Approval of Capital Cost and determination of tariff for 4th Control Period from COD to FY23-24 for

400/220 kV, 315 MVA Pooling Sub-Station at Gumma (Asset-1),

Additional 400/220 kV, 315 MVA Transformer Bank at Gumma (Asset-2),

220 kV Double Circuit Twin Moose Transmission Line from Hatkoti to Gumma along with LILO of 400 kV Double Circuit Jhakri to Abdullapur Transmission Line (Asset-3) and

220 kV Switching Station at Hatkoti (Asset-4)

Himachal Pradesh Power Transmission Corporation Limited

(HPPTCL)

Himachal Pradesh Electricity Regulatory Commission

July 17, 2025

BEFORE THE HIMACHAL PRADESH ELECTRICITY REGULATORY COMMISSION AT SHIMLA

PETITION NO: 101/2024

Decided on: 17.07.2025

CORAM

Sh. DEVENDRA KUMAR SHARMA

Sh. YASHWANT SINGH CHOGAL

Sh. SHASHI KANT JOSHI

In the matter of:

Approval of Capital cost and Determination of Tariff for 4th Control Period from COD to FY 2023-24 for 400/220 kV, 315 MVA Pooling Sub-Station at Gumma (Asset-1), Additional 400/220 kV, 315 MVA Transformer Bank at Gumma (Asset-2), 220 kV Double Circuit Twin Moose Transmission Line from Hatkoti to Gumma along with LILO of 400 kV Double Circuit Jhakri to Abdullapur Transmission Line (Asset-3) and 220 kV Switching Station at Hatkoti (Asset-4) under the Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011, as amended from time to time, and under Section 62, read with Section 86 of the Electricity Act, 2003.

AND

In the matter of:

Himachal Pradesh Power Transmission Corporation Ltd. (HPPTCL)….Petitioner

ORDER

The Himachal Pradesh Power Transmission Corporation Limited (hereinafter called the 'HPPTCL' or 'Petitioner' or 'Applicant') has filed the present Petition with the Himachal Pradesh Electricity Regulatory Commission (hereinafter referred to as 'the Commission' or 'HPERC') for the Approval of Capital cost and Determination of Tariff for 4th Control Period from COD to FY 2023-24 for 400/220 kV, 315 MVA Pooling Sub-Station at Gumma (Asset-1), Additional 400/220 kV, 315 MVA Transformer Bank at Gumma (Asset-2), 220 kV Double Circuit Twin Moose Transmission Line from Hatkoti to Gumma along with LILO of 400 kV Double Circuit Jhakri to Abdullapur Transmission Line (Asset-3) and 220 kV Switching Station at Hatkoti (Asset-4) under the Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011(as amended from time to time) and under Section-62, read with Section-86 of the Electricity Act, 2003.

On scrutiny and examination of the Petition, several deficiencies were noted, and the Petitioner was asked to file response to the deficiencies. However, the Petitioner took significant time in responding to the clarifications and queries raised by the Commission. On several occasions, the information provided was either incomplete or did not address the query of the Commission adequately. Even post the written submissions, clarifications were sought verbally from the Petitioner. The Commission has heard the applicant, interveners, and representatives of Stakeholders. The Commission has also held formal interactions with the officers of the HPPTCL and has considered the documents available on record.

After considering the Petition filed by the Applicant, the facts presented in its subsequent submissions, the responses of the Applicant to the objections and documents available on record, the Commission in exercise of powers vested in it under Section 86 of the Electricity Act, 2003 and 12(1) of HPERC Tariff Regulations, 2011, as amended from time to time, passes the following Order for determining the Capital cost and Transmission Tariff of 400/220 kV, 315 MVA Pooling Sub-Station at Gumma (Asset-1), Additional 400/220 kV, 315 MVA Transformer Bank at Gumma (Asset-2), 220 kV Double Circuit Transmission Line from Hatkoti to Gumma along with LILO of 400 kV Double Circuit Jhakri to Abdullapur (Asset-3) and 220 kV Switching Station at Hatkoti (Asset-4) from COD to FY 2023-24. While determining the Capital cost and Aggregate Revenue Requirement (ARR) for abovementioned assets, the Commission has also taken into consideration the guidelines laid down in Section 61 of the Electricity Act, 2003, the National Electricity Policy, the National Tariff Policy, CERC (Terms and Conditions of the

Tariff) Regulations, 2019, as amended from time to time and HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011, as amended from time to time. Details of prudence check and approach adopted by the Commission with regard to approval of Capital cost and ARR for Sub-station and Transmission line are summarized in the detailed Order contained in Chapters 1 to 4.

-Sd-	-Sd-	-Sd-
(SHASHI KANT JOSHI)	**(YASHWANT SINGH CHOGAL)**	**(DEVENDRA KUMAR SHARMA)**
Member	**Member, Law**	**Chairman**

Shimla
Dated: 17th July, 2025

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1. INTRODUCTION

1.1 Himachal Pradesh Electricity Regulatory Commission

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

1.1.2 Functions of the Commission

As per Section 86 of the Electricity Act, 2003, the State Commission shall discharge the following functions, namely.

a) determine the Tariff for generation, supply, Transmission and wheeling of electricity, wholesale, bulk or retail, as the case may be, within the State. Provided that where open access has been permitted to a category of consumers under section 42, the State Commission shall determine only the wheeling charges and surcharge thereon, if any, for the said category of consumers.

b) regulate electricity purchase and procurement process of distribution licensees including the price at which electricity shall be procured from the generating companies or licensees or from other sources through agreements for purchase of power for distribution and supply within the State.

c) facilitate intra-state Transmission and wheeling of electricity.

d) issue licences to persons seeking to act as Transmission licensees, distribution licensees and electricity traders with respect to their operations within the State.

e) promote co-generation and generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person, and specify, for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution licence.

f) adjudicate upon the disputes between the licensees and generating companies and to refer any dispute for arbitration.

g) levy fee for the purposes of this Act.

h) specify State Grid Code consistent with the Indian Electricity Grid Code specified with regard to grid standards.

i) specify or enforce standards with respect to quality, continuity and reliability of service by licensees.

j) fix the trading margin in the intra-state trading of electricity, if considered, necessary; and

k) Discharge such other functions as may be assigned to it under this Act.

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

a) promotion of competition, efficiency and economy in activities of the electricity industry.

b) promotion of investment in electricity industry.

c) reorganization and restructuring of electricity industry in the State.

d) Matters concerning generation, Transmission, distribution and trading of electricity or any other matter referred to the State Commission by State Government.

1.2 Himachal Pradesh Power Transmission Corporation Ltd.

1.2.1 Himachal Pradesh Power Transmission Corporation Limited (hereinafter referred to as 'HPPTCL' or 'the Petitioner') is a deemed licensee under first, second and fifth provision of Section 14 of the Electricity Act, 2003 (hereinafter referred to as 'the Act') for Transmission of electricity in the State of Himachal Pradesh.

1.2.2 The Government of Himachal Pradesh (hereinafter referred to as 'GoHP' or the 'State Government' formed HPPTCL through a notification vide Notification No. MPP-A-(1)-4/2006-Loose, dated 11th September, 2008.

1.2.3 HPPTCL was entrusted with the following work / business with immediate effect:

a) All new works of construction of Sub-Stations of 66 kV and above.

b) All new works of laying/ construction of Transmission lines of 66 kV and above.

c) Formulation, updating, execution of Transmission Master Plan for the state for strengthening of Transmission network and evacuation of power including new works under schemes already submitted by the Himachal Pradesh State Electricity Board (HPSEB) under this plan to the Financial Institutions for funding and where loan agreements have not yet been signed.

d) All matters relating to planning and co-ordinations of the Transmission related issues with CTU, CEA, Ministry of Power, State Government and HPSEBL.

e) Planning and co-ordination with the IPPs/ CPSUs/ State PSUs/ Other Departments or organizations or agencies of the Central Government and State Government, HPSEBL and HPPCL with regard to all Transmission related issues.

1.2.4 HPPTCL was declared the State Transmission Utility (STU) by the GoHP vide Order dated 10th June, 2010 and as a result thereof the Commission has recognized HPPTCL as a deemed "Transmission Licensee" as per the Commission's Order dated 31st July, 2010 in Petition No. 32 of 2010 filed by HPPTCL under Sections 14 and 15 of the Act, for grant of Transmission Licensee in the State of Himachal Pradesh. Prior to FY 2010-11, the Transmission Tariff was being determined as a part of the Tariff Orders applicable to HPSEBL system.

1.3 Multi Year Tariff Framework

1.3.1 The Commission follows the principles of Multi Year Tariff (MYT) for determination of Tariffs, in line with the provisions of Section 61 of the Electricity Act, 2003 (hereinafter to be referred to as the "Act").

1.3.2 The MYT framework is also designed to provide predictability and reduce regulatory risk. This can be achieved by approval of a detailed capital investment plan for the Petitioner, considering the expected network expansion and load growth during the Control Period. The longer time span enables the Petitioner to propose its investment plan with details on the possible sources of financing and the corresponding capitalization schedule for each investment.

1.3.3 The Commission had specified the terms and conditions for the determination of Tariff in the year 2004, based on the principles as laid down under Section 61 of the Electricity Act 2003.

1.3.4 Thereafter, the Commission had notified the HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011. These MYT Regulations were amended in 2013, 2018 and 2023 as (First Amendment) Regulations, 2013 on 1st November, 2013, (Second Amendment) Regulations, 2018 on 22nd November, 2018 and (Third Amendment) Regulations, 2023 on 2nd June, 2023 respectively (The Regulations and the subsequent amendments combined shall be herein after referred to as "HPERC Transmission Tariff Regulations, 2011").

1.4 Interaction with the Petitioner

1.4.1 The HPPTCL has filed the instant Application/Petition for approval of Capital cost and determination of Tariff for the period from COD to FY 2023-24 for 400/220 kV, 315 MVA Pooling Sub-Station at Gumma (Asset-1), Additional 400/220 kV, 315 MVA Transformer Bank at Gumma (Asset-2), 220 kV Double Circuit Twin Moose Transmission Line from Hatkoti to Gumma along with LILO of 400 kV Double Circuit Jhakri to Abdullapur Transmission Line (Asset-3) and 220 kV Switching Station at Hatkoti (Asset-4), with the Commission on 31.01.2023. Based on various observations/deficiencies pointed out by the Commission, HPPTCL has submitted further details and clarifications subsequently.

1.4.2 The Commission admitted the Petition submitted by the HPPTCL vide Interim Order dated 27.05.2024. There have been a series of interactions between the HPPTCL and the Commission, both written and oral, wherein the Commission sought additional information/clarifications and justifications on various issues, critical for the analysis of the Petition. In addition, the Petitioner submitted the Interlocutory Application along with the affidavit on 14.06.2023.

1.4.3 Based on the detailed scrutiny of the Petition, further clarifications/ information was sought by the Commission from time to time. The following submissions made by the Petitioner in response there to, have been taken on record:

Table 1: Communication with the Petitioner

Sl. No.	Letter from Commission	Response from Petitioner
1	HPERC-F (1)-52/2023-605 dated 05.06.2023	Filling No. 18 of 2023 dated 07.12.2023
2	HPERC-F (1)-52/2023-3447-48 dated 20.01.2024	Filling No. 18 of 2023 dated 09.05.2024
3	HPERC-F (1)-52/2023-1918 dated 27.09.2024	Filling No. 140 of 2024 dated 22.03.2025
4	HPERC-F (1)-52/2023-463 dated 02.05.2025	Filling No. 303 of 2025 dated 04.06.2025

1.5 Public Hearings

1.5.1 The Interim Order, inter alia, included directions to the Petitioner to publish the application in an abridged form and manner as per the "disclosure format" attached with the Interim Order for the information of all the Stakeholders in the State. As per the direction, the salient features of the Petition have been published by the HPPTCL in the following Newspapers:

Table 2: List of Newspapers for publication of Salient features for Stakeholders comments

S. No.	Name of News Paper	Date of Publication
1.	Amar Ujala	01.06.2024
2.	The Tribune	01.06.2024

1.5.2 The Commission published a Public Notice inviting suggestions and objections from the public on the Tariff Petition filed by the Petitioner in accordance with Section 64(3) of the Act which was published in the Newspapers as mentioned in the table:

Table 3: List of Newspapers for Public Notice by the Commission

S. No.	Name of News Paper	Date of Publication
1.	Divya Himachal	07.06.2024
2.	Indian Express	07.06.2024

1.5.3 The Stakeholders were requested to file their objections by 08.07.2024. The HPPTCL was required to submit replies to the suggestions/objections to the Commission by 15.07.2024 with a copy to the objectors on which the objectors were required to submit their rejoinders by 18.07.2024.

1.5.4 The Commission decided to conduct the Public Hearing and, therefore, issued a Public Notice informing the public about the scheduled date of Public Hearing as 30.07.2024 and its subsequent postponement to 01.08.2024, due to administrative reasons. All the parties, who had filed their objections/ suggestions, were informed about the date, time and venue of the Public Hearing for presenting their case.

1.5.5 The Commission has undertaken detailed scrutiny of the submissions made by the Petitioner and the various objections raised by Stakeholders carefully for the purpose of issuance of this Order.

2. STAKEHOLDER OBJECTIONS

2.1 Introduction

2.1.1 As detailed out in Chapter-1 of this Order, the Commission through Public Notice in various newspapers informed the Public/Stakeholders about the dates of filing the comments/ objections and public hearing etc. for the Petition of approval of Capital cost and determination of Tariff for 4th Control period from COD to FY 2023-24 for 400/220 kV, 315 MVA Pooling Sub-Station at Gumma (Asset-1), Additional 400/220 kV, 315 MVA Transformer Bank at Gumma (Asset-2), 220 kV Double Circuit Twin Moose Transmission Line from Hatkoti to Gumma along with LILO of 400 kV Double Circuit Jhakri to Abdullapur Transmission Line (Asset-3) and 220 kV Switching Station at Hatkoti (Asset-4).

2.1.2 Accordingly, the Public Hearing was conducted on 01.08.2024 in the Commission. The Comments/Suggestions were received on the Petition from the SJVNL only. Issues raised by the Stakeholder in the written submission, along with reply given by the Petitioner and views of the Commission on the issues raised are summarized in the following paragraphs.

Shifting of 22 kV HT lines:

Stakeholder's Submissions

2.1.3 The Stakeholder, namely, SJVNL, has submitted that the reasons as specified by the Petitioner for delay in shifting of 22 kV HT lines are not "Force Majeure" events and the Petitioner could have controlled the time over-run on this account, if they had acted promptly and taken-up the matter with HPSEBL more rigorously after the start of the contract period of M/s Alstom T&D India Ltd. Therefore, the Stakeholder has submitted that time over run on this account may not be allowed to the Petitioner.

Petitioner's Response

2.1.4 In reply to the averments made by the Stakeholder regarding delay in Shifting of 22 kV HT Lines in case of Asset-1, the Petitioner has submitted that the shifting of said line was under the purview of HPSEBL and amount was deposited as per demand notice along with intimation to HPSEBL vide letter dated 19.12.2012 even before award of said works. Thereafter, HPPTCL had continuously followed up with HPSEBL to expedite the works. Further as submitted in the Petition, the Shifting of HT Line was also delayed on account of RoW Issues and pendency of Court cases which were beyond the reasonable control of Petitioner. The Petitioner has, therefore, prayed to condone the Time overrun faced in the implementation of Asset-1.

Commission's Observations

2.1.5 The Commission feels that both HPPTCL and HPSEBL, being State owned entities, coordination should have been better to ensure timely execution of works. Accordingly, the Commission has taken note of the submissions of the Stakeholder and the Petitioner and has dealt with the issue in Chapter 3 of this Order.

Issue regarding 400 kV Bus Duct:

Stakeholder's Submissions

2.1.6 With respect to the issue of 400 kV Bus Duct, the Stakeholder, SJVNL, has submitted that M/s Alstom T&D India Ltd. vide letter dated 10.11.2014, submitted the financial implications of changes of bus duct layout with respect to availability of the land. The Petitioner took nine months to resolve this issue internally within their corporation, despite the fact that the contract period for M/s Alstom had already begun. HPPTCL has extensive knowledge and experience in establishing, maintaining, and operating an effective, coordinated, and cost-efficient intra-state Transmission system. Therefore, the period of nine months taken to resolve this matter internally is not justifiable. The Stakeholder has submitted that time over run on this account may be allowed to the Petitioner only of three months.

Petitioner's Response

2.1.7 In reply to the averments made by the Stakeholder regarding delay due to the issue of 400 kV Bus Duct in case of Asset-1, the Petitioner has submitted that the said delay was on account on variation in the Bus Duct Length which had to be reworked due to 11 No. acquisitions of third-party land owing to RoW issues which was beyond the reasonable control of Petitioner. The Petitioner, therefore, has prayed the Commission to condone the entire Time overrun faced in the implementation of Asset-1 on account of delay due to the issue of 400 kV Bus Duct.

Commission's Observations

2.1.8 The issue of Bus ducts was discussed and agreed during meeting with M/s Alstom in Review Meeting dated 16.09.2014. During meeting it was decided that the issue will be pursued by HPPTCL. The financial implication regarding the same was conveyed by firm vide letter dated 10.11.2014 w.r.t. HPPTCL letter dated 27.10.2014 after incorporation of changes as per Bus Duct Revision-9 Layout with respect to availability of land and without 3rd party land. Further, the matter was taken up by Contracts Wing of HPPTCL with Projects & Design Wing and said matter was finally resolved on dated 19.08.2015. The Commission feels that this significant delay could have been avoided by the Petitioner. Accordingly, the Commission has taken note of the submissions of the Stakeholder and the Petitioner and has dealt the issue in Chapter 3 of this Order.

Type Test of 105 MVA Transformer:

Stakeholders' Submissions

2.1.9 The Stakeholder, SJVNL, has submitted that the Type Test of 105 MVA Transformer was not envisaged in the original contract awarded to M/s Alstom on 25.10.2013 and has conveyed that it was mandatory to conduct the same as per IS:2026. In this regard, it is submitted that if the short circuit test would have been considered part of the original contract, then the price impact of the same would not have been as much due to competition between the bidders during the tendering. However, after finalization of the Contractor, the Petitioner had lost its bargaining power and may have paid more. Therefore, the Stakeholder has submitted that the negligence of the Petitioner may not be burdened on the Stakeholder, and it is prayed that cost over run on this account may not be allowed to the Petitioner.

Petitioner's Response

2.1.10 In reply to the averments made by the Stakeholder regarding requirement of Type Test of 105 MVA Transformer in case of Asset-1, the Petitioner has submitted that the NIT w.r.t. erection and commissioning of Asset-1 was invited during 22.11.2011 based on tender document approved by the ADB, comprising of Commercial and Technical documents. As per the Technical document, under section-4, paragraph 4.52, it was prescribed that "The bidder shall submit Test Certificates of the Short Circuit Test, if already done on the offered/higher Design and Rating".

2.1.11 Further, the Petitioner submitted that the work was awarded to M/s Alstom during 25.10.2013 based on submission of short circuit test of higher rating, as per the provisions of the contract. During pre-bid clarifications, it was confirmed by HPPTCL that "Short circuit test charges should be quoted by the bidder but shall not be considered for bid evaluation". Accordingly, M/s Alstom had quoted separately for the Short Circuit Test in the bid as Rs. 10 Cr.

2.1.12 Further, the Petitioner submitted that in the bid evaluation, the L-1 bidder was M/s Alstom, who had quoted Rs. 10 Cr. against Short Circuit Test, while its bid was at Rs. 153.14 Cr. However, M/s ABB had quoted Rs. 5 Cr. against Short Circuit Test, while its bid was at Rs. 217.08 Cr. being L-4 bidder. The other bidders were M/s L&T, Chennai and M/s Siemens. Even if the Short Circuit Charges were added to the evaluated bid price, the status of the L-1 bidder would have not changed. Further, the said cost of type test is to be treated as part of Award, being mandatory requirement as per the CEA.

2.1.13 Further, the Petitioner submitted that M/s Alstom had offered to extend the defect liability period from 540 days to 1080 days. However, CEA vide notification dated 08.09.2014, made the Short Circuit Test of Transformers on similar Design/Rating of Transformer, a mandatory requirement. Therefore, it was decided to get the Short Circuit Test done on one of the Transformers and the same was conveyed to the firm vide HPPTCL letter dated 20.10.2014. Hence, in view of the mandatory requirement of the Short Circuit issued vide CEA Regulations in 20.08.2010 and again reiterated by CEA vide its letter dated 08.09.2014, the condition of Short Circuit Test to validate the design was made necessary based on which Short Circuit Test was conducted at quoted prices. The Petitioner has submitted all the supporting documents against the same.

2.1.14 Therefore, the Petitioner has prayed the Commission to condone the Time overrun faced in the implementation of Asset-1.

Commission's Observations

2.1.15 The Commission feels that the time delay of 29 months for undertaking type test for transformer could have been avoided to a large extent. The Commission has taken note of the submissions of the Stakeholder and the Petitioner and has dealt with the matter in Chapter 3 of this Order.

<u>400 kV Line Bays Phase Sequencing:</u>

Stakeholders' Submissions

2.1.16 With respect to issue of 400 kV Line Bays Phase Sequencing, the Stakeholder, SJVNL, has submitted that it appears that the Petitioner has not designed as well as executed the interfacing between Contractor and outside Agencies in a professional manner causing avoidable delay in project execution. Firstly, there was surprise in matching the phase sequence resulting in requirement of additional gantry and when gantry was supplied there was issue of additional requirement of gantry structure along with change in size of foundation bolts. This type of casual approach by an esteemed and well experienced organization like HPPTCL is not justifiable. Hence, it is submitted that the casual approach of the Petitioner should not burden the Stakeholders. Therefore, the Stakeholder has submitted that the time overrun on this account should not be allowed to the Petitioner.

Petitioner's Response

2.1.17 In reply to the averments made by the Stakeholder regarding delay due to the issue of 400 kV Line Bays Phase Sequencing in case of Asset-1, the Petitioner has submitted date-wise and event-wise correspondence/communication details with regard to issue of phase sequencing of 400 kV bus, along with its supporting documents in response to query raised to the deficiency letter dated 05.06.2023. Therefore, the Petitioner has prayed the Commission to condone the Time overrun faced in the implementation of Asset-1.

Commission's Observations

2.1.18 The Commission has taken note of the submissions of the Stakeholder and the Petitioner and has dealt with the matter based on the review of the documentary proofs submitted in Chapter 3 of this Order.

Non-availability of dumping yard for Asset-1:

Stakeholders' Submissions

2.1.19 With respect to delay due to non-availability of dumping yard for Asset-1, the Stakeholder, SJVNL, has submitted that the contract for execution of the Asset-1 was awarded during FY 2013-14, hence, the dumping site should have been finalized proactively by the Petitioner aligning with commencement of the works as per contract. The Petitioner had acted on the issue only after getting intimation from the Contractor on 31.12.2018. It reflects the lack of proper planning on the part of the Petitioner. Given the Petitioner's wealth of experience, the duration taken to accomplish the task seems unreasonable and the delay on this account is not justifiable. Therefore, the Stakeholder has submitted that time over run on this account may not be allowed to the Petitioner.

Petitioner's Response

2.1.20 In reply to the averments made by the Stakeholder regarding delay due to non-availability of Dumping Yard, the Petitioner has informed that the events and dates with regard to non-availability of dumping yard on account of non-cooperation from local people along with the supporting documents has been submitted in the Petition as well as in response to query raised to the Deficiency Letter dated 05.06.2023. Therefore, the Petitioner has prayed the Commission to condone the Time overrun faced in the implementation of Asset-1.

Commission's Observations

2.1.21 The Commission feels that the requirements for dumping yard should have been determined during planning stage as this is a general aspect. Accordingly, the Commission has taken note of the submissions of the Stakeholder and the Petitioner and has dealt with the matter in Chapter 3 of this Order.

Non-availability of dumping yard for Asset-2:

Stakeholders' Submissions

2.1.22 With respect to delay due to non-availability of dumping yard for Asset-2, the Stakeholder, SJVNL, has submitted that the contract for execution of the Asset-2 was awarded during FY 2016-17, hence, the dumping site should have been finalized proactively by the Petitioner aligning with commencement of the works as per contract. The Petitioner had acted on the issue only after getting intimation from the Contractor on 02.01.2019. It reflects the lack of proper planning on the part of the Petitioner. Given the Petitioner's wealth of experience, the duration taken to accomplish the task seems unreasonable and the delay on this account is not justifiable. Therefore, the Stakeholder has submitted that time over run on this account may not be allowed to the Petitioner.

Petitioner's Response

2.1.23 In reply to the averments made by the Stakeholder regarding delay due to non-availability of Dumping Yard in case of Asset-2, the Petitioner has submitted that the events and dates with regard to non-availability of dumping yard on account of non-cooperation from local people along with the supporting documents in the Petition as well as in response to query raised to the Deficiency Letter dated 05.06.2023. Further, the Petitioner has submitted that the primary reason for delay in commissioning of Asset-2 was due to delay in COD of associated Transmission Assets i.e., Asset-1 and Asset-3, which achieved their CODs in November 2020. In addition, the delay due to non-availability of dumping yard for dumping of excavated muck for Asset-2 fall under overlapping period up to November 2020 and therefore do not contribute to incremental delay beyond November 2020. Therefore, the Petitioner prays the Commission to condone the Time overrun faced in the implementation of Asset-2.

