12.2018 and vide Letter No. HPERC/-F(1)-8/2018/228 dated 25.4.2019, and directed the Petitioner to submit, details of existing assets original cost of the asset, accumulated depreciation, etc. proposed to be replaced through additional capitalization and the impact of their decapitalization on MYT tariff calculations. The table below shows the details provided by the Petitioner of the existing assets proposed to be replaced through additional capitalization.

Table 7: Summary of existing assets proposed to be replaced through additional capitalization (Rs. Cr.)

Particulars	Original Capitalised Cost	Balance Value of existing assets (as on 31.03.2018)
Obsolescence	3.90	1.42
Change in Law	2.07	0.75
Total	**5.97**	**2.17**

2.17 The details of the revised Total Annual Charges claimed by the Petitioner in its submission dated 22.04.2019 for the period FY 2019-20 to FY 2023-24, after taking into consideration the impact of additional capitalization of Rs. 6.58 Cr. and decapitalization of existing assets proposed to be replaced in fourth Control Period is as under:

Table 8: Summary of Revised Tariff Petition filed by Petitioner for FY20 to FY24 (Rs. Cr.)

Particulars	FY20	FY21	FY22	FY23	FY24
Capacity Charges					
Interest on Outstanding Loan	0.18	0.32	0.37	0.45	0.51
Depreciation + AAD	32.70	70.71	70.77	70.83	70.87
Application Fees	0.11	0.05	0.05	0.05	0.05
Total Capacity Charges	**33.00**	**71.08**	**71.19**	**71.33**	**71.43**
Primary Energy Charges					
O&M Expenses	43.89	45.69	47.56	49.52	51.51
Return on Equity	78.90	78.97	79.04	79.11	79.11
Interest on Working Capital	6.27	7.54	7.65	7.75	7.86
Sub- Total Primary Charges	**129.07**	**132.20**	**134.24**	**136.38**	**138.47**
Incentive and Taxes					
Incentive for secondary energy	28.04	28.06	28.08	28.11	28.11
Incentive for Higher Plant Availability	9.86	9.87	9.88	9.89	9.89
Tax	26.31	39.61	39.64	39.67	39.68
Sub-Total Incentive and taxes	**64.21**	**77.54**	**77.60**	**77.67**	**77.68**
Total Annual Charges	**226.28**	**280.83**	**283.03**	**285.38**	**287.58**

3. Comments/ Objections Filed By Stakeholders

3.1 Three stakeholders, including consumer representatives and HPSEBL (which is 100% beneficiary of the power generated from BASPA II HEP), have filed written objections to the Petition filed by the Petitioner.

Table 9: Details of Objectors

Sl.	Objector	Address
1.	HPSEBL	Vidyut Bhawan, Shimla
2.	K.S. Dhaulta	A-62, Sector-2 Main Road N. Shimla
3.	Arun Kumar	Skipton Villa, The Ridge, Shimla

3.2 Subsequently, a public hearing was held on 29th April 2019 at the Commission's Court Room in Shimla.

3.3 The issues raised by Stakeholders along with response of the Petitioner and Commission's views on the issues are detailed in the subsequent paragraphs.

Depreciation and Advance against Depreciation

Stakeholder's Objections

3.4 HPSEBL has raised objection that Depreciation/Advance against Depreciation proposed for FY 19-20 is Rs. 32.29 Cr. whereas the depreciation for FY 20-21 is Rs. 70.43 Cr. HPSEBL requested the Commission to seek justification from M/s JSW Hydro Energy Limited on the same.

3.5 Mr. K.S. Dhaulta, a consumer representative, has raised objection that Petitioner may be asked to spell out and explain its computation of Advance Against Depreciation to justify its claim.

Petitioner's Reply

3.6 The Petitioner in its response to the query raised by HPSEBL has submitted that Depreciation and Advance Against Depreciation is worked out in accordance with the clause 8.6.5 of the Power Purchase agreement (PPA) dated 4.6.1997. The Petitioner has further submitted that advance against Depreciation approved till 2015-16 of Rs. 239.63 Cr. is being adjusted against the Depreciation, in terms of para 3 supra of para 8.6.5.1 of PPA. Till the year 2018-19, Rs. 201.38 Cr. can be adjusted and balance of Rs. 38.25 Cr. only can be adjusted in the FY 2019-20. Therefore, in subsequent years of FY 2020-21 onwards, Nil amount of advance against Depreciation has been considered.

3.7 The Petitioner in its response to the query raised by Mr. K.S. Dhaulta, a consumer representative, has submitted that detailed calculation of Advance Against Depreciation during fourth control period is submitted to the Commission in Para 8 of the reply dated 21.1.2019.

Commission's View

3.8 The Commission has reviewed the submissions made by the Petitioner and computed the Depreciation and Advance Against Depreciation (AAD) as per the provisions of the PPA as detailed in Chapter 4 of this Order.

Income Tax

Stakeholder's Objections

3.9 HPSEBL has raised objection that significant hike is observed in the income tax from FY 19-20 to FY 20-21, that is, from Rs. 25.97 Cr. to Rs. 39.39 Cr. HPSEBL requested the Commission to seek justification from M/s JSW Hydro Energy Limited on the same.

Petitioner's Reply

3.10 The Petitioner in its response to the query has submitted that the increase in income tax is owing to increased Annual Fixed Charges (AFC) on account of normalization of Depreciation in FY 2020-21 i.e. completion of setting off of Advance Against Depreciation in FY 2019-20.

Commission's View:

3.11 The Commission has undertaken detailed scrutiny of submissions made by the Petitioner for computation of Income Tax and approved tax amount for the Control Period as detailed in Chapter 4 of this Order.

Decapitalization of assets

Stakeholder's Objections

3.12 HPSEBL has raised objection that while working out the O&M charges of the successive years of fourth Control Period, the de-capitalization of the new items proposed under additional CAPEX has not been considered. Thus, the O&M charges for items proposed under additional CAPEX have been considered twice. HPSEBL therefore requested the Commission to seek clarification/justification from M/s JSW Hydro Energy Limited on the same.

Petitioner's Reply

3.13 The Petitioner in its response to the query has submitted that De-capitalization of the replaced assets of Rs. 2.03 Cr. may be given effect once the additional capitalization is approved. Further in response to the deficiency letter raised by the Commission, the Petitioner has submitted revised ARR calculations taking into consideration the impact of decapitalization of existing assets.

Commission's View:

3.14 As part of the processing of Petition, the Commission sought various clarification for the claim of additional capitalization claimed by the Petitioner. Also, details like original value, accumulated depreciation, etc. of the existing assets proposed to be replaced through additional capitalization and the impact of decapitalization on MYT tariff calculations was also required to be submitted by the Petitioner. Based on analysis of various submissions and data available, the Commission has considered the impact of replacement of new assets after considering de-capitalization of existing items as discussed in detail under Chapter 4 of this Order.

Additional Capital Expenditure

Stakeholder's Objections

3.15 HPSEBL has raised the following objections in regards to the proposed additional Capital Expenditure of Rs. 1,105.21 Lakh during the fourth Control Period -

a. Many items proposed under additional CAPEX may be executed under R&M expenses such as UPS for Plan Auxiliaries, Welding fume Extractor system, Upgradation of CCTV Surveillance system, Upgradation of Smoke and fire detection system, Upgradation of Public Address System, Upgradation of Power House Lift. Accordingly, HPSEBL requested the Commission to take prudence check of the items which qualify for execution under additional CAPEX and remaining items shall be executed as a part of O&M Charges, which is an integral part of the ARR.

b. In the additional CAPEX proposed by M/s JSW Hydro Energy Limited major works included for Upgradation of Excitation System, Upgradation of Generator Protection System, Upgradation of DCS System, Upgradation of Emulsifier system, Upgradation of HVAC system etc. However, report of any independent Committee or any Independent Engineer has not be supplied. HPSEBL therefore requested the Commission to propose the formulation of committee comprising of HPSEBL representative(s) to ascertain the feasibility of additional CAPEX proposed by M/s JSW Hydro Energy Limited.

