

No 0583188

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Himachal Government Judicial Paper

BEFORE

**HIMACHAL PRADESH ELECTRICITY REGULATORY COMMISSION,
SHIMLA**

PETITION FOR

**APPROVAL OF CAPITAL COST ALONG WITH ADDITIONAL CAPITALIZATION AND
DETERMINATION OF TARIFF FOR**

Integrated Kashang Hydro Electric Plant Stage I (1X65 MW)

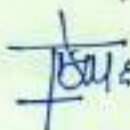
Kinnaur, Himachal Pradesh

FROM COD TO FY 2023-24

FILED BY



HIMACHAL PRADESH POWER CORPORATION LIMITED


General Manager (Generation)
HPPCL, Himachal Building,
New Shimla-171009

No 0583189

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Himachal Government Judicial Paper

APPROVAL OF CAPITAL COST ALONG WITH ADDITIONAL CAPITALIZATION AND DETERMINATION OF TARIFF FOR INTEGRATION OF TARIFF FOR INTEGRATED KASHANG HEP STAGE 1 (1 X 65 MW) FROM COD TO FY 2023-24.

IKHEP
STAGE 1,
HPPCL.

BEFORE THE HIMACHAL PRADESH ELECTRICITY REGULATORY COMMISSION, SHIMLA

Filing No.....

Petition No.....

IN THE MATTER OF

FILING OF PETITION FOR APPROVAL OF CAPITAL COST AS ON COD TAKING IN CONSIDERATION THE ADDITIONAL CAPITAL EXPENDITURE AND DETERMINATION OF TARIFF FROM COD TO FY 23-24 FOR INTEGRATED KASHANG HYDRO ELECTRIC PLANT STAGE-I (1X65 MW)), OF HIMACHAL PRADESH POWER CORPORATION Ltd. (HPPCL) UNDER THE HIMACHAL PRADESH ELECTRICITY REGULATORY COMMISSION (TERMS AND CONDITIONS FOR DETERMINATION OF HYDRO GENERATION TARIFF) REGULATIONS, 2011 AND ITS AMMENDMENTS THERAFTER AND UNDER SECTION-62 READ WITH SECTION 86 OF THE ELECTRICITY ACT 2003.

THE HIMACHAL PRADESH POWER CORPORATION LIMITED, HIMFED BUILDING, BCS, NEW SHIMLA, SHIMLA - 9.

PETITIONER

VERSUS

THE HIMACHAL PRADESH STATE ELECTRICITY BOARD LIMITED, HPSEBL, VIDYUT BHAWAN, SHIMLA - 171004.

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APPROVAL OF CAPITAL COST ALONG WITH ADDITIONAL CAPITALIZATION AND DETERMINATION OF TARIFF FOR INTEGRATION OF TARIFF FOR INTEGRATED KASHANG HEP STAGE 1 (1 X 65 MW) FROM COD TO FY 2023-24.

IKHEP STAGE 1, HPPCL

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DETERMINATION OF TARIFF FOR INTEGRATION OF TARIFF FOR INTEGRATED
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ABBREVIATIONS

Sr. No	Abbreviations	Descriptions
1.	A&G	Administrative and General
2.	ACE	Additional Capital Expenditure
3.	FY	Financial Year
4.	GFA	Gross Fixed Assets
5.	Gol	Government of India
6.	GoHP	Government of Himachal Pradesh
7.	HP	Himachal Pradesh
8.	HEP	Hydro Electric Power
9.	KV	Kilo Volt
10.	kVA	Kilo Volt Ampere
11.	MW	Mega Watt
12.	MYT	Multi Year Tariff
13.	NTPC	National Thermal Power Corporation
14.	O&M	Operation & Maintenance
15.	REC	Power finance Corporation
16.	PPA	Power Purchase Agreement
17.	REC	Rural Electrification Corporation
18.	R&M	Repair and Maintenance
19.	ROE	Return on Equity
20.	Rs	Rupees
21.	SBI	State Bank of India

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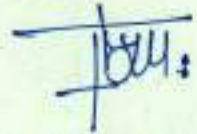
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Sr. No	Abbreviations	Descriptions
22.	HPSEBL	Himachal Pradesh State Electricity Board Limited
23.	HPERC	Himachal Pradesh Electricity Regulatory Commission
23.	HPPCL	Himachal Pradesh Power Corporation Limited



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1 EXECUTIVE SUMMARY

1.1 Preamble

1.1.1 The Himachal Pradesh Electricity Regulatory Commission (HPERC), in exercise of the powers conferred on it by section 181 of the Electricity Act 2003 (Act 36 of 2003) and all other powers, has issued HPERC (Terms and Conditions for Determination of Hydro Generation Tariff) Regulations, 2011 along with Amendments thereafter, hereinafter referred to as "MYT Regulations"

1.1.2 The Petitioner has declared the CoD of all 3 no. units of Kashang Hydro Electric Plant with the CoD of Unit -III declared on 03.03.2017, Unit -II on 01.09.2016 and Unit -I on 31.03.2017 (**Annexure - P1**). Due to ongoing stage-II works for diversion of Kerang stream into the water conductor system of Integrated Kashang HEP, presently water is available for generation of 65 MW of power through IKHEP Stage-I (1X65MW) only. The petitioner is submitting the petition for approval of capital cost of IKHEP Stage-I, cost of all the components capitalized with due reference and accordingly, all the tariff filing formats have been placed in Annexure as mentioned in the MYT Regulations. (**Annexure - P2**).

1.2 Petition Structure

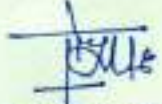
1.2.1 The Petition includes the following Chapters:

- a) **Section 1** contains executive summary of the Petition
- b) **Section 2** contains introduction and overall approach to filing of the Petition
- c) **Section 3** contains brief of capital cost incurred for commissioning the plant
- d) **Section 4** contains annual fixed cost as derived from the labeled parameters in Regulations
- e) **Section 5** contains operational norms designed for the plant as per HPERC Regulations
- f) **Section 6** contains computation of composite tariff detailing capacity charges & fixed charges for the plant
- g) **Section 7** contains prayers to the Hon'ble Commission

1.2.2 HPPCL is filing this petition for approval of capital cost taking into consideration additional capitalization and determination of tariff from COD to FY 23-24 for

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Integrated Kashang HEP Stage-I as per HPERC Regulations on Terms and Conditions for Determination of Hydro Generation Tariff, 2011 and subsequent amendments thereafter.

- 1.2.3 This section highlights the summary of petition for capital cost and tariff approval from COD to FY 23-24.
- 1.2.4 HPPCL submits this petition in compliance with the Regulations and subsequent amendments thereafter of the Hon'ble Commission along with the specified data formats for generating plants.

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2 INTRODUCTION

2.1 Background

2.1.1 Himachal Pradesh Power Corporation Limited (HPPCL), was incorporated in December, 2006 (**Annexure – P3**) under the Companies Act, 1956, with the objective to plan, promote and organize the development of all aspects of hydroelectric power on behalf of Himachal Pradesh Government (GoHP) and Himachal Pradesh State Electricity Board (now HPSEBL). As per Electricity Act 2003 section-10 (2) subject to the provisions of this Act, the duties of a generating company shall be to establish, operate and maintain generating stations, tie-lines, sub-stations and dedicated transmission lines connected therewith in accordance with the provisions of this Act or the rules or regulations made there under. As per MoA and AoA (**Annexure – P4**) dt. 05.12.2006 the GoHP has a 60%, and HPSEB, a 40% shareholding in HPPCL.

2.1.2 HPPCL is a fast upcoming power generating utility with all the Technical and Organizational capabilities at par with other generating companies like NTPC / SJVNL / NHPC. Efforts are afoot to further strengthen the respective departments with professionals of proven credentials and qualified technical manpower.

2.1.3 HPPCL, apart from Hydro Power Development, intends to diversify its power development activities in other areas such as thermal, renewable sources of energy, mainly solar power etc. The basic idea is to have a long-term corporate plan for planned implementation of power projects to meet the growing energy demand, ensuring environment and ecological balance for contributing towards the progress and prosperity of the State. HPPCL intends to meet the challenges of dynamically transforming business and environment to build a sustainable relationship with the stakeholders for maximum benefits and economic growth by achieving performance excellence.

2.1.4 Consequent to the enactment of the Electricity Act, 2003 (hereinafter referred to as the "Act"), the process of approval of proposed tariffs is vested with the State Commission. Pursuant to the provisions of Section 61, 62 and 64 of the Act, HPPCL is filing the current petition for approval of capital cost taking into consideration additional capitalization and determination of tariff from COD to FY23-24 for Integrated Kashang Stage – I (65 MW) Hydro Electric Plant.

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2.2 Integrated Kashang HEP At A Glance

2.2.1 Integrated Kashang HEP (IKHEP) is a run of the the river Hydel project located in Distt Kinnaur of the State of Himachal Pradesh. The project envisages using of waters of Kashang and Kerang streams, right bank tributaries of river Satluj. Kashang and Kerang river valleys are adjacent to each other and are separated by high altitude ridge in the area of the project. Topographic features permit development of Kashang and Kerang Streams, tributaries of the river Sutlej comprising of distinct stages as under:

Stage – I (1x65 MW):

Comprising diversion of the Kashang stream, at El.2829 m, to an underground powerhouse located on the right bank of Satluj near Powari Village, developing a head of approximately 821 m.

2.2.2 Salient Features Of The Plant

Table 1: Salient Features of Integrated Kashang HEP

Capacity	1x65 MW (Stage-I)
Design Energy (in 90% dependable year)	245.8 MU (for Stage - I)
Design Head	821 Meter
Diversion Structure	Weir, 15 m (L), 2.20 m (W)
Head Race Tunnel	1994.325 m long, D- Shaped with 3.5 x 4.115m (HRT) (Stage I)
Penstock/Pressure shaft	Steel lined (Underground), Circular Shape
Power House	3 No. Vertical Axis Pelton Turbines with Generating Units of 65 MW each in an underground power house cavern.

2.3 Status Of Sale Of Power Of Kashang Hep

2.3.1 As per Council of Ministers Meeting, Government of Himachal Pradesh decision of 05.12.2013 the matter regarding sale of power of HPPCL projects was taken up with different utilities all over the region.

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- 2.3.2 A bilateral Power Purchase Agreement (PPA) (Annexure - P5) dt 20.10.2016 was executed between Himachal Pradesh Power Corporation Limited (HPPCL) and Himachal Pradesh State Electricity Board (HPSEB). As per the terms and conditions of the PPA, HPPCL/seller had agreed to sell and the HPSEB/Buyer had agreed to purchase power generated from Integrated Kashang Hydro Power project at the mutually agreed rate of Rs. 2.92 Per Unit valid from synchronization of 1st unit Kashang till 31.03.2017. After that PPA was extended twice starting from 01.04.2017 to 31.03.2018 @ Rs. 2.20/Unit and further extended from 01.04.2018 to 06.05.2018 @ Rs. 2.20/Unit.
- 2.3.3 The power purchase agreement between HPPCL & HPSEBL ceased to exist post 06.05.2018, as such due to non-availability of buyer for purchasing power from HPPCL Projects on CERC/SERC determined tariff throughout India, power traders were approached for selling power of HPPCL projects. Accordingly, the power of (1x65MW) Integrated Kashang Stage-I Hydro Electric Plant was being sold on short term basis through Power Trader.
- 2.3.4 The detail of revenue earned from Sale of Power of Integrated Kashang HEP from CoD of the Project till FY 22-23 as per trial balance sheet (Annexure - P6) is tabulated as below:

Table 2: Detail of Revenue Earned from Sale of Power of Kashang HEP

FY	Gross Generation in MU	Net Salable Energy in MU	Net Revenue Realized in Crs
16-17	52.19	44.42	8.33
17-18	197.03	168.64	33.39
18-19	134.90	115.48	27.90
19-20	189.49	162.35	32.58
20-21	12.98	10.08	(-)2.92*
21-22	210.61	180.80	67.57
22-23	157.05	134.32	51.55

*The powerhouse was under shutdown for most part of FY 2020-21 due to huge amount of silt entering the Penstock. However, transmission system charges were still required to be paid. Therefore, the net revenue is negative for FY 2020-21.

- 2.3.4 Meanwhile CEA had been regularly seeking the status of untied commissioned project. Hence a meeting for the review of hydro projects with untied

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capacity was held under the chairmanship of Hon'ble Minister of Power for New & Renewable Energy on 07.09.2021, vide which CEA highlighted that out of 8 projects with untied capacities throughout the nation, 03 were that of HPPCL i.e. Integrated Kashang HEP (195 MW), Sainj HEP (100 MW) and Sawra Kuddu HEP (111 MW). Accordingly after reviewing the issue it was decided that, Ministry of Power would take up the matter of procurement of power from these by HPSEB with Govt. of Himachal Pradesh.