Commission's Observations

2.1.24 The requirement of dumping yard for disposing excavated muck, was flagged by Contractor in Progress Review Meeting held on dated 02.01.2019. Adequate planning could have led to avoidance of such delay. Accordingly, the Commission has taken note of the submissions of the Stakeholder and the Petitioner and has dealt with the matter in Chapter 3 of this Order.

Delay in Forest Clearance:

Stakeholders' Submissions

2.1.25 With respect to delay in Forest Clearance from MOEFCC (Ministry of Environment, Forest and Climate Change) for Asset-3, the Stakeholder, SJVNL, has submitted that the Petitioner has taken almost 6 years in obtaining forest clearance from MOEFCC, which is quite exorbitant time for obtaining forest clearance. It reflects the lack of proper follow-up on the part of the Petitioner. Therefore, the Stakeholder has submitted that the time over run under this head may be allowed after prudence check and for justifiable grounds only.

Petitioner's Response

2.1.26 In reply to the averments made by the Stakeholder regarding delay in Forest Clearance from MOEFCC in case of Asset-3, the Petitioner has submitted that the case for the same was initiated during 2010 i.e., before placing award in 2013. As per the directions of Central Government as conveyed to the Contractor by HPPTCL vide letter dated 02.12.2013, if a project involves forest as well as non-forest land, work should not be started even on non-forest land till approval of the Central Government is granted for release of forest land under the Forest Conservation Act (FCA), 1980. In view of the direction of Government of India (GoI), work could not be started even after acquiring the non-forest land which hampered the work of the said asset. The final clearance from Deputy Secretary (Forests) to the Government of Himachal Pradesh was received on 08.04.2016. Further, the Petitioner has submitted details of various correspondences with

Forest department/ other concerned authorities regarding FCA clearance for 220kV Hatkoti to Gumma Transmission line, along with the supporting documents. Therefore, the Petitioner prays the Commission to condone the Time overrun faced in the implementation of Asset-3.

Commission's Observations

2.1.27 The Commission feels that the forest clearance should have been taken prior to the award of contract. Significant delay on this account remained unexplained, and the mention of key dates and actions taken provided are without any justifications. Also, long time gaps were there between the events indicating slow progress and limited action. Accordingly, the Commission has taken note of the submissions of the Stakeholder and the Petitioner and has dealt with the matter in Chapter 3 of this Order.

Survey of 400 kV LILO Tapping Arrangement:

Stakeholders' Submissions

2.1.28 With respect to delay in approval of survey of 400 kV LILO tapping arrangement for Asset-3, the Stakeholder, SJVNL, has submitted that the Petitioner has taken almost 5 years in finalization of survey of 400 kV LILO tapping arrangement, which is quite exorbitant in comparison to the total contractual time of 15 months for execution of both the projects i.e., 220 kV Twin Moose T/L from Hatkoti to Gumma along with LILO of 400 kV D/C Jhakri to Abdullapur Transmission Line. This reflects the lack of proper follow-up on the part of the Petitioner. Therefore, the Stakeholder has submitted that the time over run under this head may be allowed after prudence check and for justifiable ground only.

Petitioner's Response

2.1.29 In reply to the averments made by the Stakeholder regarding delay due to approval of survey of 400 kV LILO Tapping Arrangement in case of Asset-3, the Petitioner has submitted the date-wise events along with its description and letter correspondences to substantiate the described events in response to query raised to the Deficiency Letter dated 05.06.2023. Therefore, the Petitioner prays the Commission to condone the Time overrun faced in the implementation of Asset-3.

Commission's Observations

2.1.30 The Commission observes that the justification/ reasoning for initial delay between 2013 and 2016 has not been explained by the Petitioner. The major coordination between the HPPTCL and other involved parties started in 2016 onwards. Accordingly, the Commission has taken note of the submissions of the Stakeholder and the Petitioner and has dealt with the matter in Chapter 3 of this Order.

Delay in Approval of Drawings:

Stakeholders' Submissions

2.1.31 With respect to delay in approval of drawings for Asset-4, the Stakeholder, SJVNL, has submitted that the approval of certain key drawings has caused delay of 15 months in the project completion. The Petitioner took 15 months' time to resolve this issue internally within their Corporation. HPPTCL has extensive knowledge and experience in establishing, maintaining, and operating an effective, coordinated, and cost-efficient intra-state Transmission system. Therefore, the 15 months taken to resolve this matter internally is not justifiable. Therefore, the Stakeholder has submitted that the Commission may not allow the time overrun to the Petitioner under the instant head.

Petitioner's Response

2.1.32 In reply to the averments made by the Stakeholder regarding delay due to approval of Drawings in case of Asset-4, the Petitioner has submitted the details of the key Drawings (Single Line Diagram, Electrical Layout Plan, Control Room Building Layout Plan, Power Cable Schedule, 220 kV GIS Equipment Layout, etc.) with its revision version, submission and approvals dates, along with the delay period and reasons for the delay for the respective Drawings, in response to query raised to Deficiency Letter dated 05.06.2023. Therefore, the Petitioner prays the Commission to condone the Time overrun faced in the implementation of Asset-4.

Commission's Observations

2.1.33 The Commission observes that the rationale for delay in drawing approval is not provided except for the fact that there were multiple revisions, which were required to avoid technical issues at later stage. The Commission has taken note of the submissions of the Stakeholder and the Petitioner and has dealt with the matter in Chapter 3 of this Order.

<u>Departmental Charges:</u>

Stakeholders' Submissions

2.1.34 The Stakeholder, SJVNL, has submitted that the departmental charges, being incidental expenses, should not be paid to the Petitioner for the period during which the time overrun has not been condoned by the commission which is under the control of the Petitioner. Therefore, the Stakeholder has submitted that the Departmental Charges may be allowed in proportion of the allowable IDC.

Petitioner's Response

2.1.35 In reply to the averments made by the Stakeholder regarding Departmental Charges claimed in case of all the assets, the Petitioner would like to submit that the Departmental Charges claimed is well within the 11% norm which is generally considered for all the schemes. In view of the same, it is humbly requested that the same may kindly be approved.

Commission's Observations

2.1.36 The Commission has analysed the time delays. The time delay not condoned has been reflected in the IDC workings. The Commission has taken note of the submissions of the Stakeholder and the Petitioner and has dealt with the matter in Chapter 3 of this Order.

Additional Capitalisation:

Stakeholders' Submissions

2.1.37 The Stakeholder, SJVNL, has submitted that the Petitioner has claimed additional capitalisation without mentioning the relevant regulation under which the same are claimed. Further, the Petitioner has claimed the expenditure of the O&M nature like Legal fees, Other miscellaneous charges and Departmental Charges under additional capitalisation which are not admissible as per applicable Regulations. Therefore, the Stakeholder has submitted that the same may not be allowed under additional capitalisation.

Petitioner's Response

2.1.38 In reply to the averments made by the Stakeholder regarding Additional Capitalization claimed, the Petitioner has submitted the revised Additional Capitalization along with its details and payment proofs to substantiate the claimed expense towards Additional Capitalization in response to query raised in Deficiency Letter dated 20.01.2024. Therefore, the Petitioner prays the Commission to approve the claimed additional capitalization.

Commission's Observations

2.1.39 The Commission is of the view that the observations raised by the stakeholder regarding the O&M costs etc. should not be allowed as part of additional capitalisation claimed, as the O&M expenses are already being allowed post commissioning. The Commission has reviewed all these aspects while allowing such cost. The Commission having taken note of the same, has dealt with the matter in Chapter 3 of this Order.

2.1.40 In addition, the Commission feels that the response given by the Petitioner on stakeholder's comment is not adequate, as the query was primarily on mentioning the relevant clauses of the regulation under which the additional capitalization has been sought.

3. APPROVAL OF CAPITAL COST

3.1 Introduction

3.1.1 The HPPTCL has submitted the instant Petition for approval of Capital cost and determination of Tariff for 400/220 kV, 315 MVA Pooling Sub-Station at Gumma (Asset-1), Additional 400/220 kV, 315 MVA Transformer Bank at Gumma (Asset-2), 220 kV Double Circuit Twin Moose Transmission Line from Hatkoti to Gumma along with LILO of 400 kV Double Circuit Jhakri to Abdullapur Transmission Line (Asset-3) and 220 kV Switching Station at Hatkoti (Asset-4) (hereinafter referred to as the 'Project') for the 4th Control Period from COD to FY 2023-24 in accordance with the provisions of the 'HPERC Transmission Tariff Regulations, 2011', as amended from time to time.

3.1.2 As per Regulation 14 of the 'HPERC Transmission Tariff Regulations, 2011', as amended from time to time, the Capital cost of the Project is described as under:

14. Capital cost of the project

(1) The 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 15;

(c) additional capital expenditure determined under regulation 16:

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

(2) The Capital cost admitted by the Commission, after prudence check, shall form the basis for determination of Tariff:

Provided that the prudence check of Capital cost may be carried out based on the benchmark norms to be specified by the Commission from time to time:

Provided further that in cases where benchmark norms have not been specified, prudence check may include scrutiny of the reasonableness of the capital expenditure, financing plan, interest during construction, use of efficient technology, cost over-run and time over-run, and such other matters as may be considered appropriate by the Commission for determination of Tariff:

Provided further that where the implementation agreement and the Transmission service agreement entered into between the Transmission licensee and the long-term Transmission customer provides for ceiling of actual expenditure, the capital expenditure admitted by the Commission shall take into consideration such ceiling for determination of Tariff:

"Provided further that in case of the existing projects, the Capital cost admitted by the Commission prior to the start of the control period and the additional capital expenditure projected to be incurred for the respective years of the control period, as may be admitted by the Commission, shall form the basis for determination of Tariff:"

3.1.3 The Commission has reviewed the proposed Capital cost for the Project and the ARR projected for each year as claimed by the Petitioner from COD until the end of the Control Period i.e., FY 2023-24. Multiple set of deficiencies in the Petition were shared with the Petitioner to realistically validate the claims of the Petitioner viz. capital cost incurred, reasons for cost and time overrun, additional capital expenditure, amendments to contract along with relevant approvals, Interest During Construction (IDC), beneficiary details, etc.

3.1.4 The original Petition lacked significant detailing and supporting information to ascertain the Capital cost for the Project. The information provided in the Petition was inadequate and lacked justifications with respect to (w.r.t) Capital cost, variation in actual cost vis-à-vis awarded cost, time and cost overrun, missing documents and approvals, schedule of debt disbursal etc. for which the Commission has sought additional submissions and supporting documents from the Petitioner through deficiency letters for the purpose of reviewing the Capital cost and ARR for the Project. In some of the cases, the information provided by the Petitioner in response to the queries of the Commission remained incomplete and/or could not be validated through appropriate supporting documents specifically for consideration of Interest During Construction (IDC) and Departmental Charges (DC).

3.1.5 The Commission has undertaken detailed prudence check and adequate assumptions, wherever required, for approving the Capital cost of the Project. The scrutiny and prudence check undertaken by the Commission for approval of Capital cost for the Project has been discussed in the following paragraphs:

3.1.6 Relevant technical details and configuration of the Assets as submitted by the Petitioner is tabulated as follows:

Table 4: Asset Details

Name of the Asset	Type of S/S	Voltage Level (kV)	No. of Transformers (MVA)	No. of Bays	COD claimed
Asset-1: 400/220 kV, 315 MVA Pooling Sub-Station at Gumma	GIS	400/220/33*	3x105	400 kV:7 200 kV:5	02.11.2020
Asset-2: Additional 400/220 kV, 315 MVA Transformer Bank at Gumma Substation	GIS	400/220/33*	3x105	220 kV:3	05.02.2021

Asset-3: 220 kV Double Circuit Twin Moose Transmission Line from Hatkoti to Gumma along with LILO of 400 kV Double Circuit Jhakri to Abdullapur Transmission Line	D/C	200 kV AC	Twin Moose	220 KV: 26 km 400 kV: 3.10 km	02.11.2020
Asset-4: 220 kV Switching Station at Hatkoti	GIS	220	-	220 kV:7	01.02.2022

**220/33 kV portion of Gumma Substation is not completed yet and its Tariff Petition would be filed later upon its completion*

3.2 Summary of the Project

Petitioner Submissions

3.2.1 The Project (i.e., Asset 1 to Asset 4) was planned to evacuate the entire hydro potential of the Pabbar River Valley Basin via double circuit LILO of the 400 kV Jhakri Abdullapur Inter-State Transmission line. The associated downstream system was developed based on the philosophy of "One Valley One Corridor."

3.2.2 The Petitioner has submitted asset-wise DPR cost and cost as on COD in the following table along with the funding agency.

Table 5: DPR Cost and Cost as on COD as submitted by the Petitioner (Rs. Cr.)

Asset	DPR Cost	COD Cost	Funding Agency
Asset-1: 400/220 kV, 315 MVA Pooling Sub-Station at Gumma	165.95*	208.91	ADB
Asset-2: Additional 400/220 kV, 315 MVA Transformer Bank at Gumma Substation	70.15	51.03	KfW
Asset-3: 220 kV Double Circuit Twin Moose Transmission Line from Hatkoti to Gumma along with LILO of 400 kV Double Circuit Jhakri to Abdullapur Transmission Line	84.44	135.90	ADB
Asset-4: 220 kV Switching Station at Hatkoti	54.54	57.48	ADB

**Initial approval was of Rs. 140.94 Cr. which was increased due to D/C LILO instead of S/C LILO*

3.2.3 The Petitioner has submitted that the scheme for all the assets was approved by the Central Electricity Authority (CEA) and Board of Director’s (BOD) of the Petitioner. The details of the same along with the date of commercial operation (COD) of assets is tabulated below:

Table 6: Dates of BOD Approval, CEA Approval and COD as submitted by the Petitioner

Asset	BOD Approval	CEA Approval	Actual COD
Asset-1: 400/220 kV, 315 MVA Pooling Sub-Station at Gumma	09.02.2011	06.04.2011	02.11.2020
Asset-2: Additional 400/220 kV, 315 MVA Transformer Bank at Gumma Substation	28.12.2016	28.07.2017	05.02.2021
Asset-3: 220 kV Double Circuit Twin Moose Transmission Line from Hatkoti to Gumma along with LILO of 400 kV Double Circuit Jhakri to Abdullapur Transmission Line	09.02.2011	06.04.2011	02.11.2020
Asset-4: 220 kV Switching Station at Hatkoti	01.06.2012	24.05.2016	01.02.2022

3.2.4 The work for all the four assets was issued and awarded separately through competitive bidding process. The details of the Contractor along with the awarded cost is tabulated below:

Table 7: Project Award details as submitted by the Petitioner.

Asset	Name of the Contractor	Awarded Cost (Rs. Cr.)	Date of Award
Asset-1	M/s ALSTOM T&D India Limited	143.59	25.10.2013
Asset-2	M/s GE T&D India Limited	38.14	30.12.2016
Asset-3	M/s KEC International Limited	62.30	28.09.2012
Asset-4	M/s GE T&D India Limited	46.73	06.03.2018

3.2.5 The Petitioner has submitted that the initial contract consisting of Supply and Services was amended at different stages as per the requirement. The details with regard to the amendment of each asset arse tabulated below:

Table 8: Summary of Contract Value and Amendments (Rs. Cr.)

Particulars	Supply Contract	Services Contract	Total Contract Cost
Asset 1			
Award Price	104.94	38.65	143.59
1st Amendment	108.31	38.82	147.13
2nd Amendment	109.40	38.86	148.26
3rd Amendment	119.40	38.86	158.26
4th Amendment	119.53	39.00	158.53
5th Amendment	120.03	40.28	160.31
6th Amendment	120.03	40.63	160.66
7th Amendment	121.04	41.06	162.10
8th Amendment	118.48	35.77	154.25
Asset 2			
Award Price	35.35	2.79	38.14
1st Amendment	40.04	2.86	42.90
2nd Amendment	40.14	2.86	43.00
3rd Amendment	40.14	3.59	43.73
4th Amendment	39.34	3.59	42.93
5th Amendment	39.34	2.82	42.16
Asset 3			
Award Price	37.65	24.65	62.30
1st Amendment	37.65	24.65	62.30
2nd Amendment	34.37	24.72	59.09
3rd Amendment	47.17	50.73	97.90
4th Amendment	48.13	53.67	101.80
5th Amendment	48.13	54.04	102.17
6th Amendment	48.14	54.04	102.18
Asset 4			
Award Price	34.40	12.33	46.73
1st Amendment	34.25	12.32	46.57
2nd Amendment	34.26	12.32	46.58

Particulars	Supply Contract	Services Contract	Total Contract Cost
3rd Amendment	33.13	12.29	45.42
4th Amendment	33.26	12.33	45.59
5th Amendment	34.86	12.45	47.31
6th Amendment	33.80	12.33	46.13
7th Amendment	33.25	7.28	40.53
8th Amendment	32.54	7.23	39.77

***Commission's* Analysis**

3.2.6 The Commission has reviewed the Petitioner's submissions in detail. The Commission observes that the Project aims to evacuate the hydro potential of the Pabbar River Valley Basin through a double circuit LILO of the 400 kV Jhakri Abdullapur Inter-State Transmission line, following the "One Valley One Corridor" approach. Power generated from various hydroelectric projects (HEPs) in the Rupin, Tangnu, and Andhra Valleys, totalling approximately 232 MW, was planned to be pooled at the 220/132/66 kV Sunda Substation at Chirgaon, then to be evacuated to the Hatkoti Switching Station via the Sunda Hatkoti Transmission Line. However, the Hatkoti Switching Station currently receives only about 68.45 MW power from this line, which supplies to HPSEBL. In addition, Hatkoti Switching Station also receives power from other HEPs including Sawra Kuddu (111 MW) and Naitwar Mori (60 MW). All this Power is then pooled at the 400/220 kV Gumma Substation via the Hatkoti-Gumma Transmission Line. As per the submission of the Petitioner, the Assets 1 to 4 are currently being utilized by HPPCL, SJVNL, and HPSEBL.

3.2.7 The Commission sought further clarification from the Petitioner with regard to the beneficiaries of the Assets. In reply to a query, the Petitioner submitted the LTAs signed with HPPCL and SJVNL, who are the beneficiaries to the Assets. In addition, the Petitioner mentioned that the HPSEBL is also the beneficiary and have submitted TSA signed with HPSEBL as on dated 17.01.2023.

3.2.8 In addition to the above, the Petitioner submitted that the HPSEBL was intimated vide letter dated 02.09.2023 that 220/66 kV, 2x50/63 MVA Transformer at Gumma has been charged on 22.05.2023. However, the downstream works for LILO of 66 kV Sainj-Huli line have not been completed yet by HPSEBL. Further, the Petitioner has submitted that it has claimed COD of 3.08.2022 for 220 kV D/C Sunda-Hatkoti Transmission Line and 220/66 kV GIS Sub-station at Sunda in a separate Petition filed before the Commission and 66 kV Andhra-Samoli line of HPSEBL is having LILO at 220/66 kV GIS Sub-station at Sunda. Therefore, currently the power consumption is being done through 66 kV Andhra-Samoli line of HPSEBL, which is having LILO at 220/66 kV GIS Sub-station at Sunda. Thus, the liability of Transmission charges since charging of Assets–1 to 4 shall be with HPSEBL, HPPCL, and SJVNL, as they are the beneficiary to the said Assets.

3.2.9 The Commission has analysed the Petition and the supporting documents submitted by the Petitioner in detail and has found several deficiencies in the information provided. In order to undertake in-depth analysis, the Commission in its various deficiency letters sought additional information and supporting documents such as approvals of the CEA/BOD/competent agencies, details of awards/contracts, contract amendments, formal correspondences, documents against project funding, payments made to Contractors, and auditor certificate for the claimed cost as on COD, etc. In response, the Petitioner has submitted the relevant documents.

3.2.10 Based on the review of the documents and contract agreements, the Commission has noted that the contract was awarded separately for each asset through competitive bidding process which covered the scope of work as under:

a. **Asset-1:** "Design, Engineering, Manufacture, Fabrication, Testing at manufacturers works, Transportation to site, Insurance, Storage, Erection, Testing and Commissioning of 400/220 kV GIS Sub-station having 400kV, 220kV GIS Equipment, 4X105 MVA Single Phase 220/400 kV Auto Transformers, and other Sub Station equipment and associated Civil works at Gumma".

b. **Asset-2:** "Supply and Installation of additional 400/220/33 kV, 315 MVA Transformer Bank (3X105 MVA Single Phase Auto Transformer Bank) in the yard of 400/220 kV GIS S/s at Gumma".

c. **Asset-3:** "Design, Engineering, Manufacture, Fabrication, Testing at manufacturers works, Transportation to site, Insurance, Storage, Erection, Testing and Commissioning of 220 kV D/C Transmission Line from Hatkoti to Gumma (Pragatinagar) and LILO of 400 kV D/C Transmission Line from Jhakri to Abdullapur at 400/220 kV GIS Sub-station at Gumma (Pragatinagar)".

d. **Asset-4:** "Design, Engineering, Manufacture, Fabrication, Testing at Manufacturer's Works, Transportation of site, Insurance, Loading/Unloading. Storage, Erection, Testing and commissioning of 220 kV GIS Switching Sub-Station at Hatkoti in Shimla District of Himachal Pradesh on turnkey Basis".

3.2.11 Further, the Commission has tabulated the details in the following tables with regard to approvals, contractor details, DPR, Awarded and COD cost.

Table 9: Asset-wise dates of various Approvals, Awards and Date of Initial Charging of Assets approved by the Commission.

Asset	BOD Approval Date	CEA Approval Date	Contract Award Date	Contract Effective Date	Scheduled COD Date	Date of Initial Charging/ Actual COD	Total Delay (Day)
Asset-1	09.02.2011	06.04.2011	25.10.2013	16.12.2013	08.06.2015	02.11.2020	1974
Asset-2	28.12.2016	28.07.2017	30.12.2016	11.04.2017	04.10.2018	05.02.2021	855
Asset-3	09.02.2011	06.04.2011	28.09.2012	11.12.2012	11.03.2014	02.11.2020	2428
Asset-4	01.06.2012	24.05.2016	06.03.2018	02.07.2018	01.01.2020	01.02.2022	762

Table 10: Asset-wise details of various Costs submitted by the Petitioner (Rs. Cr.)

Asset	Contractor Details (A)	DPR Cost (B)	Awarded Cost (C)	Final Cost post Amendment (D)	Cost as on COD (E)	Total Cost Variation (E-D)
Asset-1	M/s ALSTOM T&D	165.95*	143.59	154.25	208.91	54.66

Asset	Contractor Details (A)	DPR Cost (B)	Awarded Cost (C)	Final Cost post Amendment (D)	Cost as on COD (E)	Total Cost Variation (E-D)
	India Limited					
Asset-2	M/s GE T&D India Limited	70.15	38.14	42.16	49.86	7.70
Asset-3	M/s KEC International Limited	84.44	62.30	102.18	134.03	31.85
Asset-4	M/s GE T&D India Limited	54.54	46.73	39.77	57.51	17.74

**LILO of 400 kV D/C Jhakri to Abdullapur Transmission Line (Rs. 10 Cr.) was part of Asset-1 at the time of Board Approval (DPR). However, it formed a part of Asset-3, while awarding the work.*

3.2.12 The Commission has noted that the Petitioner has amended the awarded contract several times for each asset. In this regard, the Commission sought clarification and reasons for the amendments. In response, the Petitioner has submitted detailed justification for the contract amendments along with the supporting documents. Based on the submitted documents, the Commission has noted down all the contract amendments with reasons for each asset in the table below:

Table 11: Summary of Contract Value and Amendments with reasons (Rs. Cr.)