3.16 Mr. K.S. Dhaulta, a consumer representative, has raised objection that the Petitioner has given a generalized justification in terms of 'Obsolescence', 'Change in Law' or 'Prudent Utility Practices / Upgradation in Technology' against each works proposed for additional capitalization without any supporting documents to justify the claim. Further the consumer representative has requested the Commission to verify whether these additional Capex works are covered in PPA or are merely R&M works.

3.17 Mr. Arun Kumar, has raised objection that the damages to the barrages and to the pothead yard of BASPA II HEP are not force majeure events and that those damages have been caused due to negligence or mismanagement of the works during construction/ operation of the project. The consumer representative has further mentioned that the project has been built on Build, Own, Operate, Transfer basis and therefore the defects/ deficiencies in project are responsibility of Petitioner. Therefore the consumer representative has requested the Commission to disallow the additional capitalization claimed by Petitioner on account of force majeure events.

Petitioner's Reply

3.18 The Petitioner in its response to the queries of HPSEBL and Mr. K.S. Dhaulta has submitted that detailed justification towards the proposed additional capitalisation has been submitted to the Commission.

3.19 Further in response to the queries of Mr. Arun Kumar, the Petitioner has submitted that Additional capitalization in respect of protection works at barrage of Rs. 6.58 Cr., has been allowed by the arbitral tribunal vide its award dated 21.6.2018 in the arbitration case no. 69/2014 only after extensive exercise, and therefore objections to said additional capex can't be urged at this stage when the matters have attained its finality.

Commission's View:

3.20 The Commission has considered the submissions made by the Petitioner in conjunction with relevant provisions of PPA, for approval of additional capital expenditure in Chapter 4 of this Order.

Capital cost exclusion of Karcham Wangtoo-Jhakri transmission line

Stakeholder's Objections

3.21 HPSEBL has stated that the Commission in its MTR Order dated 31.10.2018 for Sale of Power from Baspa-II HEP (300 MW) to HPSEBL for 3rd Control Period (FY 2015-19) has decided that M/s JSW Hydro Energy Limited and HPSEBL will discuss the future steps to be undertaken in this regard within three months of issuance of this order and update the Commission. HPSEBL vide letter No. HPSEBL/CE (Sys. Op.)/IS-231(b)/Vol.XXIII/2018-8459-62 dated 01.12.2018 had requested M/s JSW Hydro Energy Limited for compliance of para 3.8 & 4.85 of the said order of HPERC. But as informed by HPSEBL, no response/ reply in this regard has been received from M/s JSW Hydro Energy Limited. HSPEBL has requested the Commission to direct M/s JSW Hydro Energy Limited to file petition before appropriate Commission with inclusion of necessary parties (that is CEA, PGCIL etc.) to exclude the capital cost of Baspa-Karcham Wangtoo-Jhakri transmission line from the capital cost of Baspa-II HEP.

Petitioner's Reply

3.22 The Petitioner in reply to the query has submitted that after the receipt of copy of communication dated 01.12.2018 issued by Chief Engineer (System Operation) of HPSEBL, the Petitioner was awaiting communication from Chief Engineer (Commercial) HPSEBL, who as per the said communication was to take necessary action for compliance on behalf of HPSEBL, but they did not receive any communication from the Chief Engineer (Commercial) of HPSEBL in this regard. Further, the Petitioner has submitted that there is no impediment or bar for HPSEBL to file an appropriate petition before the Appropriate Commission and since the

Petitioner is not the aggrieved party it cannot be directed to approach the Appropriate Commission at the behest of HPSEBL.

Commission's View:

3.23 It is observed that both the parties have not complied with the directive of the Commission for deciding the future steps with regard to the Order dated 8th Dec 2017 against petition no. 29 of 2017 within three months from the issuance of the Order dated 31.10.2018 in Petition No. 21 of 2018.

3.24 If either of the two parties believes that the other party has not taken necessary steps in accordance with Commission's directive, they may initiate appropriate proceedings separately against the other party for violating the directions of the Commission.

3.25 The Commission provides additional time of three months to both the parties to take action in this matter and decide the future steps on Order dated 8th Dec 2017 against petition no. 29 of 2017 failing which the Commission may take action under Section 142 of the Electricity Act 2003 against both the parties.

Incentive for Higher Plant Availability and Secondary Energy

Stakeholder's Objections

3.26 HPSEBL in its objections have stated that impact of incentives may be considered for tariff determination for fourth Control Period. Plant Availability of Baspa-II HEP for FY 2014-15 was 99.84%, FY 2015-16 was 98.15% and in FY 2016-17 was 97.49%. Accordingly, HPSEBL has paid incentive for higher plant availability at the end of respective tariff years. HPSEBL further states that Baspa-II HEP has delivered secondary energy of 43.254 MU in FY 2014-15, 90.21 MU in FY 2015-16, 118.30 MU in FY 2016-17, 113.3 MUs in FY 2017-18 and 34.51 MUs in FY 2018-19. Thus HPSEBL has to pay the incentives for secondary energy in the respective month of energy generation beyond monthly saleable design energy upto the maximum limit of 155 MUs. The rate of incentive on secondary energy is Rs. 3.15 per unit in terms of section 8.9 of the PPA dated 04.06.1997. The incentive on secondary energy in terms of section 8.9.1 of PPA, shall not exceed 10% Return on equity for any tariff year. Thus HPSEBL submits that impact of incentives on secondary energy may be considered for determination of tariff for fourth Control Period as the same create a big gap on revenues of HPSEBL.

3.27 Mr. K.S. Dhaulta, a consumer representative, has raised objection that the Petitioner has considered 97% as an average plant availability for calculating the incentive for higher plant availability in fourth control period without providing any authentic data to justify it. Further Mr. K.S. Dhaulta has raised objection that the Petitioner has considered 88.12 MU as average secondary generation for calculating the incentive for secondary energy in fourth control period without elucidating any basis and providing data to justify it.

Petitioner's Reply

3.28 The Petitioner in reply to the query by HPSEBL has submitted that HPSEB in its query has requested to include incentive for higher plant availability and secondary energy in proposed tariff of respective years, and accordingly the Petitioner has included the impact of incentives in its MYT tariff petition No. 30 of 2019.

3.29 The Petitioner in reply to the query raised by Mr. K.S. Dhaulta regarding the basis for higher plant availability and secondary energy has submitted that the required information has been submitted to the Commission in para 3 and para 4 of the reply dated 21.01.2019.

Commission's View

3.30 In line with the previous Orders, the Commission has approved the tariff for primary energy. Incentives for secondary energy and plant availability are variable and therefore cannot be included as part of the tariff determination process in advance and shall be subsequently trued-up. Further, the clauses of the PPA sufficiently provide for payment to be made against secondary energy and therefore no approval is required in this regard.

O&M Cost

Stakeholder's Objections

3.31 Mr. K.S. Dhaulta has mentioned that Petitioner may be asked to submit the detailed calculations for arriving at the O&M cost towards additional capitalization during the fourth control period.

Petitioner's Reply

3.32 The Petitioner in reply to the query has submitted that the required information has been submitted to the Commission in para 6 of the reply dated 21.01.2019.