2.3.5 Consequently, meetings were conducted between HPPCL and HPSEBL and initially it was decided in the meeting held on 19.02.2022 that, HPSEBL will purchase the power of Integrated Kashang HEP Stage-I (65 MW) and Sawra Kuddu HEP (111 MW) on short term basis for a period of one year i.e. during FY 2022-23. Accordingly the power was sold to HPSEBL @Rs 3.40/unit (Ex-Bus) through a short term PPA signed between HPPCL and HPSEBL on 28.04.2022 valid from 01.05.2022 to 31.03.2023 (**Annexure - P7**).

2.3.6 Further on the basis of meeting held on 19.02.2022, subsequent meetings were held under the Chairmanship of the Managing Director HPPCL on 29.06.2022 and 26.07.2022. After detailed deliberations, it was agreed between HPPCL and HPSEBL for sale/ purchase of power from HPPCL Hydro Electric Projects viz-a-viz Integrated Kashang HEP Stage-I (1X65 MW), Sawra Kuddu HEP (3X37 MW) and 50% generation of HPPCL share of power from Sainj HEP (2 X 50MW) for useful life of these projects at Ex-Bus on HPERC determined tariff.

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Accordingly, a joint petition was submitted at HPERC for the approval of Power Purchase Agreements to be executed between HPPCL and HPSEBL here-to for sale of power by Himachal Pradesh Power Corporation Limited to Himachal Pradesh State Electricity Board Limited from Integrated Kashang HEP (1X65 MW), Sainj HEP (2X50 MW) and Sawra Kuddu HEP (3X37 MW). The HPERC vide its order dt. 13.02.2023 has approved these PPAs with minor amendments. The approved PPAs have been signed between HPPCL and HPSEBL on dt. 29.03.2023 (**Annexure - P8**).

2.3.8 This Agreement has come into force from 01.04.2023 and shall remain operative till the useful life of the project. Accordingly, the power generated from Kashang HEP Stage -I is being supplied to HPSEBL as per the Long Term PPA.

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APPROVAL OF CAPITAL COST ALONG WITH ADDITIONAL CAPITALIZATION AND DETERMINATION OF TARIFF FOR INTEGRATION OF TARIFF FOR INTEGRATED KASHANG HEP STAGE 1 (1 X 65 MW) FROM COD TO FY 2023-24.

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2.4 Approach For Filing The Petition

- 2.4.1 The key aspects of the approach to the filing related to Multi-Year Tariff framework are as below.
- 2.4.2 Section 61 of the EA 2003, empowers the State Electricity Regulatory Commission to set the terms and conditions for determination of tariff. Further, it also lists down certain guiding principles which have to be considered while determining the terms and conditions of tariff. One of the key guiding factors is that the Commission shall adopt Multi Year Tariff (MYT) principles and other principles that reward efficiency in performance.
- 2.4.3 Accordingly, the Commission had notified HPERC (Terms and Conditions for Determination of Hydro Generation Tariff) Regulations, 2007 which was thereafter repealed by publishing HPERC (Terms and Conditions for Determination of Hydro Generation Tariff) Regulations, 2011 on 2nd April 2011 and its further amendments.
- 2.4.4 Pursuant to the provisions of the Electricity Act, 2003 and the MYT Regulations'2011 and its amendments, HPPCL hereby submits this petition for consideration of the Hon'ble Commission along with the specified formats for providing information on various parameters.

2.5 Provisions Of Law

- 2.5.1 The Hon'ble Commission had published HPERC (Terms and Conditions for Determination of Hydro Generation Tariff) Regulations, 2011 in the Rajpatra, Himachal Pradesh dated 2nd April 2011 and its amendments thereafter.

- 2.5.2 The scope of the Regulations is read as under:

Scope and application

"(1) These regulations shall apply in all cases where tariff for a generating station or a unit thereof is to be determined by the Commission under section 62 of the Act, read with section 86 thereof.

"(2) Where a power purchase agreement has been executed between the generating company and the utility before existence of the Commission, the Commission shall determine such tariff in accordance with the terms and conditions of such power purchase agreement.

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"(3) Where a power purchase agreement has been executed between the generating company and the utility after existence of the Commission and the power purchase agreement has been approved by the Commission, the Commission shall determine such tariff in accordance with the terms and conditions of such approved power purchase agreement.

"(4) Where tariff has been determined through transparent process of bidding in accordance with the guidelines issued by the Central Government, the Commission shall adopt such tariff in accordance with the provisions of the Act."

2.5.3 Provision in Clause 35 of filing MYT

"35. Multi-Year Filings for the control period.

"(1) For the Approval of the Commission, the multi-year ARR and tariff filing for each year of the control period consistent with the business plan, shall be done by the petitioner generator not less than 120 days before the commencement of the first year of the control period or such other date as may be directed by the Commission, in such form and in such manner as may be laid down by the Commission by an order and also as per the provisions of the Conduct of Business Regulations.

"(2) The applicant shall also submit the multi-year ARR and tariff filing in electronic format to the Commission...."

2.5.4 Provisions in Clause 37 for ARR for the control period and respective tariff filing:

"(1) The generator /generating company shall file not less than 120 days before the commencement of the first year of the control period or such other date as may be directed by the Commission, an application for approval of multi-year Aggregate Revenue Requirement (ARR) and determination of tariff for each year of the control period.

"(4) The generator/ generation company shall furnish to the Commission, such additional information, particulars and documents as the Commission may require from time to time after such filing of revenue calculations and tariff proposals.

"(5) The generator/generation company shall publish, for the information of the public, the contents of the application in an abridged form in such manner as the Commission may direct and shall host the complete copy of the filing on its website and shall also provide copies of the documents filed with the Commission to any person at a price not exceeding normal photocopying charges."

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APPROVAL OF CAPITAL COST ALONG WITH ADDITIONAL CAPITALIZATION AND DETERMINATION OF TARIFF FOR INTEGRATION OF TARIFF FOR INTEGRATED KASHANG HEP STAGE I (1 X 65 MW) FROM COD TO FY 2023-24.

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3 CAPITAL COST

3.1 Cost As Approved In DPR

TEC (Annexure – P9) against DPR (Annexure – P10) for IKHEP Stage-I:

As per the revised TEC dated 31.07.2008 accorded by HPSEB for IKHEP Stage-I (2 x 65 MW) with one standby unit in Satluj Basin in Distt Kinnaur of Himachal Pradesh at an estimated cost at bus bar of Rs. 478.02 Crore (Civil Works – 290.13 Crore and Electro Mechanical Works – 114.67 Crore with IDC 66.15 Crore and LADC 7.06 Crore) at March 2008 price level.

The above cost has been worked out considering the following:

- Cost of one unit (65 MW) has been taken.
- Cost of Excavation for one unit has been considered in Power House and Transformer Cavern.
- Cost of road tunnel has not been taken as the same is not being considered now.

Table 3: Project Capital Cost of IKHEP Approved In DPR

Capital Cost as per DPR		
S. No	Cost Component	Stage I (INR Cr)
1	Cost of Civil Works	290.15
2	Cost of E&M Works	114.67
3	Total Cost excluding IDC and LADC	404.80
4	IDC and Financing Charges	66.15
5	LADC	7.06
6	Total Cost at Purchase centre including IDC & LADC and Excluding Cost of Transmission Works	478.02
7	Cost of Transmission Works*	66.76

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*The transmission works have actually been executed by STU.

3.1.1 Implementation Of The Project

Civil Contract package for 1X65 MW Integrated Kashang HEP Stage-I located in Distt Kinnaur (Civil and Hydro Mechanical works) were awarded to M/s HCC for an amount of INR 296.91 Crore on dated 13.02.2009 and Contract Agreement was signed on dated 03.03.2009 (Annexure – P11). The period stipulated in the original contract for completion was 45 months.

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The EPC Contract for Electro-Mechanical package for Integrated Kashang HEP (3x65 MW) was awarded to M/s Andritz Hydro on dated 26.03.2010 and Contract Agreement was signed on 29.04.2010 (Annexure – P12). The period stipulated in the original contract for completion of units under Phase 1 was, 38 months for Unit#1 and 39 months for Unit#2 from the effective date. The agreed effective date for Phase 1 of the E&M Contract was 01.12.2010. The period of completion for Unit#3 under Phase II was 24 months from the date to be notified to the contractor which was notified on 21.11.2013.

The Approval of all the three units from the Electrical Inspector is attached as Annexure – P13).

The COD certificates of all the three units are attached as Annexure – P1.

Table 4: Detail of Implementation of the Project

Particulars	Approved by/Awarded to	Dates
DPR approval	Chief Engineer (P&M), HPSEBL	31.07.2008 (Stage-I)
Date of Award Civil Contract	M/s Hindustan Construction Company Ltd (Stage-I)	13.02. 2009 (Stage-I)
Date of Award of E&M Contract	M/s Andritz Hydro Pvt Ltd (Stag- I and Stage -II&III were awarded as a single E&M package to be implemented in two phases)	26.03.2010(Phase 1) 26.03.2010(Phase 2)
Scheduled Commissioning as per contract	E&M Phase -I for two units is 39 months from Effective date. Notification date: 21-11-2013 24 Months From notification date	Unit-1:- Jan 2014 Unit-2:- Feb 2014 Unit 3:- Nov 2015
Actual Commissioning of Units		U#1 = 31.12.2016 U#2 = 21.08.2016 U#3 = 10.10.2016
Actual CoD of Units		U#1 = 31.03.2017 U#2 = 01.09.2016 U#3 = 01.09.2016 General Manager (Generation) HPPCL, Himachal Building, New Shimla-171009

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3.2 Capital Cost

3.2.1 Regulation 11 (1)(a) of Himachal Pradesh Electricity Regulatory Commission (HPERC) (Terms and Conditions for Determination of Hydro Generation Tariff) Regulations, 2011 read along with its amendments specifies as under:

"Capital cost for a project shall include-

(a) the expenditure incurred or projected to be incurred, including interest during construction and financing charges, any gain or loss on account of foreign exchange risk variation during construction on the loan - (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed, - up to the date of commercial operation of the project, as admitted by the Commission, after prudence check

(b) capitalised initial spares subject to the ceiling norms as per regulation 12;

(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."

3.2.2 Regulation 12 of Himachal Pradesh Electricity Regulatory Commission (HPERC) (Terms and Conditions for Determination of Hydro Generation Tariff) Regulations, 2011 read along with its amendments specifies as under:

"For hydro generating stations, initial spares shall be capitalised as a percentage of the original project cost, subject to the ceiling norm of 1.5%:

Provided that the Commission, may for sufficient reasons to be recorded in writing, after exercising due diligence and applying prudence check, deviate from the above ceiling norm."

3.2.3 Regulation 13 of Himachal Pradesh Electricity Regulatory Commission (HPERC) (Terms and Conditions for Determination of Hydro Generation Tariff) Regulations, 2011 read along with its amendments specifies as under:

"(1) The capital expenditure incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and

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up to the cut-off date, may be admitted by the Commission, subject to prudence check:-

(a) Undischarged liabilities;

(b) Works deferred for execution;

(c) Procurement of initial capital spares within the original scope of work, subject to the provisions of regulation 12;

(d) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and

(e) Change in law:

Provided that the details of works included in the original scope of work, along with estimates of expenditure, undischarged liabilities and the works deferred for execution, shall be submitted along with the application for determination of tariff.

(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.

(d) any expenses to be incurred on account of need for higher security and safety of the capital asset as advised or directed by appropriate Government agencies or statutory authorities responsible for national security/internal security.

(e) any liability for works executed prior to the Cut-off Date, after prudential check of the details of such undischarged liability, total estimated cost of package, reasons for such withholding of payment and release of such payments etc.

(f) any liability for works admitted by the Commission after the Cut-off Date to the

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extent of discharge of such liabilities by actual payments.

(g) any additional capital expenditure, which has become necessary for efficient operation of the plant. 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 etc.

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. bought after the cut-off date shall not be considered for additional capitalization for determination of tariff."

Table 5: Details of DPR vs Actual Capital Cost till CoD of Stage-I

S/n	Particulars	Stage I Cost	
		DPR (INR Cr)	Actual (INR Cr)
	I- Works		
1	A- Preliminary	13.13	25.62
2	B- Land	13.59	51.53
3	C- Works		
3.1	River Diversion & Intake Structure	4.51	11.83
3.2	Conveyance Channel	1.80	5.55
3.3	De-silting Basins	12.91	11.90
	Sub Total C- Works	19.23	29.28
4	J- Works		
4.1	Power Channel	2.32	3.44
4.2	Head Race Tunnel	27.65	42.36
4.3	Balancing Reservoir	20.34	38.27
4.4	Pressure Shaft & Valve Chamber	78.56	166.87
4.5	Power House I,II &III*	10.58	49.06
4.6	Transformer Hall I,II&III*	7.70	9.22
4.7	Main Access Tunnel	4.17	
4.8	Tail Race Tunnel	5.93	
4.9	Adits	21.61	28.36

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APPROVAL OF CAPITAL COST ALONG WITH ADDITIONAL CAPITALIZATION AND DETERMINATION OF TARIFF FOR INTEGRATION OF TARIFF FOR INTEGRATED KASHANG HEP STAGE I (1 X 65 MW) FROM COD TO FY 2023-24.

