Approval of Capital cost and Determination of Tariff for the period from COD to FY 2023-24 for 33/132/220 kV, 2×100 MVA GIS Sub-station at Dehan in District Kangra (Asset-1) and 220 kV D/C Dehan-Hamirpur Transmission Line (Asset-2)

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: 146/2024

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 33/132/220 kV, 2×100 MVA GIS Sub-station at Dehan in District Kangra (Asset-1) and 220 kV D/C Dehan-Hamirpur Transmission Line (Asset-2) 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 referred to as 'HPPTCL' or 'Petitioner' or 'Applicant') has filed a present Petition with the Himachal Pradesh Electricity Regulatory Commission (hereinafter referred to as 'the Commission' or 'HPERC') for Approval of Capital cost and Determination of Tariff for 4th Control Period from COD to FY 2023-24 for 33/132/220 kV, 2×100 MVA GIS Sub-station at Dehan in District Kangra (Asset-1) and 220 kV D/C Dehan-Hamirpur Transmission Line (Asset-2) under the Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Transmission Tariff) Regulation, 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 Petitioner, interveners, and representations of the 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 (Terms and Conditions for Determination of Transmission Tariff) Regulation, 2011, as amended from time to time, passes the following Order for determining the Capital cost and Transmission Tariff for 33/132/220 kV, 2×100 MVA GIS Sub-station at Dehan in District Kangra (Asset-1) and 220 kV D/C Dehan-Hamirpur Transmission Line (Asset-2) 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 Tariff) Regulations, 2019, as amended from time to time (hereinafter referred to as 'CERC Tariff Regulations, 2019') 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**

Place: 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 also specify, for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution licence;

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

g) levy fee for the purposes of this Act;

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

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

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

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

1.1.3 The State Commission is also empowered under the Electricity Act, 2003 to 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 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 The HPPTCL was declared the State Transmission Utility (STU) by the GoHP vide its order dated 10th June, 2010 and as a result thereof the Commission 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 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. The MYT Regulations notified in the year 2011 were amended 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 (The Regulations and its subsequent amendments shall jointly be 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 33/132/220 kV, 2×100 MVA GIS Sub-station at Dehan in District Kangra (Asset-1) and 220 kV D/C Dehan-Hamirpur Transmission Line (Asset-2), with the Commission on 26.05.2023. 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 30.11.2024. 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.

1.4.3 Based on the detailed scrutiny of the Petition, further clarifications/ information were 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.	Letter from the Commission	Response from the Petitioner
1	HPERC-F(1)-60/2023-956 dated 06.07.2023	Filing No. 99 of 2023 dated 16.02.2024
2	HPERC-F(1)-60/2023-226 dated 26.04.2024	Filling No. 99 of 2023 dated 30.09.2024
3	HPERC-F(1)-60/2023-3468 dated 06.03.2025	Filling No. 289 of 2025 dated 14.05.2025

1.5 Public Hearings

1.5.1 The Interim Order, inter alia, included direction 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 Stakeholders Comments

Sl.	Name of News Paper	Date of Publication
1.	Amar Ujala (Hindi)	06.12.2024
2.	The Tribune (English)	06.12.2024

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 Electricity Act, 2003 which was published in the newspapers as mentioned in the table:

Table 3: List of Newspapers for Public Notice by Commission

Sl.	Name of News Paper	Date of Publication
1.	Divya Himachal (Hindi)	12.12.2024
2.	Times of India (English)	12.12.2024

1.5.3 The stakeholders were requested to file their objections by 13.01.2025. The HPPTCL was required to submit replies to the suggestions/ objections to the Commission by 17.01.2025 with a copy to the Objectors on which the Objectors were required to submit rejoinder by 20.01.2025.

1.5.4 The Commission in order to conduct a public hearing issued a public notice informing the public about the scheduled date of public hearing as 22.01.2025. All the parties, who had filed their objections/ suggestions, were also informed about the date, time and venue for presenting their case in the public hearing.

1.5.5 The Public hearing in the Petition has been conducted in the Commission on 22.01.2025 and all Stakeholders/Objectors have been heard at length.