Commission's View

3.33 The Commission has considered the submissions made by the Petitioner, for approval of O&M cost in Chapter 4 of this Order.

Capacity Charge and Energy Charge

Stakeholder's Objections

3.34 Mr. K.S. Dhaulta, has mentioned that the Petitioner should submit proposed capacity charge, energy charge and incentives & taxes for each year to the Commission.

Petitioner's Reply

3.35 The Petitioner in reply to the query has submitted that the required information has been submitted to the Commission in para 9 of the reply dated 21.01.2019.

Commission's View

3.36 The Commission has considered the submissions made by the Petitioner, for approval of ARR/ Tariff in Chapter 4 of this Order.

Use of facilities built for BASPA II HEP for Karcham Wangtoo HEP

Stakeholder's Objections

3.37 Mr. Arun Kumar, has raised an objection that the land, buildings and job facilities built for BASPA II HEP are being used by the Petitioner for its other plant Karcham Wangtoo HEP, but no revenue on this account is been shown for BASPA II HEP.

Petitioner's Reply

3.38 The Petitioner in reply to the query has submitted that separate records are being maintained for both the projects Karcham Wangtoo HEP (1000MW) and Baspa II HEP (300 MW) owned by Petitioner and in case of joint expenditure incurred, proper apportionment of expenses is made between Baspa II HEP & Karcham Wangtoo HEP. These records are certified by the statutory auditors by way of auditor report & audited accounts and submitted to the Commission at the time of True up.

Commission's View

3.39 The Commission has taken cognizance of objection raised and has considered the submission made by the Petitioner. The Commission directs the Petitioner to submit at the time of true-up, the details of all joint expenditure incurred between Karcham Wangtoo HEP and BASPA II HEP along with their apportionment made duly certified by the statutory auditor. The Commission shall analyse these details and the financial statements at the time of true-up towards the end of fourth Control Period.

4. ANALYSIS OF THE PETITION

Introduction

4.1 This Chapter deals with the analysis of the Petition filed by the Petitioner for the period from FY 2019-20 to FY 2023-24 for sale of energy from BASPA II HEP to HPSEBL.

4.2 The Commission has finalized this Order based on the analysis and prudence check of the Petition/additional submissions/clarifications submitted by the Petitioner in response to the queries, suggestions and comments raised by the stakeholders during the public hearing and response submitted by the Petitioner. Various parameters and their computation has been undertaken after giving due consideration to the Power Purchase Agreement (PPA) for sale of power from BASPA-II to HPSEBL. The following sections contain the detailed analysis of various components of tariff, based on the various submissions of the Petitioner.

Computation of Tariff

4.3 As per the PPA, the tariff for the energy generated by Baspa II HEP comprises of five parts:

(a) Capacity Charges

(b) Primary Energy Charge

(c) Incentive for Secondary Energy

(d) Incentive for Higher Plant Availability

(e) Tax on Income

Capacity Charge

4.4 The capacity charge as per Section 8.6 of the PPA is a sum of:

(a) Interest on outstanding loan due during the tariff year, as per the loans approved by the Commission while approving the project cost;

(b) Depreciation and Advance Against Depreciation for the tariff year as per the Section 8.6.5 of the PPA; and

(c) Leasing Charges.

Primary Energy Charge

4.5 The primary energy charge as per Section 8.7 of the PPA is a sum of:

(a) Operations and maintenance charges computed as per Section 8.7.2 of the PPA;

(b) Return on equity computed as per Section 8.7.3 of the PPA on the equity component approved by the Commission;

(c) Interest on working capital as per Section 8.7.4 of the PPA; and

(d) Other miscellaneous charges as defined under Section 8.7.5 of the PPA.

Incentive for Secondary Energy

4.6 The incentive for secondary energy shall be calculated as per Section 8.9 of the PPA and has been detailed in relevant section of this Order.

Incentive for Higher Plant Availability

4.7 The incentive for higher plant availability shall be calculated as per the Section 8.10 of the PPA and has been detailed in relevant section of this Order.

Tax on Income

4.8 The tax on income shall be computed as per Section 8.11 of the PPA and has been discussed in detail in the relevant section of this Order.

Energy Generation from the plant and Plant Availability

4.9 Schedule IX-A of the PPA provides the details of design energy of the plant which is at 1213.18 MU per annum. As per the Section 8.12 of the PPA, the net saleable energy from the plant shall be equal to 88% (after excluding 12% of free energy to the Government of Himachal Pradesh) of the energy worked out by deducting:

(a) 0.5% auxiliary consumption

(b) 0.5% transformation losses

(c) 0.65% transmission losses

4.10 The net saleable energy has been considered by the Commission in accordance with the PPA as shown below:

Table 10: Net Saleable Energy from BASPA II HEP

Particulars	Unit	
Design Energy	MU	1213.18
Auxiliary Consumption	%	0.50%
Transformation losses	%	0.50%
Transmission loss to grid	%	0.65%
Share of Available Power	%	88.00%
Net Saleable Energy	**MU**	**1050.06**

Energy Generation and Plant Availability for MYT Period (FY2019-20 to FY2023-24)

4.11 As per the Petition, BASPA-II HEP is projected to generate 1050.06 MUs of primary energy and 88.12 MUs of secondary energy during each year of the Control Period.

The plant is projected to maintain availability of 97% as against normative availability of 90% during the Control Period.

4.12 The Commission has considered the generation of primary energy as 1050.06 MUs for each year of the Control Period from FY 2019-20 to FY 2023-24. Secondary energy has been considered as nil, and the Plant availability has been considered at normative availability of 90% for the Control Period. The same shall be trued-up at the end of Control Period as per actual plant availability and actual generation of secondary energy.

Table 11: Energy Generation and Plant Availability approved for fourth Control Period

Particulars	FY 20	FY 21	FY 22	FY 23	FY 24
Generation of Energy (MUs)					
Primary Energy	1050.06	1050.06	1050.06	1050.06	1050.06
Secondary Energy (Saleable Energy minus primary energy)	-	-	-	-	-
Plant Availability (%), normative	90%	90%	90%	90%	90%

Additional Capitalization and De-Capitalization

Additional capital expenditure of Rs. 11.05 Cr. claimed during fourth Control Period

4.13 The Petitioner has proposed an additional capital expenditure of Rs. 11.05 Cr. during the period FY 2018-19 to FY 2023-24. The Petitioner has claimed the additional capital expenditure under the heads of Obsolescence, Upgradation in Technology/ Prudent Utility Practices and Change in Law, as detailed in Chapter 2 of this Order.

Table 12: Proposed Additional Capitalization for FY19 to FY24 (Rs. Cr.)

Rs. Cr.	FY19	FY 20	FY 21	FY 22	FY 23	FY 24
For Change in Law	0.53	0.58	0.64	0.00	0.00	0.00
For Obsolescence	1.47	1.62	0.27	1.71	1.88	0.00
For Upgradation in Technology/ Prudent Utility Practices	0.74	0.71	0.50	0.20	0.20	0.00
Total	**2.74**	**2.91**	**1.41**	**1.91**	**2.08**	**0.00**

4.14 The Commission also sought rationale and reference of the PPA clauses under which the Petitioner has claimed additional capitalization. In response, the Petitioner submitted a write-up, providing following details for each item claimed under additional capitalization –

- Provisions of PPA and HPERC (Terms and Conditions for determination of hydro generation tariff) Regulations 2011
- Justification for tentative cost claimed under additional capital expenditure based on commercial/ budgetary offers received from OEM/ equivalent suppliers

4.15 It is observed that the Petitioner has provided reference of the Article 20, section 20.21 of PPA for justifying the claim of additional capital expenditure under the head of Change in Law. For the balance works, the Petitioner has supported the claim of additional capital expenditure under the heads of 'Obsolescence' and 'Prudent Utility Practices' citing Regulation 13(2) of the MYT Regulations 2011.