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	Sub Total J- Works	190.79	350.24
5	K- Buildings	11.48	6.58
6	M- Plantation	0.43	0.00
7	O- Miscellaneous	8.05	9.70
8	P- Maintenance @ 1% (I Works - A-B-Q-O-M-X)	2.25	0.15
9	Q- Special T &P	1.96	0.28
10	R- Communication	12.67	22.75
11	X- Environment & Ecology	6.00	24.00
12	Y- Losses on Stock @ 0.25% (Iworks-A-B-Q)	0.60	0.00
	Total I- Works	268.26	520.13
II	Establishment @ 8% (I Works- B Land)	20.37	112.24
III	T&P	2.00	0.01
IV	Receipts and Recoveries	-1.95	0.00
	Total Direct Charges	288.68	632.38
	Indirect Charges		
	Audit & Accounts & Pro-rata of H.O.		
V	Establishment (0.5%)	1.34	0.01
VI	Capitalization of abatement of land revenue	0.10	0.00
	Total Indirect Charges	1.44	0.01
	G. TOTAL (DIRECT & INDIRECT CHARGES)	290.13	632.39
VII	E&M Works I*	114.67	209.34
	Total Cost	404.80	841.73
	IDC & Financing Cost is	66.15	153.76
IX	LADC	7.06	7.74
	Grand Total	478.02	1003.23

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* The cost of Civil Works of Power House and Transformer Hall Cavern which were not part of IKHEP Stage I DPR as well as the E&M works of IKHEP Stage II and III have also been capitalized under IKHEP Stage - I after obtaining due approval from the management of HPPCL. (Annexure - P14)

3.3 Additional Capital Expenditure (ACE)

The data tabulated below depicts:

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- Additional Capitalization in Crs incurred up to cut-off date on actual basis.
- Additional Capitalization in Crs incurred beyond cut-off date in FY 20-21 on actual basis.
- Additional Capitalization in Crs proposed to be incurred in FY 2022-23 and FY 2023-24 the projected years.

Table 6: Details of ACE incurred in Integrated Kashang HEP FY Wise

Additional Capital Expenditure	Up to cut-off date			Beyond cut-off date			
	Actual			Actual		Proposed	
	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24
PROJECT CIVIL WORKS	20.56	4.27	-0.23	0.00	0.44	0.00	0.25
ELECTRO-MECHANICAL WORKS	10.32	3.14	0.02	-0.69	0.22	0.05	0.25
BUILDINGS	0.88	0.09	0.33	0.00	-0.44	-1.02	0.00
ROADS	1.27	0.19	0.00	0.37	-0.34	0.58	0.00
Office Equipment & others/ROU	0.00	-0.04	0.08	0.00	0.05	0.40	0.00
Total	33.03	7.65	0.20	(-)0.32	(-)0.07	0.02	0.50

The details of Additional capital Expenditure incurred in IKHEP Stage-I are as per Annexure

P2, Format – F5. Major part of the Additional Capitalization is in the form of remaining works

in the original scope of work, some additional works necessary for smooth functioning of the

project, awarded in the form of change orders, Price Variation Bills, Retention Amount, and

Extension of time charges, Warranty Charges, Provisions booked against Environment and

Ecology Expenses and LADC as per statutory requirements and execution of some change

orders that were necessary for smooth operation of the project). 0.50 crore amount is

proposed for capitalization against implementation of Early Warning System (EWS) which is

expected to be capitalized in FY 23-24 (Annexure – P15).

Further, TEC amounting to Rs. 488.19 Crore has already been accorded for capacity addition

of 130 MW. Out of this, the common components such as power house and penstock

cavern have been awarded as part of the Main Civil Works contract for IKHEP Stage – I as the

components were inseparable. Also, the E&M components for the capacity addition have

already been installed, commissioned and capitalized under IKHEP Stage-I E&M contract. The

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Main Civil Works contract for the remaining components of IKHEP Stage-II&III has been awarded to M/s PEL for Rs. 252.39 Crore on 06.09.2010 and the Contract Agreement for the same was signed on 11.10.2010. The period stipulated in the original contract for completion was 48 months. However, the work could not be executed due to unavoidable reasons including litigation in NGT against Environment Clearance of IKHEP, since 2010 which was disposed of in 2016, litigation in NGT against Forest Clearance case of IKHEP Stage II&III, which was disposed off during January 2018, and several other reasons. Now, M/s PEL has again been asked to resume the said works considering 10.03.2023 as the zero date and a completion schedule of 48 month. The said works shall be capitalized under the capitalization schedule as and when they same are completed in the future control periods.

3.4 Total Project Cost

The detail of total project cost in Rs. Crs along with the ACE is tabulated below:

Table 7: Summary of ACE incurred in Integrated Kashang HEP (INR Crore)

Name of Project	Cost as per DPR	Actual Cost as on CoD	ACE up to cutoff date				ACE beyond cutoff date				Total Cost of the Project
		As on 31-03-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	31-03-24	
Kashang HEP Stag-I	478.02	1003.23	33.03	7.65	0.20	0.32	0.07	0.02	0.50	1044.24	

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ARBITRATION/ COURT CASES

The following cases related to construction stage of IKHEP Stage-I are pending in Tribunals/Courts of Law.

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APPROVAL OF CAPITAL COST ALONG WITH ADDITIONAL CAPITALIZATION AND DETERMINATION OF TARIFF FOR INTEGRATION OF TARIFF FOR INTEGRATED KASHANG HEP STAGE 1 (1 X 65 MW) FROM COD TO FY 2023-24.

IKHEP STAGE I, HPPCL

Table 8: Summary of Arbitration and legal cases IKHEP Stage I

Sr. No.	Arbitration matter	Sum involved (in Rs.)	Status
1.	CARPC No. 5 OF 2019 (Dispute no.1) titled HPPCL(IKHEP) vs M/s HCC	34.16 Crore + interest	Arbitration Tribunal awarded Rs. 34.16 Crore + interest Rs. 10.86 Crore in favor of M/s HCC. HPPCL has challenged AT decision in High Court and deposited Rs. 45.02 Crore in High Court as per direction of High Court on 30.07.2018.
2.	Arbitration (Dispute no.2) titled HCC Ltd. Vs HPPCL(IKHEP) as submitted by M/s HCC Ltd. Before arbitration tribunal.	117.65 Crore + interest	Arbitration Tribunal has awarded Rs. 67.50 Crore + 13% interest (amounting to 36.56 Crore) in favor of M/s HCC on dated 06.06.2023.
3.	Arbitration appeal HPPCL vs Karma Lama contractor, Reckong Peo relating to widening/improvement of Pangj Intake road from RD3120m to 3450m (Case no. 02/2016)	0.02 Crore+ interest @15%	The matter is Sub Judice in Distt Court of Kinnaur.
	Arbitration appeal HPPCL vs Karma Lama contractor, Reckong Peo relating to widening/improvement of Pangj Intake road from RD3120m to 3450m (Case no. 02/2016)	0.03 Crore + Interest @15%	The matter is Sub Judice in Distt Court of Kinnaur.
5.	Dispute with respect to Entry Tax and Interest and Penalties thereof in the E&M contract	2.40 Crore (including interest)	The matter is Sub Judice in Arbitration Tribunal.
Total		154.26 + interest	

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As the above mentioned cases and the cost involved is sub-judice therefore above cost has not been considered in the total cost of the project and same shall be considered during true up based on the decision of AT/ Hon'ble High Court.

3.5 Sale Of Infirm Power


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and Conditions for Determination of Hydro Generation Tariff) Regulations, 2011 read along with its amendments specifies as under:

"Supply of infirm power shall be accounted as Unscheduled Interchange (UI) and paid for from the regional or State UI pool account at the applicable frequency-linked UI rate:

Provided that any revenue earned by the generating company from sale of infirm power shall be applied for reduction in capital cost."

Table 9: Revenue earned from Infirm Power Sale

Particulars	
Synchronization date	21 August 2016
COD	01.09.2016
Gross Infirm power generated (MU)	5.98 MU
Net HPPCL share of Revenue from sale of infirm power in Crs	INR 2.01 Crore (including 13% HP Govt. Share) INR 1.75 Crore (net HPPCL share)

The revenue from infirm power has already been excluded from the original capital cost by booking the amount as negative AUC Incidental expenses against capital assets in IKHEP Stage -I. The SAP record for the same is attached (**Annexure – P16**).

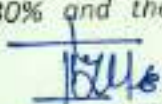
3.6 Debt: Equity Ratio

Regulation 16 of Himachal Pradesh Electricity Regulatory Commission (HPERC) (Terms and Conditions for Determination of Hydro Generation Tariff) Regulations, 2011 read along with its amendments specifies as under:

"2) New Stations:

(a) For new stations, the normative debt-equity ratio shall be considered to be 70:30 for determination of tariff.

(b) In case of a generating station where equity employed is more than 30%, the amount of equity for determination of tariff shall be limited to 30% and the balance amount shall be considered as the normative loan.


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APPROVAL OF CAPITAL COST ALONG WITH ADDITIONAL CAPITALIZATION AND DETERMINATION OF TARIFF FOR INTEGRATION OF TARIFF FOR INTEGRATED KASHANG HEP STAGE I (1 X 65 MW) FROM COD TO FY 2023-24.

IKHEP
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HPPCL

(c) In case of a generating station where actual equity employed is less than 30%, the actual debt and equity shall be considered for determination of tariff: Provided that the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment."

3.6.1 Background of funding Debt and Equity participation:

Debt: Asian Development Bank had sanctioned loan facility to Government of India for the execution of Integrated Kashang HEP under Himachal Pradesh Clean Energy Development Investment Programme (HPCEDIP). This multilateral loan was routed to the Corporation, through Government of Himachal Pradesh for which the loan agreement was signed to loan funds to HPPCL at the interest rate of 10% per annum (Annexure – P17).

The table below shows year-wise loan Received by HPPCL from GoHP for Integrated Kashang HEP is tabulated as under:

Table 10: Details of Loan received for IKHEP Stage- I, II&III

Financial Year	Amount in INR Crore.	Remarks
2010-11	57.17	This is total loan amount against IKHEP Stage I, II & III as no separate accounts have been maintained for the different Stages of IKHEP Stage I, II & III for the period upto 2016-17.
2011-12	127.78	
2012-13	120.03	
2013-14	84.19	
2014-15	80.23	
2015-16	87.54	
2016-17	41.74	
Sub Total	598.68	
2017-18	11.55	This loan amount is for IKHEP Stage I only.
2018-19	5.00	
2019-20 onwards	0.00	
TOTAL	615.23	

The project wise segregation of the Loan on account of IKHEP Stag- I and IKHEP Stage-II&III is not maintained in the books of account for period prior to CoD, however, out of total loan of 598.58 Crore, an amount of Rs. 516.31 Crore has been capitalized against IKHEP Stage-I at the time of COD. An additional loan of Rs. 16.55 Crore has been drawn and capitalized against IKHEP Stage-I in FY 2017-18 and FY 2018-19 bringing the total loan amount to Rs. 532.86 Crore upto 31.03.2020.

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APPROVAL OF CAPITAL COST ALONG WITH ADDITIONAL CAPITALIZATION AND DETERMINATION OF TARIFF FOR INTEGRATION OF TARIFF FOR INTEGRATED KASHANG HEP STAGE 1 (1 X 65 MW) FROM COD TO FY 2023-24.

IKHEP STAGE I, HPPCL

Equity: The project wise segregation of the equity is not maintained in the books of account. However an amount of Rs. 486.92 has been used upto COD and Rs. 511.25 Crore has been used for IKHEP Stage-I up to cut-off date of 31.03.2020.

3.6.2 Debt equity ratio considered as on COD is tabulated as under:

Table 11: Details of Debt Equity (INR CRORE) as on COD

Particulars	Debt: Equity ratio as per DPR	Debt: Equity ratio as per DPR in %	Actual Debt: Equity ratio	Actual Debt: Equity ratio in %	Funding claimed in Crore	Normative %
Debt	334.614	70	516.31	51.46	702.26	70
Equity	143.406	30	486.92	48.54	300.97	30
Total	478.02	100	1003.23	100	1003.23	100

3.6.3 Total completion project cost including ACE is as under:

Table 12: Abstract of funding of capital cost (Rs. in Cr)

(Actual and Normative basis)

AS PER ACTUAL										
Particulars	Capital Cost as on CoD	Additional Capital Expenditure							Total Project Cost	Debt Equity Ratio as per Reg.
		FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24		
Debt	516.31	11.55	5.00	0	0	0	0	0	532.85	70
Equity	486.92	21.48	2.65	0.20	-0.32	-0.07	0.02	0.50	511.39	30
Total	1003.23	33.03	7.65	0.20	-0.32	-0.07	0.02	0.50	1044.24	

ON NORMATIVE BASIS										
Particulars	Capital cost as on CoD	ACE							Total Project Cost	Debt Equity Ratio Considered
		FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24		
Debt	702.26	23.12	5.355	0.14	-0.22	-0.049	0.014	0.35	730.97	70
Equity	300.97	9.91	2.295	0.06	-0.10	-0.021	0.07	0.15	313.27	30
Total	1003.23	33.03	7.65	0.20	-0.32	-0.07	0.02	0.50	1044.24	

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APPROVAL OF CAPITAL COST ALONG WITH ADDITIONAL CAPITALIZATION AND DETERMINATION OF TARIFF FOR INTEGRATION OF TARIFF FOR INTEGRATED KASHANG HEP STAGE I (1 X 65 MW) FROM COD TO FY 2023-24.