Particulars	Date of Amendment	Supply Contract	Services Contract	Total Cost	Reasons for Amendment
Asset 1					
Award Price	25.10.2013	104.94	38.65	143.59	Original Contract Value
1st Amendment	15.12.2015	108.31	38.82	147.13	Quantity Variation *(Power cable, copper conductor, control cable, etc.)*
2nd Amendment	21.03.2016	109.40	38.86	148.26	Additional Scope of work *(400kV GIS Bus Duct)*
3rd Amendment	28.10.2016	119.40	38.86	158.26	Additional Scope of work *(Short circuit test at GIS Sub-Station Gumma)*
4th Amendment	21.08.2017	119.53	39.00	158.53	Quantity Variation *(Additional item required for 400 kV GIS Bus Duct work)*
5th Amendment	29.10.2018	120.03	40.28	160.31	Implication of GST
6th Amendment	13.02.2019	120.03	40.63	160.66	Additional Scope of work *(Construction of rest camp in Gumma)*
7th Amendment	18.02.2019	121.04	41.06	162.10	Additional Scope of work *(Construction of additional structure and crate wall)*
8th Amendment	30.12.2019	118.48	35.77	154.25	Work reconciliation due to deviation in actual completion
Asset 2					
Award Price	30.12.2016	35.35	2.79	38.14	Original Contract Value
1st Amendment	08.03.2018	40.04	2.86	42.90	Implication of GST
2nd Amendment	16.05.2018	40.14	2.86	43.00	Implication of GST
3rd Amendment	18.07.2018	40.14	3.59	43.73	Quantity Variation *(Change in civil work quantities)*
4th Amendment	28.11.2022	39.34	3.59	42.93	Quantity Variation *(Change in spare parts, transportation and insurance)*

Particulars	Date of Amendment	Supply Contract	Services Contract	Total Cost	Reasons for Amendment
5th Amendment	10.11.2022	39.34	2.82	42.16	Quantity Variation *(Installation and other services including civil works)*
Asset 3					
Award Price	28.09.2012	37.65	24.65	62.30	Original Contract Value
1st Amendment	11.10.2012	37.65	24.65	62.30	Notification of Award (Corrections in the clauses of the Contract)
2nd Amendment	02.12.2016 and 19.02.2017	34.37	24.72	59.09	Quantity Variation *(Multi-circuit tower and disc insulator)*
3rd Amendment	16.03.2019	47.17	50.73	97.90	Quantity Variation *(Deviation in quantity against original award and GST implication)*
4th Amendment	16.01.2020	48.13	53.67	101.80	Quantity Variation *(Deviation in quantity against original award and taxes)*
5th Amendment	01.06.2021	48.13	54.04	102.17	Quantity Variation *(Deviation in quantity against previous and taxes)*
6th Amendment	16.09.2021	48.14	54.04	102.18	Quantity Variation *(Deviation in quantity against previous and taxes)*
Asset 4					
Award Price	06.03.2018	34.40	12.33	46.73	Original Contract Value
1st Amendment	09.01.2020	34.25	12.32	46.57	Quantity Variation *(Fiber optic cable and related items, control card and tax)*
2nd Amendment	11.03.2020	34.26	12.32	46.58	Quantity Variation *(Earthing material)*
3rd Amendment	20.06.2020	33.13	12.29	45.42	Quantity Variation *(Power and control cables)*
4th Amendment	06.07.2020	33.26	12.33	45.59	Quantity Variation *(Addition of 33kV HT cable and termination kit)*
5th Amendment	22.08.2020	34.86	12.45	47.31	Quantity Variation *(GIS Bus duct, Lattice Steel Structure, Aluminium tubes, and other related items)*
6th Amendment	15.02.2021	33.80	12.33	46.13	Quantity Variation *(Change in items due to detailed engineering)*
7th Amendment	06.12.2021	33.25	7.28	40.53	Quantity Variation *(Change in civil items)*
8th Amendment	17.09.2022	32.54	7.23	39.77	Quantity Variation *(Deletion of relay testing kit, earth mat material and other miscellaneous items)*

3.3 Commercial Operation Date (COD) of Asset

Petitioner Submissions

3.3.1 The Petitioner has submitted asset wise schedule COD (SCOD) as per L2 schedule and actual COD in the following table:

Table 12: Asset-wise Scheduled COD and actual COD dates

Asset	Scheduled COD	Actual COD
Asset-1	08.06.2015	02.11.2020
Asset-2	04.10.2018	05.02.2021
Asset-3	11.03.2014	02.11.2020
Asset-4	01.01.2020	01.02.2022

3.3.2 The Petitioner has submitted that the implementation of the project assets was delayed due to reasons like shifting of existing Transmission lines, technical compliances, availability of land, lockdown resulting from the Covid-19 pandemic, forest clearance related issues, change in scope of work, approval in drawings, technical and commercial issues related to system integration, etc.

Commission's Analysis

3.3.3 As per the submissions, the Commission has noted that the Petitioner has submitted various reasons for the delay for each asset. The Commission sought justification and supporting documents for each delay for each asset and the copy of letters exchanged with the Contractor and various competent Authorities. In response, the Petitioner has submitted the desired details. The Commission has noted down all the reasons submitted and has discussed the same in detailed in the paragraph no.3.6 of this Order.

3.3.4 With respect to all the 4 Assets, the Petitioner has submitted the Electrical Inspector (EI) certificates in reply to the deficiency letter of the Commission. As per Regulations 6(1) of CEA (Grid Standards) Regulations, 2010, introduction of an element in the State Grid requires concurrence of HPSLDC in the form of Operation Code. The Chief Electrical Inspectorate approval is one of the requirements for 1st time charging of a new transmission element. Accordingly, approval for energizing these assets was provided by the Chief Electrical Inspectorate vide letters dated 30.04.2020 (for Asset-1 and Asset-2), 20.10.2020 (for Asset-3's 220 kV transmission line), 29.09.2020 (for Asset-3's 400 kV LILO) and 29.12.2021 (for Asset-4). Further, as per HPSLDC's intimation letter dated 30.12.2020, the initial charging/ energization of Asset-1, Asset-2, Asset-3 (220 kV T/L) and Asset-3 (400 kV LILO) was done on 02.11.2020, 05.02.2021, 02.11.2020 and 31.10.2020 respectively. Further, as per the HPSLDC email dated 01.02.2022, Asset-4 was charged on 01.02.2022. Accordingly, the Commission observes that the Petitioner has claimed the COD of different assets as per the date of energization as approved by the HPSLDC.

3.3.5 The Commission observes that while different Assets were commissioned on different dates, however, the actual flow of power through this Project (Asset-1 to Asset-4) could only start from 01.02.2022 only after energisation all the assets.

In view of the above, the Commission feels appropriate to consider the COD for the Project (Asset-1 to Asset-4) as 01.02.2022 based on the actual utilization of all the assets.

3.3.6 The summary of the COD dates claimed, approval granted from the authorities namely Electrical Inspectorate & HPSLDC, actual charging of Assets vis-à-vis scheduled COD and accordingly approved COD by the Commission for Asset-1 to Asset-4 as discussed above are given as below:

Table 13: Commercial Operation Date (COD) for Asset-1 to Asset-4 approved by the Commission.

Asset	Electrical Inspectorate Approval	HPSLDC Approval	Scheduled COD Date	Claimed COD Date	Approved COD
Asset-1	Letter dated 30.04.2020	Charged on 02.11.2020 as per approval dated 30.12.2020	08.06.2015	02.11.2020	01.02.2022
Asset-2	Letter dated 30.04.2020	Charged on 05.02.2021 as per approval dated 30.12.2020	04.10.2018	05.02.2021	01.02.2022
Asset-3	Letter dated 20.10.2020 for 220 kV T/L and letter dated 29.09.2020 for 400 kV LILO	220 kV T/L charged on 02.11.2020 and 400 kV LILO on 31.10.2020 as per approval dated 30.12.2020	11.03.2014	02.11.2020	01.02.2022
Asset-4	Letter dated 29.12.2021	As per HPSLDC email dated 01.02.2022 charged on 01.02.2022	01.01.2020	01.02.2022	01.02.2022

3.4 Energy flow and Nature of Asset

***Petitioner* Submissions**

3.4.1 The Petitioner has submitted that the project (i.e., Asset 1 to Asset-4) were planned to evacuate the entire hydro potential of the Pabbar River Valley Basin via a double circuit LILO of the 400 kV Jhakri Abdullapur Inter-State Transmission line. The associated downstream system was developed based on the philosophy of "One Valley One Corridor". The power from proposed HEPs in the Rupin Valley, Tangnu Valley, and Andhra Valley, with an approximate capacity of 232 MW, will initially be pooled at the 220/132/66 kV Sunda Sub-station at Chirgaon and then evacuated through the Sunda Hatkoti Transmission Line to the Hatkoti Switching Station. This line will also carries power from the Paudital Lassa HEP (24 MW), Chirgaon-Majgaon HEP (60 MW), and Dhamwari-Sunda HEP (70 MW). Additionally, power from HPPCL's Sawra Kuddu HEP (111 MW) and SJVN Ltd.'s Naitwar Mori HEP (60 MW) is presently being injected at the Hatkoti Switching Station. From there, the power is being pooled at the 400/220 kV Gumma Sub-station via the 220 kV double circuit Hatkoti-Gumma Transmission Line. It is also submitted that the HPPCL, SJVNL, and HPSEBL are currently utilizing Assets 1 to 4.

***Commission's* Analysis**

3.4.2 From the review of the submissions of the Petitioner and the DPR, the Commission has noted that the total available potential in the Pabbar valley in Himachal Pradesh is about 496.80 MW, out of which 385.80 MW (except the power of Swara Kuddu of 111 MW) of generation will be evacuated through the Sunda Hatkoti Transmission Line to the Hatkoti Switching Station. 385.80 MW of generation consists of power evacuation from Rupin valley (103.60 MW including 45 MW from Rupin HEP), Andhra valley (38.20 MW), Tangnu valley (90 MW including 44 MW from Tangnu Romai HEP) and other HEPs such as Chirgaon Majhgaon HEP (60 MW), Paudital Lassa (24 MW) and Dhamwari Sunda HEP (70 MW).

3.4.3 With regard to the flow of power through the assets, the Petitioner has submitted that at present around 68.45 MW of power is received at the Hatkoti Switching Station from the Sunda-Hatkoti Line and supplying power to the HPSEBL, which has benefitted the HPSEBL in improving the quality of supply in Rohru-Hatkoti area, Chirgaon area and Dodra-Kwar area.

3.4.4 In addition, power from the HPPCL's Sawra Kuddu HEP (111 MW) and SJVN Ltd.'s Naitwar Mori HEP (60 MW) has been injected at the Hatkoti Switching Station. From there, all the available power is pooled at the 400/220 kV Gumma Sub-station via the 220 kV double circuit Hatkoti-Gumma Transmission Line. In this regard, the Petitioner has submitted the LTA signed with the HPPCL and the SJVNL.

3.4.5 The Petitioner in response to the query regarding drawal point without completion of downstream works for LILO of 66 kV Sainj-Huli line, submitted that HPSEBL is drawing/ evacuating power from this system as per operational conditions. At present, the Assets 1 to 4 are connected to HPSEBL system at Andhra and Samoli through 220 kV Sunda-Hatkoti line and 220/66 kV Sunda Sub-station. In addition, the 220/66 kV Sunda Sub-station is also being used to evacuate surplus HPSEBL power from Sunda area and also to draw power in case of deficit. Therefore, the Commission is of the view that the Assets 1 to 4 are currently being utilised partially till the completion of downstream works for LILO of 66 kV Sainj-Huli line.

3.4.6 Further, in reply to the Commission's query regarding the current and future beneficiaries of the project, the Petitioner has submitted that HPSEBL, HPPCL and SJVNL are the beneficiaries of all the Assets 1 to 4. The Petitioner has also submitted that the (Transmission Service Agreement) TSA has also been executed with the HPSEBL on dated 17.01.2023. In addition, the LTA (Long-term Open Access) has been signed between the HPPTCL and the HPPCL on dated 22.10.2020 and between the HPPTCL and the SJVNL on dated 01.06.2022.

3.4.7 The matter of recovery of ARR by the Petitioner has been discussed in detail in Chapter 4 of this Order.

3.5 Capital cost

Petitioner submissions

3.5.1 The Petitioner has submitted that the contract was awarded separately for each asset on turnkey basis. Further, the contract underwent several amendments as per the requirement and change in scope/quantity. The details of the DPR Cost, Amended Contract Value and Capital cost claimed as on COD are provided as follows:

Table 14: Summary of claimed Capital cost as on COD (Rs. Cr.)

Particulars	DPR Cost	Amended Contract Cost	Claimed Cost as on COD
Asset 1			
Supply	102.64	118.48	121.05
Service/Erection	8.24	35.77	35.62
Miscellaneous Charges	32.41	-	9.46
Departmental Charges	7.30	-	11.33
Interest During Construction	5.36	-	31.45
Total	**155.95**	**154.25**	**208.91**
Asset 2			
Supply	49.52	39.34	39.19
Service/Erection	1.87	2.82	3.26
Miscellaneous Charges	11.34	-	0.05
Departmental Charges	6.70	-	2.97
Interest During Construction	0.72	-	5.56
Total	**70.15**	**42.16**	**51.03**
Asset 3			
Supply	37.21	48.14	48.23
Service/Erection	11.83	54.04	48.06
Cost towards 400 kV LILO Transmission Line	10.00	-	-
Miscellaneous Charges	26.28	-	14.61
Departmental Charges	6.56	-	7.27
Interest During Construction	2.56	-	17.73
Total	**94.44**	**102.18**	**135.90**
Asset 4			
Supply	28.09	32.54	32.69
Service/Erection	9.45	7.23	7.71
Miscellaneous Charges	10.15	-	9.43
Departmental Charges	5.09	-	2.70
Interest During Construction	1.76	-	4.95
Total	**54.54**	**39.77**	**57.48**

**LILO of 400 kV D/C Jhakri to Abdullapur Transmission Line (Rs. 10 Cr.) was part of Asset-1 at the time of Board Approval (DPR), however, was part of Asset-3, while awarding the work.*

Commission's Analysis

3.5.2 The Commission noted that the Petition submitted by the Petitioner is for 4 assets for which the competent authorities had approved the schemes separately.

Further, the Petitioner awarded the works separately for each asset. The Capital cost approved for each asset has been discussed in the following paragraphs:

A. Asset-1: 400/220 kV, 315 MVA Pooling Sub-Station at Gumma:

3.5.3 The Commission sought additional information and supporting documents including auditor certificate, approvals of BOD, reasons for price variation, details of awards/ contracts, correspondences, payments made to Contractors, COD certificate etc., as part of the prudence check for approval of the capital cost.

3.5.4 The Commission observes that the Asset-1 cost as per DPR was Rs. 155.95 Cr. only which includes Rs. 110.88 Cr. towards Supply & Erection cost, Rs. 32.41 Cr. towards Miscellaneous charges, Rs. 7.30 Cr. towards Departmental Charges and Rs. 5.36 Cr. towards Interest During Construction (IDC). The scheme for construction of Asset-1 was approved in the 10^{th} BOD Meeting of the Petitioner held on 09.02.2011. Subsequently, the CEA gave its approval to Asset-1 on 06.04.2011. The Commission observes that the cost approved by the Board of Directors (BoD) and Central Electricity Authority (CEA) for Asset-1 initially was Rs. 140.94 Cr only. Subsequently, the Initial approval of Rs. 140.94 Cr. from BoD and CEA was increased to Rs. 165.95 Cr. at the time of DPR due to change in the configuration of LILO of 400 kV D/C Jhakri to Abdullapur Transmission Line from Single Circuit to Double Circuit. The LILO of 400 kV D/C Jhakri to Abdullapur Transmission Line was part of Asset-1 at the time of Board Approval (DPR). However, while awarding the work it was made part of Asset-3. Therefore, Rs. 10 Cr. against LILO of 400 kV D/C Jhakri to Abdullapur Transmission Line has been subtracted and included in DPR cost of Asset-3. Accordingly, the DPR approved cost for the Asset-1 has been Rs. 155.95 Cr. only.

3.5.5 As per the copy of the contracts provided, the Supplies and Services contract for the Asset-1 was awarded to M/s. Alstom T&D India Ltd. on turnkey basis at Rs. 143.59 Cr. In response to the query raised on major deviation in price as envisaged in DPR for the Supplies and Services at Rs. 110.88 Cr. and that in initial award for Asset-1 at Rs. 143.59 Cr., the Petitioner has submitted that the DPR for construction of Asset-1 was approved based on price level of 4^{th} quarter of 2010 whereas, the notification of award for the construction of said scheme was placed on 25.10.2013.

3.5.6 The Commission with respect to the selection process of Contractor has observed that the competitive bidding mechanism was followed by the Petitioner and the contract was awarded to M/s ALSTOM T&D India Ltd. at an amount of Rs. 143.59 Cr. with a completion period of 18 months.

3.5.7 As per the subsequent submission of the Petitioner, the Commission has noted that the awarded contract was amended eight times owing to the factors such as deviation in quantity, additional scope in work and GST implications etc.

3.5.8 Based on the scrutiny of the copies of amendments letters as provided by the Petitioner, the Commission has outlined the contract revision values as under:

Table 15: Summary of Contract Value and Amendments for Asset-1 (Rs. Cr.)

Particulars	Date of Amendment	Supply Contract	Services Contract	Total Cost	Reasons for Amendment
Asset 1					
Award Price	25.10.2013	104.94	38.65	143.59	Original Contract Value
1st Amendment	15.12.2015	108.31	38.82	147.13	Quantity Variation *(Power cable, copper conductor, control cable, etc.)*
2nd Amendment	21.03.2016	109.40	38.86	148.26	Additional Scope of work *(400kV GIS Bus Duct)*
3rd Amendment	28.10.2016	119.40	38.86	158.26	Additional Scope of work *(Short circuit test at GIS Sub-Station Gumma)*
4th Amendment	21.08.2017	119.53	39.00	158.53	Quantity Variation *(Additional item required for 400 kV GIS Bus Duct work)*
5th Amendment	29.10.2018	120.03	40.28	160.31	Implication of GST
6th Amendment	13.02.2019	120.03	40.63	160.66	Additional Scope of work *(Construction of rest camp in Gumma)*
7th Amendment	18.02.2019	121.04	41.06	162.10	Additional Scope of work *(Construction of additional structure and crate wall)*
8th Amendment	30.12.2019	118.48	35.77	154.25	Work reconciliation due to deviation in actual completion

3.5.9 The Commission, as per the submissions of the Petitioner, has noted the reasons for the 1st and 4th Amendment. As per the submissions, the contract price revisions were attributed to variation in quantity due to increase in the length of power cable, copper conductor and control cable.

3.5.10 The Commission has noted that the 2nd, 3rd, 6th and 7th Amendments were issued by the Petitioner. As per these amendment letters, the variation in costs were due to additional work beyond the original contract agreement. The additional scope of work as per the letters issued are towards construction of rest camp, crate wall, short circuit test of transformer at Gumma Sub-station and construction of 400kV GIS bus duct. Additionally, the Commission noted the 5th Amendment was due to the implication of GST.

3.5.11 Further, the cost claimed as on COD (i.e., on 2.11.2020) by the Petitioner has been Rs. 156.67 Cr. (supply cost as Rs. 121.05 Cr. and service cost as Rs. 35.62 Cr.) against the last amended cost (i.e., vide 8th amendment) of Rs. 154.25 Cr. (supply cost as Rs. 118.48 Cr. and service cost as Rs. 35.77 Cr.). In this regard, the Commission sought justification from the Petitioner as no specific reason was submitted by the Petitioner. In response, the Petitioner has submitted that as on COD, the amount booked in favour of the Contractor has been Rs. 152.32 Cr. against final awarded cost of Rs. 154.25 Cr. Further, an amount of Rs. 4.12 Cr. has been paid as price variation as per the terms and conditions of the contract agreement to the Contractor and an amount of Rs. 0.23 Cr. against tax booked toward supply items. Therefore, the total amount as on COD comes out to be Rs. 156.67 Cr. In reply to the query, the Petitioner has submitted the payment proofs against these expenses mentioned. The Commission has scrutinized the payment proofs in detail and accordingly, has allowed the same.

3.5.12 The Commission has approved the amount of Rs. 0.23 Cr. paid towards tax as part of entry taxes paid against Asset-1 and has excluded the same under this head.

3.5.13 Further, the Petitioner submitted the Auditor's Certificate for the claimed amount as on COD in response to the query of the Commission. Accordingly, based on the due diligence of the supporting documents and Auditor's Certificate, the Commission has allowed an amount of Rs. 156.44 Cr. against the claim of Rs. 156.67 Cr. excluding the amount of entry tax.

3.5.14 In view of the above and from the review of the Capital cost claimed, the Commission approves the Capital cost (hard cost) excluding Departmental Charges (DC) and Interest During Construction (IDC) (discussed in the subsequent section) for the Project as shown in the table below:

Table 16: Hard Cost approved by Commission for Asset-1 (Rs. Cr.)

Particulars	DPR Cost	Amended Contract Cost	Claimed Cost as on COD	Approved Cost as on COD
Supply	102.64	118.48	121.05	120.82*
Service/Erection	8.24	35.77	35.62	35.62
Total	**110.88**	**154.25**	**156.67**	**156.44**

**Rs. 0.23 Cr. deducted from the amount as it pertains to entry tax.*

3.5.15 With regard to the 'Miscellaneous Expenses', the Petitioner has claimed an amount of Rs. 9.46 Cr. On initial scrutiny, the Commission did not find any details with regard to the payment. In response to the queries, the Petitioner submitted the supporting documents against the claimed amount of Rs. 9.46 Cr. Against the claimed expense towards "Structure for switchyard", the Petitioner in reply to the query has submitted that the said expense has already been included in "Erection and Civil Works". Therefore, the Commission has disallowed the expense towards "Structure for switchyard" to avoid double counting. In view of the submitted documents and payment proofs, the Commission has approved the cost as described in the following table.

Table 17: Miscellaneous Expenses approved by Commission for Asset-1 (Rs. Cr.)

Particulars	DPR Cost	Claimed Cost as on COD	Auditor Certificate	Approved as on COD
Entry tax	-	4.76	4.76	4.99*
Cost of Residential Colony	7.81	-	-	-
Tender Expense	-	0.04	0.04	0.04
Survey Testing Charges	-	0.02	0.02	0.02
Inauguration Expense	-	0.01	0.01	0.01
Testing Charges	-	0.17	0.17	0.17
Sign Board	-	0.002	0.002	0.002
Land Cost/Compensation	14.71	3.43	3.43	3.43
Approach Road	-	0.75	0.75	0.75
Meter Connection Charges	-	0.002	0.002	0.002
Line Shifting Charges	-	0.17	0.17	0.17
Shifting of water supply pipeline	-	0.08	0.08	0.08
Legal Fee	-	0.0004	0.0004	0.0004
Structure for switchyard	-	0.02	0.02	-

Particulars	DPR Cost	Claimed Cost as on COD	Auditor Certificate	Approved as on COD
Other Miscellaneous Expenses	9.89	0.003	0.003	0.003
Total	**32.41**	**9.46**	**9.46**	**9.67**

** Tax amount of Rs. 0.23 Cr. added to the entry tax which is reduced from the supply cost*

B. <u>Asset-2: Additional 400/220 kV, 315 MVA Transformer Bank at Gumma Sub-station:</u>

3.5.16 The Commission sought additional information and supporting documents including auditor certificate, approvals of BOD, reasons for price variation, details of awards/ contracts, correspondences, payments made to Contractors, COD certificate etc., as part of the prudence check for approval of the capital cost.

3.5.17 The Commission has observed that the Asset-2 cost as per DPR was Rs. 70.15 Cr. which included Rs. 51.39 Cr. towards Supply & Erection cost, Rs. 11.34 Cr. towards Miscellaneous charges, Rs. 6.70 Cr. towards Departmental Charges and Rs. 0.72 Cr. towards Interest During Construction (IDC). The scheme for construction of Asset-2 was approved in the 32nd BoD Meeting of the Petitioner held on 28.12.2016. Subsequently, the CEA gave its approval to Asset-2 on 28.07.2017. The approval from the BoD and CEA for Asset-2 was for Rs. 70.15 Cr.

3.5.18 As per the copy of the contracts provided, the Supplies and Services contract for the Asset-2 was awarded to M/s. GE T&D India Ltd. on turnkey basis at Rs. 38.14 Cr. with a completion period of 18 months.

3.5.19 As per the subsequent submission of the Petitioner, the Commission has noted that the awarded contract was amended five times owing to the factors such as deviation in quantity, additional scope in work and GST implications etc.

3.5.20 Based on the details provided by the Petitioner, the Commission has outlined the contract revision values as under:

Table 18: Summary of Contract Value and Amendments for Asset-2 (Rs. Cr.)

Particulars	Date of Amendment	Supply Contract	Services Contract	Total Cost	Reasons for Amendment
Asset 2					
Award Price	30.12.2016	35.35	2.79	38.14	Original Contract Value
1st Amendment	08.03.2018	40.04	2.86	42.90	Implication of GST
2nd Amendment	16.05.2018	40.14	2.86	43.00	Implication of GST
3rd Amendment	18.07.2018	40.14	3.59	43.73	Quantity Variation *(Change in civil work quantities)*
4th Amendment	28.11.2022	39.34	3.59	42.93	Quantity Variation *(Change in spare parts, transportation, and insurance)*
5th Amendment	10.11.2022	39.34	2.82	42.16	Quantity Variation *(Installation and other services including civil works)*

3.5.21 The Commission, as per the submissions of the Petitioner, has noted that the reasons for the 1st and 2nd Amendment are attributed to implication of GST by the Union Government.

3.5.22 The Commission has also noted the 3rd, 4th, and 5th Amendments. As per these amendments, the variation in costs was due to variation in quantity only.

3.5.23 Further, the cost claimed as on COD by the Petitioner has been Rs. 42.45 Cr. (supply cost as Rs. 39.19 Cr. and service cost as Rs. 3.26 Cr.) against the last amended cost of Rs. 42.16 Cr. (supply cost as Rs. 39.34 Cr. and service cost as Rs. 2.82 Cr.). In this regard, the Commission sought justification from the Petitioner as no specific reason for the same was submitted by the Petitioner. In response, the Petitioner has submitted that as on COD the amount booked in favour of the Contractor has been Rs. 42.30 Cr. against the final awarded cost of Rs. 42.16 Cr. Further, an amount of Rs. 0.15 Cr. paid to other Contractors but booked in favour of M/s GE T&D India Ltd. and an amount of Rs. 0.002 Cr. was wrongly booked. Therefore, the total amount as on COD comes out to Rs. 42.45 Cr.