4.16 The Commission has reviewed the appropriate clauses of the PPA for approval of the proposed additional capitalization and observes that there is no clause for approving additional capital cost except for 'change in law' and 'force majeure'.

4.17 As per clause 8.4.1 of the PPA, no additional capital expenditure is permitted , except for the cases of force majeure and change in law, as highlighted below:

'8.4.1

……..

(f) In the event of extension in the Scheduled commercial operation date of the Project on account of Force-Majeure events, provisions under Article 17, shall apply.

(g) Any change in cost on account of changes in law as per Article 20.

……….

(i) No other additional cost /charges shall be allowed on any account, whatsoever.'

4.18 Clause 20.21(e) of the PPA signed between the HPSEBL and the Generating Company, allows for additional capital expenditure on account of Change in Law, post COD of the generation plant is reproduced below:

"20.21 (e) Where any change in law coming into force after unit III commercial operation date requires the construction of any additional facilities or modifications of any existing facilities of the Project, the company may incur such expenditure thereon as may be reasonably required to comply with such change in law and the amount of such expenditure shall be added to the capital cost subject to approval by Board/ SG/Authority."

4.19 Accordingly, for the fourth Control Period, the Commission has considered the claim of additional capital expenditure by the Petitioner only to the extent of amount qualifying under 'Change in Law' in line with the clauses of the PPA.

4.20 It is observed that the Petitioner has claimed additional capital expenditure of Rs. 1.74 Cr. on the account of 'Change in Law' from FY 2019-20 to FY 2023-24. The additional capital expenditure has been claimed for implementation of FGMO/ RGMO enabled electronic governors for the three units of plant.

4.21 The PPA signed between the HPSEBL and the generating company, did not provide any specific requirement for implementing FGMO/ RGMO. The Indian Electricity Grid Code, issued first in 2006 and later re-issued in 2010, along with its amendments, introduced the requirement to install FGMO/ RGMO on generating units. Since BASPA II HEP plant got commissioned in the year 2003, and the Indian Electricity Grid Code was issued later, the Commission has therefore allowed the additional capital expenditure towards up-gradation of electronic governors to implement the FGMO/ RGMO.

4.22 The Petitioner has submitted that three (3) numbers of electronic governors of BASPA Units were commissioned during 2003 by M/s Andritz Hydro Private Limited (Formerly known as M/s Hydro Vevey) and are operational since then. The Petitioner has further submitted that they had approached the original OEM supplier of governor systems i.e. M/s Andritz Hydro for upgradation of the existing governor systems for FGMO/ RGMO. However, the OEM supplier informed the Petitioner that manufacturing of the earlier supplied governor system has been discontinued and spares/ support is not available for the supplied equipment now. The OEM supplier instead of up-grading the existing governor system, suggested installation of the new age digital governor system.

4.23 In order to assess the prudency of the additional capital expenditure proposed by the Petitioner for the implementation of FGMO/ RGMO, the Commission has analyzed the commercial offer received by the generating company from the Original Equipment Manufacturer (OEM) of the governor control system of BASPA II HEP and the note submitted by Petitioner on negotiations between Generating Company and OEM supplier regarding the cost. As per the note submitted, the Petitioner has claimed Rs. 0.53 Lacs as the cost installation of Digital Governor and implementation of FGMO/ RGMO on one (1) generating unit. After analysing the submissions made by the Petitioner, the Commission has provisionally allowed a total additional capital expenditure of Rs. 1.59 Cr. for the implementation of FGMO/ RGMO for three (3) generating units i.e. at the cost of Rs. 0.53 Lacs per generating unit.

4.24 The Petitioner is directed to conduct a competitive process for procurement of FGMO/ RGMO governor systems and discover most competitive cost for implementation of FGMO/RGMO governor systems. The final capital cost for implementation of FGMO/ RGMO would be considered at the time of Truing-Up for the respective years based on prudence check.

4.25 The Petitioner in its petition has sought to implement the FGMO/ RGMO for one unit of 100 MW each, every year from FY 2018-19 to FY 2020-21. However, based on review of the documents submitted by the Petitioner in response to the deficiencies raised by the Commission vide Letter. No. HPERC/-F(1)-8/2018/2406 dated 12.12.2018, it is observed that the Petitioner was in process of taking adequate approvals for the required capital expenditure. The Commission has considered installation of each RGMO/FGMO at the beginning of each year starting 2019-20 onwards and has considered an amount of Rs. 0.53 Cr. towards additional capital expenditure for implementation of FGMO/ RGMO on each unit of the plant from FY2019-20 to FY 2021-22. The actual date of capitalization would be considered at the time of truing-up for the respective years based on prudence check.

Table 13: Summary of additional capitalization allowed by the Commission (Rs. Cr.)

Particulars	FY 20	FY 21	FY 22	FY 23	FY 24	Total
Additional Capitalization for 'change in Law' for implementation of FGMO/ RGMO enabled governor systems	0.53	0.53	0.53	-	-	1.59

4.26 Regulation 11 of the HPERC (Terms and Conditions for Determination of Hydro Generation Tariff) Regulations of 2011, provide for de-capitalization of assets forming part of capital cost but not in use anymore due to additional capitalization.

'11. Capital Cost of Project

(1) Capital cost for a project shall include-

(a) ……

(b) ……

(c) additional capital expenditure determined under regulation 13:

Provided that the assets forming part of the project, but not in use, shall be taken out of the capital cost.'

Therefore, in accordance with the HPERC regulations, the Commission has de-capitalized the capital cost of existing governor systems which are to be replaced by FGMO/ RGMO enabled governor systems.

4.27 The Commission, on carrying out a preliminary scrutiny of the Petition, conveyed deficiencies vide Letter. No. HPERC/-F(1)-8/2018/2406 dated 12.12.2018 and vide Letter No. HPERC/-F(1)-8/2018/228 dated 25.4.2019 and directed the Petitioner to submit the value of existing assets to be replaced by new assets under additional capitalization, along with their outstanding debt and equity, duly certified by the statutory auditor for considering the impact of decapitalized assets. The Petitioner vide its reply dated 09.05.2019, provided the Auditor certificate for the original capitalized cost and balance value of assets to be depreciated, etc. of the fixed assets to be decapitalized. Accordingly, the Petitioner has submitted original capitalized cost of Rs. 2.07 Cr. for governor systems proposed to be replaced by FGMO/ RGMO enabled electronic governor systems.

4.28 The Commission has decapitalized this capital cost of existing governor systems from the gross capital cost of BASPA II HEP, phased equally over three years from FY 2019-20 to FY 2021-22 as FGMO/ RGMO enabled electronic governor system is implemented for each generating unit during the Control Period. For instance, for FGMO/RGMO implementation on unit-1 of plant in FY2019-20, 1/3rd of original capital cost of all three units (Rs. 0.69 Cr.) is de-capitalized. Similarly Rs. 0.69 Cr. capital cost of existing governor systems is decapitalized in years FY2020-21 and FY2021-22 respectively, considering the implementation of FGMO/ RGMO enabled governor systems on unit-2 and unit-3 of BASPA II HEP in the subsequent years.

Table 14: Summary of de-capitalization allowed by the Commission (Rs. Cr.)