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3.7 LADF

3.7.1 The Hydro Power Policy 2006, provides that 1.5% of the final cost of the projects above 5 MW and 1% of the final cost of projects up to 5 MW shall be contributed to a Local Area Development Fund (LADF) for infrastructure development. The guidelines for management of Local Area Development Fund (LADF) in respect of Hydro –Electric Projects was notified vide no. MPP-F-(10)15/2006 dated 16.9.2009. Thereafter subsequent notifications have been issued under which an additional provisions in line with the provisions of Government of India's new Hydro Power Policy, 2008 for additional 1% (one percent) free power after commissioning of hydro power projects has been earmarked for the LADF to provide a regular stream of revenue for income generation and welfare schemes, creation of additional infrastructure-and common facilities etc. on a sustained and continued basis over the life of the project.

3.7.2 The provision has also been kept that government of Himachal Pradesh may also provide a matching 1% from its share of 12% free power. This entire contribution towards Local Area Development Activities has been maintained in the shape of LADF and same has been administered by a committee called Local Area Development Committee (LADC) comprising of various stakeholders including Government departments, project developers and public representatives/nominated members from Project Affected Areas.

3.7.3 The LADF shall comprise of contribution by project based on project cost and free power after commissioning as envisaged in the state and national hydro power policies. The hydro project developers in the State shall contribute towards LADF in two stages.

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Prior to Commissioning of the Project : The Project developer shall contribute a minimum of 1.5% for projects of capacity more than 5 MW and a minimum of 1 % for projects of capacity up to 5 MW.

• **After Commissioning of the Project** : The Project developers shall contribute 1% free power for LADF over and above the rates of royalty agreed to be paid to the State Government in the Implementation Agreement/Supplementary Implementation Agreement, as the case may be.. The revenue collected by the Nodal Agency (Directorate of Energy) from sale of such 1% free power contribution from the Project Developer will be transferred to the Local Area Development Fund

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3.7.4 The total fund contribution of LADA against Kashang Stage-I as per approved DPR cost comes out to be 7.06 crores (i.e. 1.5% of approved TEC of INR 470.95 crores). The same was deposited as per schedule below. The revised cost as per books is 1003.23 crore and LADF comes out to be 14.61 Crores. Provisions of 7.93 Crore for the remaining payment have already been booked. HPPCL is in the process of getting the capital cost of the project approved from its Board of Directors and once the Capital Cost is approved, process to release the balance amount shall be initiated.

3.7.5 However, out of this provision, additional 2.00 crores was paid in March 2023.

Table 13: Details of LADA Deposition (Rs. Crore)

IKHEP Stage I				
Sr. No.	Date of Deposit	Total Amount Due	Amount Deposited	Balance Amount
1.	13-10-2007		0.70	
2.	20-08-2009		2.12	
3.	21-06-2010		1.415	
4.	05-09-2011		1.415	
5.	04-01-2014		0.75	
6.	20-03-2015	7.06	0.66	
	Sub Total	7.06	7.06	
	As per revised project cost	7.93	2.00	
8.				
	Total	14.99	9.06	5.55

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31.03.2023

3.8 CDM And Carbon Credit

3.8.1 Following the mandatory CDM project cycle, Himachal Pradesh Power Corporation Limited (HPPCL) had been able to get its project namely Integrated Kashang Hydro Electric Project registered with Executive Board of UNFCCC on

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dated 11th January, 2013 with registration date as 16th October 2012. An action to sell the Carbon Credits to be earned from Integrated Kashang HEP was also initiated by HPPCL. A Head of Agreement (HoA) was signed on dated 12th November 2009 with Future Carbon Fund (FCF) established under the trusteeship of Asian Development Bank (ADB) and others leading to signing a CERPA (Certified Emission Reduction Purchase Agreement), between HPPCL and FCF on dated 20th May 2010. However, due to non-extension of CDM and commitment period under the Kyoto Protocol the CER prices started falling in the beginning of year 2013 and have been sliding down since then (less than half USD at present).

3.8.2 Under section 3.1 of Certified Emission Reduction Purchase Agreement (CERPA), the sale and purchase of the contract CER were conditional upon accomplishment of certain Condition Precedents (CPs). HPPCL had accomplished all the CPs and provided necessary documents to FCF as a proof to have met all the CPs. Out of 11 CPs, one of the CPs was that the project should be WCD (World Commission on Dams) compliant. In the carbon markets all major buyers were mostly European countries/ firms, which insisted for WCD compliance. HPPCL had got prepared the WCD Compliance Report and submitted to the FCF.

3.8.3 The WCD report was never accepted by FCF raising one observation after another. As such, FCF tried to find excuses to wriggle out of the obligation under CERPA and unilaterally terminated the CERPA on 12th September 2013, although termination notice was issued on 20th September 2013.

3.8.4 In the year 2022, HPPCL has again initiated the process to avail benefit from sale of Carbon Credit. After completing all the formalities under Contract Provisions, HPPCL has signed contract agreement with EKI Energy Service Limited on 13th October 2022. EKI Energy Service Ltd is preparing the documents for getting benefits from Carbon Credits but till date HPPCL has not received any benefits from sale of Carbon Credit.

3.9 Hydro Purchase Obligation (HPO)/Renewable Purchase Obligation (RPO)

3.9.1 As per the provisions of HPO/RPO issued by CERC/HPERC/Ministry of Power Regulations/Notifications as amended from time to time, Kashang HEP is not eligible for availing these benefits at present.

3.10 Reasons For Cost Variation & Time Overrun i.r.o. DPR Approved Cost

3.10.1 Civil, HM and Associated works Variation Summary

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Price Variation

The detail of Price Variation in Civil Works of IKHEP Stage-I are as under:

Table 14: Price variation in Civil Works of IKHEP Stage-I Summary

S.No	Cost Component	DPR approved cost	Contract Awarded cost	Actual Cost	Price Variation	Variation %
A	B	C	D	E	F=E-C	G=F/C *100
1	Preliminary Survey and Investigation Works	13.13		25.62	12.49	95.13%
2	Land	13.69		45.55	31.86	232.72%
3	Buildings	11.48		6.58	-3.9	-33.97%
4	M-Plantation	0.43		0.00	-0.43	-100%
5	P-Maintenance	2.25		0.15	-2.10	-93.33%
6	Tools & Plants	3.96		0.29	-3.67	-92.68%
7	Communication/Road	12.68		22.75	10.07	79.42%
8	Environment & Ecology	6.00		24.00	18	300.00%
9	Losses on Stock	0.60		0	-0.6	-100.00%
10	Receipt & Recoveries	-1.95		0	1.95	-100.00%
A	Subtotal(1-10)	62.27		124.94	62.67	100.64%
11	Intake and Desanding Arrangement	19.23	32.96	29.28	10.05	52.26%
	Power Channel	2.32	3.02	3.44	1.12	48.28%
	Head Race Tunnel	27.65	37.88	42.36	14.71	53.20%
14	Balancing Reservoir	20.34	21.94	38.27	17.93	88.15%
15	Pressure shaft & Valve Chamber	78.56	137.04	166.87	88.7	112.91%
16	Power House	10.58	42.67	49.06	38.48	363.70%
17	Transformer Hall	7.70		9.22	1.53	19.87%
18	Main Access Tunnel	4.17		5.82	1.66	39.81%
19	Tail Race Tunnel	5.93		6.84	0.91	15.34%
20	Adits	21.61	21.39	28.36	6.75	31.24%

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B	Subtotal(11-20)	198.09	296.90	379.52	181.43	91.59%
21	Establishment	20.37		112.24	91.87	451.01%
22	Audit & Accounts	1.34		0.01	-1.33	-99.25%
23	O-Miscellaneous	8.05		9.70	1.65	20.50%
24	Rehabilitation & Resettlement	0		5.98	5.98	(not in DPR)
25	LADC	7.06		7.74	0.68	9.63%
26	IDC	66.16		153.76	87.6	132.41%
C	Subtotal(21-26)	102.98		289.43	186.45	181.05%
	Total	363.34	296.90	793.89	467.23	128.59%

The variation in the cost of civil works of IKHEP Stage-I resulted due to the following reasons:

3.10.2 Preliminary Survey and Investigation Works

The preliminary work of investigation and preparation of DPR were carried out by M/s SNC Lavalin. Expenses to the tune of Rs. 25.62 Crore have been capitalized under Survey and investigation against DPR approved estimate 13.13 Crore. (Annexure – P18)

3.10.3 Land

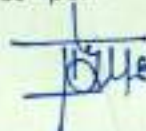
The land rates were enhanced after Pangri villagers created unrest/and filed a Court Case, which was settled after intervention of MD HPPCL & DC Kinnaur and the work was resumed thereafter. For this purpose a negotiation committee negotiation committee was constituted on 18.02.2009 consisting of representatives from HPPCL and from the District Administration. The negotiation committee held a meeting on dated 24.03.2009 and recommended the negotiated rate @ Rs. 1,04,000/- per biswa. The enhanced rates were approved by the Board

of Directors of HPPCL and intimated to the site office by the office of LAO. The letter of LAO confirming the approval of the enhanced rates after BoD approval is attached for ready reference. (Annexure – P19)

3.10.4 Communication (Roads)

As per DPR provisions for Intake site a jeep able PWD road existed which was required to be widened. However, the gradient of this PWD road was too steep to meet Project requirements. As such improvements in the existing road were carried out as per requirement.

Further due to local issues, the road alignment was required to be shifted.


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As per DPR provisions, a traffic road tunnel was proposed to Intake, which was not implemented and road was constructed which required protection works on sides, crash barriers, etc.

Due to the flash floods in Kinnaur in June 2013. The roads leading to Intake road, IPS & P/H were washed out and had to be rebuild.

The above factors resulted in variation in the cost of roads.

3.10.5 Environment and Ecology

New Legislations (2009) required the project developer to implement a CAT Plan (Catchment Area Treatment Plan) equivalent to 2.5% of the project cost (**Annexure – P20**). 31st Meeting of Standing Committee of National Board for Wild Life granted forest clearance to IKHEP subject (2014) to the condition that 2% of the project cost shall be deposited as mitigation measures/ conservation and management of wildlife of the Protected Area (**Annexure – P21**). This caused significant escalation of Environment and Ecology Expenses from DPR provision. The said liabilities against the DPR cost of the project have already been released. Provisions amounting to 10.05 Crore have already been booked in FY 2017-18 against the extra amount to be paid by HPPCL as per the actual capital cost over and above the DPR cost. HPPCL is currently in the process of getting the actual capital cost of the project approved from its Board of Directors. Once the capital cost is approved, the balance amounts shall be released against the said provisions.

3.10.6 R&R Works:

For the benefit of Project Affected Families, HPPCL is implementing welfare schemes in its Project Affected Area as per the R&R policy of HPPCL. Expenditure was incurred on various R&R activities which were not part of the DPR for smooth execution of works, to create social awareness and to generate goodwill to avoid hindrances to execution of Project by Locals. A brief list of the various kinds of activities carried out under R&R is given below:

- Forest Customary rights,
- Crack Compensation,
- Crop Compensation,
- Training and Awareness Camps,
- Merit Scholarship scheme,
- School Competition,
- Sports Tournament,
- Varshik Mela,

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APPROVAL OF CAPITAL COST ALONG WITH ADDITIONAL CAPITALIZATION AND DETERMINATION OF TARIFF FOR INTEGRATION OF TARIFF FOR INTEGRATED KASHANG HEP STAGE I (IX 65 MW) FROM COD TO FY 2023-24.

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- Medical Fund scheme,
- Grant to CBO's,
- Indirect Recruitment through Outsource,
- Employment with Contractors,
- Vehicles hired from PAF,
- Devta Mandir construction, donation etc.
- Purchasing & Installation of Solar Lights,
- Plots allotted to Rain Affected families (14 families),
- 100 units to PAFs
- Fencing & retaining walls, maintenance of Roads etc
- Lift Irrigation scheme DPR

The year wise expenses incurred under the R&R schemes are tabulated below:

Table 15: R&R Expenses on account of IKHEP Stage 1- FY wise

FY	INR (Crore)
2012-13	4.33
2013-14	0.14
2014-15	0.12
2015-16	0.96
2016-17	0.25
2017-18	0.18
2018 onwards	Nil
Total	5.98

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Admission Officer
with stamp
Sharda HPPCL

Total R&R cost Capitalised as on cut off date is INR 5.98 crores which has been capitalized under Freehold Land as the R&R policy compensates Project Affected Families, Villages and Area for usage of their Land and associated resources.