3.5.24 The Commission sought clarification with regard to the payment made towards other Contractors and against wrongly booked amount in favour of the main Contractor (i.e., M/s GE T&D India Ltd.) as on COD. In response, the Petitioner has submitted the payment details sought by the Commission. The Commission observes that even after deducting an amount of Rs. 0.15 Cr. paid to other Contractors but booked in favour of M/s GE T&D India Ltd. and an amount of Rs. 0.002 Cr. wrongly booked, the hard cost of Rs. 42.30 Cr. is still more than the awarded cost post amendment of Rs. 42.16 Cr. In addition, the Commission observes that the last amendment was on 10.11.2022, which is after the COD claimed date of 05.02.2021. Therefore, the Commission has approved the Capital cost as on COD as per the latest amended Letter of Award (LOA).

3.5.25 The Petitioner submitted the Auditor's Certificate for the claimed amount as on COD, in response to the Commission's query. Therefore, the Commission has approved an amount of Rs. 42.16 Cr. against the claim of Rs. 42.45 Cr. as per the supporting documents and Auditor's Certificate

3.5.26 In view of the above and from the review of the Capital cost claimed, the Commission approves the Capital cost (hard cost) excluding Development Charges (DC) and Interest During Construction (IDC) (discussed in the subsequent section) for the Project as shown in the table below:

Table 19: Hard Cost approved by Commission for Asset-2 (Rs. Cr.)

Particulars	DPR Cost	Amended Contract Cost	Claimed Cost as on COD	Adjusted Claimed cost as on COD	Approved Cost as on COD
Supply	49.52	39.34	39.19	39.04*	39.34
Service/Erection	1.87	2.82	3.26	3.26	2.82
Total	**51.39**	**42.16**	**42.45**	**42.30**	**42.16**

** Rs. 0.15 Cr. and Rs. 0.002 Cr. deducted from the amount as it pertains to other cost.*

3.5.27 With regard to the 'Miscellaneous Expenses' the Petitioner has claimed an amount of Rs. 0.05 Cr. On initial scrutiny, the Commission did not find any details with regard to the payment. In response to the queries, the Petitioner has submitted the supporting documents against the claimed amount of Rs. 0.05 Cr. In view of the submitted documents and payment proofs, the Commission approves the cost as described in the following table:

Table 20:Miscellaneous Expenses approved by Commission for Asset-2 (Rs. Cr.)

Particulars	DPR Cost	Claimed as on COD	Auditor Certificate	Approved Cost as on COD
Entry tax	-	-	-	-
Cost of Land	5.00	-	-	-
Cost of Residential Colony	1.50	-	-	-
Legal Expense	-	0.01	0.01	0.01
Consultancy Charges	-	-	-	-
Home Guard Salary	-	0.04	0.04	0.04
Telephone Expense	-	0.0003	0.0003	0.0003
Electricity bill of Home Guard	-	0.0003	0.0003	0.0003
Publication Expenses	-	0.003	0.003	0.003
Other Miscellaneous Expenses	4.84	0.001	0.001	0.001
Total	**11.34**	**0.05**	**0.05**	**0.05**

C. Asset-3: 220 kV Double Circuit Twin Moose Transmission Line from Hatkoti to Gumma along with LILO of 400 kV Double Circuit Jhakri to Abdullapur Transmission Line:

3.5.28 The Commission sought additional information and supporting documents including auditor certificate, approvals of BOD, reasons for price variation, details of awards/ contracts, correspondences, payments made to Contractors, COD certificate etc., as part of the prudence check for approval of the capital cost.

3.5.29 The Commission observes that the Asset-3 cost as per DPR was Rs. 94.44 Cr. which included Rs. 59.04 Cr. towards Supply, Erection and 400 kV LILO Transmission line cost, Rs. 26.28 Cr. towards Miscellaneous charges, Rs. 6.56 Cr. towards Departmental Charges and Rs. 2.56 Cr. towards Interest During Construction (IDC). The scheme for construction of Asset-3 was approved in the 10th BOD Meeting of the Petitioner held on 09.02.2011. Subsequently, the CEA gave its approval to Asset-3 on 06.04.2011. The Commission observes that the cost approved by the Board of Directors (BoD) and Central Electricity Authority (CEA) for Asset-3 was Rs. 84.44 Cr. The LILO of 400 kV D/C Jhakri to Abdullapur Transmission Line was part of Asset-1 at the time of Board Approval. However, it was made part of Asset-3, while awarding the work. Therefore, Rs. 10 Cr. against LILO of 400 kV D/C Jhakri to Abdullapur Transmission Line has been included in the DPR cost of Asset-3. Accordingly, the DPR approved cost for Asset-3 has been Rs. 94.44 Cr.

3.5.30 The Commission with respect to the selection process of Contractor observes that the competitive bidding mechanism was followed by the Petitioner and the contract was awarded to M/s KEC International Limited on turnkey basis at an amount of Rs. 62.29 Cr. with a completion period of 15 months.

3.5.31 As per the subsequent submission of the Petitioner, the Commission has noted that the awarded contract was amended six times owing to the factors such as deviation in quantity, and taxes etc.

3.5.32 Based on the details provided by the Petitioner, the Commission has outlined the contract revision values as under:

Table 21: Summary of Contract Value and Amendments for Asset-3 (Rs. Cr.)

Particulars	Date of Amendment	Supply Contract	Services Contract	Total Cost	Reasons for Amendment
Asset 3					
Award Price	28.09.2012	37.65	24.65	62.30	Original Contract Value
1st Amendment	11.10.2012	37.65	24.65	62.30	Notification of Award (Corrections in the clauses of the Contract)
2nd Amendment	02.12.2016 and 19.02.2017	34.37	24.72	59.09	Quantity Variation *(Multi-circuit tower and disc insulator)*
3rd Amendment	16.03.2019	47.17	50.73	97.90	Quantity Variation *(Deviation in quantity against original award and GST implication)*
4th Amendment	16.01.2020	48.13	53.67	101.80	Quantity Variation *(Deviation in quantity against original award and taxes)*
5th Amendment	01.06.2021	48.13	54.04	102.17	Quantity Variation *(Deviation in quantity against previous and taxes)*
6th Amendment	16.09.2021	48.14	54.04	102.18	Quantity Variation *(Deviation in quantity against previous and taxes)*

3.5.33 As per the submissions of the Petitioner, it is noted that the reasons for all the amendments issued by the Petitioner were attributed primarily towards variation in quantity due to addition of multi-circuit towers, increase in the insulators, material and other related items along with taxes.

3.5.34 With respect to the huge increase in contract price after Amendment-3 for Asset-3, the Commission has analysed the calculation sheet along with the BOQ items for said increase in contract price, which was submitted by the Petitioner in reply to the query raised.

3.5.35 Further, the cost claimed as on COD by the Petitioner has been Rs. 96.29 Cr. (supply cost as Rs. 48.23 Cr. and service cost as Rs. 48.06 Cr.) against the last amended cost of Rs. 102.18 Cr. (supply cost as Rs. 48.14 Cr. and service cost as Rs. 54.04 Cr.). The Commission sought justification from the Petitioner as no specific reason was submitted regarding the differential cost. In response, the Petitioner has submitted that as on COD, the amount booked in favour of the Contractor has been Rs. 96.29 Cr. against final awarded cost of Rs. 102.18 Cr. and the same only is claimed. Also, the Commission has done scrutiny of the payment proofs provided and observes that the claimed Capital cost as on COD is within the LOA after amendment.

3.5.36 In response to the query of the Commission, the Petitioner submitted an auditor certificate with respect to the claimed COD cost of Asset-3. Accordingly, after scrutiny to the supporting documents and Auditor Certificate, the Commission has allowed an amount of Rs. 96.29 Cr. as on COD which includes Rs. 48.23 Cr. towards Supply part and Rs. 48.06 Cr. towards Service part.

3.5.37 In view of the above and from the review of the Capital cost claimed, the Commission approves the Capital cost (hard cost) excluding Departmental Charges (DC) and Interest During Construction (IDC) (discussed in the subsequent section) for the Project as shown in the table below:

Table 22: Hard Cost approved by Commission for Asset-3 (Rs. Cr.)

Particulars	DPR Cost	Amended Contract Cost	Claimed Cost as on COD	Approved Cost as on COD
Supply	37.21	48.13	48.23	48.23
Service/Erection	11.83	54.05	48.06	48.06
Cost towards 400kV LILO Transmission Line*	10.00	-	-	-
Total	**59.04**	**102.18**	**96.29**	**96.29**

** LILO of 400 kV D/C Jhakri to Abdullapur Transmission Line was part of Asset-1 at the time of Board Approval (DPR), however, was part of Asset-3 while awarding the work*

3.5.38 With regard to the 'Miscellaneous Expenses' the Petitioner has claimed an amount of Rs. 14.61 Cr. On initial scrutiny, the Commission did not find any details with regard to the payment. In response to the queries, the Petitioner submitted the supporting documents against the claimed amount of Rs. 14.61 Cr. In view of the submitted documents and payment proofs, the Commission approves the cost as described in the following table:

Table 23: Miscellaneous Expenses approved by Commission for Asset-3 (Rs. Cr.)

Particulars	DPR Approved	Claimed Cost as on COD	Auditor Certificate	Approved as on COD
Entry Tax	-	1.73	1.73	1.73
Type Testing	3.00	-	-	-
Tender Expense	-	0.002	0.002	0.002
Survey Testing Charges	-	0.17	0.17	0.17
Inauguration Expense	-	0.004	0.004	0.004
Testing Charges	-	0.04	0.04	0.04
Tree, Fruit, Crop Compensation	-	2.89	2.89	2.89
Land Cost/Compensation	-	4.64	4.64	4.64
FCA	-	3.92	3.92	3.92
House Compensation for Rehabilitation	-	0.39	0.39	0.39
HT Line Shifting Charges	-	0.16	0.16	0.16
Cost of Bailey Bridge paid to PWD	-	0.21	0.21	0.21
Diversion of Road Expenses	-	0.16	0.16	0.16
Tree Cutting and Dumping	-	0.15	0.15	0.15
Design of protection and foundation work	-	0.07	0.07	0.07
Legal Fee	-	0.05	0.05	0.05
Rent Rate and Taxes	-	0.003	0.003	0.003
Other Miscellaneous Expenses	23.28	0.01	0.01	0.01
Total	**26.28**	**14.61**	**14.61**	**14.61**

D. Asset-4: Construction of 220kV Switching Station at Hatkoti:

3.5.39 The Commission sought additional information and supporting documents including auditor certificate, approvals of BOD, reasons for price variation, details of awards/ contracts, correspondences, payments made to Contractors, COD certificate etc., as part of the prudence check for approval of the capital cost.

3.5.40 The Commission has observed that the Asset-4 cost as per DPR was Rs. 54.54 Cr. which includes Rs. 37.54 Cr. towards Supply & Erection cost, Rs. 10.15 Cr. towards Miscellaneous charges, Rs. 5.09 Cr. towards Departmental Charges and Rs. 1.76 Cr. towards Interest During Construction (IDC). The scheme for construction of Asset-4 was approved in the 15th BOD Meeting of the Petitioner held on 22.03.2012. Subsequently, the CEA gave its approval to Asset-4 on 24.05.2016. The Commission observes that the cost approved by the Board of Directors (BoD) and Central Electricity Authority (CEA) for Asset-4 was Rs. 54.54 Cr.

3.5.41 As per the copy of the contracts provided, the Supplies and Services contract for the Asset-4 was awarded to M/s. GE T&D India Ltd. on turnkey basis at Rs. 46.73 Cr. In response to the query raised on major deviation in price, as DPR envisaged the cost for the Supplies and Services at Rs. 37.54 Cr., the Petitioner submitted that the DPR for construction of Asset-4 was approved based on price level FY 2015-16 whereas, the notification of award for the construction of the scheme was placed on 06.03.2018.

3.5.42 The Commission with respect to the selection process of Contractor observes that the competitive bidding mechanism was followed by the Petitioner and the contract was awarded to M/s GE T&D India Ltd. at an amount of Rs. 46.73 Cr. with a completion period of 18 months.

3.5.43 As per the subsequent submission of the Petitioner, the Commission has noted that the awarded contract was amended eight times owing to the factors such as deviation in quantity, additional scope of work, etc.

3.5.44 Based on the details provided by the Petitioner, the Commission has outlined the contract revision values as under:

Table 24: Summary of Contract Value and Amendments for Asset-4 (Rs. Cr.)

Particulars	Date of Amendment	Supply Contract	Services Contract	Total Cost	Reasons for Amendment
Asset 4					
Award Price	06.03.2018	34.40	12.33	46.73	Original Contract Value
1st Amendment	09.01.2020	34.25	12.32	46.57	Quantity Variation *(Fiber optic cable and related items, control card and tax)*
2nd Amendment	11.03.2020	34.26	12.32	46.58	Quantity Variation *(Earthing material)*
3rd Amendment	20.06.2020	33.13	12.29	45.42	Quantity Variation *(Power and control cables)*
4th Amendment	06.07.2020	33.26	12.33	45.59	Quantity Variation *(Addition of 33kV HT cable and termination kit)*
5th Amendment	22.08.2020	34.86	12.45	47.31	Quantity Variation *(GIS Bus duct, Lattice Steel*

Particulars	Date of Amendment	Supply Contract	Services Contract	Total Cost	Reasons for Amendment
					Structure, Aluminium tubes, and other related items)
6th Amendment	15.02.2021	33.80	12.33	46.13	Quantity Variation *(Change in items due to detailed engineering)*
7th Amendment	06.12.2021	33.25	7.28	40.53	Quantity Variation *(Change in civil items)*
8th Amendment	17.09.2022	32.54	7.23	39.77	Quantity Variation *(Deletion of relay testing kit, earth mat material and other miscellaneous items)*

3.5.45 The Commission, as per the submissions of the Petitioner, has noted that all the reasons for amendments pertain to the deviation in quantity for which the Petitioner has issued letters to the Contractor. As per the letters, the contract price revisions were attributed to variation in quantity of power cable, control cable, Fiber optics, 33kV HT cables, steel structure and others.

3.5.46 Further, the cost claimed as on COD by the Petitioner has been Rs. 40.40 Cr. (supply cost as Rs. 32.69 Cr. and service cost as Rs. 7.71 Cr.) against the last amended cost (i.e., vide 8th amendment) of Rs. 39.77 Cr. (supply cost as Rs. 32.54 Cr. and service cost as Rs. 7.23 Cr.). In this regard the Commission sought justification from the Petitioner as no specific reason for increase in cost was submitted by the Petitioner. In response, the Petitioner has submitted that as on COD the amount booked in favour of the Contractor has been Rs. 39.42 Cr. against final awarded cost of Rs. 39.77 Cr. Further, an amount of Rs. 0.98 Cr. was paid to M/s Kapil Rawat as additional work for excavation and transportation of soil. Therefore, the total amount against supply & erection as on COD comes to Rs. 40.40 Cr. In addition, the Commission has analysed the payment proofs provided by the Petitioner against Rs. 39.42 Cr. and Rs. 0.98 Cr.

3.5.47 The Commission has observed that the last amendment was on 17.09.2022, which is after the COD claimed date of 01.02.2022. Therefore, the Commission has approved the Capital cost as on COD as per the latest amended Letter of Award (LOA). In addition, in absence of any clarity on additional work for excavation and transportation of soil being awarded to an additional contractor namely M/s Kapil Rawat, the Commission has disallowed Rs. 0.98 Cr. against the same from the erection cost.

3.5.48 In response to the Commission's query the Petitioner has submitted the supporting documents and auditor certificate for the claimed amount as on COD. After scrutiny of these supporting documents and auditor certificate, the Commission has allowed the cost of Rs. 39.27 Cr. against the hard cost (i.e., supply and service).

3.5.49 After review of the Capital cost claimed, the Commission approves the Capital cost (hard cost) excluding Departmental Charges (DC) and Interest During Construction (IDC) (discussed in the subsequent section) for the Project as shown in the table below:

Table 25: Hard Cost approved by Commission for Asset-4 (Rs. Cr.)

Particulars	DPR Cost	Amended Contract Cost	Claimed Cost as on COD	Approved Cost as on COD
Supply	28.09	32.54	32.69	32.54
Service/Erection	9.45	7.23	7.71	6.73*
Total	**37.54**	**39.77**	**40.40**	**39.27**

**Rs. 0.98 Cr. has been disallowed as it pertains to another Contractor.*

3.5.50 With regard to the 'Miscellaneous Expenses' the Petitioner has claimed an amount of Rs. 9.43 Cr. In response to the Commission's query, the Petitioner submitted the supporting documents against the claimed amount of Rs. 9.43 Cr. In view of the submitted documents and payment proofs, the Commission approves the cost as shown in the following table:

Table 26: Miscellaneous Expenses approved by Commission for Asset-4 (Rs. Cr.)

Particulars	DPR Approved	Claimed Cost as on COD	Auditor Certificate	Approved as on COD
Tender Expense	-	0.01	0.01	0.01
Survey Expense	-	0.04	0.04	0.04
Contouring Expense	-	0.01	0.01	0.01
Testing Charges	-	0.15	0.15	0.15
Bush Cutting	-	0.001	0.001	0.001
Land Cost	-	9.17	9.17	9.17
Publication Expense	-	0.001	0.001	0.001
Shifting of Utility	-	0.05	0.05	0.05
Other Miscellaneous Expenses	10.15	0.002	0.002	0.002
Total	**10.15**	**9.43**	**9.43**	**9.43**

3.6 Overheads (IDC and Departmental Charges)

***Petitioner's* submissions**

A. <u>Asset-1: 400/220 kV, 315 MVA Pooling Sub-Station at Gumma:</u>

3.6.1 The Petitioner as on COD submitted the IDC amount of Rs. 31.45 Cr. against the DPR of Rs. 5.36 Cr. Further, the Petitioner has considered 10% interest rate in line with the DPR, and the loan agreement signed between the HPPTCL and the GoHP.

3.6.2 With regards to the Departmental Charges, the Petitioner as on COD has claimed the Departmental Charges of Rs. 11.33 Cr. against the DPR approved Rs. 7.30 Cr. for the project.

B. <u>Asset-2: Additional 400/220 kV, 315 MVA Transformer Bank at Gumma Substation:</u>

3.6.3 The Petitioner as on COD submitted the IDC amount of Rs. 5.56 Cr. against the DPR approved Rs. 0.72 Cr. Further, the Petitioner considered 10% interest rate in line with the DPR, and the loan agreement signed between the HPPTCL and the GoHP.

3.6.4 With regards to the Departmental Charges, the Petitioner as on COD has claimed the Departmental Charges of Rs. 2.97 Cr. against the DPR approved Rs. 6.70 Cr. for the project.

C. <u>Asset-3: 220 kV Double Circuit Twin Moose Transmission Line from Hatkoti to Gumma along with LILO of 400 kV Double Circuit Jhakri to Abdullapur Transmission Line:</u>

3.6.5 The Petitioner as on COD submitted the IDC amount of Rs. 17.73 Cr. against the DPR approved Rs. 2.56 Cr. Further, the Petitioner considered 10% interest rate in line with the DPR, and the loan agreement signed between the HPPTCL and the GoHP.

3.6.6 With regards to the Departmental Charges, the Petitioner as on COD has claimed the Departmental Charges of Rs. 7.27 Cr. against the DPR approved Rs. 6.56 Cr. for the project.

D. <u>Asset-4: Construction of 220kV Switching Station at Hatkoti:</u>

3.6.7 The Petitioner as on COD submitted the IDC amount of Rs. 4.95 Cr. against the DPR approved Rs. 1.76 Cr. Further, the Petitioner considered 10% interest rate in line with the DPR, and the loan agreement signed between the HPPTCL and the GoHP.

3.6.8 With regards to the Departmental Charges, the Petitioner as on COD has claimed the Departmental Charges of Rs. 2.70 Cr. against the DPR approved Rs. 5.09 Cr. for the project.

***Commission's* Analysis**

A. <u>Asset-1: 400/220 kV, 315 MVA Pooling Sub-Station at Gumma:</u>

3.6.9 The Commission has reviewed the IDC and DC claimed with respect to the auditor certificate provided by the Petitioner. An amount of Rs. 31.45 Cr. against IDC and Rs. 11.33 Cr. against DC has been claimed by the Petitioner against the Asset-1 which is higher than the DPR approved amount of Rs. 5.36 Cr. and Rs.7.30 Cr., respectively. As per the DPR, for Asset-1, the scheme was originally envisaged to be funded with the debt and equity ratio of 80:20 and the same has been funded by ADB.

Table 27: IDC and Departmental charges claimed by Petitioner for Asset-1 (Rs. Cr.)

Particulars	DPR	As on COD	Auditor Certificate
Interest During Construction (IDC)	5.36	31.45	31.45
Departmental Charges (DC)	7.30	11.33	11.33

3.6.10 The Commission observed that the Petitioner has not submitted proper details, working and the basis for consideration of IDC and DC and accordingly, sought justification on assumptions for consideration of DC and IDC in the Petition from the Petitioner through the deficiency letters. The Commission in order to authenticate the claim, sought detailed computation of IDC considered consisting of date of drawl of debt, amount of debt, computation of IDC, etc. However, despite several submissions, the Petitioner could not submit the detailed working of IDC as per the desired format.

3.6.11 The project was envisaged to be completed in 18 months as per the contract awarded by the Petitioner, however, the actual time of execution of the project was higher by almost 65 months. From the submissions of the Petitioner, the following reasons were identified to be the major reasons for time overrun:-

Table 28: Reasons for time over-run for Asset-1

S. No.	Period of Delay	Duration (Months)	Description of Hindrances
1	October 2011 to December 2015	50	Delay due to non-shifting of 22 kV HT line from site
2	September 2014 to August 2015	11	Issue of 400kV GIS Bus duct
3	May 2014 to September 2016	28	Additional Requirement of Type test of 105 MVA Transformer
4	September 2014 to February 2019	53	Additional civil works for construction of crate wall for river and hill side area:
5	January 2017 to August 2017	08	Construction of new link road to bypass the RCC bridge for safe transportation of transformers
6	December 2018 to May 2019	06	Delay due to non-availability of dumping yard
7	April 2018 to January 2020	21	Issues of 400 kV Line Bays Phase Sequencing
8	May 2019 to January 2020	09	Additional power supply Requirement for charging 190 kW Battery Banks:
9	March 2020 to September 2020	07	Impact of COVID-19
10	October 2020	01	Introduction of SPS (Special Protection Scheme)
	Total	**65***	

** Only 65 months accounted as delay as some delay duration overlapped with other activities*

3.6.12 From fine reading of the submissions of the Petitioner and the supporting documentary proofs, it can be easily inferred that the delays were on account of technical and commercial issues wherein delays at 'S.Nos.1, 4, 5, 6 and 7', could have been avoided by proper planning before initiation of the project as all the delays mentioned are to be taken care during the planning phase only. This shows that the Petitioner has not taken proper measures during the planning phase. Further, the technical issues with regard to 400kV GIS bus duct, phase sequencing and power requirement are of standard practices and the Petitioner is having significant experience in construction of Sub-stations and Transmission lines and other related assets. Therefore, the Petitioner ought to have taken adequate steps to avoid such delays. Thus, the Commission is of the view that the above delay of 65 months could have been avoided by proper planning and timely taking up the matters with the concerned competent agencies and authorities.

3.6.13 Further, it would be unreasonable to consider that each individual activity led to the overall delay of almost 65 months in project execution. The Commission, therefore, is of the view that certain activities could have been undertaken in parallel, and the delay could have been shortened/ averted by proper planning and follow up at the Petitioner’s end.

3.6.14 In addition, the details provided with respect to time overruns only mentioned various dates when issues emerged, or activities were completed. However, it could not be established as to how each activity had impacted the overall timeline of the project and whether other activities could have been planned in a manner where the delay could have been avoided. However, at the same time, there was delay on account of reasons such as COVID-19, social hindrances, etc. which weren’t in the control of the Petitioner. Hence, post detailed review of each of the reasons of delay, the Commission has calculated the IDC as discussed below.

3.6.15 The Commission noted that the Petitioner has submitted the IDC cost of Rs. 31.45 Cr. as on COD against the DPR approved IDC of Rs. 5.36 Cr. Further, the Petitioner had initially not submitted the Auditor certificate in support of its claim. In response to the deficiency letter, the Petitioner submitted the auditor certificate mentioning the IDC amount of Rs. 31.45 Cr. along with the calculation methodology.

3.6.16 The Commission noted that as on COD the Petitioner has submitted the Departmental Charges (DC) as Rs. 11.33 Cr. against the DPR approved DC of Rs. 7.30 Cr. Further, the Petitioner had not submitted the Auditor’s Certificate initially in support of its claim. However, in response to the deficiency letter, the Petitioner submitted the Auditor’s Certificate mentioning the DC amount of Rs. 11.33 Cr.