Particulars	FY 20	FY 21	FY 22	FY 23	FY 24	Total
De-Capitalization of existing assets to be replaced by FGMO/ RGMO enabled governor system, from gross capital cost	(0.69)	(0.69)	(0.69)	-	-	**(2.07)**

Additional Capital Expenditure of Rs. 6.58 Cr. claimed as per Order of Arbitral Tribunal

4.29 The Petitioner in its submission dated 22.04.2019 for additional claim in MYT Petition has submitted that the heavy rain in the night of 05.07.2005 caused severe land sliding leading to damage of plant's barrage. Further, the Petitioner has submitted that the Commission vide its Order dated 10.12.2014 in petition no. 69 of 2014 had constituted an Arbitral Tribunal for adjudication and settlement of dispute between the generator and HPSEBL and ascertain the damages caused by the flash flood in river Baspa on 5th/6th July 2005. Citing the award of the Presiding Arbitrator dated 21.06.2018 for allowing Rs. 6.58 Cr. towards additional capital expenditure, the Petitioner has proposed additional tariff from FY 2005-06 to FY 2023-24.

4.30 The Commission has reviewed the Order of Presiding Arbitrator Justice dated 21.06.2018 which provides relief to the extent of Rs. 6.58 Cr. The Arbitration Panel citing 'Contributory Negligence' of both the generator and the flood, to the plant's damage, allowed a capital expenditure of Rs. 6.58 Cr. on account of force majeure event in its Order dated 21.06.2018. In its Order, the Presiding Officer has ruled the following:

> *"45. in my opinion the principle sum of Rs. 6,57,91,828.20/- granted by me as additional cost is to be adjusted towards tariff for subsequent period of operation in accordance with Article 17.6 (h), Article 17.7 and Article 8.7.2 of the PPA. I have arrived at the above conclusion as no party should be overburdened with any additional liability caused due to an event which was beyond the control of the party and the aggravating circumstance of contributory negligence, which could have been avoided if reasonable care and precaution were taken and appropriate plans were in place to mitigate the losses during the designing and construction of the project by the Claimant"*

4.31 In the judgement, the Tribunal has also made note of the following:

> *"43…………………………………….. In the present case the amount was to be determined by this Tribunal and until the determination thereof the amount was not crystallized and cannot bear interest, hence the said Article is not applicable."*

4.32 In accordance with the Order dated 21.06.2018, the Commission has allowed additional capital expenditure of Rs. 6.58 Cr. from the date of award. For financing of the additional capitalization, normative Debt: Equity of 70:30 has been considered.

Capital Cost of BASPA II HEP

4.33 In its MYT Order for BASPA II HEP for period FY2014-15 to FY2018-19 dated 06.06.2014, the Commission had allowed capital cost of Rs. 1632.41 Cr. as closing balance for FY2010-11. Based on the additional capitalization and de-capitalization allowed in this Order, as discussed in the sub-sections above, the Capital Cost considered for period FY2018-19 to FY2023-24 is as follows –

Table 15: Capital Cost allowed by the Commission (Rs. Cr.)

Particulars	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24
Opening Capital Cost	1,632.41	1,638.99	1,638.83	1,638.67	1,638.52	1,638.52
Additional Capital Expenditure allowed (for FGMO/ RGMO implementation)	-	0.53	0.53	0.53	-	-
De-capitalization considered		(0.69)	(0.69)	(0.69)	-	-
Additional Capital Expenditure allowed (as per Order of Arbitral Tribunal)	6.58	-	-	-	-	-
Capital cost as on 31st March of the year	1,638.99	1,638.83	1,638.67	1,638.52	1,638.52	1,638.52

4.34 Due to additional capitalization and de-capitalization of assets from the gross capital cost, as allowed in the para above, their corresponding amount of loan and equity is also revised. For additional capitalization, a normative Debt: Equity ratio of 70:30 is assumed.

4.35 Further, the Commission vide its Letter No. HPERC/-F(1)-8/2018/228 dated 25.4.2019 had asked Petitioner to submit the debt amount for each individual asset proposed to be replaced through additional capitalization, certified by Statutory Auditor. However, the Certificate issued by the Statutory Auditor provides only a combined debt amount for all assets. Therefore, the Commission has assumed a normative debt: equity ratio of 70:30 for computing corresponding loan and equity amount of capital cost to be de-capitalized.

4.36 Based on the additional capitalization and de-capitalization approved above, the adjustments in gross debt and equity for period FY2018-19 to FY2023-24 is as summarized below:

Table 16: Gross Equity and Gross Debt allowed by the Commission (Rs. Cr.)

Particulars	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24
Gross Equity						
Opening Equity	489.72	491.70	491.65	491.60	491.55	491.55
Additional Equity	1.97	0.16	0.16	0.16	-	-
Less: Equity for decapitalization	-	(0.21)	(0.21)	(0.21)	-	-
Closing Equity	491.70	491.65	491.60	491.55	491.55	491.55
Gross Debt						
Opening Debt	1,142.69	1,147.29	1,147.18	1,147.07	1,146.96	1,146.96
Additional Debt	4.61	0.37	0.37	0.37	-	-
Less: Debt for decapitalization	-	(0.48)	(0.48)	(0.48)	-	-
Closing Debt	1,147.29	1,147.18	1,147.07	1,146.96	1,146.96	1,146.96

Interest on Loans

4.37 For determination of interest on loans, the Petitioner has continued with the approach followed by the Commission in the MYT Order for the third Control Period and has proposed interest on loans based on the approved outstanding loan balances for the fourth Control Period i.e. FY 2019-20 to FY 2023-24.

4.38 In absence of a cost-benefit analysis and prior approval for loan restructuring, the Commission in its earlier MYT Order dated 15.07.2011 for the second Control Period FY2011-12 to FY2013-14 had disallowed the restructuring of loans and continued with the previous loan balances approved in its Orders. Therefore, loan balances corresponding to the approved loans have been continued for the purpose of interest approval and the Commission has considered the outstanding loan balances as per the true-up performed under the Mid-Term Review (MTR) Order dated 31.10.2018 of the Petitioner. The methodology considered for approving the interest for each loan is detailed in the subsequent sub-sections.

4.39 As per the loan balances considered in the MTR Order, the repayment for all domestic and foreign loans for BASPA II HEP, except Normative Loan 2, was complete during the third Control Period. Therefore, interest expense for normative loan 2 has been considered along with additional Normative Loan 3 and 4 for the funding of additional capital expenditure of Rs. 1.59 towards RGMO/FGMO and capital cost of Rs. 6.58 Cr. approved by Arbitration Tribunal. Normative debt of 70% of approved capitalization has been considered. Also, considering no debt is outstanding as per the tariff principles considered by the Commission in its previous Orders other than the normative loans for additional capitalization, the debt outstanding towards the decapitalized assets has been considered as nil.

4.40 The repayments and interest charges on the domestic loans considered by the Commission for determination of tariff for FY 2019-20 to FY 2023-24 are discussed in the following paragraphs.

Normative Loan – 2

4.41 The Commission had approved a normative loan of Rs. 1.80 Cr. in the MYT Order dated 06.06.2014 for meeting the debt requirement for payment of 6th provisional bill raised by SJVNL towards ICF. Tenure of 11 years was considered against the normative loan. Annual weighted average rate of interest on approved rupee term loan was to be considered as the interest rate against this normative loan.

4.42 The Petitioner has claimed an interest rate of 9.10% on the normative loan, as the average of existing loans of the Generating Company. The Commission had directed Petitioner to submit the details of existing loans of the generating company vide letter no. HPERC/-F(1)-8/2018/2406 dated 12.12.2018. Based on the prudence check of these existing loans, the Commission has adopted the interest rate of 9.10%, for the period of FY 2019-20 to FY 2023-24.