3.10.7 Main Civil Works

Civil Contract package for 65 MW Integrated Kashang HEP Stage-I located in Distt Kinnaur (Civil and Hydro Mechanical works) has been awarded in two parts:

- IKHEP Stage-I was Awarded to M/s HCC for an amount of INR 296.91 Crore on dated 13.02.2009 and Contract Agreement signed on date 03.03.2009 (Annexure - P11). The period stipulated in the original contract for completion of Project was 45 months.

The difference in the Cost of Civil works resulted due to the following reasons:

Table 16: MAIN REASONS FOR VARIATIONS IN CIVIL WORKS (INR Crores)

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Sr. No.	Reason	Variation Amount (in Crore)
a)	Variation in cost of civil works due to increased awarded amount	98.82
b)	Price escalation as approved by the Engineer-in-charge that was paid to the Contractor	54.26
c)	Variation due to installation of Geo Technical Instruments.	6.55
d)	Variations were encountered both in terms of quantity of material as per DPR provisions as well as Extra Items to be incorporated which were not part of the DPR.	21.80
	Total	181.43

a) The increase in price is attributed to multiple reasons. The scope of work included power house and transformer hall cavern related works from Stage II&III. The working estimate prepared by HPPCL for bidding purpose was estimated at Rs. 267.53 Crore. The price increase is also attributable to the increase in prices over time as the bid has been awarded after a gap of almost one year from the preparation of working estimate. **(Annexure – P22).**

b) Price Escalation was paid to the contractor in accordance with the provisions stipulated under Variations and Adjustments clause of contract civil package, Particular Conditions of Contract (PCC). **(Annexure – P23)**

c) The variation amounting to Rs. 6.549 Crores occurred due to installation of Geo Technical Instruments in various components to monitor the health of the structures. **(Annexure – P24)**

d) The work was executed as per actual site conditions which varied greatly from the DPR provisions. Variations were encountered both in terms of quantity of material as per DPR provisions as well as Extra Items to be incorporated which were not part of the DPR. Fiber reinforcement, grouting, rock bolts, anchor bars and dewatering etc. were required to be carried out under the contract without any limit on deviation in quantity from the award. During execution of work as per actual site conditions, several changes were required to be made to the drawings as against DPR provision leading to significant price variation. Geological surprises lead to rerouting of Adits in more cost and time implications. Out of this amount, the amount of Rs. 14.99 Crore

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APPROVAL OF CAPITAL COST ALONG WITH ADDITIONAL CAPITALIZATION AND DETERMINATION OF TARIFF FOR INTEGRATION OF TARIFF FOR INTEGRATED KASHANG HEP STAGE I (1 X 65 MW) FROM COD TO FY 2023-24.

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has been approved after RA Bill 85 as per the deviation statement attached (Annexure – P25). The RA Bill 96 has been passed and assets have been capitalized as per the amount in RA Bill 96. However, the approval of final Deviation Statement got put on hold when the Contractor entered into litigation due to imposition of Liquidated Damages on account of delay caused by reasons attributable to the contractor.

3.10.8 Civil Time Overrun

The completion of EPC Civil contract package of 65 MW Integrated Kashang HEP Stage-I got delayed due to many hindrances / delays, the main reasons for the delay are mentioned below:

Table 17: Details of Civil Time Overrun

Sr. no.	Description of delay	No. of Days
(a)	Detail of Delays considered in EOT-1 (delays since inception till 08-01-2013)	
1.	Extra time consumed in construction of Adit to Valve Chamber on account of increase in length from 300m to 598.072m	107
2.	Delay in excavation of valve chamber On account of delay in issue of GFC drawings (14-11-2011 to 31-11-2011)	17
3.	Lock out of project by Pangi Sangharash Samiti w.e.f. 12-11-2009 to 19-11-2009.	7
4.	Strike and interruption of work by local residents of Pangi village w.e.f. 18-05-2010 to 20-06-2010 (total 34 days out of which only 50% delay has been accepted as justified.	17
5.	Strike and interruption of work by local residents of Pangi village w.e.f. 08-07-2011 to 19-07-2011.	12
6.	Disruption of work at Upper. Inclined Pressure Shaft due to prolonged excavation work in valve chamber w.e.f. 14-02-2012 to 26-04-2014 (77 days). Up to 29-02-2012 fall in non working season and after this there was partial working. Hence, delay of 40 days was considered as justified	40
Total Delay		days = 192days

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Sr. no.	Description of delay	No. of Days
(b)	Detail of delays considered in Final EOT (delays since 09-01-2013 to 31-03-2016)	
1.	Extra time consumed in construction of Adit to Intermediate 368.3 m. Pressure Shaft on account of increase in length from 250 m to 368.3m	47
2.	Extra time required for excavation on account of increase in quantity of excavation from 13042 cum included in BoQ to 17139.051 cum as per actual execution at site.	122
3.	Extra time required for hauling of muck generated from geologically accepted over break for 917.395 cum quantity.	5
4.	Extra time required for backfill concrete 5211.03 cum over and above BoQ i/c quantity of backfilling of geological accepted over break.	66 (Proportio nate)
5.	Due to issue of revised construction drawing No. 37-X-115, 2 Nos. shells concrete backfilled in unit penstock II&III were dismantled and 3 Nos. new thrust collar shells 32 mm thick 1500 mm dia. were erected as per revised drawing which caused delay in activity of Pressure shaft	32
6.	The works relating to critical activity of pressure shaft was actually completed on 14-01-2016. However, some commissioning related works in Power House Complex such as c/o stairs for laying of pipes for firefighting water tank near crushed plant. invert concreting in adit to BPS etc. were still incomplete and continued beyond 14-01-2016 and were completed on 31-03-2016. Therefore, in order to arrive at a realistic Extension of Time, this additional time on account of execution of extra work beyond 14-01-2016 onwards in power house complex is required to be added up in series with the extended time of pressure shaft. This additional time from 15-48 days 1-2016 to 31-03-16 works out to 77 days out of which only 48 days (15-01-2016 to 31-01-2016 & 01-03-2016 to 31-03-2016) have been justified as no work was carried out w.e.f. 01-02-2016 to 29-02-2016 due to stoppage of work by the labour of M/s HCC Ltd. due	48

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APPROVAL OF CAPITAL COST ALONG WITH ADDITIONAL CAPITALIZATION AND DETERMINATION OF TARIFF FOR INTEGRATION OF TARIFF FOR INTEGRATED KASHANG HEP STAGE 1 (1 X 65 MW) FROM COD TO FY 2023-24.

IKHEP STAGE 1, HPPCL

Sr. no.	Description of delay	No. of Days
	to their internal problem. As such the balance 29 days are attributable to the Contractor.	
	Damage to approach road to intermediate pressure shaft (old HT road) RD 1720 m to 2051m (16-06-2013 to 25-07-2014).	405
	Closure of IPS road due to damage w.c.f 19-02-2015 to 10-05-2015 causing delay at lower inclined pressure shaft.	81
	Total delay	806
	Total no. of days =(a)+(b)	998 days
(c)	Detail of Delays considered in EOT-1 (delays since inception till 08-01-2013)	Nil
(d)	Detail of delays considered in Final EOT (delays since 09-01-2013 to 31-03-2016)	
1.	Non-availability of diesel.	8
2.	Extra time required for backfill concrete 11313.33 cum in non-143 days accepted over break.	143 (Proportio nate)
3.	Stoppage of work due to strike by Contractor's labor. (01-02-2016 to 29-02-2016)	29
	Total delay (e)	180 days
	Total No. of days attributed to Contractor= (e)+(f)	180 days
	Total Delay =(a)+(b)+(c)+(d)	1178 days

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*8 days delay in critical activity of pressure shaft falls in contract period i.e. 01-01-2013 to 08-01-2013.

Liquidated Damages amounting to Rs. 29.69 Crore were imposed on the Contractor for delay of 180 days attributed to the Contractor. For recovery of this LD, Contractor Bank Guarantee amounting to Rs. 14.85 Crores was encashed and Retention Money amounting to Rs. 6.83 Crores was withheld. The contractor was asked to deposit the remaining amount. However, the contractor refused to pay the remaining amount and entered into Arbitration of his retention money and return of his encashed Bank Guarantee with

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APPROVAL OF CAPITAL COST ALONG WITH ADDITIONAL CAPITALIZATION AND DETERMINATION OF TARIFF FOR INTEGRATION OF TARIFF FOR INTEGRATED KASHANG HEP STAGE I (1 X 65 MW) FROM COD TO FY 2023-24.

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Arbitration Tribunal has ruled this in favor of the contractor on 06.06.2023. The decision of the AT is currently under consideration with HPPCL.

Extension of Time Letter has been issued to the site office for the above time overrun after obtaining approval from the Board of Directors. (Annexure – P26).

3.10.9 Electro-Mechanical (E&M) works Variation Summary

The EPC Contract for Electro-Mechanical package for Integrated Kashang HEP (3x65 MW) was awarded to M/s Andritz Hydro Pvt. Ltd. (AHPL) on 26.03.2010. Contract agreement was signed on 29-04-2010 (Annexure – P12). The period stipulated in the original contract for completion of units under Phase 1 was 38 months for Unit#1 and 39 months for Unit#2 from the effective date. The agreed effective date for Phase 1 of the E&M Contract was 01.12.2010. The period of completion for Unit#3 under Phase II was 24 months from the date to be notified to the contractor which was notified on 21.11.2013. The component wise detail is as under:

Table 18: Price variation in E&M Works Summary

Cost of Electromechanical works						
S. No.	Cost Component	DPR approved cost	Contract awarded cost	Cost capitalized	Price escalation/ Variation	% Variation
A	B	C	D	E	F=E-C	G=F/C
1	Generator, Turbine & Accessories	134.21	98.90	125.21	-9.00	-6.70%
2	Auxiliary electrical equipment for power	48.60	32.10	43.82	-4.78	-9.83%
3	Auxiliary Mechanical equipment for power station	9.62	11.81	11.87	2.25	23.39%
4	Switchyard Package	29.88	23.91	28.44	-1.44	-4.82%
5	Erection, Testing and Commissioning	Included in respective component above.				
6	CST/Service Tax					
7	Initial Spares					
	Total	222.32	166.72	209.34	-12.97	-5.84%

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APPROVAL OF CAPITAL COST ALONG WITH ADDITIONAL CAPITALIZATION AND DETERMINATION OF TARIFF FOR INTEGRATION OF TARIFF FOR INTEGRATED KASHANG HEP STAGE I (I X 65 MW) FROM COD TO FY 2023-24.

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While the DPR of Stage I and Stage II&III are separate with a TEC of 114.67 and 123.33 totaling a combined TEC of 238 Crore, there is no separate Cost Estimate available for the two TEC values. Further, the contract for Stage I, II&III was also awarded as a combined contract price. Therefore, the comparison table above is inclusive of price(s) of IKHEP Stage I, II&III.

The expenditure approved as per DPR for E&M package of IKHEP Stage I, II&III is Rs. 238 Crore approx. which includes Establishment expenses and Audit and Accounts Charges totaling to Rs. 15.59 Crore. These expenses have been included together with similar expenses in the Civil Package and shown in table above as there are no separate accounts for these costs on account of Civil and Electrical components. The remaining approved cost of E&M package as per DPR is Rs. 222.32 Crore approx.

The Electro-mechanical works package was awarded to M/s Andritz hydro at Rs. 166.72 Crore which was much below the DPR Estimate of INR 222.32 Crore. After variation on account of Price Escalation, Change Orders, Taxes and Duties, etc also the E&M works of the project were completed in a cost of 209.34 Crore upto CoD and in a cost of 216.91 Crore including additional capitalization **which is still within the DPR estimate of 222.32 Crore.**

A brief summary of reasons for variation of actual cost from the awarded cost is listed below:

Price Escalation: The price escalation was calculated as per the stipulated formulas in the Contract (**Annexure – P27 (Supply Contract) & Annexure – P28 (Service Contract)**) and was approved by the Project Manager/ Engineer-in-charge and paid to the E&M Contractor (approx. Rs. 26.5 Crore).

PVC Supply INR	Rs. 16.61 Crore
PVC Services INR	Rs. 3.33 Crore
PVC CHF	CHF 41,721
PVC Euro	Euro 9,64,610

- Taxes and Duties:** The E&M Contract price was exclusive of taxes and duties (**Annexure – P29**) which were to be reimbursed to the contractor on actual basis against production of documentary proof. Therefore, the taxes and duties have accounted for an additional implication of Rs. 11.5 Crore Approx.

- Additional Supplies (Change Orders and Extra Works) –** The E&M contract provides for additional supplies or change in Technical Specification based on actual requirements.