3.6.17 With regards to the rate of interest, the Commission sought the supporting documentary proofs in support against which the Petitioner has submitted the loan agreement signed between the HPPTCL and the GoHP specifying the rate of interest as 10%. Accordingly, the Commission has considered the rate of interest in line with the Petitioner’s submissions for the computation of IDC.

3.6.18 In view of revision in hard cost as well as rate of interest, the Commission has computed a revised benchmark for the IDC. A project duration of 18 months as per the contract has been considered to estimate the benchmark IDC.

3.6.19 The Commission in Order to authenticate the Petitioner claim also sought the detailed computation of IDC (Excel) considered including date of drawl of debt, amount of debt, computation of IDC, etc. However, despite several submissions, the Petitioner could not submit the detailed working of IDC as per the desired format.

3.6.20 For assessing the benchmark IDC with project duration of 18 months, the Commission has assumed 16.67% debt disbursement for all the 6 quarters corresponding to the period of 18 months as per the contract.

3.6.21 Thus, the benchmark IDC computed for Asset-1 is summarized as follows:

Table 29: Computation of benchmark IDC for Asset-1 (Rs. Cr.)

Particulars	Unit	Year I	Year I	Year I	Year I	Year II	Year II	Total
		Qtr-1	Qtr-2	Qtr-3	Qtr-4	Qtr-5	Qtr-6	
Debt disbursement	%	16.67%	16.67%	16.67%	16.67%	16.67%	16.67%	**100%**
Opening Debt (a)	Rs. Cr.	0	23.66	47.32	70.98	94.63	118.29	
Addition during the year (b)	Rs. Cr.	23.66	23.66	23.66	23.66	23.66	23.66	
Closing Debt (c)	Rs. Cr.	23.66	47.32	70.98	94.63	118.29	141.95	
Average Debt (d=(a+c)/2)	Rs. Cr.	11.83	35.49	59.15	82.80	106.46	130.12	
Interest rate*(e)	%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	
Total IDC (f=d*e)	**Rs. Cr.**	**0.30**	**0.89**	**1.48**	**2.07**	**2.66**	**3.25**	**10.65**

**Quarterly interest rate of 2.50% has been considered.*

3.6.22 Against the benchmark IDC of Rs. 10.65 Cr., the Petitioner has claimed IDC of Rs. 31.45 Cr. as on COD for the Project. The Petitioner has submitted the computation and the Auditor's Certificate in this regard.

3.6.23 As discussed in preceding Paras, part of the delay could be considered under force majeure events and not attributable to the Petitioner. However, it would be unreasonable to consider that each individual activity led to the overall delay of almost 65 months in project execution. The Commission is of the view that other activities could have been undertaken in parallel and the delay could have been shortened/ averted by proper planning and follow up at the Petitioner's end. The Commission, therefore, decides to allow sharing of excess amount of IDC (over and above the normative IDC) between the Petitioner and beneficiaries in equal ratio (50:50). The computation is provided as follows:

Table 30: IDC Approved by the Commission for Asset-1 (Rs. Cr.)

Particular	Benchmark (A)	Actual/Claimed (B)	Difference (C=B-A)	Approved (A+50%*C)
Asset-1	10.65	31.45	20.80	21.05

3.6.24 The Petitioner has submitted that the DC as per the DPR is considered as 5% of hard cost by mistake. The Commission has allowed the minimum normative charges determined in accordance with the provisions of DPR i.e., 11% of hard cost or actual departmental charges, whichever is lower. Since the actual departmental charges on COD are lower than 11% of the approved hard cost, actual departmental charges as on COD have been considered. Accordingly, the DC for Asset-1 are approved as follows:

Table 31: DC approved by the Commission for Asset-1 (Rs. Cr.)

Particular	DPR	As on COD	Auditor Certificate	Approved
Asset-1	7.30*	11.33	11.33	11.33

**5% of the hard cost has been considered in DPR by mistake. If it is corrected to 11% of the hard cost, it comes out to be higher than Rs. 11.33 Cr.*

3.6.25 In line with the Hard Cost, IDC and DC approved in preceding sections, the approved project cost as on COD vis-à-vis the project cost claimed by the Petitioner for the Project is summarized in the following table:

Table 32: Claimed and Approved Project Cost for Asset-1 (Rs. Cr.)

S. No.	Particulars	Claimed as on COD	Approved as on COD
	Asset-1		
a)	*Supply*	*121.05*	*120.82*
b)	*Services*	*35.62*	*35.62*
c)	*Miscellaneous Expenses*	*9.46*	*9.67*
d)	**Hard Cost**	**166.12**	**166.11**
1)	IDC	31.45	21.05
2)	Departmental Charges	11.33	11.33
	Total	**208.91**	**198.49**

B. Asset-2: Additional 400/220 kV, 315 MVA Transformer Bank at Gumma Substation:

3.6.26 The Commission has reviewed the IDC and DC claimed with respect to the Auditor's Certificate provided by the Petitioner. An amount of Rs. 5.56 Cr. against IDC and Rs. 2.97 Cr. against DC has been claimed by the Petitioner for the Asset-2 against the DPR approved amount of Rs. 0.72 Cr. and Rs. 6.70 Cr., respectively. As per the DPR, for Asset-2, the scheme was originally envisaged to be funded with the debt, grant and equity ratio of 40:40:20 and the same has been funded by KfW.

Table 33: IDC and Departmental charges claimed by Petitioner for Asset-2 (Rs. Cr.)

Particulars	DPR	As on COD	Auditor Certificate
Interest During Construction (IDC)	0.72	5.56	5.56
Departmental Charges (DC)	6.70	2.97	2.97

3.6.27 The Commission observed that the Petitioner has not submitted proper details, working and the basis for consideration of IDC and DC and accordingly, sought justification on assumptions for consideration of DC and IDC in the Petition from the Petitioner through the deficiency letters. The Commission in order to authenticate the claim, sought detailed computation of IDC considered consisting of date of drawl of debt, amount of debt, computation of IDC, etc. However, despite several submissions, the Petitioner could not submit the detailed working of IDC as per the desired format.

3.6.28 The project was envisaged to be completed in 18 months as per the contract awarded by the Petitioner, however, the actual time of execution of the project was higher by almost 28 months. From the submissions of the Petitioner, the following reasons were identified to be the major reasons for time overrun.

Table 34: Reasons for time over-run for Asset-2

S. No.	Period of Delay	Duration (Months)	Description of Hindrances
1	October 2018 to November 2020	25	Delay in COD of associated 400/220 kV 315 MVA GIS Gumma Sub-Station & 220kV Hatkoti-Gumma T/L
2	March 2020 to July 2020	05	Delay due to COVID-19 Pandemic
3	April 2019 to	04	Delay due to revision of cable trench layout

S. No.	Period of Delay	Duration (Months)	Description of Hindrances
	July 2019		
4	January 2019 to May 2019	05	Delay due to non-availability of dumping of excavated muck
5	October 2020 to February 2021	05	Dehydration / conditioning of transformer
12	**Total**	**28***	

** Only 28 months accounted as delay as some delay duration overlapped with other activities*

3.6.29 From fine reading of the submissions of the Petitioner and the supporting documentary proof, it can be easily inferred that the delays were on account of other asset's commissioning (i.e., Asset-1) and commercial issues wherein delay at 'S. No.1' occurred due to the delay in commissioning of 400/220 kV 315 MVA GIS Gumma Sub-Station & 220 kV Hatkoti-Gumma T/L and 'S. No. 3, 4 and 5', could have been avoided by proper planning before initiation of the project as all the delays mentioned are to be taken care during the planning phase only. Further, the Petitioner is having significant experience in construction of Sub-stations and Transmission lines and other related assets and must be aware about the standard practices and clearances required during the execution of the projects. Therefore, the Petitioner ought to have taken adequate steps to avoid such delays. Thus, the Commission is of the view that the above delay of 28 months could have been avoided by proper planning and timely taking up the matters with the concerned competent agencies and authorities.

3.6.30 Accordingly, based on reasons stated by the Petitioner, the Commission has considered the delay of Covid-19 Pandemic under force majeure condition. However, it would be unreasonable to consider that each individual activity led to the overall delay of almost 28 months in project execution. The Commission is of the view that certain activities could have been undertaken in parallel, and the delay could have been shortened/ averted by proper planning and follow up at the Petitioner's end.

3.6.31 In addition, the details provided with respect to time overruns only mentioned various dates when issues emerged, or activities were completed. However, it could not be established as how each activity had impacted the overall timeline of the project and whether other activities could have been planned in a manner where the delay could have been avoided. However, at the same time, there was delay on account of reasons such as COVID-19, social hindrances, etc. which weren't in the control of the Petitioner. Hence, post detailed review of each of the reasons of delay, the Commission has calculated the IDC as discussed below.

3.6.32 The Commission noted that the Petitioner has submitted the IDC cost of Rs. 5.56 Cr. as on COD against the DPR approved IDC of Rs. 0.72 Cr. Further, the Petitioner had initially not submitted the Auditor's certificate in support of its claim. In response to the deficiency letter, the Petitioner submitted the Auditor's certificate mentioning the IDC amount of Rs. 5.56 Cr. along with the calculation methodology.

3.6.33 The Commission noted that as on COD, the Petitioner has submitted the Departmental Charges (DC) as Rs. 2.97 Cr. against the DPR approved DC of Rs. 6.70 Cr. Further, the Petitioner had initially not submitted the Auditor's certificate in support of its claim. In response to the deficiency letter, the Petitioner submitted the auditor certificate mentioning the DC amount of Rs. 2.97 Cr.

3.6.34 With regards to the rate of interest, the Commission sought the supporting documentary proofs in support against which the Petitioner has submitted the loan agreement signed between the HPPTCL and the GoHP specifying the rate of interest as 10%. Accordingly, the Commission has considered the rate of interest in line with the Petitioners submissions for the computation of IDC.

3.6.35 In view of revision in hard cost as well as rate of interest, the Commission has computed a revised benchmark for the IDC. A project duration of 18 months as per DPR has been considered to estimate the benchmark IDC.

3.6.36 The Commission in Order to authenticate the Petitioner claim also sought the detailed computation of IDC (Excel) considered including date of drawl of debt, amount of debt, computation of IDC, etc. However, despite several submissions, the Petitioner could not submit the detailed working of IDC as per the desired format.

3.6.37 For assessing the benchmark IDC with project duration of 18 months, the Commission has assumed 16.67% debt disbursement for all the 6 quarters of the financial year corresponding to 18 months as per the contract.

3.6.38 The benchmark IDC computed for Asset-2 is summarized as follows:

Table 35: Computation of benchmark IDC for Asset-2 (Rs. Cr.)

Particulars	Unit	Year I	Year I	Year I	Year I	Year II	Year II	Total
		Qtr-1	Qtr-2	Qtr-3	Qtr-4	Qtr-5	Qtr-6	
Debt disbursement	%	16.67%	16.67%	16.67%	16.67%	16.67%	16.67%	**100%**
Opening Debt (a)	Rs. Cr.	0	3.01	6.02	9.04	12.05	15.06	
Addition during the year (b)	Rs. Cr.	3.01	3.01	3.01	3.01	3.01	3.01	
Closing Debt (c)	Rs. Cr.	3.01	6.02	9.04	12.05	15.06	18.07	
Average Debt (d=(a+c)/2)	Rs. Cr.	1.51	4.52	7.53	10.54	13.55	16.57	
Interest rate*(e)	%	10%	10%	10%	10%	10%	10%	
Total IDC (f=d*e)	**Rs. Cr.**	**0.04**	**0.11**	**0.19**	**0.26**	**0.34**	**0.41**	**1.36**

**Quarterly interest rate of 2.50% has been considered.*

3.6.39 Against the benchmark IDC of Rs. 1.36 Cr., the Petitioner has claimed IDC of Rs. 5.56 Cr. as on COD for the Project. The Petitioner has submitted the computation and the Auditor's Certificate in this regard.

3.6.40 As discussed in preceding paragraphs, part of the delay could be considered under force majeure events and not attributable to the Petitioner. However, it would be unreasonable to consider that each individual activity led to the overall delay of almost 28 months in project execution. The Commission is of the view that other activities could have been undertaken in parallel and the delay could have been shortened/ averted by proper planning and follow up at the Petitioner's end. The Commission, therefore, decides to allow sharing of excess amount of

IDC (over and above the normative IDC) between the Petitioner and beneficiaries in equal ratio (50:50). The computation is provided as follows:

Table 36: IDC Approved by the Commission for Asset-2 (Rs. Cr.)

Particular	Benchmark (A)	Actual/Claimed (B)	Difference (C=B-A)	Approved (A+50%*C)
Asset-2	1.36	5.56	4.20	3.46

3.6.41 In case of Departmental Charges, the Commission has allowed the minimum normative charges determined in accordance with the provisions of DPR i.e., 11% of hard cost or actual departmental charges, whichever is lower. Since the actual departmental charges on COD are lower than 11% of the approved hard cost, actual departmental charges as on COD have been considered. Accordingly, the DC for Asset-2 is approved as follows:

Table 37: DC approved by the Commission for Asset-2 (Rs. Cr.)

Particular	DPR	As on COD	Auditor Certificate	Approved
Asset-2	6.70	2.97	2.97	2.97

3.6.42 In line with the Hard Cost, IDC and Departmental Charges approved in preceding sections, the approved project cost as on COD vis-à-vis the project cost claimed by the Petitioner for the Project is summarized in the following table:

Table 38: Claimed and Approved Project Cost for Asset-2 (Rs. Cr.)

S. No.	Particulars	Claimed as on COD	Approved as on COD
	Asset-2		
a)	*Supply*	*39.19*	*39.34*
b)	*Services*	*3.26*	*2.82*
c)	*Miscellaneous Expenses*	*0.05*	*0.05*
d)	**Hard Cost**	**42.50**	**42.21**
1)	IDC	5.56	3.46
2)	Departmental Charges	2.97	2.97
	Total	**51.03**	**48.64**

C. Asset-3: 220 kV Double Circuit Twin Moose Transmission Line from Hatkoti to Gumma along with LILO of 400 kV Double Circuit Jhakri to Abdullapur Transmission Line:

3.6.43 The Commission has reviewed the IDC and DC claimed with respect to the Auditor's Certificate provided by the Petitioner. An amount of Rs. 17.73 Cr. against IDC and Rs. 7.27 Cr. against DC has been claimed by the Petitioner for the Asset-3 which is higher than the DPR approved amount of Rs. 2.56 Cr. and Rs. 6.56 Cr., respectively. As per the DPR for Asset-3, the scheme was originally envisaged to be funded with the debt and equity ratio of 80:20 and the same has been funded by ADB.

Table 39: IDC and Departmental charges claimed by Petitioner for Asset-3 (Rs. Cr.)

Particulars	DPR	As on COD	Auditor Certificate
Interest During Construction (IDC)	2.56	17.73	17.73
Departmental Charges (DC)	6.56	7.27	7.27

3.6.44 The Commission observed that the Petitioner has not submitted proper details, working and the basis for consideration of IDC and DC and accordingly, sought justification on assumptions for consideration of DC and IDC in the Petition from the Petitioner through the deficiency letters. The Commission in order to authenticate the claim, sought detailed computation of IDC considered consisting of date of drawl of debt, amount of debt, computation of IDC, etc. However, despite several submissions, the Petitioner could not submit the detailed working of IDC as per the desired format.

3.6.45 The project was envisaged to be completed in 15 months as per the contract awarded by the Petitioner, however, the actual time of execution of the project was higher by almost 79 months. From the submissions of the Petitioner, the following reasons were identified to be the major reasons for time overrun.

Table 40: Reasons for time over-run for Asset-3

S. No.	Period of Delay	Duration (Months)	Description of Hindrances
1	June 2013 to February 2018	56	Delay in approval of survey of 400 kV LILO tapping arrangement
2	May 2011 to April 2016	59	Delay in Forest Clearance from MOEFCC
3	October 2011 to November 2017	73	Delay due to non-shifting of 22 kV HT lines
4	June 2018 to April 2020	22	Hindrance by locals on various locations (400kV Line)
5	April 2017 to July 2020	39	Hindrance by locals on various locations (220kV Line)
6	August 2019 to November 2019	04	New design of RCC retaining wall of Tower T-38 due to heavy flood condition at site
7	November 2017 to May 2020	30	Hard rock strata at location for T-38
8	September 2017 to June 2018	10	Delay in construction of MCT-1 due to handing over of site and hindrance created by landowners
9	September 2019 to February 2020	06	Delay in construction of MCT-1 due to heavy rain and diversion of Gumma-Baghi Road
10	April 2018 to October 2018	07	Provision of additional gantry for resolving the issue of phase sequencing
11	March 2020 to September 2020	07	COVID-19 Pandemic
12	**Total**	**79***	

** Only 79 months accounted as delay as some delay duration overlapped with other activities*

3.6.46 From fine reading of the submissions of the Petitioner and the supporting documentary proof, it can be easily inferred that the major delays were on account of forest clearance, approval of 400kV LILO tapping arrangement and shifting of 22kV HT lines. Additionally, commercial issues like hindrance by local community were also recorded from Petitioner submission. The Commission noted that the delay claimed by the Petitioner could have been avoided by proper planning before initiation of the project as all the delay mentioned are to be taken care during the planning phase only like forest clearance, approval from competent authority, shifting of lines and local clearances. Therefore, the Petitioner ought to have taken adequate steps to avoid such delays and therefore, the Commission is of the view that the above delay of 79 months could have been avoided by proper planning and timely taking up the matters with the concerned competent agencies and authorities.

3.6.47 Accordingly, based on reasons stated by the Petitioner, the Commission has considered the delay of Covid-19 Pandemic under force majeure condition. However, it would be unreasonable to consider that each individual activity led to the overall delay of almost 79 months in project execution. The Commission is of the view that certain activities could have been undertaken in parallel, and the delay could have been shortened/ averted by proper planning and follow up at the Petitioner's end.

3.6.48 In addition, the details provided with respect to time overruns only mentioned various dates when issues emerged, or activities were completed. However, it could not be established as how each activity had impacted the overall timeline of the project and whether other activities could have been planned in a manner where the delay could have been avoided. However, at the same time, there was delay on account of reasons such as COVID-19, social hindrances, etc. which weren't in the control of the Petitioner. Hence, post detailed review of each of the reasons of delay, the Commission has calculated the IDC as discussed below.

3.6.49 The Commission noted that the Petitioner has submitted the IDC cost of Rs. 17.73 Cr. as on COD against the DPR approved IDC of Rs. 2.56 Cr. Further, the Petitioner had initially not submitted the Auditor's Certificate in support of its claim. In response to the deficiency letter, the Petitioner has submitted the Auditor's Certificate mentioning the IDC amount of Rs. 17.73 Cr. along with the calculation methodology.

3.6.50 The Commission noted that as on COD the Petitioner has submitted the Departmental Charges (DC) as Rs. 7.27 Cr. against the DPR approved DC of Rs. 6.56 Cr. Further, the Petitioner had initially not submitted the Auditor's Certificate in support of its claim. In response to the deficiency letter, the Petitioner submitted the Auditor's Certificate mentioning the DC amount of Rs. 7.27 Cr.

3.6.51 The Commission in order to authenticate the Petitioner's claim also sought the detailed computation of IDC (Excel) considered including date of draw-down of debt, amount of debt, computation of IDC, etc. However, despite several submissions, the Petitioner could not submit the detailed working of IDC as per the desired format

3.6.52 With regards to the rate of interest, the Commission sought the supporting documentary proofs in support against which the Petitioner has submitted the loan agreement signed between the HPPTCL and the GoHP specifying the rate of interest as 10%. Accordingly, the Commission has considered the rate of interest in line with the Petitioner's submissions for the computation of IDC.

3.6.53 In view of revision in hard cost as well as rate of interest, the Commission has computed a revised benchmark for the IDC. A project duration of 15 months as per the contract has been considered to estimate the benchmark IDC.

3.6.54 For assessing the benchmark IDC with project duration of 15 months, the Commission has assumed 20% debt disbursement in each quarter for five (05) quarters.

3.6.55 The benchmark IDC computed for Asset-3 is summarized as follows:

Table 41: Computation of benchmark IDC for Asset-3 (Rs. Cr.)

Particulars	Unit	Year I	Year I	Year I	Year I	Year II	Total
		Qtr-1	Qtr-2	Qtr-3	Qtr-4	Qtr-5	
Debt disbursement	%	20.00%	20.00%	20.00%	20.00%	20.00%	**100%**
Opening Debt (a)	Rs. Cr.	0	18.79	37.59	56.38	75.17	
Addition during the year (b)	Rs. Cr.	18.79	18.79	18.79	18.79	18.79	
Closing Debt (c)	Rs. Cr.	18.79	37.59	56.38	75.17	93.97	
Average Debt (d=(a+c)/2)	Rs. Cr.	9.40	28.19	46.98	65.78	84.57	
Interest rate*(e)	%	10%	10%	10%	10%	10%	
Total IDC (f=d*e)	**Rs. Cr.**	**0.24**	**0.71**	**1.17**	**1.64**	**2.11**	**5.87**

**Quarterly interest rate of 2.50% has been considered.*

3.6.56 Against the benchmark IDC of Rs. 5.87 Cr., the Petitioner has claimed IDC of Rs. 17.73 Cr. as on COD for the Project. The Petitioner has submitted the computation and the Auditor's Certificate in this regard.

3.6.57 As discussed in preceding Paras, part of the delay could be considered under force majeure events and not attributable to the Petitioner. However, it would be unreasonable to consider that each individual activity led to the overall delay of almost 79 months in project execution. The Commission is of the view that other activities could have been undertaken in parallel and the delay could have been shortened/ averted by proper planning and follow up at the Petitioner's end. The Commission, therefore, decides to allow sharing of excess amount of IDC (over and above the normative IDC) between the Petitioner and beneficiaries in equal ratio (50:50). The computation is provided as follows:

Table 42: IDC Approved by the Commission for Asset-3 (Rs. Cr.)

Particular	Benchmark (A)	Actual/Claimed (B)	Difference (C=B-A)	Approved (A+50%*C)
Asset-3	5.87	17.73	11.86	11.80

3.6.58 In case of Departmental Charges, the Commission has allowed the minimum normative charges determined in accordance with the provisions of DPR i.e., 11% of hard cost or actual departmental charges, whichever is lower. Since the actual departmental charges as on COD are higher than 11% of the approved hard cost, 11% of the approved hard cost as per the DPR have been considered. Accordingly, the DC for Asset-3 are approved as follows:

Table 43: DC approved by the Commission for Asset-3 (Rs. Cr.)

Particular	DPR	As on COD	Auditor Certificate	Approved
Asset-3	6.56	7.27	7.27	6.56

3.6.59 In line with the Hard Cost, IDC and DC approved in preceding sections, the approved project cost as on COD vis-à-vis the project cost claimed by the Petitioner for the Project is summarized in the following table:

Table 44: Claimed and Approved Project Cost for Asset-3 (Rs. Cr.)

S. No.	Particulars	Claimed as on COD	Approved as on COD
	Asset-3		
a)	*Supply*	*48.23*	*48.23*
b)	*Services*	*48.06*	*48.06*
c)	*Miscellaneous Expenses*	*14.61*	*14.61*
d)	**Hard Cost**	**110.90**	**110.90**
1)	IDC	17.73	11.80
2)	Departmental Charges	7.27	6.56
	Total	**135.90**	**129.26**

D. Asset-4: Construction of 220kV Switching Station at Hatkoti:

3.6.60 The Commission has reviewed the IDC and DC claimed with respect to the Auditor's Certificate provided by the Petitioner. An amount of Rs. 4.95 Cr. against IDC and Rs. 2.70 Cr. against DC has been claimed by the Petitioner for the Asset-4 against the DPR approved amount of Rs. 1.76 Cr. and Rs. 5.09 Cr., respectively. As per the DPR, for Asset-4, the scheme was originally envisaged to be funded with the debt and equity ratio of 80:20 and the same has been funded by ADB.

Table 45: IDC and Departmental charges claimed by Petitioner for Asset-4 (Rs. Cr.)

Particulars	DPR	As on COD	Auditor Certificate
Interest During Construction (IDC)	1.76	4.95	4.95
Departmental Charges (DC)	5.09	2.70	2.70

3.6.61 The Commission observed that the Petitioner has not submitted proper details, working and the basis for consideration of IDC and DC and accordingly, sought justification on assumptions for consideration of DC and IDC in the Petition from the Petitioner through the deficiency letters. The Commission in order to authenticate the claim, sought detailed computation of IDC considered consisting of date of drawl of debt, amount of debt, computation of IDC, etc. However, despite several submissions, the Petitioner could not submit the detailed working of IDC as per the desired format.

3.6.62 The project was envisaged to be completed in 18 months as per the contract awarded by the Petitioner, however, the actual time of execution of the project was higher by almost 25 months. From the submissions of the Petitioner, the following reasons were identified to be the major reasons for time overrun.