4.43 The Commission has continued with the closing balance approved in the previous True-Up performed under the MTR Order dated 31.10.2018 for approving the repayment and interest charge on the Normative loan-2 which is also provided in the table below:

Table 17: Normative Loan-2 Repayment and Interest approved for FY20 to FY24 (Rs. Cr.)

Rs. Cr.	FY 20	FY 21	FY 22	FY 23	FY 24
Opening balance	0.32	0.14	0.00	0.00	0.00
Addition	0.00	0.00	0.00	0.00	0.00
Principal Repayment	0.18	0.14	0.00	0.00	0.00
Closing Balance	0.14	0.00	0.00	0.00	0.00
Interest Rate	9.10%	9.10%	9.10%	9.10%	9.10%
Approved Interest	0.02	0.01	0.00	0.00	0.00

Normative Loan – 3

4.44 The Commission has considered normative Debt-Equity of 70:30 against the approved additional capital expenditure of Rs. 1.59 Cr. towards cost of implementing FGMO/ RGMO, as detailed in para 4.25 of this Order. The loan is assumed to be added at the beginning of the year in which the capitalization has been approved.

4.45 Tenure of 11 years with 4 quarterly repayments is considered separately for each year's addition to the normative loan i.e. 11 years repayment starting from FY20 for normative loan addition in FY20 and 11 years repayment starting from FY21 for normative loan addition in FY21 and so on. The Commission has considered same interest rate as considered for Normative Loan 2 for calculating the interest for Normative Loan 3 i.e. 9.10% for FY2019-20 to FY2023-24.

4.46 The repayment and interest charge approved on the Normative loan 3 is provided in the table below:

Table 18: Normative Loan-3 Repayment and Interest approved for FY20 to FY24 (Rs. Cr.)

Rs. Cr.	FY 20	FY 21	FY 22	FY 23	FY 24
Addition to loan *(at the beginning of year)*	0.37	0.37	0.37	0.00	0.00
Opening balance *(Previous years closing balance plus this years' addition)*	0.37	0.71	1.01	0.91	0.81
Principal Repayment	0.03	0.07	0.10	0.10	0.10
Closing Balance	0.34	0.64	0.91	0.81	0.71
Interest Rate	*9.10%*	*9.10%*	*9.10%*	*9.10%*	*9.10%*
Approved Interest	0.03	0.06	0.09	0.08	0.07

Normative Loan – 4

4.47 Additional capitalization of Rs. 6.58 Cr. is allowed to the Generating Company by Arbitral Tribunal vide its Order dated 21.06.2018 in arbitration case no. 69 of 2014. The capitalization is taken from 22.06.2018 onwards, and a normative loan is considered based on normative Debt-Equity of 70:30 in FY2018-19. Repayment period of 11 years with 4 equal quarterly installments are assumed for repayment of the normative loan. For the year FY2018-19, repayment of three quarterly installments has been considered. The Commission has adopted same interest rate as considered for Normative Loan 2 for calculating the interest for Normative Loan 4 i.e. 9.10% for the fourth Control Period. The interest and repayments calculated for the Normative Loan-4 is provided in the table below:

Table 19 Normative Loan-4 Repayment and Interest approved for additional capitalization of Rs. 6.58 Cr.

Rs. Cr.	FY 20	FY 21	FY 22	FY 23	FY 24
Opening balance	4.29	3.87	3.45	3.04	2.62
Addition	-	-	-	-	-
Principal Repayment	0.42	0.42	0.42	0.42	0.42
Closing Balance	3.87	3.45	3.04	2.62	2.20
Interest Rate	9.10%	9.10%	9.10%	9.10%	9.10%
Approved Interest	0.37	0.33	0.30	0.26	0.22

Total Interest and Repayment

4.48 The following table depicts the total interest and repayment approved for the fourth Control Period.

Table 20: Total Interest and Repayments approved for FY20 to FY24 (Rs. Cr.)

Rs. Cr.	FY20	FY21	FY22	FY23	FY24
Interest Payments	0.42	0.40	0.38	0.34	0.29
Total Repayments	0.63	0.63	0.52	0.52	0.52

Depreciation and Advance Against Depreciation (AAD)

4.49 The Commission has determined the depreciation and advance against depreciation for the Control Period FY 2019-20 to FY 2023-24 as per Clause 8.6.5.1 of the PPA. The amount of depreciation and the computation of advance against depreciation for the Control Period, as per the loan repayment approved above, is detailed below:

Table 21: Depreciation and Advance against Depreciation approved for the fourth Control Period (Rs. Cr.)

Particulars		FY 20	FY 21	FY 22	FY23	FY24
1/12th of the Loans	A	95.60	95.59	95.58	95.58	95.58
Repayment of the Loans as considered for working out Interest on Loan	B	0.63	0.63	0.52	0.52	0.52
Minimum of the Above	C	0.63	0.63	0.52	0.52	0.52
Less: Depreciation during the year	**D**	70.47	70.46	70.46	70.46	70.46
E	**E=C-D**	***-69.84***	***-69.84***	***-69.94***	***-69.94***	***-69.94***

Particulars		FY 20	FY 21	FY 22	FY23	FY24
Cumulative Repayment of the Loan as considered for working out Interest on Loan	F	1168.57	1169.19	1169.71	1170.23	1170.75
Less: Cumulative Depreciation	G	1203.26	1235.37	1305.83	1376.29	1446.74
H	H=F-G	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*
Advance Against Depreciation	**I= Min. of E & H**	**(38.35)**	**0.00**	**0.00**	**0.00**	**0.00**
Depreciation + AAD	**(D + I)**	**32.12**	**70.46**	**70.46**	**70.46**	**70.46**

Operations and Maintenance Expenses

4.50 The Commission in its MYT Order dated 06.06.2014 had computed the O&M charges as per clause 8.7.2 of the PPA, which allows for O&M escalation at weighted average of WPI and CPI indices, 11^{th} year onwards after COD. Clause 8.7.2 of the PPA states that:

"Operation and maintenance charges including Insurance expenses for the initial tariff year shall be calculated at the rate of 1.25% (one and a quarter percentage) of the capital cost. These charges shall be escalated for each year subsequent to the initial tariff year, every year by 6% (compounded annually) for the first ten tariff years. Thereafter the escalation for each year shall be computed as per the formula given in Schedule XI"

4.51 The Part B of the Schedule XI of the PPA which deals with escalation in O&M charges reads as under:

"The rate of Escalation in operation and maintenance charges shall be worked out for each tariff year after the expiry of first ten year, as per the following formula in terms of section 8.7.2

$$\text{Percentage rate of annual escalation} = \left(0.3 \times \frac{W_1 - W_0}{W_0} + 0.7 \times \frac{L_1 - L_0}{L_0}\right) \times 100\%$$

Where

W_1 = *Index Number of wholesale prices in India (All Commodities) (1981-82 = 100) , as published by reserve bank of India (R.B.I) , for the month of march of the financial year for which annual escalation to be worked out*

W_0 = *Index Number of wholesale prices in India (All Commodities) (1981-82 = 100) , as published by reserve bank of India (R.B.I) , for the month of march immediately preceding the financial year for which annual escalation is to be determined*

L_1 = *Consumer price index for Industrial Workers (All India) (1981-82 = 100), as published by reserve bank of India (R.B.I) , for the month of march of the financial year for which annual escalation to be worked out*

L_0 = *Consumer price index for Industrial Workers (All India) (1981-82 = 100), as published by reserve bank of India (R.B.I) , for the month of march immediately preceding the financial year for which annual escalation is to be determined*

Note: i) *Pending determination of annual rate of escalation for such tariff years for which annual escalation is to be allowed on actual basis as per section 8.7.2 on the basis of above formula, the rate of escalation worked out for the 12 months period ending on last day of the month of December immediately preceding the relevant tariff year on similar basis shall be adopted on provisional basis for purpose of section 8.14. Final adjustment on this account shall me made as soon as the published indices for the month of March of that tariff year become available.”*

4.52 As per the provision of PPA, the CPI and WPI index to be considered for computation of escalation rate should be of 1981-82 series as published by the RBI. However, it is observed that the 1981-82 series of CPI and WPI indices have been discontinued. In the previous MYT Order dated 06.06.2014 for the Control Period FY 2014-15 to FY 2018-19, the Commission had taken 2004-05 base year series of the WPI and 2001 base year series of the CPI.