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- o **Pothead Yard Structures and Wave Trap Mounted CVT:** During Site Survey, it was concluded that additional 3 No. towers with gantry are required to be provided because it is not feasible at site to provide rock ledge at the Pothead Yard of Kashang HEP. Further, due to space constraint, CVT mounted wave trap was used in the Pothead Yard. These changes resulted in an added price implication of Rs. 0.5 Crore Approx.
- o **HDPE pipes and Optical Fiber:** Based on site conditions, it was decided that for Plant SCADA/communication purpose, OFC shall be routed through the Penstock and HRT for greater reliability as due to the terrain of IKHEP project site the project frequently faces landslides and shooting stones which could potentially damage the OFC in case it was laid overhead. Thus, it was proposed to be laid through Penstock and HRT. And HDPE conduit was laid through Penstock/ HRT for this purpose. This resulted in an added price implication of Rs. 0.1 Crore.
- o **Firefighting System:** An appropriate site could not be located for construction of complete Overhead Tank for the Fire Fighting System. Therefore, as a change order, fire fighting tanks of appropriate capacity were placed in the Ventilation Tunnel which were to be filled from the Cooling Water Sump using pumps placed together with the Cooling Water pump which were also a part of the change order together with the necessary piping for such provision. Thereafter, pumps were also provided at Ventilation Tunnel to build a pressure of 7 bar which was necessary for operation of the fire fighting system. A DG set of 160 kVA was also provisioned under the change order for supply of power to the said pumps to be able to build up the necessary pressure in event of fire when other sources of LT supply would not be available. Further, although a tank of the capacity needed as per contract could not be placed due to space constraint, an Over Head Tank fabricated locally by the Civil Contractor has also been provisioned in a piece of land next to NH 505 as a redundant mechanism. The tank has been designed with bare minimum capacity (as sufficient space was not available for a bigger tank) needed in the event of a fire for provision of gravity based head for the firefighting system and M/s AHPL has also provided the necessary pumps and piping to and from the said overhead tank as a part of the change order. The change order also provided necessary power and control cables for the said pumps and necessary programming of the Fire Fighting control panels to accommodate the said changes

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to the fire fighting system. This change order resulted in a price implication of Rs. 1.7 Crores Approx.

- **DG Sets and other LT Supply provision for BFV House and Intake:** The main contracts of E&M and Civil packages did not cover power supply at BFV and Intake sites other than a 250 kVA DG set at intake site. Therefore, DG Set of 100 kVA was specially procured for emergency power supply at BFV Cavern. In order to provide a battery backup for the instrumentation at BFV House, a 5 kVA UPS was also purchased. A 10 kVA DG set was purchased for the intake site for emergency power supply. Further, for LT supply provision, a construction power transformer which was available at intake rest house site was shifted to the intake site as deposit work to HPSEB. LT panel with appropriate no. of feeders, LT power cable and control cables were also procured for auxiliary power supply at BFV Cavern as well as intake site. This resulted in an added price implication of 0.8 Crore Approx.
- **Change in transportation Route and GIS Hall Related:** Due NH-505 blockage at Karchham, alternate route was provided through Urni Dhank to Choling from Tapri. This led to additional delays and transportation costs, amounting to approx 0.2 crores.

Total variations due to Change Orders including but not limited to the above is approx of 3.5 Crore. (Annexure – P30)

Extension of Time: Due to delays not attributable to E&M contractor an amount of 1.6 Crores Approx was paid as Extension of Time. Also, warranty charges to the tune of Rs. 4.5 Crore Approx. have been paid to the E&M contractor. BoD Approval in support of Extension of Time charges are attached (Annexure – P31 (Warranty Claim) & Annexure – P32 (EoT Claim)).

It is submitted that the complete E&M works including Price Escalation, Change Orders and Taxes and Duties have been completed within the DPR provisioned Cost Estimate.

3.10.10 E&M TIME OVERRUN

1. **Force Majeure Conditions:** During the period of 01.04.2014 to 30.06.2014 hindrances of 71 days occurred in the execution of Electro-mechanical works of Kashang HEP due to Heavy Stone Shooting/ landslides at Power House approach Road resulting in non-availability of working fronts for E&M works, which was also discussed during 7th CRM held on 02.04.2014 at Corporate office, Shimla. This delay of 71 days was due to Force Majeure conditions. During the period of 01.07.2014 to 30.04.2016, the E&M works got hampered due to road blockade (NH & P/H approach road) due to heavy rainfall,

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snowfall, landslides & workers strike. The total no. of loss of working days during this period is 119 days. Thus for total 190 days (71 +119 = 190) work could not be carried out due to Force Majeure circumstances at site. Further, a delay of approx. 4 months (120 days) in commissioning of Unit No. 1 has occurred due to force majeure, which is not attributable to either HPPCL or E&M Contractor. It is also mentioned that after the removal of Rotor of Unit No. 1, the same was placed in the Rotor Pit of Unit No.3 for removal of poles, which has resulted in the delay in the ongoing activities of Unit 3 inside the pit for 80 days.

2. **Delay in Handing over Civil Front (Unit 1): 56 days – (Readiness of Unit 3 Barrel and floors, MIV Foundation)** The delay of 40 days during the period 20.05.2014 to 15.07.2014 has already been covered under Force majeure (as stated above), hence only 16 days are attributable on account of delay in front availability.
3. **Delay in Handing over Civil Front (Unit 2): 137 days – (Readiness of Unit 2 Barrel & Floors, MIV Foundation)** The delay of 35 days during the period 31.05.2014 to 14.10.2014 has already been covered under Force majeure (as stated above), hence only 102 days are attributable on account of delay in front availability.
4. **Delay in Handing over Civil Front (Unit 3): 167 days – (Readiness of MIV Foundation)** The delay of 8 days during the period 25.07.2014 to 08.01.2015 has already been covered under Force majeure (as stated above), hence only 159 days are attributable on account of delay in front availability.
5. **Delay in Handing over Civil Front (Unit 1 & 2): 392 days – (Readiness of GIS Hall in all respects for GIS Erection)** The delay of 103 days during the period 30.06.2014 to 27.08.2015 has already been covered under Force majeure (as stated above), hence only 289 days are attributable on account of delay in front availability.
6. **Delay due to five no. GIS Breakers during Transportation** – During mid of September 2015, it was noticed that 5 No. GIS Breakers were found damaged after the transportation from Store to Power House Site which was not repairable and needed to be replaced with new one. Finally, the 5 No. new breakers received at Bithal Store on dated 19.11.2015. The complete process of replacement of damaged breakers took approx. 60 days. However, the said delay on account of time taken for replacement of damaged breakers could be avoided if the front was handed over to the E&M Contractor as per agreed Program of Performance date and the material was

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transported from store to power house site earlier as per front availability of erection of GIS.

From the above delay analysis it can be concluded that the execution of respective units of Kashang HEP got delayed, as under w.r.t. latest approved work schedule:

Unit 1 541 days.

Unit 2 190 days.

Unit 3 429 days.

Contract Amendments issued in favor of the above mentioned Extension of Time after obtaining approval from BoD are attached as supporting documents. (Annexure – P33).

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4 ANNUAL FIXED COST

4.1 Components of Annual Fixed Cost

4.1.1 The Petitioner, for the purpose of determination of Annual Fixed Cost of the electricity generated from the Integrated Kashang Stage-I Hydro Electric Plant, has considered the below mentioned elements as components of Annual Fixed Cost, as specified by the HPERC (Terms and Conditions for Determination of Hydro Generation Tariff) Regulations, 2011, read along with its amendments thereafter.

- (a) Operation and Maintenance Expenses;
- (b) Depreciation;
- (c) Interest on Loans;
- (d) Interest on Working Capital; and
- (e) Return on Equity (RoE).

4.2 Operations & Maintenance Expenses

4.2.1 Clause 22 of the Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Hydro Generation Tariff) Regulations, 2011 and its amendments thereafter states as follows:

"(4) In case of hydro generating stations, which have been in commercial operation for less than 5 years as on 31 March 2018, the Operation and maintenance expenses shall be fixed at 2% of the original project cost, excluding cost of rehabilitation and resettlement works, and shall be escalated in accordance with the escalation principles specified in sub regulation (6).

(6) O&M expenses determined in sub-regulations (3) and (4), shall be escalated for subsequent years to arrive at the O&M expenses for the control period by applying the Escalation factor (EFk) for a particular year (Kth year) which shall be calculated using the following formula

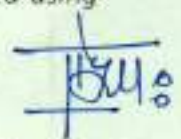
$$EFk = 0.20 \times WPI \text{Inflation} + 0.80 \times CPI \text{Inflation}$$

Provided that, out of the O&M expenses so determined based on regulations, at least 30% shall be spent towards repair and maintenance activities:

Provided further that, the impact of pay revision (including arrears) shall be allowed on

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actual during the mid-term performance review or at the end of the control period as per audited /unaudited accounts, subject to prudence check and any other factor considered appropriate by the Commission."

- 4.2.2 The escalation factor for various years has been worked out as per regulatory requirements and projections have been drawn based on the same.
- 4.2.3 The relevant clause of the Regulation for determination of escalation factor, the "WPI Inflation" and "CPI Inflation" has been computed as described in the HPERC Tariff Regulation (Amendment 2) as given below:

"CPI Inflation – is the average increase in the Consumer Price Index (CPI) for the three years immediately preceding the base year;

WPI Inflation – is the average increase in the Wholesale Price Index (CPI) for the three years immediately preceding the base year;"

- 4.2.4 For the subsequent years, the O&M Expenses have been escalated at the rate as tabulated below as per Regulations:

Table 19: Details of Calculation of Escalation Factor

Particulars	WPI		CPI		Escalation Factor
FY 19-20	121.8		322.5		
FY 20-21	123.4	1.31%	338.69	5.02%	
FY 21-22	139.4	12.97%	356.06	5.13%	
FY 22-23	152.52	9.41%	377.62	6.06%	5.90%

Note: $EF(n) = 0.2 * [WPI(n-2) + WPI(n-1) + WPI(n)] / 3 + 0.8 * [CPI(n-2) + CPI(n-1) + CPI(n)] / 3$

- 4.2.5 The actual O&M expenses incurred in the project up to FY 2021-22 and the O&M expenses projected for the years FY 2022-23 and FY 2023-24 are tabulated as below:

Table 20: O&M Expenses

Particulars	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24
	Actual						Projected	

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Employee Expenses	12.70	11.46	7.61	5.05	7.78	11.20	9.30	9.85
R&M	3.32	5.97	5.01	3.66	4.53	0.77	5.25	5.56
A&G	2.87	5.66	-0.10	2.03	2.86	5.49	6.49	8.09
Total	18.89	23.09	12.52	10.73	15.18	17.46	21.04	23.49

The A&G expenses for FY 2017-18 are on higher side whereas those of FY 2018-19 are on the lower side. This is because Slope Stabilisation Expenses for Pothead Yard Area were booked under A&G Expenses in the Year 2017-18 which were later capitalized in the year 2018-19 after Audit Observation.

As the IKHEP power house was in a state of extended shutdown for most part of FY 2020-21 with major maintenance activities having been carried out in 2020-21, therefore, the O&M expenses for FY 2021-22 are on lower side and therefore not considered for purpose of projecting the expenses of FY 2022-23 and FY 2023-24. O&M Expenses for FY 2022-23 are available, with some provisions remaining to be booked. However, the tentative amounts have been filled as projected expenses. Further, the Employee Expenses and R&M Expenses for FY 2023-24 have been calculated by escalating the expenses of FY 2022-23 using the Escalation Factor calculated in Table above. The A&G Expenses cannot be calculated in this way due to increased insurance expenses and new expense in the form of HPERC Fees.

Therefore, the A&G expenses have been calculated based on the budget calculations made when estimating the budget for 2023-24.

4.2.6 The Petitioner requests the Hon'ble Commission to approve the same.

4.3 Depreciation

4.3.1 Clause 20 of Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Hydro Generation Tariff) Regulations, 2011 and its subsequent amendments states as follows

"(1) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission.

(2) The salvage value of the asset shall be considered as 10% and depreciation allowed up to maximum of 90% of the capital cost of the asset:

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Provided that the salvage value for IT equipment and software shall be considered as NIL and 100% value of the assets shall be considered depreciable:

Provided also that in case of hydro generating stations, the salvage value shall be as provided in the agreement signed by the developers with the State Government for creation of the site:

Provided further that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciable value shall correspond to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff."

4.3.2 A depreciation rate has been considered as per Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Hydro Generation Tariff) Regulations, 2011 Appendix I: Depreciation Schedule for the first 12 years of capitalization. Thereafter, the balance net asset value shall be equally spread over the useful life of the plant, as per the Tariff conditions issued by Hon'ble HPERC.