Table 46: Reasons for time over-run for Asset-4

S. No.	Period of Delay	Duration (Months)	Description of Hindrances
1	July-2018 to February-2019	08	Delay in Handing over the site due to land transfer from HPPCL
2	March-2020 to May-2021	05	COVID-19 Pandemic (Excluding overlap period)
3	Year 2019(07days) Year 2020(24days) Year 2021(23 days)	02	Delay due to inclement weather

S. No.	Period of Delay	Duration (Months)	Description of Hindrances
4	August-2018 to November-2019	15	Approval of drawings
5	December-2021 to February-2022	03	Energization Approval from Electrical Inspectorate
12	**Total**	**25***	

** Only 25 months accounted as delay as some delay duration overlapped with other activities*

3.6.63 From fine reading of the submissions of the Petitioner and the supporting documentary proofs, it can be easily inferred that the major delays were on account of handing over of land, approval of drawings and approval from Electrical Inspectorate. Regarding the delay of 15 months for drawing approvals, certain key drawings such as Layout Plan and key single line diagrams (SLDs) were delayed due to various revisions which were required for the redressal of the observations to avoid technical issues at the later stage. Therefore, overall delay of approximately 9 months was incurred due to delay in finalisation of the drawings. However, the Commission noted that the delay claimed by the Petitioner could have been avoided by proper planning before initiation of the project as all the delay mentioned are to be taken care during the planning phase only. Therefore, the Petitioner should have taken adequate steps to avoid such delays. The Commission is of the view that the above delay of 25 months could have been avoided by proper planning and timely taking up the matters with the concerned competent agencies and authorities.

3.6.64 Accordingly, based on reasons stated by the Petitioner, the Commission has considered the delay of Covid-19 Pandemic under force majeure condition. However, it would be unreasonable to consider that each individual activity led to the overall delay of almost 25 months in project execution. The Commission is of the view that certain activities could have been undertaken in parallel, and the delay could have been shortened/ averted by proper planning and follow up at the Petitioner’s end.

3.6.65 In addition, the details provided with respect to time overruns only mentioned various dates when issues emerged, or activities were completed. However, it could not be established as how each activity had impacted the overall timeline of the project and whether other activities could have been planned in a manner where the delay could have been avoided. However, at the same time, there was delay on account of reasons such as COVID-19, social hindrances, etc. which weren’t in the control of the Petitioner. Hence, post detailed review of each of the reasons of delay, the Commission has calculated the IDC as discussed below.

3.6.66 The Commission noted that the Petitioner has submitted the IDC cost of Rs. 4.95 Cr. as on COD against the DPR approved IDC of Rs. 1.76 Cr. Further, the Petitioner had initially not submitted the Auditor’s Certificate in support of its claim. In response to the deficiency letter, the Petitioner submitted the Auditor’s Certificate mentioning the IDC amount of Rs. 4.95 Cr. along with the calculation methodology.

3.6.67 The Commission noted that as on COD, the Petitioner has submitted the Departmental Charges (DC) as Rs. 2.70 Cr. against the DPR approved DC of Rs. 5.09 Cr. Further, the Petitioner had initially not submitted the Auditor’s Certificate in support of its claim. In response to the deficiency letter, the Petitioner submitted the Auditor’s Certificate mentioning the DC amount of Rs. 2.70 Cr.

3.6.68 The Commission in order to authenticate the Petitioner claim also sought the detailed computation of IDC (Excel) considered including date of draw-down of debt, amount of debt, computation of IDC, etc. However, despite several submissions, the Petitioner could not submit the detailed working of IDC as per the desired format.

3.6.69 With regards to the rate of interest, the Commission sought the supporting documentary proof in support against which the Petitioner has submitted the loan agreement signed between the HPPTCL and the GoHP specifying the rate of interest as 10%. Accordingly, the Commission has considered the rate of interest in line with the Petitioner’s submissions for the computation of IDC.

3.6.70 In view of revision in hard cost as well as rate of interest, the Commission has computed a revised benchmark for the IDC. A project duration of 18 months as per DPR has been considered to estimate the benchmark IDC.

3.6.71 For assessing the benchmark IDC with project duration of 18 months, the Commission has assumed 16.67% debt disbursement for all the 6 quarters of the financial year corresponding to 18 months as per the contract.

3.6.72 The benchmark IDC computed for Asset-4 is summarized as follows:

Table 47: Computation of benchmark IDC for Asset-4 (Rs. Cr.)

Particulars	Unit	Year I	Year I	Year I	Year I	Year II	Year II	Total
		Qtr-1	Qtr-2	Qtr-3	Qtr-4	Qtr-5	Qtr-6	
Debt disbursement	%	16.67%	16.67%	16.67%	16.67%	16.67%	16.67%	**100%**
Opening Debt (a)	Rs. Cr.	0	6.85	13.71	20.56	27.41	34.26	
Addition during the year (b)	Rs. Cr.	6.85	6.85	6.85	6.85	6.85	6.85	
Closing Debt (c)	Rs. Cr.	6.85	13.71	20.56	27.41	34.26	41.12	
Average Debt (d=(a+c)/2)	Rs. Cr.	3.43	10.28	17.13	23.99	30.84	37.69	
Interest rate*(e)	%	10%	10%	10%	10%	10%	10%	
Total IDC (f=d*e)	**Rs. Cr.**	**0.09**	**0.26**	**0.43**	**0.60**	**0.77**	**0.94**	**3.08**

Quarterly interest rate of 2.50% has been considered.

3.6.73 Against the benchmark IDC of Rs. 3.08 Cr., the Petitioner has claimed IDC of Rs. 4.95 Cr. as on COD for the Project. The Petitioner has submitted the computation and the Auditor’s Certificate in this regard.

3.6.74 As discussed in preceding Paras, part of the delay could be considered under force majeure events and not attributable to the Petitioner. However, it would be unreasonable to consider that each individual activity led to the overall delay of almost 25 months in project execution. The Commission is of the view that other activities could have been undertaken in parallel and the delay could have been shortened/ averted by proper planning and follow up at the Petitioner’s end. The Commission, therefore, decides to allow sharing of excess amount of IDC (over and above the normative IDC) between the Petitioner and beneficiaries in equal ratio (50:50). The computation is provided as follows:

Table 48: IDC Approved by the Commission for Asset-4 (Rs. Cr.)

Particular	Benchmark (A)	Actual/Claimed (B)	Difference (C=B-A)	Approved (A+50%*C)
Asset-4	3.08	4.95	1.87	4.02

3.6.75 In case of Departmental Charges, the Commission has allowed the minimum normative charges determined in accordance with the provisions of DPR i.e., 11% of hard cost or actual departmental charges, whichever is lower. Since the actual departmental charges as on COD are lower than 11% of the approved hard cost, actual departmental charges as on COD have been considered. Accordingly, the DC for Asset-4 is approved as follows:

Table 49: DC approved by the Commission for Asset-4 (Rs. Cr.)

Particular	DPR	As on COD	Auditor Certificate	Approved
Asset-4	5.09	2.70	2.70	2.70

3.6.76 In line with the Hard Cost, IDC and DC approved in preceding sections, the approved project cost as on COD vis-à-vis the project cost claimed by the Petitioner for the Project is summarized in the following table:

Table 50: Claimed and Approved Project Cost for Asset-4 (Rs. Cr.)

S. No.	Particulars	Claimed as on COD	Approved as on COD
	Asset-4		
a)	*Supply*	*32.69*	*32.54*
b)	*Services*	*7.71*	*6.73*
c)	*Miscellaneous Expenses*	*9.43*	*9.43*
d)	**Hard Cost**	**49.83**	**48.70**
1)	IDC	4.95	4.02
2)	Departmental Charges	2.70	2.70
	Total	**57.48**	**55.41**

3.7 Project Funding

Petitioner Submissions

3.7.1 The Petitioner has quoted the Regulation 18 of the 'HPERC Transmission Tariff Regulations, 2011', which provides as follows:

"18. Debt-equity ratio

For the purpose of determination of the Tariff, the equity and outstanding debt as determined for the base year by the Commission shall be considered as given. However, for any fresh capitalization of assets, the Commission shall apply a debt equity ratio of 70:30 on the capitalised amount as approved by the Commission for each year of the control period:

Provided that where equity employed is in excess of 30%, the amount of equity for the purpose of Tariff shall be limited to 30% and the balance amount shall be considered as loan. The interest rate applicable on the equity in excess of 30% treated as loan has been specified in regulation 20. Where actual equity employed is less than 30%, the actual equity shall be considered."

3.7.2 As per the DPR for Asset-1, 3 and 4, the scheme was originally envisaged to be executed with the debt and equity ratio of 80:20 and the same has accordingly been funded by ADB. Further, for Asset-2, the scheme funded by KfW has been at debt, grant and equity ratio of 40:40:20.

3.7.3 The following table provides the details of project funding of all the assets as proposed by the Petitioner:

Table 51:Project Funding proposed by the Petitioner

Particulars	DPR	Actual as on COD	Claimed as on COD
Asset-1 (ADB Funded)			
Debt	80.00%	76.92%	76.92%
Equity	20.00%	23.08%	23.08%
Total Project Cost	**100.00%**	**100.00%**	**100.00%**
Asset-2 (KfW Funded)			
Debt	40.00%	61.05%	70%
Grant	40.00%	38.95%	30%
Equity	20.00%	-	-
Total Project Cost	**100.00%**	**100.00%**	**100.00%**
Asset-3 (ADB Funded)			
Debt	80.00%	70.70%	70.70%
Equity	20.00%	29.30%	29.30%
Total Project Cost	**100.00%**	**100.00%**	**100.00%**
Asset-4 (ADB Funded)			
Debt	80.00%	68.27%	70.00%
Equity	20.00%	31.73%	30.00%
Total Project Cost	**100.00%**	**100.00%**	**100.00%**

***Commission's* Analysis**

3.7.4 The Commission observes that the Assets-1, 3 and 4 were originally envisaged at a debt and equity ratio of 80:20 as provided in the DPR. As per the documents submitted by the Petitioner, the project has been funded through ADB, but the amount has been received by GoHP which has been further extended as loan to the Petitioner at an interest rate of 10%. Further, the Commission observes that the Assets-2 was originally envisaged at a debt, grant and equity ratio of 40:40:20 as provided in the DPR. As per the documents submitted by the Petitioner, the project has been funded through KfW, but the amount has been received by GoHP which has been further extended as loan to the Petitioner at an interest rate of 10%. A copy of the loan agreements signed between the Petitioner and GoHP has been submitted by the Petitioner.

3.7.5 To verify the Debt and Equity claimed by the Petitioner, the Commission vide deficiency letters sought details of Debt-Equity received, Loan Agreement, Sanctioned Letters, Board of Director (BOD) approvals and other relevant documents. In response to the queries, the Petitioner has submitted the additional details and documents.

3.7.6 The Commission has observed that the copy of Auditor's Certificate as provided does not specify the original debt and equity funding ratio. Also, no information on source of funding of equity, date of infusion along with documentary evidence for the equity infused in the project was provided by the Petitioner. The Petitioner has submitted that it receives equity from Government of H.P (GoHP) on overall basis at the firm level and not on individual projects basis and the amount of equity received by the HPPTCL is further allocated to various projects on requirement basis.

3.7.7 Further, the Commission observes that ADB and KfW has sanctioned loan to the Government of India (GoI) under the Himachal Pradesh Clean Energy Transmission Investment Programme (HPCETIP) and Green Energy Corridor-I (GEC-I) scheme respectively, which was further channelized to HPPTCL through Government of Himachal Pradesh (GoHP). However, the GoHP has amended the terms and conditions of the financial assistance for extending it to the HPPTCL. While the entire multilateral funds were received by the State in the ratio of 90% grant and 10% loan from the Govt. of India, the entire proceeds were extended by GoHP to the Petitioner as loan carrying interest rate of 10% per annum.

3.7.8 The Commission, in its previous Orders, had directed the Petitioner to re-negotiate with GoHP and align the terms and conditions of the Loan Agreements in line with the tripartite agreement among Govt. of HP, ADB and HPPTCL. In compliance, the Petitioner has submitted that GoHP, vide letter dated 04.03.2023, has conveyed approval for restructuring of the ADB loan as 80% of disbursed loan to be converted into interest free loan, 10% of disbursed loan to be kept as interest bearing loan @10% and remaining 10% of disbursed loan to be converted to equity. It is observed that as per the GoHP letter dated 04.03.2023 and HPPTCL letter dated 08.08.2024, while partial relief has been provided but the entire terms and conditions have not been adopted resulting in additional equity consideration towards the project. The Commission is of the considered view that the debt equity considered against each scheme during the funding stage should be retained and the capital allocation by the GoHP to the Petitioner should be on the same terms & conditions as GoHP has received from the GoI on account of Himachal Pradesh being a special category State.

3.7.9 In view of the above, for the Assets-1, 3 and 4 , the Commission has provisionally considered the debt amount availed under the ADB scheme as 90% grant and 10% debt. For calculating the grant portion, the Commission has considered 90% of minimum amongst Normative Debt and Actual Debt. Further, after reducing such amount of grant from the total approved Capital cost, the Commission has considered debt:equity ratio as 70% debt and 30% equity for the balance amount in line with Regulation 10(C) of the 'HPERC Transmission Tariff Regulations, 2011', which specify the following:

"(b) the debt-to-equity ratio shall be considered in accordance with regulation 16, after deducting the amount of financial support provided through consumer contribution, deposit work, capital subsidy or grant;"

3.7.10 Further, for Asset-2, the Commission is of the considered view that the debt equity grant approved for the GEC-I scheme at the time of DPR approval should be retained. Further, the capital allocation by the GoHP to the Petitioner should be on the same terms & conditions as GoHP has received from the GoI on account of Himachal Pradesh being a special category State. Therefore, the Petitioner is directed to re-negotiate with GoHP and align the terms and conditions of the Loan Agreements.

3.7.11 In view of the above, for Asset-2, the Commission has provisionally considered the actual capital amount availed from the GoHP under the GEC-I scheme as 90% grant and 10% debt. Further, the actual grant received from the MNRE has been considered subject to the condition that it should atleast either be 40% of the capital cost incurred or the DPR approved. Therefore, the total grant portion has accordingly added up by considering the grant received through the MNRE and the 90% capital availed from the GoHP as discussed above. Further, after reducing such amount of grant and debt from the total approved Capital cost, the Commission has considered the remaining amount as part of equity restricting upto 20% of the total cost incurred.

3.7.12 The Commission has relied on the documentary proofs submitted and has approved the project funding as follows:

Table 52: Debt Equity Grant approved by the Commission (Rs. Cr.)

Particulars	Claimed (As on COD)		Approved (As on COD)	
	Capital cost	% of Funding	Capital cost	% of Funding
Asset-1				
Total Cost	**208.91**		**198.49**	
Normative Debt (A)			158.79	
Actual Debt (B)			160.68	
Grant (90%*minimum (A, B))			142.91	90%
Balance Requirement			**55.58**	
Debt	160.68	76.92%	38.90	70.00%
Equity	48.23	23.08%	16.67	30.00%
Total Cost less of grant	**208.91**	**100.00%**	**55.58**	**100.00%**
Asset-2				
Total Capital Cost as per DPR (A)			70.15	100.00%
MNRE Grant estimated as per DPR (B)			28.06	40.00%
Total Actual Capital Cost as on COD (C)			51.03	100.00%
Actual MNRE Grant received as on COD (D)			16.82	32.95%
Total Capital Cost as on COD (E)	**51.03**	**100.00%**	**48.64**	**100.00%**
MNRE Grant pro-rated to approved capital cost (F=D/C*E)			16.03	32.95%
Approved MNRE Grant as on COD (G=Min(40%*E,B))			19.46	40.00%
Actual Debt as on COD (H)			20.89	
Portion of actual debt converted to Grant (90%) (I=90%*H)			18.80	

Particulars	Claimed (As on COD)		Approved (As on COD)	
	Capital cost	% of Funding	Capital cost	% of Funding
Total Debt as on COD (J=10%*H)	**20.89**	**40.93%**	**2.09**	**4.29%**
Total Grant as on COD (K=G+I)	**16.82**	**32.95%**	**38.26**	**78.65%**
Total Equity as on COD (L=E-J-K)	**13.33**	**26.12%**	**8.30**	**17.05%**
Asset-3				
Total Cost	**135.90**		**129.26**	
Normative Debt (A)			103.41	
Actual Debt (B)			94.76	
Grant (90%*minimum (A, B))			85.28	90%
Balance Requirement			**43.98**	
Debt	95.13	70.00%	30.78	70%
Equity	40.77	30.00%	13.19	30%
Total Cost less of grant	**135.90**	**100.00%**	**43.98**	**100.00%**
Asset-4				
Total Cost	**57.48**		**55.41**	
Normative Debt (A)			44.33	
Actual Debt (B)			39.26	
Grant (90%*minimum (A, B))			35.34	90%
Balance Requirement			**20.08**	
Debt	40.23	70.00%	14.05	70%
Equity	17.24	30.00%	6.02	30%
Total Cost less of grant	**57.48**	**100.00%**	**20.08**	**100.00%**

3.8 Additional Capital Expenditure

Petitioner Submissions

3.8.1 For Asset-1, the Petitioner has projected an Additional Capitalisation Expenditure (ACE) of Rs. 3.86 Lakh from COD to 31.03.2021 and Rs. 81.08 Lakh from 01.04.2021 to 11.09.2023 in accordance with Regulation 16(1) and Regulations 16(2) of HPERC MYT Transmission Regulations, 2011 respectively. The details of works along with its nature under additional capitalization projected for Asset-1 are as shown below.

Table 53: Additional Capitalisation claimed by Petitioner – Asset-1 (Rs. Lakhs)

Sr. No.	Particulars	COD to 31.03.2021		01.04.2021 to 11.09.2023	
		Amount	Nature of Add-Cap	Amount	Nature of Add-Cap
1	Erection and Civil Work	3.44	Additional work awarded to M/s Joginder Singh for disposal of muck generated during construction activities (not in	17.39	Part of award

Sr. No.	Particulars	COD to 31.03.2021		01.04.2021 to 11.09.2023	
		Amount	Nature of Add-Cap	Amount	Nature of Add-Cap
			original scope of work)		
2	Material Supplied	-		60.94	41.79 (Part of award) 19.15 (Additional work awarded to M/s Hitachi Energy India Ltd. For PMU installation as per NRLDC guidelines (not in original scope of work))
3	Testing Charges	2.10	0.8 (Additional work awarded to PSTCL for Transformer oil testing) 1.3 (Additional work awarded to M/s Evapotech for Soil Investigation) (not in original scope of work)	0.43	Additional work awarded to M/s Interstellar for testing air, water & noise pollution (not in original scope of work)
4	Legal Fees	0.02	Engagement of Advocate for contesting court case	0.02	Engagement of Advocate for contesting court case
5	Other Misc. Charges	0.03	0.02 (Payment made for purchasing telephone for control room) 0.005 (Payment made for purchasing battery water)	0.05	Publication charges
6	Structure for switchyard	-1.86*		-	
7	DC (Departmental Charges)	0.14		2.25	
8	IDC (Interest During Construction)	-0.01		-	
	Total ACE – Asset-1	**3.86**		**81.08**	

** In the expenditure certificate upto COD i.e., 02.11.2020, the cost has been claimed against "Structure for Switchyard" as Rs. (+) 1.86 Lakhs, however, in the expenditure certificate upto 31.03.2021, the said item "Structure for Switchyard" has been already included in the item "Erection & Civil works" and thus, required negative entry in the expenditure from COD to 31.03.2021 to avoid double counting.*

3.8.2 For Asset-2, the Petitioner has projected an Additional Capitalisation Expenditure (ACE) of Rs. 325.94 Lakh from COD to 31.03.2021 in accordance with Regulation 16(1) and Regulations 16(2) of HPERC MYT Transmission Regulations, 2011 respectively. The detail of works along with its nature under additional capitalization projected for Asset-2 are as shown below.

Table 54: Additional Capitalisation claimed by Petitioner – Asset-2 (Rs. Lakh)

Sr. No.	Particulars	COD to 31.03.2021	
		Amount	Nature of Add-Cap
1	Erection and Civil Work	1.06	Payment made for deployment of Home Guard
2	Consultancy Services	316.22	Consultancy services for implementation of KfW funded GEC Projects (Asset-2)
3	DC (Departmental Charges)	0.12	
4	IDC (Interest During Construction)	8.54	
	Total ACE – Asset-2	**325.94**	

3.8.3 For Asset-3, the Petitioner has projected an Additional Capitalisation Expenditure (ACE) of Rs. 432.37 Lakh from COD to 31.03.2021 and Rs. 652.52 Lakh from 01.04.2021 to 11.09.2023 in accordance with Regulation 16(1) and Regulations 16(2) of HPERC MYT Transmission Regulations, 2011 respectively. The detail of works along with its nature under additional capitalization projected for Asset-3 are as shown below.

Table 55: Additional Capitalisation claimed by Petitioner – Asset-3 (Rs. Lakh)

Sr. No.	Particulars	COD to 31.03.2021		01.04.2021 to 11.09.2023	
		Amount	Nature of Add-Cap	Amount	Nature of Add-Cap
1	Erection and Civil Work	267.21	Part of award	326.78	• 288 (Part of award) • 29.3 (Additional work awarded to M/s Jagmohan Singh, service provider for construction of crate wall at MCT-1 (not in original scope of award) • 9.48 (Additional work awarded to M/s GE T&D Ltd. for commissioning of FOTE/PLCC at Gumma substation (not in original scope of award)
2	Material Supplied	-		7.88	• 3.53 (Part of award) • 4.36 (Additional work awarded to M/s GE T&D Ltd. for commissioning of FOTE/PLCC at

Sr. No.	Particulars	COD to 31.03.2021		01.04.2021 to 11.09.2023	
		Amount	Nature of Add-Cap	Amount	Nature of Add-Cap
					Gumma substation (not in original scope of award)
3	Tree, Fruit, Crop compensation	(-)11.64*		4.75	Compensation paid to landowners for clearing RoW.
4	Land Cost/ Compensation	19.63	Compensation paid to landowners for clearing RoW.	15.80	Compensation paid to landowners for clearing RoW.
5	House compensation for rehabilitation	5.52	Compensation paid to landowners for clearing RoW.	-	
6	HT Line shifting charges	27.20	Additional work awarded to HPSEBL for HT line shifting	-	
7	Diversion of road expenses	(-)6.11#			
8	Legal Fees	1.67	Engagement of Advocate for contesting court case	2.61	Engagement of Advocate for contesting court case
9	Other Misc. Charges	0.03	Payment made for e-stamping and service charges	0.04	Tender Expense
10	DC (Departmental Charges)	12.38		10.76	
11	IDC (Interest During Construction)	116.48		283.61	
	Total ACE – Asset-3	**432.37**		**652.52**	

** Due to recovery of fruit compensation, rejection of cheque and compensation correction.*
 # Negative entry amounting to Rs. 6.11 Lakhs has been made against the "Diversion of roads" head due to wrongly booked bill in SAP pertaining to M/s Vishal Shanka to avoid double counting.

3.8.4 For Asset-4, the Petitioner has projected an Additional Capitalisation Expenditure (ACE) of Rs. 22.47 Lakh from COD to 31.03.2022 and Rs. (-)10.81 Lakh from 01.04.2022 to 11.09.2023 in accordance with Regulation 16(1) and Regulations 16(2) of HPERC MYT Transmission Regulations, 2011 respectively. The details of works along with its nature under additional capitalization projected for Asset-4 are as shown below:

Table 56: Additional Capitalisation claimed by Petitioner – Asset-4 (Rs. Lakh)

Sr. No.	Particulars	COD to 31.03.2022		01.04.2022 to 11.09.2023	
		Amount	Nature of Add-Cap	Amount	Nature of Add-Cap
1	Erection and Civil Work	17.62	Part of award	(-)15.43*	-

Sr. No.	Particulars	COD to 31.03.2022		01.04.2022 to 11.09.2023	
		Amount	Nature of Add-Cap	Amount	Nature of Add-Cap
2	Material Supplied	-		0.92	Part of award
3	Testing charges	1.41	Additional work awarded to PGCIL for meter calibration (not in original scope of award)	-	
4	DC (Departmental Charges)	3.44		3.70	
5	IDC (Interest During Construction)	-		-	
	Total ACE – Asset-4	**22.47**		**(-)10.81**	

** Due to recovery of Erection bills of Rs. 9.07 Lakhs and adjustment entry of furniture amounting to Rs. 6.35 Lakhs.*

Commission's Analysis

3.8.5 In accordance with Regulation 16 of the 'HPERC Transmission Tariff Regulations, 2011' as amended from time to time, the Commission has verified the claimed 'Additional Capital Expenditure'. Further, the Regulation provides for the same as follows:

"(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 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 15;

(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 or compliance of any existing law;

(c) 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;

(d) Any liability for works executed prior to the Cut-off Date, after prudence 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.;

(e) Any liability for works admitted by the Commission after the Cut-off Date to the extent of discharge of such liabilities by actual payments;

(f) Any additional capital expenditure, which has become necessary for efficient operation of the transmission system. 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, upgradation of capacity for the technical reason such as increase in fault level; and

(g) Any additional expenditure on items such as relays, control and instrumentation, computer system, power line carrier communication, DC batteries, replacement due to obsolesce of technology, replacement of switchyard equipment due to increase of fault level, tower strengthening, communication equipment, emergency restoration system, insulators cleaning infrastructure, replacement of porcelain insulator with polymer insulators, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of transmission system:

Provided that any expenditure on acquiring the minor items or the assets including tools and tackles, furniture, air-conditioners, voltage stabilizers, refrigerators, coolers, computers, 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:

Provided further that if any expenditure has been claimed under Renovation and Modernisation (R&M) or repairs and maintenance under O&M Expenses, the same expenditure cannot be claimed under this Regulation."