4.53 It is observed that the 2004-05 base year series of WPI has also been discontinued now. Therefore, in this Order, the Commission has considered 2011-12 base year series of the WPI and 2001 base year series of the CPI in line with the proposal of the Petitioner for projection of O&M expenses.

4.54 In absence of CPI figures for March 2019, the Commission has considered WPI and CPI figures for the month of March 2018, for the calculation of escalation factor for O&M and assumed the same escalation factor for projecting the O&M expense for the fourth Control Period i.e. FY 2019-20 to FY 2023-24.

4.55 The table below summarizes the computation of escalation factor as per the provisions of the PPA:

Table 22: WPI and CPI considered for calculation of O&M escalation factor

Particulars	2016-17	2017-18
WPI All Commodities (base year 2011-12)		
For the month of March	113.2	116.3
Change		2.74%
CPI for Industrial Workers (Base year 2001)		
For the month of March	275	287
Change		4.36%
Escalation factor		***3.88%***

4.56 The Commission has computed the O&M expense as per the provisions of the PPA using the escalation factor calculated above and the approved capital cost (including additional capitalization). Further, O&M expenses on account of decapitalization of assets during FY2019-20 to FY 2021-22 have been adjusted in the respective year's O&M expenses and additional O&M expenses towards the new assets have been accounted. The O&M expense towards additional capitalization has been considered @1.25% of the approved capitalization in the first year. Thereafter, O&M expense for subsequent years is calculated using the approved escalation factor of 3.88% as discussed in para 4.55.

4.57 With respect to the O&M expense being paid by the Petitioner to SJVNL for the Inter Connection Facility (ICF), the Commission in its MYT Order dated 06.06.2014 had approved additional O&M expenses of 0.25% towards ICF from the date of commissioning of the project as per the methodology used in previous Orders. Also, service tax (18% GST) on the O&M cost for ICF has been considered as per the practice adopted in previous Orders.

4.58 The total O&M expenses approved for the Control Period FY 2019-20 to FY 2023-24 are detailed in table below:

Table 23: O&M Expenses approved for fourth Control Period (Rs. Cr.)

Particulars	FY 20	FY 21	FY 22	FY23	FY24
Base O&M Expenses (adjusted for de-capitalization)	38.79	40.27	41.81	43.43	45.12
Add: O&M expense towards additional capitalization of Rs. 94.08 Cr.	2.01	2.09	2.17	2.25	2.34
Add: O&M expense towards additional capitalization of Rs. 67.23 Cr. (for ICF facility)	2.37	2.51	2.66	2.82	2.99
Add: Service Charge on ICF O&M Expenses	0.43	0.45	0.48	0.51	0.54
Add: O&M expense towards additional capitalization of Rs. 1.59Cr.	0.007	0.014	0.021	0.021	0.022
Add: O&M expense towards additional capitalization of Rs. 6.58 Cr.	0.085	0.089	0.092	0.096	0.099
Total O&M Expenses Approved	**43.68**	**45.42**	**47.23**	**49.13**	**51.10**

Return on Equity (RoE)

4.59 As per the Section 8.7.3 of the PPA:

"Return on Equity for each tariff year from the initial tariff year onwards will be calculated at a per annum rate of 16% (sixteen percent) of the equity component of the capital cost as per approved financial package. The return on equity for the tariff period and the last tariff year shall be worked out on proportionate basis for actual number of days for which such return on equity is to be determined."

4.60 The Commission has approved the Return on Equity (RoE) as per Section 8.7.3 of the PPA and has computed the same at 16% per annum on the approved equity base in para 4.36 of this Order.

Table 24: Return on Equity approved for fourth Control Period (Rs. Cr.)

Rs. Cr.	FY 20	FY 21	FY 22	FY 23	FY 24
Closing Balance of Equity	491.65	491.60	491.55	491.55	491.55
Rate Of Return	16%	16%	16%	16%	16%
Return on Equity	**78.66**	**78.66**	**78.65**	**78.65**	**78.65**

Interest on Working Capital

4.61 As per clause 8.7.4 of the PPA:

"Interest on working capital shall be accounted for at the SBI lending rate as applicable from time to time for the secured loans. For this purpose the working capital shall consist of:-

i) The Operation and Maintenance (O&M) charges for one month:

ii) Maintenance spares at actual but not exceeding one year's requirement less value of one fifth of initial spares already capitalized. The value of maintenance spares for one year requirement shall be taken as 12% of the O&M charges for that tariff period/ tariff year.

iii) Receivables equivalent to two months of average billing for sale of electricity

4.62 The rate of interest for calculating the interest on working capital has been taken as per the SBI PLR of 13.80% as on 1st April 2019 for the entire Fourth Control Period. The interest on working capital shall be trued up at the end of Control Period based on the actual SBI PLR applicable as on 1st April of each year.

Table 25: Interest on Working Capital approved for fourth Control Period (Rs. Cr.)

Rs. Cr.	FY 20	FY 21	FY 22	FY 23	FY 24
1/12th of O&M Expenses	3.64	3.79	3.94	4.09	4.26
Maintenance Spares 12% of O&M Expenses	5.24	5.45	5.67	5.90	6.13
Receivables equivalent to 2 months average billing	29.78	38.05	38.39	38.74	39.11
Total Working Capital	**38.66**	**47.28**	**47.99**	**48.73**	**49.50**
Rate of Interest	13.80%	13.80%	13.80%	13.80%	13.80%
Interest on Working capital	**5.34**	**6.53**	**6.62**	**6.73**	**6.83**

Incentive for Secondary Energy

4.63 The computation of incentives has been detailed in the Section 8.9 of the PPA on "Incentive for Secondary Energy" and Section 8.10 of the PPA on "Incentive on Account of Higher Plant Availability".

4.64 As per the Section 8.9.1 of the PPA:

"*The per unit rate for saleable secondary energy (i.e. 88% of the secondary energy available at interconnection point at Jhakri) shall be calculated by dividing 10% return on equity with normative saleable Secondary energy amounting to 155 MU at Jhakri. The charges for the saleable Secondary energy for any tariff year shall not exceed 10% Return on Equity...*"

4.65 The Commission, for the fourth Control Period, has not considered any secondary energy generation for the purpose of approval of the ARR/ Tariff. The incentive for secondary energy generation shall be billed by the Petitioner to HPSEBL as per the actual generation in the applicable tariff for each year in accordance with the provisions of the PPA and the Commission shall true up the same at the end of the Control Period.

Incentive for Higher Plant Availability

4.66 Further, as per the Section 8.10 of the PPA, the incentive towards higher plant availability factor is required to be computed as below:

"In case the Plant Availability level in a Tariff year, as determined in accordance with Schedule I, exceeds the normative level of 90%, the Company shall be entitled to an incentive at the rate of 0.35% of Equity component of the capital cost as per the approved financial package for each percentage increase in plant availability above 90% normative level during the year when plant availability is more than 90%. The amount of this incentive payable for any tariff year shall not exceed 2% Return on Equity. The ceiling for the initial and last tariff period shall be worked out on pro-rata basis. Incentive shall be payable at the end of each tariff year/ tariff period."