4.3.3 The depreciation booked in the project since COD as well as the depreciation projected for FY 22-23 and 23-24 is tabulated as below:

Table 21: Depreciation – Actual and Projected

Particulars	Actual						Projected	
	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24
Opening GFA	1,003.23	1,003.23	1,036.26	1,043.91	1,044.11	1,043.80	1,043.73	1,043.74
Addition during the year	0.00	33.03	7.65	0.20	-0.32	-0.07	0.02	0.50
Less Grant Received	0	0	0	0	0	0	0	0
Closing GFA	1,003.23	1,036.26	1,043.91	1,044.11	1,043.80	1,043.73	1,043.74	1,044.24
Average GFA	1003.23	1019.74	1040.08	1044.01	1043.95	1043.76	1043.73	1043.99
Less Freehold Land	51.53	51.53	51.53	51.53	51.53	51.53	51.47	51.47
Average GFA excluding Land	951.70	968.22	988.56	992.48	992.43	992.23	992.27	992.52
WAROD (%)	3.85%	4.86%	4.74%	4.69%	4.69%	4.70%		
Depreciation	21.38	47.10	46.84	46.58	46.56	46.68	46.68	46.68

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*Freehold Land Cost shown above also includes the cost of R&R Expenses as the same have been booked under Land Expenses as the R&R policy compensates the Project Affected Families, Villages and Area for the usage of their Land and associated resources.

4.3.4 HPPCL requests the Hon'ble Commission to kindly approve the Depreciation as per table above.

4.4 Interest On Loans

4.4.1 Interest on loans is mainly payable on account of the capital expenditure planned in the Control Period. Interest on normative loan has been projected considering Debt: Equity ratio of 70:30 for Integrated Kashang Stage-I Hydro Generation as per Regulations.

4.4.2 The relevant clause of the Regulations pertaining to Interest on Loans is produced below.

"17. Interest and Finance Charges

"(1) Interest and finance charges on loan capital shall be computed on the outstanding loans, duly taking into account the schedule of repayment in accordance with the terms and conditions of relevant agreements of loan, bond or non-convertible debentures. Exception can be made for the existing or past loans which may have different terms as per the agreements already executed if the Commission is satisfied that the loan has been contracted for and applied to identifiable and approved projects.

"(2) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each year applicable to the project:

"Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered; Provided further that if the generating station, does not have actual loan, then the weighted average rate of interest of the generating company as a whole shall be considered:

"Provided further that if the generating company does not have actual loan, then one (Generation) (1) Year State Bank of India (SBI) MCLR / any replacement thereof as notified by SBI for the time being in effect applicable for one (1) Year period, as may be applicable as on 1st April of the relevant Year plus 200 basis points shall be considered as the rate

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of interest for the purpose of allowing the interest on the normative loan.

“(3) The interest rate on the amount of equity in excess of 30% treated as notional loan shall be the weighted average rate of the loans of the respective years and shall be further limited to the rate of return on equity specified in these regulations.

“(4) In case any moratorium period is availed of in any loan, depreciation provided for in the tariff during the years of moratorium shall be treated as notional repayment during those years and interest on loan capital shall be calculated accordingly...”

4.4.3 Asian Development Bank had sanctioned loan facility to Government of India for the execution of IKHEP under Himachal Pradesh Clean Energy Development Investment Programme (HPCEDIP). This multilateral loan was routed to the Corporation, through Government of India and, subsequently, through Government of Himachal Pradesh also. Government of Himachal Pradesh on-lent these loan funds to HPPCL at the interest rate of 10% per annum. Copy of On-lending Loan Agreement attached. (Annexure – P17).

4.4.4 As per the terms and conditions of the On-lending Loan Agreement, the repayment of loan and interest has become due. But due to financial constraints, Corporation is unable to repay its loan liabilities and has sought deferment of the same from GoHP. The deferment of loan has been approved by the State Government up to 2020-21 (Annexure – P17) and a case for further deferment of loan has already been placed before the Government. Therefore, as per Regulation 17(4) quoted above, notional repayment of loan has been considered equal to depreciation and interest on loan capital has been calculated accordingly.

4.4.5 The interest on loan (normative) considered and projected as per Regulation 17(4) is tabulated below:

Table 22: Loan Repayment considered and projected as per Regulation 17(4)

Particulars	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24
Opening Loan	702.26	680.88	656.90	615.42	568.98	522.19	475.47	428.80
Add: Drawl (s) during the Year	0.00	23.12	5.35	0.14	-0.22	-0.05	0.014	0.35

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Less: Repayments considered equal to depreciation	21.38	47.10	46.84	46.58	46.56	46.68	46.68	46.68
Closing Loan	680.88	656.90	615.42	568.98	522.19	475.47	428.80	382.47
Rate of Interest on Loan on annual basis	10%	10%	10%	10%	10%	10%	10%	10%
Interest on loan	70.23	68.09	65.69	61.54	56.90	52.22	47.55	42.88

4.4.6 HPPCL requests the Hon'ble Commission to kindly approve the Interest on Loan as per Table above

4.5 Interest on Working Capital

4.5.1 Regulation 18 and 19 of Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Hydro Generation Tariff) Regulations, 2011 and its subsequent amendments states as follows:

"The Commission shall calculate the working capital requirement for hydroelectric power stations containing the following components:

- (a) Operation & Maintenance (O&M) expenses for 1 month;
- (b) Maintenance spares equivalent to 15% of O&M;
- (c) Receivables equivalent to two months of fixed cost

Rate of Interest on working capital to be computed as provided hereinafter in these regulations shall be on normative basis and shall be equal one (1) Year State Bank of India (SBI) MCLR / any replacement thereof as notified by RBI for the time being in effect applicable for one (1) Year period, as may be applicable as on 1st April of the Financial Year in which the Petition is filed plus 300 basis points. The interest on working capital shall be payable on normative basis notwithstanding that the generating company has not taken working capital loan from any outside agency or has exceeded the working capital loan based on the normative figures."

4.5.2 Interest on working capital has been calculated @ 8.8 % per annum (Generation Lending Rate) in accordance with the above Regulations.

4.5.3 The interest on working capital calculated as per regulations is provided in the table below:

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Table 23: Interest on Working Capital – Actual and Projected

Particulars	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24
&M Expenses for 1 Month	2.70	1.92	1.04	0.89	1.26	1.32	1.75	1.96
Maintenance Spares Equivalent to 15% of O&M	4.86	3.46	1.88	1.61	2.28	2.38	3.16	3.52
Receivable Equivalent of 2 Months of Fixed Cost	2.38	5.56	4.65	5.43	-0.49	11.26	8.59	9.25
Total Working Capital Requirement	9.94	10.95	7.57	7.93	3.05	14.96	13.50	14.74
Interest on Working Capital %	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5
Interest on Working Capital	1.14	1.26	0.87	0.91	0.35	1.72	1.55	1.69

4.6 Return on Equity

4.6.1 Regulation 21 of Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Hydro Generation Tariff) Regulations, 2011 and its subsequent amendment states as follows:

"(1) Return on equity shall be computed on the equity determined in accordance with regulation 16 and on pre-tax basis at the base rate of 15.5% to be grossed up as per sub-regulation (3) of this regulation:

(2) The rate of return on equity shall be computed by grossing up the base rate with the normal tax rate as per latest available audited accounts of the generating company:

Provided that in line with the provisions of the relevant Finance Acts of the respective year, the return on equity with respect to the actual tax rate applicable to the generating company during the years of the control period shall be computed separately for each year during the mid-term performance review and at the end of the control period along with the tariff petition filed for the next control period."

4.6.2 Since, HPPCL is continuously incurring losses and no profit has been earned till

APPROVAL OF CAPITAL COST ALONG WITH ADDITIONAL CAPITALIZATION AND DETERMINATION OF TARIFF FOR INTEGRATION OF TARIFF FOR INTEGRATED KASHANG HEP STAGE 1 (1 X 65 MW) FROM COD TO FY 2023-24.

IKHEP STAGE 1, HPPCL

date for any Financial Year since its incorporation i.e. 18/12/2006. Therefore, No Liability of Income Tax has arisen on HPPCL as on date. However, if HPPCL earns profits, then Income Tax liability may arise as per the provisions of Income Tax Act and which may attract Income Tax @ 25% of the Net Profit for FY 2022-23 plus Surcharge extra (i.e. depending upon quantum of the profits).

4.6.3 Accordingly, the ROE has been considered @ 15.50 % as per the regulations mentioned above.

4.6.4 The return on equity as per Regulations is provided in the table given below:

Table 24: Projected Return on (Normative) Equity (Rs. Cr.)

Particulars	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24
Opening balance	300.97	300.97	310.88	313.17	313.23	313.14	313.12	313.12
Addition	0.00	9.91	2.29	0.06	-0.10	-0.02	0.00	0.15
Closing Balance	300.97	310.88	313.17	313.23	313.14	313.12	313.12	313.27
Average balance	300.97	305.92	312.03	313.20	313.19	313.13	313.12	313.20
Rate of RoE	15.50 %	15.50 %	15.50 %	15.50 %	15.50 %	15.50 %	15.50 %	15.50 %
ROE	27.21	47.42	48.36	48.55	48.54	48.53	48.53	48.55

4.6.5 HPPCL requests the Hon'ble Commission to kindly approve the Return on Equity as per Table above.

4.7 Summary of Annual Fixed Charges

4.7.1 The summary of annual fixed charges as computed with the above components is presented in the table below:

Table 25: Annual Fixed Charges

Particulars	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24
Operation & Maintenance Charges	18.89	23.09	12.52	10.73	15.18	17.46	21.04	23.49

APPROVAL OF CAPITAL COST ALONG WITH ADDITIONAL CAPITALIZATION AND DETERMINATION OF TARIFF FOR INTEGRATION OF TARIFF FOR INTEGRATED KASHANG HEP STAGE 1 (1 X 65 MW) FROM COD TO FY 2023-24.

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STAGE 1,
HPPCL

Interest on Finance Charges	70.23	68.09	65.69	61.54	56.90	52.22	47.55	42.88
Depreciation	21.38	47.10	46.84	46.58	46.56	46.68	46.68	46.68
Interest on Working Capital	1.14	1.26	0.87	0.91	0.35	1.72	1.55	1.69
Return on Equity	27.21	47.42	48.36	48.55	48.54	48.53	48.53	48.55
Total	138.84	186.95	174.28	168.31	167.53	166.61	165.34	163.29

4.7.2 The Petitioner humbly requests the Hon'ble Commission to approve the same.

General Manager (Generation)
HPPCL, Himachal Building,
Sector 17, Shimla-171009

ATTESTED

Vijay Kumar Sakkani
Advocate cum Notary Public
Yash Shiksha, Vikas Nagar
Shimla (H.P.)

APPROVAL OF CAPITAL COST ALONG WITH ADDITIONAL CAPITALIZATION AND DETERMINATION OF TARIFF FOR INTEGRATION OF TARIFF FOR INTEGRATED KASHANG HEP STAGE I (1 X 65 MW) FROM COD TO FY 2023-24.

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5 OPERATIONAL NORMS

5.1 Performance Targets

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-

- (a) Normative Annual Plant Availability Factor;
- (b) Auxiliary energy consumption;

5.1.1 Normative Annual Plant Availability Factor (NAPAF)

Regulation 23 of Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Hydro Generation Tariff) Regulations, 2011 and its subsequent amendments specifies as under.

"(1) The norms of operation for hydro generating stations shall be as under-

(a) Normative Annual Plant Availability Factor (NAPAF) for hydro generating stations shall be determined by the Commission as per the following criteria:-.....

(iv) run-of-river type plants: NAPAF to be determined plant-wise, based on 10-day design energy data, moderated by past experience where available/relevant"

The energy data of the project (monthwise from CoD) is tabulated as below:-

Table 26: Energy data of the Project Montwise from COD

Month	Period	DPR Design Energy	2016	2017	2018	2019	2020	2021	2022
		(MU)	(MU)	(MU)	(MU)	(MU)	(MU)	(MU)	(MU)
Jan	I	2.04	CoD on 1 Sept 2016	1.14	1.39	1.33	0.41	1.31	1.64
	II	1.90		1.14	1.39	1.33	0.41	1.31	1.64
	III	1.86		1.14	1.39	1.33	0.41	1.31	1.64
Feb	I	1.81		1.19	1.22	1.00	0.12	1.39	1.46
	II	1.81		1.19	1.22	1.00	0.12	1.39	1.46
	III	1.74		1.19	1.22	1.00	0.12	1.39	1.46
Mar	I	1.90		1.64	1.16	1.10	0.00	1.63	2.13
	II	1.78		1.64	1.16	1.10	0.00	1.63	2.13

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Solan (H.P.)

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APPROVAL OF CAPITAL COST ALONG WITH ADDITIONAL CAPITALIZATION AND DETERMINATION OF TARIFF FOR INTEGRATION OF TARIFF FOR INTEGRATED KASHANG HEP STAGE I (I X 65 MW) FROM COD TO FY 2023-24.