3.8.6 The Commission in order to approve the additional capitalisation for each year, sought justification and relevant documents from the Petitioner in support of its claim. In reply to the query, Additional Capitalisation not been claimed on year-on-year basis, instead claimed for the period as "from COD to 31.03.2021" and "01.04.2021 to 11.09.2023". The Petitioner has provided with the break-up of Additional Capitalisation for each asset on year-on-year basis. In addition, the Commission has also analysed the supporting documents with respect to the claimed amounts towards Additional Capitalisation and find to be in place. Also, the Petitioner has provided the Auditor's Certificate for Additional Capital Expenditure.

3.8.7 With respect to Asset-1, the Commission has allowed the Additional Capital Expenditure claimed against supply cost, erection cost and testing charges, based on the verification of payment proofs and Auditor's Certificate submitted by the Petitioner. However, the Commission has not allowed Additional Capital Expenditure claimed against legal fee and miscellaneous charges for Asset-1, as the Commission is of the opinion that these expenses are of operational nature and should be a part of O&M expense.

3.8.8 With respect to Asset-2, the Commission has not allowed the claimed amount against erection and civil work, as it is towards payment made for deployment of Home Guard, which is of operational nature. In addition, in reply to the query on claimed Additional Capital Expenditure towards Consultancy services for implementation of KfW funded GEC Projects for Asset-2, the Petitioner submitted that the said expense pertain to the period upto 31.03.2021. However, the same has been charged after COD. Based on the analysis of the clause 2.1(a) of the separate agreement with KfW, in line with the Loan Agreement between Government of India and kfW dated 05.10.2015, it is understood that it is mutually agreed by KfW and HPPTCL to go for an Implementation consultant. In addition, based on the verification of the Invoices copies submitted by the Petitioner, the Commission has allowed Additional Capital Expenditure towards Consultancy services.

3.8.9 With respect to Asset-3, the Commission has allowed the Additional Capital Expenditure claimed against supply cost, erection cost, entry tax, tender expense, crop compensation, land compensation, house compensation for rehabilitation, HT and line shifting charges, based on the verification of payment proof and Auditor's Certificate submitted by the Petitioner. However, the Commission has not allowed Additional Capital Expenditure claimed against legal fee and miscellaneous charges for Asset-3, as the Commission is of the opinion that these expenses are of operational nature and should be a part of O&M expense.

3.8.10 With respect to Asset-4, the Commission has allowed the Additional Capital Expenditure claimed against supply cost, erection cost and testing charges, based on the verification of payment proofs and Auditor's Certificate submitted by the Petitioner.

3.8.11 In addition, the Commission has not approved any expense towards DC (Departmental Charges) and IDC (Interest During Construction) as part of Additional Capitalisation for all the assets, as no provision of the Regulations allows so.

3.8.12 The following table summarises the additional capitalisation approved by the Commission for all the assets:-

Table 57: Additional Capitalisation approved by the Commission (Rs. Lakhs)

Particulars	FY21	FY22	FY23	FY24
Asset-1				

Particulars	FY21	FY22	FY23	FY24
Erection and Civil Work	3.44	17.39	-	-
Material Supplied	-	41.79	-	19.15
Testing Charges	2.10	0.43	-	-
Legal Fees	-	-	-	-
Other Misc. Charges	-	-	-	-
Publication Charges	-	-	-	0.05
DC (Departmental Charges)	-	-	-	-
IDC (Interest During Construction)	-	-	-	-
Additional Capitalisation – Asset-1	**5.54**	**59.61**	**-**	**19.20**
Asset-2				
Erection and Civil Work	-	-	-	-
Consultancy Services	316.22	-	-	-
DC (Departmental Charges)	-	-	-	-
IDC (Interest During Construction)	-	-	-	-
Additional Capitalisation – Asset-2	**316.22**	-	-	-
Asset-3				
Erection and Civil Work	267.21	308.18	7.51	11.10
Material Supplied	-	3.52	-	4.36
Tree, Fruit, Crop compensation	(-)11.64	3.92	-	0.83
Land Cost/ Compensation	19.63	0.65	7.65	7.50
House compensation for rehabilitation	5.52	-	-	-
HT Line shifting charges	27.20	-	-	-
Diversion of road expenses	(-)6.11	-	-	-
Legal Fees	-	-	-	-
Entry Tax	-	0.28	-	-
Other Misc. Charges	-	-	-	-
DC (Departmental Charges)	-			-
IDC (Interest During Construction)	-			-
Additional Capitalisation – Asset-3	**301.81**	**316.55**	**15.16**	**23.83**
Asset-4				
Erection and Civil Work	-	17.62	(-)15.43	-
Material Supplied	-	-	0.92	-
Testing charges	-	1.42	-	-
DC (Departmental Charges)	-	-	-	-

Particulars	FY21	FY22	FY23	FY24
IDC (Interest During Construction)	-	-	-	-
Additional Capitalisation – Asset-4	**-**	**19.04**	**(-)14.51**	**-**

3.8.13 In reply to the query on negative entries while claiming the Additional Capitalisation, the Petitioner has submitted that these are against recovery and adjusted entries and wrongly booked bill items in SAP which are reversed.

3.8.14 The table below summarises the total Capital cost including additional capitalisation approved vis-à-vis awarded cost post amendments for all the assets:-

Table 58: Comparison of approved Capital cost and Additional Capitalisation Vs Awarded Cost post amendments (Rs. Cr.)

Particulars	Awarded Cost post amendment	Capital cost approved as on COD	Approved Additional Capitalisation	Total Capital cost including Add. Cap.
Asset-1				
Supply	118.48	120.82	0.61	
Erection	35.77	35.62	0.21	
Sub-Total	**154.25**	**156.44**	**0.82**	**157.26**
Miscellaneous Expenses	-	9.67	0.03	
DC (Departmental Charges)	-	11.33		
IDC (Interest During Construction)	-	21.05		
Total Cost – Asset-1	**154.25**	**198.49**	**0.84**	**199.33**
Asset-2				
Supply	39.34	39.34	-	
Erection	2.82	2.82	-	
Sub-Total	**42.16**	**42.16**	-	**42.16**
Miscellaneous Expenses	-	0.05	3.16	
DC (Departmental Charges)	-	2.97		
IDC (Interest During Construction)	**-**	3.46		
Total Cost – Asset-2	**42.16**	**48.64**	**3.16**	**51.80**
Asset-3				
Supply	48.14	48.23	-	
Erection	54.04	48.06	6.02	
Sub-Total	**102.18**	**96.29**	**6.02**	**102.31**
Miscellaneous Expenses		14.61	0.55	
DC (Departmental Charges)		6.56		

Particulars	Awarded Cost post amendment	Capital cost approved as on COD	Approved Additional Capitalisation	Total Capital cost including Add. Cap.
IDC (Interest During Construction)		11.80		
Total Cost – Asset-3	**102.18**	**129.26**	**6.57**	**135.83**
Asset-4				
Supply	32.54	32.54	0.01	
Erection	7.23	6.73	0.02	
Sub-Total	**39.77**	**39.27**	**0.03**	**39.45**
Miscellaneous Expenses		9.43	0.01	
DC (Departmental Charges)		2.70		
IDC (Interest During Construction)		4.02		
Total Cost – Asset-4	**39.77**	**55.41**	**0.05**	**55.46**

3.8.15 The funding of the above approved additional capitalization for all the assets has been considered as per the Debt:Equity ratio of 70:30 (70% debt and 30% Equity) of the project as approved above.

4. APPROVAL OF ARR AND TARIFF

4.1 Background

4.1.1 The Petitioner has proposed projections for COD to FY 2023-24 as per the 'HPERC Transmission Tariff Regulations, 2011' as amended from time to time. As per the submissions of the Petitioner, ARR for each year of the Control Period has been divided into following elements:

- O&M Expenses;
- Depreciation;
- Interest and Financing Charges;
- Interest on Working Capital;
- Return on Equity

4.1.2 The Commission has examined the Petition and the subsequent submissions made in response to the deficiency letters for the purpose of approving the elements of ARR for the period from COD to FY 2023-24. The Commission has also considered the provisions of 'HPERC Transmission Tariff Regulations, 2011', Audited Annual Accounts, Capital cost certificate by statutory auditor, Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (CERC Tariff Regulations, 2019) and approved capital expenditure and funding plan for the Project for the purpose of ARR projections for each year.

4.1.3 In this Chapter, the Commission has discussed the methodology for computing each component of the ARR including O&M expenses, interest on loan, depreciation, return on equity, working capital requirement and interest etc. for approving the total ARR for each year from COD till FY 2023-24. The methodology followed and approved values for each component of the ARR is detailed in the subsequent sections.

4.2 O&M Expenses

Petitioner Submissions

4.2.1 The Petitioner has submitted that as per the HPERC MYT Transmission Regulations, 2011, Operation and Maintenance Expense is computed considering the following methodology:

"(3) The O&M expenses for the nth year of the control period shall be approved based on the formula given below:-

O&Mn = R&Mn + EMPn + A&Gn : Where –

'EMPn' = [(EMPn-1) x (1+Gn) x (CPIinflation)] + Provision (Emp);

'A&Gn' = [(A&Gn-1) x (WPIinflation)] + Provision(A&G);

'R&Mn' = K x (GFA n-1) x (WPIinflation) ;

'K' - is a constant (could be expressed in %). Value of K for each year of the control period shall be determined by the Commission in the MYT Tariff Order based on licensee's filing, benchmarking of repair and maintenance expenses, approved repair and maintenance expenses vis-à-vis GFA approved by the Commission in past and any other factor considered appropriate by the Commission;

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

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

'EMPn' – employee's cost of the Transmission licensee for the nth year (employee cost for the base year would be adjusted for provisions for expenses beyond the control of the licensee and one-time expected expenses, such as recovery/ adjustment of terminal benefits, implication of pay revisions, arrears and interim relief.);

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

'A&Gn' – administrative and general costs of the Transmission licensee for the nth year;

'Provision(A&G)'-Cost for initiatives or other one-time expenses as proposed by the Transmission licensee and approved by the Commission after prudence check;"

'R&Mn' – Repair and Maintenance costs of the Transmission licensee for the nth year;

'GFAn-1' – Gross Fixed Asset of the Transmission licensee for the n-1th year;

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

4.2.2 The Petitioner, in the absence of any basis has considered the norms for O&M Expenses as specified in Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.

4.2.3 Accordingly, the Petitioner has projected O&M Expense based on the number of Sub-station Bays and Line length for the Project as mentioned in the CERC Regulations from COD to FY 2023-24 as shown in the table below.

Table 59: O&M Expenses claimed by Petitioner (Rs. Lakh)

Particulars	FY21	FY22	FY23	FY24
Asset-1				

Particulars	FY21	FY22	FY23	FY24
Norm 400 kV (Rs. Lakh per Bay)	23.30	24.12	24.96	25.84
Norm 220 kV (Rs. Lakh per Bay)	16.31	16.88	17.47	18.09
No. of Bays (400 kV)	7	7	7	7
No. of Bays (220 kV)	5	5	5	5
Norm 400 kV Transformer (Rs. Lakh per MVA)	0.371	0.384	0.398	0.411
Capacity (MVA)	315	315	315	315
O&M Expenses (Rs. Lakh)	**361.49**	**374.19**	**387.46**	**400.76**
Asset-2				
Norm 220 kV (Rs. Lakh per Bay)	16.31	16.88	17.47	18.09
No. of Bays (220 kV)	3	3	3	3
Norm 400 kV Transformer (Rs. Lakh per MVA)	0.371	0.384	0.398	0.411
Capacity (MVA)	315	315	315	315
O&M Expenses (Rs. Lakh)	**165.80**	**171.61**	**177.79**	**183.73**
Asset-3				
Norm 220 kV Line (Rs. Lakh per Km)	0.91	0.94	0.98	1.01
Norm 400 kV Line (Rs. Lakh per Km)	0.91	0.94	0.98	01.01
Line length 220 kV (Km)	26	26	26	26
Line length 400 kV (Km)	3.1	3.1	3.1	3.1
O&M Expenses (Rs. Lakh)	**23.71**	**24.54**	**25.40**	**26.29**
Asset-4				
Norm GIS substation bays (Rs. Lakh per bay)		16.88	17.47	18.09
No. of Bays (220 kV)		7	7	7
O&M Expenses (Rs. Lakh)		**118.19**	**122.30**	**126.62**

Commission's Analysis

4.2.4 The Commission has reviewed the submissions of the Petitioner. As the actual audited O&M expenses for sufficient number of years are not available for the Assets, it is difficult to ascertain a realistic trend for O&M expenses for the upcoming years. In the absence of any accurate benchmark, the Commission has relied upon the normative O&M expenses prescribed in the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (CERC Tariff Regulations, 2019) for the purpose of year wise estimation of O&M expenses for the control period.

4.2.5 As the Regulations provide for O&M expense based on voltage level, number of circuits and conductor size, the following norms have been considered as per the technical specifications for computation of O&M expense as per CERC Tariff Regulations, 2019:

Table 60: Normative O&M Expenses

Item	Unit	FY21	FY22	FY23	FY24
400 kV (Bay)	Rs. Lakh/bay	23.30	24.12	24.96	25.84
220 kV (Bay)	Rs. Lakh/bay	16.31	16.88	17.47	18.09
400 kV (Transformer)	Rs. Lakh/MVA	0.371	0.384	0.398	0.411
D/C (Twin and Triple Conductor)	Rs. Lakh/km	0.912	0.944	0.977	1.011

4.2.6 Accordingly, the Commission has approved the O&M expenses for each year. Any variation in O&M expenses shall be reviewed and considered at the time of true-up.

4.2.7 The following table provides the O&M expenses approved by the Commission for each year:

Table 61: O&M Expenses approved by Commission (Rs. Cr.)

Particulars	FY21	FY22	FY23	FY24
Asset-1				
Norm 400 kV (Rs. Lakh per Bay)	23.30	24.12	24.96	25.84
Norm 220 kV and below (Rs. Lakh per Bay)	16.31	16.88	17.47	18.09
Norm 400 kV Transformer (Rs. Lakh per MVA)	0.371	0.384	0.398	0.411
No. of Bays (400 kV)	7	7	7	7
No. of Bays (220 kV)	5	5	5	5
Transformer Capacity (MVA)	315	315	315	315
Annual O&M Expenses (Rs. Cr.)	**3.61**	**3.74**	**3.87**	**4.01**
Asset-2				
Norm 220 kV and below (Rs. Lakh per Bay)	16.31	16.88	17.47	18.09
Norm 400 kV Transformer (Rs. Lakh per MVA)	0.371	0.384	0.398	0.411
No. of Bays (220 kV)	3	3	3	3
Transformer Capacity (MVA)	315	315	315	315
Annual O&M Expenses (Rs. Cr.)	**1.66**	**1.72**	**1.78**	**1.84**
Asset-3				
D/C (Twin and Triple Conductor) (Rs. Lakh per Km)	0.912	0.944	0.977	1.011
Line length 220 kV (Km)	26	26	26	26
Line length 400 kV (Km)	3.1	3.1	3.1	3.1
Annual O&M Expenses (Rs. Cr.)	**0.27**	**0.27**	**0.28**	**0.29**

Particulars	FY21	FY22	FY23	FY24
Asset-4				
Norm 220 kV and below (Rs. Lakh per Bay)		16.88	17.47	18.09
No. of Bays (220 kV)		7	7	7
Annual O&M Expenses (Rs. Cr.)		**1.18**	**1.22**	**1.27**

4.2.8 The CERC norms for O&M expenditure do not provide for any additional provision for expenditure towards insurance, consultancy charges, petition filing fees, manpower training, etc. Hence, no additional expenses pertaining to the same have been allowed. Any additional expenditure on account of the same shall be reviewed at the time of true-up as per the submissions of the Petitioner and prudence check.

4.3 Interest on Loan

Petitioner Submissions

4.3.1 The Petitioner has submitted the interest on loan in accordance with the Regulation 20 of the HPERC MYT Transmission Regulations, 2011 as amended from time to time.

4.3.2 For Asset-1, the Petitioner has considered the opening value of loan as on COD amounting to 76.92% of the total project cost i.e., Rs. 160.68 Crore and additional loan on normative basis for ACE proposed during 2020-21 to 2023-24.

4.3.3 For Asset-2, the Petitioner has considered the opening value of loan as on COD as normative loan amounting to 70% of the total project cost i.e., Rs. 23.13 Crore and additional loan on normative basis for ACE proposed during FY 2020-21.

4.3.4 For Asset-3, the Petitioner has considered the opening value of loan as on COD as normative loan amounting to 70% of the total project cost i.e., Rs. 95.12 Crore and additional loan on normative basis for ACE proposed during FY 2020-21 to 2023-24.

4.3.5 For Asset-4, the Petitioner has considered the opening value of loan as on COD as normative loan amounting to 70% of the total project cost i.e., Rs. 40.28 Crore and additional loan on normative basis for ACE proposed during FY 2021-22 and FY 2022-23.

4.3.6 The Petitioner has considered the interest rate of 10% as per the ADB Loan Agreement read with lending agreement with GoHP.

4.3.7 Further, with respect to computation of Loan, the Petitioner submitted that Interest on Loan is being claimed from COD to FY 2023-24 for respective assets.

4.3.8 The computation of Interest on Loan for both the assets has been provided in the following table:

Table 62: Interest on Loan claimed by Petitioner (Rs. Lakh)

Particulars	FY21	FY22	FY23	FY24

Particulars	FY21	FY22	FY23	FY24
Asset-1				
Opening Balance	16,068.14	16,071.00	15,098.66	14,080.84
Addition	2.86	43.83	-	-
Repayment	1,014.40	1,016.16	1,017.82	1,017.82
Closing Balance	15,056.60	15,098.66	14,080.84	13,063.03
Rate of Interest (%)	10.00%	10.00%	10.00%	10.00%
Interest on Loan	**1,556.24**	**1,558.48**	**1,458.98**	**1,357.19**
Asset-2				
Opening Balance	2,313.16	2,441.97	2,249.04	2,056.11
Addition	310.06	-	-	-
Repayment	181.24	192.93	192.93	192.93
Closing Balance	2,441.97	2,249.04	2,056.11	1,863.18
Rate of Interest (%)	10.00%	10.00%	10.00%	10.00%
Interest on Loan	**237.76**	**234.55**	**215.26**	**195.96**
Asset-3				
Opening Balance	9,475.77	9,115.94	8,837.87	8,087.70
Addition	339.68	454.95	-	-
Repayment	699.51	733.02	750.18	750.18
Closing Balance	9,115.94	8,837.87	8,087.70	7,337.52
Rate of Interest (%)	10.00%	10.00%	10.00%	10.00%
Interest on Loan	**929.59**	**897.69**	**846.28**	**771.26**
Asset-4				
Opening Balance		4,025.67	3,783.24	3,526.98
Addition		13.32	-	-
Repayment		255.76	256.26	256.26
Closing Balance		3,783.24	3,526.98	3,270.72
Rate of Interest (%)		10.00%	10.00%	10.00%
Interest on Loan		**390.45**	**365.51**	**339.88**

Commission's Analysis

4.3.9 The Commission has considered the loan amount in line with the project funding approved for the project in the previous chapter.

4.3.10 Regulation 20 of the HPERC MYT Transmission Regulations, 2011 stipulates the following:

"20. 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 Transmission licensee does not have actual loan, then the weighted average rate of interest of the Transmission licensee as a whole shall be considered.

Provided further that if the Transmission Licensee as a whole does not have actual loan, then 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 relevant Year plus 200 basis points shall be considered as the rate 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:

Provided that all loans considered for this purpose shall be identified with the assets created:

Provided further that the interest and finance charges of re-negotiated loan agreements shall not be considered, if they result in higher charges:

Provided further that the interest and finance charges on works in progress shall be excluded and shall be considered as part of the Capital cost:

Provided further that neither penal interest nor overdue interest shall be allowed for computation of Tariff.

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

(5) The Transmission licensee shall make every effort to refinance the loan as long as it results in net benefit to the beneficiaries. The costs associated with such refinancing shall be borne by the Transmission customers and any benefit on account of refinancing of loan and interest on loan shall be shared in the ratio of 2:1 between the Transmission licensee and the Transmission customers. Refinancing may also include restructuring of debt.

(6) In respect of foreign currency loans, variation in rupee liability due to foreign exchange rate variation, towards interest payment and loan repayment actually incurred, in the relevant year shall be admissible; provided it directly arises out of such foreign exchange rate variation and is not attributable to the Transmission licensee or its suppliers or Contractors.

(7) The above interest computation shall exclude the interest on loan amount, normative or otherwise, to the extent of Capital cost funded by consumer contribution, deposit work, capital subsidy or grant, carried out by Transmission licensee."

4.3.11 The Commission has approved the Interest on Loan in accordance with the HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011, as amended from time to time. Repayment equivalent to approved depreciation has been considered for each year in line with the Regulations. Accordingly, the opening and closing loan balances for each year has been determined.

4.3.12 The Commission has considered the debt amount as per the approved funding, including additional capitalization as discussed in Chapter 3 earlier.

4.3.13 Accordingly, the Commission has considered the rate of 10% as applicable in accordance with the terms and conditions of the loan as per agreement between the Petitioner and the GoHP.

4.3.14 It is observed that the rate of interest charged from the Petitioner by the Govt. of Himachal Pradesh (GoHP) is 10% which is higher than the rate of interest agreed with the ADB. The Petitioner has submitted that the GoHP levies interest rate at 10% on all loans funded by ADB as per the agreement entered by the GoHP with HPPTCL.

4.3.15 Since ADB provides loan to GoHP which is transferred to the Petitioner for implementation, the rate of interest of 10% is applicable as per the agreement of the Petitioner with GoHP. The Commission is of the view that the rate of 10% is competitive as compared with the rates applicable on other Transmission assets of HPPTCL and borrowings by similar utilities in other States from various sources and, therefore, approves the same for Tariff determination for the Assets.

4.3.16 However, considering that the lending agencies may be charging at lower rate, the Commission directs the Petitioner to negotiate with the GoHP and align the interest rate in line with the rate of interest agreed by the GoHP with ADB. Any efforts in this direction will not only lead to better cost optimisation in the form of lower interest costs, but also benefit the Consumers of the State of Himachal Pradesh as a whole.

4.3.17 The following table provides the Interest on Loan approved by the Commission for each year:

Table 63: Interest on Loan approved by Commission (Rs. Cr.)

Particulars	FY21	FY22	FY23	FY24
Asset-1				
Opening Balance	38.90	36.41	34.44	32.21
Addition	0.04	0.42	-	0.13
Repayment	2.54	2.38	2.23	2.07
Closing Balance	36.41	34.44	32.21	30.27
Average Loan Balance	37.66	35.42	33.32	31.24
Rate of Interest (%)	10.00%	10.00%	10.00%	10.00%
Interest on Loan	**3.77**	**3.54**	**3.33**	**3.12**
Asset-2				
Opening Balance	2.09	3.69	2.99	2.29
Addition	2.21	-	-	-
Repayment	0.62	0.70	0.70	0.70
Closing Balance	3.69	2.99	2.29	1.60
Average Loan Balance	2.89	3.34	2.64	1.95
Rate of Interest (%)	10.00%	10.00%	10.00%	10.00%
Interest on Loan	**0.29**	**0.33**	**0.26**	**0.19**
Asset-3				
Opening Balance	30.78	30.74	30.88	29.07
Addition	2.11	2.22	0.11	0.17
Repayment	2.16	2.07	1.92	1.68
Closing Balance	30.74	30.88	29.07	27.55
Average Loan Balance	30.76	30.81	29.98	28.31
Rate of Interest (%)	10.00%	10.00%	10.00%	10.00%
Interest on Loan	**3.08**	**3.08**	**3.00**	**2.83**
Asset-4				
Opening Balance		14.05	13.61	13.41
Addition		0.13	(0.10)	-
Repayment		0.58	0.10	-
Closing Balance		13.61	13.41	13.41
Average Loan Balance		13.83	13.51	13.41
Rate of Interest (%)		10.00%	10.00%	10.00%

Particulars	FY21	FY22	FY23	FY24
Interest on Loan		**1.38**	**1.35**	**1.34**

4.4 Depreciation

Petitioner Submissions

4.4.1 The Petitioner has submitted the depreciation for each year of the Control Period for the Project in accordance with the Regulation 23 of the HPERC MYT Transmission Regulations, 2011 and its subsequent amendments based on the actual Capital cost.