4.67 The Commission, for the Fourth Control Period, has considered plant availability as 90% i.e. at normative availability level. The incentive for higher plant availability shall be billed by the Petitioner to HPSEBL as per the actual plant availability in the applicable tariff year as per the provisions of the PPA and the Commission shall true-up the incentive at the end of the Control Period.

Income Tax

4.68 As per Clause 8.11 of the PPA, the Tax on Income is payable as an expense to the Petitioner by the HPSEBL. Clause 8.11.1 states:

"*Income Tax payable by the Board shall be determined by considering the income to the company on account of ROE (not exceeding 16%), depreciation/ advance against depreciation as applicable, and 50% of income on account of incentives as per Section 8.9 and 8.10, in respect of the project as per income tax law. Rebate on account of depreciation and any other rebate/ exemption admissible under law shall be considered for the purpose of calculation on tax liability of the Board.*

Under no circumstances tax liability payable by the Board shall be more than income tax actually payable by the Company.

No Income tax shall be payable by the Board on any other income accrued to the Company."

4.69 In the MTR Order dated 31.10.2018, the Commission had calculated tax as per MAT rates based on the submission of the Petitioner that Baspa II HEP and Karcham Wangtoo HEP are the two generating plants under M/s JSW Hydro Energy Limited and considering Karcham Wangtoo HEP is availing tax holiday, the total tax liability of BASPA II HEP is also worked out as per MAT in line with the provisions of Income Tax Act.

4.70 However, in its tariff petition, the Petitioner has claimed corporate tax rate for FY 2019-20 to FY 2023-24. The Commission directed Petitioner to clarify the reason for taking corporate tax rate instead of MAT rate, in the Technical Validation Session held at 01.05.2019. The Petitioner vide its reply dated 09.05.2019, stated that due to change in depreciation accounting for Karcham Wangtoo from FY 2018-19, normal tax rate shall apply to Karcham Wangtoo and MAT credit shall be utilized accordingly. Before 1.4.2018, the depreciation was being calculated as per Part C of Schedule II to the Companies Act 2013 i.e. based on useful life of the assets. However, post 1.4.2018, depreciation is being calculated as per Part B of Schedule II to the Companies Act 2013 i.e. based on CERC Regulations.

4.71 The Commission feels appropriate to continue with the applicable MAT rate in view submissions and justifications for applicability of MAT in the MTR Order by the Petitioner and has considered a MAT rate of 21.55% (18.50% + 12% surcharge + 4% cess) for the purpose of computing tax for the fourth Control Period. The actual tax paid by the Petitioner would be considered at the time of true-up of fourth Control Period based on the submissions of the Petitioner and prudence check.

4.72 The income tax approved by the Commission for fourth Control Period is provided in table below:

Table 26: Approved Tax for FY 20 to FY 24 (Rs. Cr.)

Rs. Cr.	FY 20	FY 21	FY 22	FY 23	FY 24
Return on Equity	78.66	78.66	78.65	78.65	78.65
Incentive for secondary energy	0.00	0.00	0.00	0.00	0.00
Incentive for higher plant availability	0.00	0.00	0.00	0.00	0.00
Add: Depreciation	32.12	70.46	70.46	70.46	70.46
Subtract: Income Tax Depreciation	25.69	24.85	24.03	23.25	22.49
Taxable Income	**85.10**	**124.27**	**125.07**	**125.85**	**126.62**
Tax Rate	*21.55%*	*21.55%*	*21.55%*	*21.55%*	*21.55%*
Income Tax	**18.34**	**26.78**	**26.95**	**27.12**	**27.28**

Expenditure towards publication in newspaper

4.73 In the additional submission filled with the Commission on 24th April 2019 (registered as Petition No. 30 of 2019) the Petitioner has requested to be allowed a cost of Rs. 6,09,316 towards publication expense of salient features of the petition in newspapers, in accordance with Commission's interim order dated 25.02.2019.

4.74 Based on the scrutiny of supporting invoices submitted by the Petitioner, the Commission has allowed to pass through this publication expense in the year

FY2019-20, in accordance with sub-regulation (5) and sub-regulation (7) of Regulation 16 of the HPERC Conduct of Business Regulations of 2005.

'16.

……

(5) Where any application, petition, or other matter is required to be published under the Act or the regulations framed thereunder or as per the directions of the Commission, it shall, unless the Commission otherwise orders or the Act or regulations otherwise provide, be published within such time as the Commission may direct and in the absence of any specific directions to the contrary, not less than 7 days before the date fixed for hearing and further unless otherwise directed by the Commission, such publication shall be done in two newspapers one in English language and one in Hindi language having circulation in the area concerned:

…..

(7) The Commission shall be entitled to decide in each case the person(s) who shall bear the cost of such service and publication.'

Application fees

4.75 The Commission has allowed an Application Fees of Rs. 5 lacs per annum in line with the submissions made by the Petitioner.

Annual Fixed Charge for BASPA II HEP

4.76 The total Annual Fixed Charges for the BASPA-II, with the components of the capacity charges, primary energy charges and incentives and taxes approved for the Control Period and detailed in the previous sections in this chapter, are summarized below:

Table 27: Annual Fixed Charge approved for BASPA-II HEP for fourth Control Period (Rs. Cr.)

Particulars	FY 20	FY 21	FY 22	FY 23	FY 24
Capacity Charges					
Interest on outstanding loans	0.42	0.40	0.38	0.34	0.29
Depreciation + AAD	32.12	70.46	70.46	70.46	70.46
Publication expense	0.06	-	-	-	-
Application fee	0.05	0.05	0.05	0.05	0.05
Sub-total Capacity Charges	**32.66**	**70.91**	**70.89**	**70.84**	**70.79**
Primary Energy Charges					
O&M Charges	43.68	45.42	47.23	49.13	51.10
Return on Equity	78.66	78.66	78.65	78.65	78.65
Interest on Working Capital	5.34	6.53	6.62	6.73	6.83
Sub-total Primary Charges	**127.68**	**130.60**	**132.50**	**134.50**	**136.58**
Incentives and Taxes					

Particulars	FY 20	FY 21	FY 22	FY 23	FY 24
Incentive for Secondary Energy	0.00	0.00	0.00	0.00	0.00
Incentive for Higher Plant Availability	0.00	0.00	0.00	0.00	0.00
Tax	18.34	26.78	26.95	27.12	27.28
Sub-total Incentives and Taxes	**18.34**	**26.78**	**26.95**	**27.12**	**27.28**
Total Annual Fixed Charges	**178.67**	**228.30**	**230.34**	**232.46**	**234.66**

4.77 The Approved Tariff for the BASPA-II for the Third Control Period is given in the table below:

Table 28: Approved Tariff for fourth Control Period

Particulars	Units	FY 20	FY 21	FY 22	FY 23	FY 24
Energy Generation						
Saleable Primary Energy	MU	1050.06	1050.06	1050.06	1050.06	1050.06
Saleable Secondary Energy	MU	0	0	0	0	0
Total Generation	MU	1050.06	1050.06	1050.06	1050.06	1050.06
Total Annual Fixed Charges	Rs. Cr.	178.67	228.30	230.34	232.46	234.66
Tariff for Total Energy	**Rs./Kwh**	**1.70**	**2.17**	**2.19**	**2.21**	**2.23**