IKHEP STAGE I, HPPCL

	III	1.81		1.64	1.16	1.10	0.00	1.63	2.13
Apr	I	1.80		5.39	3.13	4.08	0.00	2.09	4.11
	II	2.06		5.39	3.13	4.08	0.00	2.09	4.11
	III	3.85		5.39	3.13	4.08	0.00	2.09	4.11
May	I	4.07		10.16	6.70	6.45	0.00	5.19	7.08
	II	5.15		10.16	6.70	6.45	0.00	5.19	7.08
	III	5.70		10.16	6.70	6.45	0.00	5.19	7.08
Jun	I	6.41		11.63	0.00	11.08	0.00	10.64	7.99
	II	8.14		11.63	0.00	11.08	0.00	10.64	7.99
	III	9.38		11.63	0.00	11.08	0.00	10.64	7.99
Jul	I	12.25		13.13	11.45	13.74	0.00	14.93	11.28
	II	13.68		13.13	11.45	13.74	0.00	14.93	11.28
	III	12.35		13.13	11.45	13.74	0.00	14.93	11.28
Aug	I	12.05		9.31	11.53	11.53	0.00	13.84	11.50
	II	11.03		9.31	11.53	11.53	0.00	13.84	11.50
	III	9.12		9.31	11.53	11.53	0.00	13.84	11.50
Sep	I	6.59	7.23	4.73	0.05	8.39	0.00	9.27	4.86
	II	5.65	7.23	4.73	0.05	8.39	0.00	9.27	4.86
	III	5.29	7.23	4.73	0.05	8.39	0.00	9.27	4.86
Oct	I	4.36	3.38	3.59	2.76	3.55	0.00	4.62	0.00
	II	4.14	3.38	3.59	2.76	3.55	0.00	4.62	0.00
	III	3.70	3.38	3.59	2.76	3.55	0.00	4.62	0.00
Nov	I	3.33	1.58	2.16	2.62	2.20	0.00	2.36	0.00
	II	3.24	1.58	2.16	2.62	2.20	0.00	2.36	0.00
	III	2.93	1.58	2.16	2.62	2.20	0.00	2.36	0.00
Dec	I	2.91	1.23	1.81	1.80	1.61	0.00	2.03	0.54
	II	2.89	1.23	1.81	1.80	1.61	0.00	2.03	0.54
	III	2.71	1.23	1.81	1.80	1.61	0.00	2.03	0.54

ATTESTED

Vijay Kumar Saksena
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Yash Bhawan, Vikas Nagar
Shimla (H.P.)

General Manager (General)
HPPCL, Himed Building,
New Shimla-171009

5.2 Auxiliary Energy Consumption

5.2.1 The Hon'ble Commission shall set targets for performance improvement as per

APPROVAL OF CAPITAL COST ALONG WITH ADDITIONAL CAPITALIZATION AND DETERMINATION OF TARIFF FOR INTEGRATION OF TARIFF FOR INTEGRATED KASHANG HEP STAGE I (I X 65 MW) FROM COD TO FY 2023-24.

IKHEP
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HPPCL

the below clause of HPERC Regulations.

5.2.2 Regulation 23 (b) of Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Hydro Generation Tariff) Regulations, 2011 and its subsequent amendments specifies as under

Surface hydroelectric power generating station	With rotating exciters mounted on the generator shaft	0.7%
	With static excitation system	1%
Underground hydro electric power generating station	With rotating exciters mounted on the generator shaft	0.9%
	With static excitation system	1.2%

5.2.3 The petitioner presents that (3X65 MW) Integrated Kashang HEP Stage – I, II and III is an underground hydroelectric power generating station with static excitation system and accordingly the Petitioner is requesting to approve an auxiliary consumption of 1.2%.

Generation Details (As per DPR)	
Gross Generation	245.8 MU
Aux. Consumption	1.20%
Net Generation	242.85
Free Energy to State (FEHS)	13%
Net Saleable	211.28 MU

ATTESTED

Vijay Kumar Saklani
Advocate cum Notary Public
Yash Vihar, Sector 17, Gurgaon
Shri Krishna (Gurgaon)

[Handwritten Signature]

General Manager (Generation)
HPPCL, Himfid Building,
Near Shimla-171009

APPROVAL OF CAPITAL COST ALONG WITH ADDITIONAL CAPITALIZATION AND DETERMINATION OF TARIFF FOR INTEGRATION OF TARIFF FOR INTEGRATED KASHANG HEP STAGE 1 (1 X 65 MW) FROM COD TO FY 2023-24.

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6 CAPACITY CHARGES

6.1 Capacity Charges and Energy Charges

6.1.1 Regulation 26 of Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Hydro Generation Tariff) Regulations, 2011 and its subsequent amendments specifies as under:

"26. Computation of Capacity Charge and Energy Charge

(1) The fixed cost of a hydro generating station shall be computed on annual basis, based on norms specified under these regulations, and recovered on monthly basis under capacity charge (inclusive of incentive) and energy charge, which shall be payable by the beneficiaries in proportion to their respective allocation in the saleable capacity of the generating station, that is to say, in the capacity excluding the free power to the State:...

The capacity charge (inclusive of incentive) payable to a hydro generating station for a calendar month shall be –

$AFC \times 0.5 \times NDM / NDY \times (PAFM / NAPAF)$ (in Rupees)

Where,

AFC = Annual fixed cost specified for the year, in Rupees.

NAPAF = Normative plant availability factor in percentage

NDM = Number of days in the month

NDY = Number of days in the year

PAFM = Plant availability factor achieved during the month, in percentage....

Energy charge rate (ECR) in Rupees per kWh on ex-power plant basis, for a hydro generating station, shall be determined up to three decimal places based on the following formula, subject to the provisions of sub-regulation (7):-

$ECR = AFC \times 0.5 \times 10 / \{DE \times (100 - AUX) \times (100 - FEHS)\}$

Where,

DE = Annual design energy specified for the hydro generating station, in MWh, subject to the provisions of sub-regulations (6)

FEHS = Free energy for State, in per cent defined in regulation 28."

ATTESTED

Vijay Kumar Saksena
Advocate cum Notary
Tech Bhawan, Vikas
Sahibzada (C.P.)

General Manager (Generation)
HPPCL, Himfid Building,
New Shimla-171009

APPROVAL OF CAPITAL COST ALONG WITH ADDITIONAL CAPITALIZATION AND DETERMINATION OF TARIFF FOR INTEGRATION OF TARIFF FOR INTEGRATED KASHANG HEP STAGE 1 (1 X 65 MW) FROM COD TO FY 2023-24.

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7 PRAYERS TO COMMISSION

HPPCL respectfully prays to the Hon'ble Commission:

- i. To admit the Petition seeking Capital Cost along with Additional capitalization approval and determination of tariff from COD till FY 23-24.
- ii. To approve the capital cost along with Additional capitalization and subsequent determination of Annual Fixed Cost under each MYT including periodic review and true-up for (65 MW) Integrated Kashang HEP Stage I.
- iii. To determine Annual Fixed Charges from COD till FY 2023-24 in accordance with HPERC Hydro Tariff Regulation 2011 parameters as amended from time to time as the same were not been booked by the petitioner in line with the CERC/HPERC Regulations (i.e. *Operation & Maintenance Charges, Interest on Finance Charges, Return on Equity & Interest on Working Capital*) due to uncertainty of beneficiary throughout the Nation till 31.03.2023.
- iv. To devise a mechanism to overcome the loss/ profit incurred to HPPCL since COD till 31.03.2023 because of Sale of Power of Integrated Kashang HEP Stage 1 (65 MW) on Short Term Basis due to non availability of beneficiary.
- v. To pass such order to avail the benefit of the Hydro Purchase Obligation (HPO)/Renewable Purchase Obligation (RPO) as per the relevant CERC/HPERC/Ministry of Power Regulations/Notifications as amended from time to time.
- vi. The expenditure incurred towards levies, taxes, duties, cess etc., if any and Water Cess on HEP being leived by HP, fee and charges of Regional Load Dispatch Centre (NRLDC) etc. may be allowed to be recovered from the Respondent.
- vii. To approve auxiliary consumption of 1.2%.
- viii. To determine NAPAF of the Project for calculation of Capacity Charges.
- ix. To issue appropriate mechanism for calculation of Declared Capacity (in ex-bus MW) for further calculation of Plant Availability Factor achieved during the Month in % (PAFM) for calculation of Capacity Charges.
- x. The Arbitration cases in r/o Civil and Electromechanical works of Integrated Kashang HEP Stage 1 are sub-judice and the cost involved (154.26 Crore + Interest) has not been considered in the total cost of the project and may be considered during true up.
- xi. To pass such order that the costs incurred in Kashang Stage 2 & 3 shall be filed separately upon completion of Kashang Stage 2 & 3 works.
- xii. To pass such orders that the Petition filing fee and other expenditure incurred in filing of

ATTESTED

Vijay Kumar Sakshi
Advocate at Law
Vishu Shivani, Vikas
Sharma (H.P.P.)

General Manager (Generation)
HPPCL, Himachal Building,
New Shimla-171002

APPROVAL OF CAPITAL COST ALONG WITH ADDITIONAL CAPITALIZATION AND DETERMINATION OF TARIFF FOR INTEGRATION OF TARIFF FOR INTEGRATED KASHANG HEP STAGE 1 (1 X 65 MW) FROM COD TO FY 2023-24.

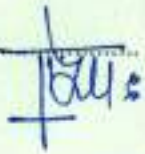
IKHEP
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petition may be allowed to be recovered by the Petitioner from the Respondent.

- xiii. To condone any inadvertent omissions/ errors/ shortcomings and permit the Petitioner to add/ change/ modify/ alter this filing and make further submissions as may be required at a future date.
- xiv. To allow further submissions, addition and alteration to this Petition as may be necessitating from time to time.
- xv. To treat the filing as complete in view of substantial compliance as also the specific requests for waivers with justification placed on record.
- xvi. To pass such other and further orders as are deemed fit and proper in the facts and circumstances of the case.
- xvii. To grant any relief as the Hon'ble Commission may consider appropriate.

By the Applicant

Through its...



General Manager (Generation)
HPPCL, Himachal Building,
Shimla-171009

ATTESTED

Vijay Kumar Sakhani
Advocate and Notary Public
Mish. Bhawan, Vasant Nagar
Shimla (H.P.)

No. 0583248

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Himachal Government Judicial Paper

BEFORE THE HON'BLE HIMACHAL PRADESH ELECTRICITY REGULATORY COMMISSION

Filing No.....

Petition No.....

IN THE MATTER OF

FILING OF PETITION FOR APPROVAL OF CAPITAL COST AS ON COD TAKING IN CONSIDERATION THE ADDITIONAL CAPITAL EXPENDITURE AND DETERMINATION OF TARIFF FROM COD TILL FY 23-24 FOR 1X65 MW IKHEP STAGE-I HYDRO ELECTRIC PLANT, OF HIMACHAL PRADESH POWER CORPORATION Ltd. (HPPCL) UNDER THE HIMACHAL PRADESH ELECTRICITY REGULATORY COMMISSION (TERMS AND CONDITIONS FOR DETERMINATION OF HYDRO GENERATION TARIFF) REGULATIONS, 2011 AND ITS AMMENDMENTS THERAFTER AND UNDER SECTION-62 READ WITH SECTION 86 OF THE ELECTRICITY ACT 2003.

HIMACHAL PRADESH POWER CORPORATION LIMITED, HIMFED BUILDING, BCS, NEW SHIMLA, SHIMLA -9.

PETITIONER

VERSUS

THE HIMACHAL PRADESH STATE ELECTRICITY BOARD LIMITED, HPSEBL, VIDYUT BHAWAN, SHIMLA-171004.

RESPONDANT NO. 1

ATTENDED

Vijay Kumar Sakher
Advocate cum Notary Public
3rd Floor, Vardaan Nagar
Shimla-171004

General Manager (Generation)
HPPCL, Himfed Building,
New Shimla-171004

AFFIDAVIT

I, Rohit Sharda, son of Late. Sh.Dev Dutt Sharda, aged about 49 years, occupation General Manager (Generation), HIMFED Building, HPPCL, BCS, Shimla-171009, do hereby solemnly affirm and declare that I have gone through the contents of the accompanying petition and that the contents of the same are true and correct to the best of my personal knowledge as derived from the official record.

I further solemnly affirm and verify that the contents of this affidavit are true and correct to the best of my personal knowledge, no part of it is false and nothing material has been concealed therein.

ATTESTED


Vijay Kumar Saklani
Advocate cum Notary Public
Vishw Prasth, Vikas Nagar
Shimla (H.P.)

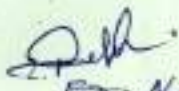
Verified and signed at Shimla on this 22nd day of June, 2023.



Deponent

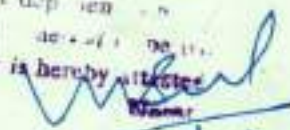
General Manager (Generation)
HPPCL, Himfed Building,
Shimla-171009

Witness:

1. 
E. Gulshan Kumar
Sr. Manager (E), HPPCL


Nishik Sekhri
Assistant Engineer HPPCL


IDENTIFIED BY
243696941716

sworn before me on the 22nd day of June 23
at Shimla in the district of Shimla
by Rohit Sharda
Identified by Dharamendra Thakur
and correct affidavit is hereby attested

22/6/23