4.4.2 In accordance with the Regulations, the depreciation for each year has been worked out by the Petitioner as shown in the following table:

Table 64: Depreciation claimed by Petitioner (Rs. Lakhs)

Particulars	FY21	FY22	FY23	FY24
Asset-1				
Opening GFA	20,890.55	20,894.63	20,957.24	20,957.24
Net Opening GFA	20,890.55	20,894.63	20,957.24	20,957.24
Addition	4.08	62.61	-	-
Net Closing GFA	20,894.63	20,957.24	20,957.24	20,957.24
Average GFA	20,892.59	20,925.94	20,957.24	20,957.24
Less: Land under full ownership	-	-	-	-
GFA excluding Land	20,892.59	20,925.94	20,957.24	20,957.24
Rate of Depreciation	4.86%	4.86%	4.86%	4.86%
Depreciation	**1,014.40**	**1,016.16**	**1,017.82**	**1,017.82**
Asset-2				
Opening GFA	4,986.02	5,428.96	5,428.96	5,428.96
Net Opening GFA	3,304.51	3,747.45	3,747.45	3,747.45
Addition	442.94	-	-	-
Net Closing GFA	3,747.45	3,747.45	3,747.45	3,747.45
Average GFA	3,525.98	3,747.45	3,747.45	3,747.45
Less: Land under full ownership	-	-	-	-
GFA excluding Land	3,525.98	3,747.45	3,747.45	3,747.45
Rate of Depreciation	5.14%	5.14%	5.14%	5.14%
Depreciation	**181.24**	**192.93**	**192.93**	**192.93**
Asset-3				
Opening GFA	13,402.89	14,022.07	14,672.01	14,672.01

Particulars	FY21	FY22	FY23	FY24
Addition	619.18	649.94	-	-
Net Closing GFA	14,022.07	14,672.01	14,672.01	14,672.01
Average GFA	13,712.48	14,347.04	14,672.01	14,672.01
Less: Land under full ownership	464.14	464.14	464.14	464.14
GFA excluding Land	13,248.34	13,882.90	14,207.87	14,207.87
Rate of Depreciation	5.28%	5.28%	5.28%	5.28%
Depreciation	**699.51**	**733.02**	**750.18**	**750.18**
Asset-4				
Opening GFA		5,750.96	5,769.99	5,769.99
Net Opening GFA		19.03	-	-
Addition		5,769.99	5,769.99	5,769.99
Net Closing GFA		5,760.48	5,769.99	5,769.99
Average GFA		916.60	916.60	916.60
Less: Land under full ownership		4,843.88	4,853.39	4,853.39
GFA excluding Land		5,750.96	5,769.99	5,769.99
Rate of Depreciation		5.28%	5.28%	5.28%
Depreciation		**255.76**	**256.26**	**256.26**

Commission's Analysis

4.4.3 The Commission has approved the depreciation in line with provisions of the Regulation 23 of the HPERC MYT Transmission Regulations, 2011, which reads as follows:

*"**23. Depreciation***

(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 shall be allowed up to maximum of 90% of the Capital cost of the asset.

(3) (2-a) The salvage value for IT equipment and software shall be considered as NIL and 100% value of the assets shall be considered depreciable.

(4) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-I to these regulations for the assets of the Transmission system:

Provided that, the remaining depreciable value as on 31st March of the year closing after a period of 12 years from date of commercial operation shall be spread over the balance useful life of the asset.

(5) For Transmission project which are in operation for less than 12 years, the difference between the cumulative depreciation recovered and the cumulative depreciation arrived at by applying the depreciation rates specified in this regulation corresponding to 12 years, shall be spread over the period up to 12 years, and the remaining depreciable value as on 31st March of the year closing after a period of 12 years from date of commercial operation shall be spread over the balance useful life of the asset.

(6) For the project in operation for more than 12 years, the balance depreciation to be recovered shall be spread over the remaining useful life of the asset.

(7) Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis."

4.4.4 The Commission has examined the depreciation proposed by the Petitioner in detail for each year. The Commission has arrived on Gross Fixed Assets (GFA) for each year based on the year wise capitalisation approved in the Chapter 3.

4.4.5 The Commission has determined the weighted average depreciation rate for both the assets based on the asset wise breakup provided by the Petitioner. Accordingly, the weighted average depreciation rate has been considered for the purpose of estimation of depreciation for each year. The actual depreciation shall be allowed at the weighted average depreciation rates as per norms approved in the HPERC MYT Transmission Regulations, 2011 at the time of true-up.

4.4.6 In addition, in reply to the deficiency note, the Commission has considered the proof provided by the Petitioner against "Land under full ownership" while calculating depreciation.

4.4.7 The yearly depreciation approved from COD to FY 2023-24 is summarized in the table below:

Table 65: Depreciation approved by Commission (Rs. Cr.)

Particulars	FY21	FY22	FY23	FY24
Asset-1				
Opening GFA	198.49	52.20	49.36	45.93
Less: Grant	142.91	-	-	-
Less: Consumer contribution	-	-	-	-
Less: Land under full ownership	3.43	3.43	3.43	3.43
Net Opening GFA	52.14	48.77	45.93	42.50
Addition during the year	0.06	0.60	-	0.19
Net Closing GFA	52.20	49.36	45.93	42.69
Depreciable Value	52.17	49.06	45.93	42.59
Rate of Depreciation	4.86%	4.86%	4.86%	4.86%
Annual Depreciation	**2.54**	**2.38**	**2.23**	**2.07**

Particulars	FY21	FY22	FY23	FY24
Asset-2				
Opening GFA	48.64	13.55	13.55	13.55
Less: Grant	38.26	-	-	-
Less: Consumer contribution	-	-	-	-
Less: Land under full ownership	-	-	-	-
Net Opening GFA	10.38	13.55	13.55	13.55
Addition during the year	3.16	-	-	-
Net Closing GFA	13.55	13.55	13.55	13.55
Depreciable Value	11.97	13.55	13.55	13.55
Rate of Depreciation	5.14%	5.14%	5.14%	5.14%
Annual Depreciation	**0.62**	**0.70**	**0.70**	**0.70**
Asset-3				
Opening GFA	129.26	42.35	40.88	36.39
Less: Grant	85.28	-	-	-
Less: Consumer contribution	-	-	-	-
Less: Land under full ownership	4.64	4.64	4.64	4.64
Net Opening GFA	39.34	37.71	36.24	31.75
Addition during the year	3.02	3.17	0.15	0.24
Net Closing GFA	42.35	40.88	36.39	31.99
Depreciable Value	40.85	39.30	36.31	31.87
Rate of Depreciation	5.28%	5.28%	5.28%	5.28%
Annual Depreciation	**2.16**	**2.07**	**1.92**	**1.68**
Asset-4				
Opening GFA		55.41	11.10	1.79
Less: Grant		35.34	-	-
Less: Consumer contribution		-	-	-
Less: Land under full ownership		9.17	9.17	9.17
Net Opening GFA		10.91	1.93	-
Addition during the year		0.19	(0.15)	-
Net Closing GFA		11.10	1.79	-
Depreciable Value		11.01	1.86	-
Rate of Depreciation		5.28%	5.28%	5.28%
Annual Depreciation		**0.58**	**0.10**	**-**

4.5 Return on Equity

Petitioner Submissions

4.5.1 The Petitioner has submitted the Return on Equity in accordance with the Regulation 19 of the HPERC MYT Transmission Regulations, 2011 and its subsequent amendments.

4.5.2 For all the Assets, the Petitioner has submitted that it has considered the Opening Equity as on COD as actual equity corresponding to 30% of the total Project Cost.

4.5.3 The RoE proposed by the Petitioner for each year is summarised in the table as follows:

Table 66: RoE claimed by Petitioner (Rs. Lakh)

Particulars	FY21	FY22	FY23	FY24
Asset-1				
Opening Equity	4,822.41	4,823.63	4,842.42	4,842.42
Addition	1.22	18.78	-	-
Closing Equity	4,823.63	4,842.42	4,842.42	4,842.42
Average Equity	4,823.02	4,833.03	4,842.42	4,842.42
RoE (%)	15.50%	15.50%	15.50%	15.50%
Return on Equity	**747.57**	**749.12**	**750.57**	**750.57**
Asset-2				
Opening Equity	991.35	1,124.24	1,124.24	1,124.24
Addition	132.88	-	-	-
Closing Equity	1,124.24	1,124.24	1,124.24	1,124.24
Average Equity	1,057.79	1,124.24	1,124.24	1,124.24
RoE (%)	15.50%	15.50%	15.50%	15.50%
Return on Equity	**163.96**	**174.26**	**174.26**	**174.26**
Asset-3				
Opening Equity	3,927.12	4,206.62	4,401.60	4,401.60
Addition	279.50	194.98	-	-
Closing Equity	4,206.62	4,401.60	4,401.60	4,401.60
Average Equity	4,066.87	4,304.11	4,401.60	4,401.60
RoE (%)	15.50%	15.50%	15.50%	15.50%
Return on Equity	**630.36**	**667.14**	**682.25**	**682.25**
Asset-4				
Opening Equity		1,725.29	1,731.00	1,731.00
Addition		5.71	-	-

Particulars	FY21	FY22	FY23	FY24
Closing Equity		1,731.00	1,731.00	1,731.00
Average Equity		1,728.14	1,731.00	1,731.00
RoE (%)		15.50%	15.50%	15.50%
Return on Equity		**267.86**	**268.30**	**268.30**

Commission's Analysis

4.5.4 Regulation 19 of the HPERC MYT Transmission Regulations, 2011 stipulates the following:

"19. Return on Equity

(1) Return on equity shall be computed on the equity determined in accordance with regulation 18 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 applicable to the concerned Transmission licensee company:

Provided that return on equity with respect to the actual tax rate applicable to the Transmission licensee in line with the provisions of the relevant Finance Acts of the respective year during the Tariff period shall be trued up separately for each year of the Tariff period along with the Tariff petition filed for the next Tariff period.

(3) Rate of return on equity shall be rounded off to three decimal points and be computed as per the formula given below: -

(a) Rate of pre-tax return on equity = Base rate / (1-t)

(b) Where t is the applicable tax rate in accordance with sub-regulation (2) of this regulation."

4.5.5 Equity corresponding to the Capital cost has been approved by the Commission in the previous Chapter under the head 'Project funding'. The same has been considered for approving the return on equity. Equity corresponding to additional capitalization has been considered in the subsequent years.

4.5.6 The Commission has considered rate of return @ 15.50% for approval of RoE for the Control Period. Any tax liability arising on the Petitioner during the Control Period shall be trued-up at the end of Control Period/ Mid Term Review based on effective tax rate/ liability.

4.5.7 Based on the above, the return on equity approved by the Commission is summarised in the table below:

Table 67: RoE approved by Commission (Rs. Cr.)

Particulars	FY21	FY22	FY23	FY24
Asset-1				

Particulars	FY21	FY22	FY23	FY24
Opening Equity	16.67	16.69	16.87	16.87
Addition	0.02	0.18	-	0.06
Closing Equity	16.69	16.87	16.87	16.93
Average Equity	16.68	16.78	16.87	16.90
RoE (%)	15.50%	15.50%	15.50%	15.50%
Return on Equity	**2.59**	**2.60**	**2.61**	**2.62**
Asset-2				
Opening Equity	8.30	9.24	9.24	9.24
Addition	0.95	-	-	-
Closing Equity	9.24	9.24	9.24	9.24
Average Equity	8.77	9.24	9.24	9.24
RoE (%)	15.50%	15.50%	15.50%	15.50%
Return on Equity	**1.36**	**1.43**	**1.43**	**1.43**
Asset-3				
Opening Equity	13.19	14.10	15.05	15.09
Addition	0.91	0.95	0.05	0.07
Closing Equity	14.10	15.05	15.09	15.17
Average Equity	13.65	14.57	15.07	15.13
RoE (%)	15.50%	15.50%	15.50%	15.50%
Return on Equity	**2.12**	**2.26**	**2.34**	**2.35**
Asset-4				
Opening Equity		6.02	6.08	6.04
Addition		0.06	(0.04)	-
Closing Equity		6.08	6.04	6.04
Average Equity		6.05	6.06	6.04
RoE (%)		15.50%	15.50%	15.50%
Return on Equity		**0.94**	**0.94**	**0.94**

4.6 Interest on Working Capital (IoWC)

Petitioner Submissions

4.6.1 The Petitioner has computed interest on working capital as per Regulation 21 and 22 of the HPERC MYT Transmission Regulations, 2011 as amended from time to time.

4.6.2 The Petitioner has calculated the interest on working capital considering prevalent SBI MCLR as on 1st April of FY 2020-21, FY 2021-22 and FY 2022-23 plus 300 basis points.

4.6.3 The interest on working capital claimed has been shown as below:

Table 68: Interest on Working Capital claimed by Petitioner (Rs. Lakh)

Particulars	FY21	FY22	FY23	FY24
Asset-1				
O&M Expenses for 1 month	30.12	31.18	32.29	33.40
Maintenance Spares (at 15% monthly O&M Expenses)	4.52	4.68	4.84	5.01
Receivables for 2 months	625.10	627.38	613.31	598.34
Total Working Capital	**659.74**	**663.24**	**650.44**	**636.74**
Interest Rate (%)	10.75%	10.00%	10.00%	10.00%
Interest on Working Capital	**70.92**	**66.32**	**65.04**	**63.67**
Asset-2				
O&M Expenses for 1 month	13.82	14.30	14.82	15.31
Maintenance Spares (at 15% monthly O&M Expenses)	2.07	2.15	2.22	2.30
Receivables for 2 months	127.36	131.35	129.14	126.89
Total Working Capital	**143.25**	**147.80**	**146.18**	**144.80**
Interest Rate (%)	10.75%	10.00%	10.00%	10.00%
Interest on Working Capital	**15.40**	**14.78**	**14.68**	**14.45**
Asset-3				
O&M Expenses for 1 month	1.98	2.05	2.12	2.19
Maintenance Spares (at 15% monthly O&M Expenses)	0.296	0.307	0.318	0.329
Receivables for 2 months	387.51	393.67	390.57	378.00
Total Working Capital	**389.79**	**396.02**	**393.00**	**380.52**
Interest Rate (%)	10.75%	10.00%	10.00%	10.00%
Interest on Working Capital	**41.90**	**39.60**	**39.30**	**38.05**
Asset-4				
O&M Expenses for 1 month		9.85	10.19	10.55
Maintenance Spares (at 15% monthly O&M Expenses)		1.48	1.53	1.58
Receivables for 2 months		175.15	171.79	168.18
Total Working Capital		**186.48**	**183.51**	**180.32**

Particulars	FY21	FY22	FY23	FY24
Interest Rate (%)		10.00%	10.00%	10.00%
Interest on Working Capital		**18.65**	**18.35**	**18.03**

Commission's Analysis

4.6.4 Based on the approved O&M expenses and expected receivables, the Commission has approved the working capital requirements and interest on working capital for the Control Period in accordance with Regulations 21 & 22 of the HPERC MYT Transmission Regulations, 2011.

4.6.5 The relevant clauses of the above regulations are reproduced as follows:

"21. Working Capital- The Commission shall calculate the working capital requirement for the Transmission licensee containing the following components: -

(a) O&M expenses for 1 month;

(b) receivables for two months on the projected annual Transmission charges; and

(c) maintenance spares @ 40% of repair and maintenance expenses for one month.

"22. Interest Charges on Working Capital- 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 licensee has not taken working capital loan from any outside agency or has exceeded the working capital loan based on the normative figures."

4.6.6 According to the provision for computation of interest on working capital, the Commission has considered the rate of interest on working capital as SBI MCLR as on 1st April of each year plus 300 basis points for FY 2020-21 to FY 2023-24.

4.6.7 Accordingly, the computation for working capital requirement and interest on working capital is shown in the table as follows:

Table 69: Interest on Working Capital approved by Commission (Rs. Cr.)

Particulars	FY21	FY22	FY23	FY24
Asset-1				
O&M Expenses for 1 month	0.30	0.31	0.32	0.33
Maintenance Spares (at 15% monthly O&M Expenses)	0.05	0.05	0.05	0.05
Receivables for 2 months	2.13	2.09	2.05	2.02

Particulars	FY21	FY22	FY23	FY24
Total Working Capital	**2.47**	**2.44**	**2.42**	**2.40**
Interest Rate (%)	10.75%	10.00%	10.00%	11.50%
Interest on Working Capital	**0.27**	**0.24**	**0.24**	**0.28**
Asset-2				
O&M Expenses for 1 month	0.14	0.14	0.15	0.15
Maintenance Spares (at 15% monthly O&M Expenses)	0.02	0.02	0.02	0.02
Receivables for 2 months	0.67	0.71	0.71	0.71
Total Working Capital	**0.83**	**0.88**	**0.88**	**0.89**
Interest Rate (%)	10.75%	10.00%	10.00%	11.50%
Interest on Working Capital	**0.09**	**0.09**	**0.09**	**0.10**
Asset-3				
O&M Expenses for 1 month	0.02	0.02	0.02	0.02
Maintenance Spares (at 15% monthly O&M Expenses)	0.003	0.003	0.004	0.004
Receivables for 2 months	1.29	1.30	1.28	1.22
Total Working Capital	**1.32**	**1.33**	**1.30**	**1.24**
Interest Rate (%)	10.75%	10.00%	10.00%	11.50%
Interest on Working Capital	**0.14**	**0.13**	**0.13**	**0.14**
Asset-4				
O&M Expenses for 1 month		0.10	0.10	0.11
Maintenance Spares (at 15% monthly O&M Expenses)		0.01	0.02	0.02
Receivables for 2 months		0.69	0.61	0.60
Total Working Capital		**0.81**	**0.73**	**0.73**
Interest Rate (%)		10.00%	10.00%	11.50%
Interest on Working Capital		**0.08**	**0.07**	**0.08**

4.7 Aggregate Revenue Requirement

Petitioner Submissions

4.7.1 The table given below summarizes the proposed Aggregate Revenue Requirement for each year from COD to FY 2023-24 as claimed by the Petitioner.

Table 70: Summary of ARR claimed by Petitioner (Rs. Lakh)

Particulars	FY21	FY22	FY23	FY24

Particulars	FY21	FY22	FY23	FY24
Asset-1				
O&M Expenses	361.49	374.19	387.46	400.76
Interest on Loan	1,556.24	1,558.48	1,458.98	1,357.19
Interest on Working Capital	70.92	66.32	65.04	63.67
Depreciation	1,014.40	1,016.16	1,017.82	1,017.82
Return on Equity	747.57	749.12	750.57	750.57
ARR – Asset – 1	**3,750.61**	**3,764.27**	**3,679.88**	**3,590.02**
Pro-rata for number of days in operation (150 days)	**1,541.35**	**3,764.27**	**3,679.88**	**3,590.02**
Asset-2				
O&M Expenses	165.80	171.61	177.79	183.73
Interest on Loan	237.76	234.55	215.26	195.96
Interest on Working Capital	15.40	14.78	14.62	14.45
Depreciation	181.24	192.93	192.93	192.93
Return on Equity	163.96	174.26	174.26	174.26
ARR – Asset – 2	**764.15**	**788.13**	**774.85**	**761.33**
Pro-rata for number of days in operation (55 days)	**115.15**	**788.13**	**774.85**	**761.33**
Asset-3				
O&M Expenses	23.71	24.54	25.40	26.29
Interest on Loan	929.59	897.69	846.28	771.26
Interest on Working Capital	41.90	39.60	39.30	38.05
Depreciation	699.51	733.02	750.18	750.18
Return on Equity	630.36	667.14	682.25	682.25
ARR – Asset – 3	**2,325.08**	**2,361.99**	**2,343.40**	**2,268.02**
Pro-rata for number of days in operation (150 days)	**955.51**	**2,361.99**	**2,343.40**	**2,268.02**
Asset-4				
O&M Expenses		118.19	122.30	126.62
Interest on Loan		390.45	365.51	339.88
Interest on Working Capital		18.65	18.35	18.03
Depreciation		255.76	256.26	256.26
Return on Equity		267.86	268.30	268.30
ARR – Asset – 4		**1,050.90**	**1,030.73**	**1,009.10**

Particulars	FY21	FY22	FY23	FY24
Pro-rata for number of days in operation (59 days)		**169.87**	**1,030.73**	**1,009.10**

Commission's Analysis

4.7.2 Based on the discussions in sections above, the summary of the Aggregate Revenue Requirement (ARR) approved by the Commission for each year is summarised in the table as follows:

Table 71: Summary of ARR approved by Commission (Rs. Cr.)

Particulars	FY21	FY22	FY23	FY24
Asset-1				
O&M Expenses	3.61	3.74	3.87	4.01
Depreciation	2.54	2.38	2.23	2.07
Interest on Loan	3.77	3.54	3.33	3.12
Interest on Working Capital	0.27	0.24	0.24	0.28
Return on Equity	2.59	2.60	2.61	2.62
ARR – Asset – 1	**12.77**	**12.51**	**12.30**	**12.10**
Pro-rata for number of days in operation (150 days)	**5.25**	**12.51**	**12.30**	**12.10**
Asset-2				
O&M Expenses	1.66	1.72	1.78	1.84
Depreciation	0.62	0.70	0.70	0.70
Interest on Loan	0.29	0.33	0.26	0.19
Interest on Working Capital	0.09	0.09	0.09	0.10
Return on Equity	1.36	1.43	1.43	1.43
ARR – Asset – 2	**4.01**	**4.27**	**4.26**	**4.26**
Pro-rata for number of days in operation (55 days)	**0.60**	**4.27**	**4.26**	**4.26**
Asset-3				
O&M Expenses	0.27	0.27	0.28	0.29
Depreciation	2.16	2.07	1.92	1.68
Interest on Loan	3.08	3.08	3.00	2.83
Interest on Working Capital	0.14	0.13	0.13	0.14
Return on Equity	2.12	2.26	2.34	2.35
ARR – Asset – 3	**7.76**	**7.82**	**7.67**	**7.30**
Pro-rata for number of days in	**3.19**	**7.82**	**7.67**	**7.30**

Particulars	FY21	FY22	FY23	FY24
operation (150 days)				
Asset-4				
O&M Expenses		1.18	1.22	1.27
Depreciation		0.58	0.10	-
Interest on Loan		1.38	1.35	1.34
Interest on Working Capital		0.08	0.07	0.08
Return on Equity		0.94	0.94	0.94
ARR – Asset – 4		**4.16**	**3.68**	**3.63**
Pro-rata for number of days in operation (59 days)		**0.67**	**3.68**	**3.63**

4.8 Additional Submission

***Petitioner* Submissions**

4.8.1 The Petitioner has prayed the Commission to allow Carrying Cost from the beneficiary at the rate as specified under Regulation 10(A) of HPERC Transmission Tariff Regulations, 2011, as amended from time to time, for the period starting COD till the issuance of first bill based on Tariff Order. Further, the Petitioner has submitted that due to the delayed recoveries, HPPTCL has been severely financially prejudiced whereby in the absence of Tariff recovery, arranging working capital for ensuring smooth operations has become difficult for HPPTCL and therefore, it seeks carrying cost on the delayed recoveries.

***Commission's* Analysis**

4.8.2 The Commission observes that the Petitioner had not taken the prior approval of the CAPEX before executing the scheme. Further, the Petitioner has also taken considerable time in responding to the various queries raised by the Commission resulting in delay in disposing off the Petition. Since, the delay was attributable to the Petitioner, the Commission feels inappropriate to allow any carrying cost as part of the Order. However, in case the transmission service agreements (TSA)/ Long-term Open Access (LTA) agreements, executed by the Petitioner with the beneficiaries provide for the carrying cost, the Petitioner may recover the same as per the provisions of the agreements.

4.9 Transmission Charges

***Petitioner* Submissions**

4.9.1 The Petitioner has requested the recovery of ARR from HPSEBL, HPPCL and SJVNL along with carrying cost.

***Commission's* Analysis**

4.9.2 The Commission sought information with regards to existing and future beneficiaries of all the assets along with the TSAs and LTAs executed with the beneficiaries, as documentary evidence. In response, the Petitioner has informed that the beneficiaries of all the Assets 1 to 4 are HPSEBL, HPPCL and SJVNL. In this regard, it has been conveyed that the Transmission Service Agreement (TSA) has been executed with the HPSEBL on dated 17.01.2023. In addition, the LTA (Long-term Open Access) agreement has been signed with the HPPCL on dated 22.10.2020 and also with the SJVNL on dated 01.06.2022.

4.9.3 In view of the above, it is observed that the HPSEBL, the HPPCL and the SJVNL are the de-facto beneficiaries of the system.

4.9.4 Further, the Petitioner is directed to recover the Transmission charges from the identified long-term /medium-term beneficiary of the Transmission Asset as per the Clause 33 of HPERC Transmission Tariff Regulations, 2011 which reads as under:

"33. Allocation of Transmission Service Charge and Losses (1) The Annual Transmission Service Charge (ATSC) shall be shared between the long and medium-term customers of the Transmission system on monthly basis based on the allotted Transmission capacity or contracted capacity, as the case may be."

4.9.5 The Petition is disposed off as above.

-Sd-	-Sd-	-Sd-
(SHASHI KANT JOSHI)	**(YASHWANT SINGH CHOGAL)**	**(DEVENDRA KUMAR SHARMA)**
Member	**Member, Law**	**Chairman**

Shimla

Dated: 17th July, 2025