1.5.6 The Commission has undertaken detailed scrutiny of the submissions made by the Petitioner and the various objections raised by stakeholders 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 date for filing comments/ objections and date of public hearing, etc. for the Petition of approval of Capital cost and determination of Tariff for the period from COD to FY 2023-24 for 33/132/220 kV, 2×100 MVA GIS Sub-station at Dehan in District Kangra (Asset-1) and 220 kV D/C Dehan-Hamirpur Transmission Line (Asset-2).

2.1.2 Accordingly, the public hearing was conducted on 22.01.2025 in the Commission. The Himachal Pradesh State Electricity Board Ltd. (HPSEBL) submitted its comments/ suggestions in the matter before the Commission. Issues raised by stakeholders in its written and oral submissions, along with replies given by the Petitioner and views of the Commission are summarized in the following paragraphs:

Regarding Cost-overrun and Time-overrun of Asset-1:

Stakeholder's Submissions

2.1.3 With regards to Asset 1, the estimated cost as per DPR (Detailed Project Report) was Rs. 106.79 Cr. whereas the actual completion cost as on COD (Commercial Operation Date) has been Rs. 83.71 Cr inclusive of IDC (Interest during Construction) and DC (Departmental Charges) charges. Further, the effective date of project execution was 25.06.2018 and the work was to be executed within 24 months that is up to 24.06.2020. However, the project was Commissioned on 04.08.2022, with a delay of approximately 25 months. Hence, the Stakeholder, HPSEBL has submitted that the time overrun, and cost overrun occurred in completion cost should not be transferred to the beneficiaries.

Petitioner's Response

2.1.4 With regards to Asset 1, the estimated DPR cost was Rs. 106.79 Cr against which the completion cost as on COD has been Rs. 84.94 Cr (revised as per reply to Deficiency letter of the Commission by Petitioner). Hence, there has been no cost overrun and, therefore, the question of disallowance of prudent cost does not arise. Further, regarding delay of 25 months, the Petitioner has submitted that the submissions of Respondent are general statements and are not backed by any rationale. The Respondent/Stakeholder has failed to clarify as to why the delay should not be allowed. Further, the Petitioner submitted that the associated delay was due to uncontrollable factors and detailed justification for the delay has already been submitted in the Petition.

Commission's Observations

2.1.5 The Commission has taken note that there is no cost overrun as on COD with regards to Asset-1, when compared with cost as per the DPR. Further, the Commission has taken into consideration the reasons for delay and has scrutinized the same based on the documentation submitted by the Petitioner. In order to approve the Capital cost of the Asset, the Commission has considered the reasons and duration of delays during the construction and analyzed them with regard to controllable and uncontrollable aspects. The detailed analysis with respect to the same is detailed under Chapter 3 of this Order.

Consideration of Normative Debt:Equity ratio for Asset-1:

Stakeholder's Submissions

2.1.6 With regards to Asset 1, the HPSEBL has submitted that the Petitioner has infused 30.90% equity and received loan 69.10% of the project cost from KfW. As per HPERC Transmission Tariff Regulations, 2011, normative Debt:Equity ratio of 70:30 may be considered for working out the ARR of this project. It is further submitted that the grant/consumer contribution may not be considered while determining of Tariff as per HPERC Transmission Tariff Regulations, 2011. Further, it has submitted that the RoE (Return on Equity) shall be computed as per Regulation 19 of HPERC Transmission Tariff Regulations, 2011 based on actual basis at the time of truing up subject to limit/ratio as per provisions of HPERC Transmission Tariff Regulations, 2011.

Petitioner's Response

2.1.7 In reply to the averments made by the Respondent, the Petitioner has submitted that the Debt:Equity ratio for working out the ARR of Asset-1 is as per HPERC Transmission Tariff Regulations, 2011 and the Debt:Equity ratio of 70:30 has been considered for working out the ARR. Also, the RoE has been worked out as per Regulation 19 of HPERC Transmission Tariff Regulations, 2011 and may be allowed.

Commission's Observations

2.1.8 The Commission observes that KfW has sanctioned loan to the Government of India (GoI) under Green Energy Corridor-I (GEC-I) Scheme 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.

2.1.9 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 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 either be 40% of the capital cost incurred or the DPR approved cost. 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. The detailed analysis with respect to the same is detailed under Chapter 3 of this Order.

IDC for Asset-1:

Stakeholder's Submissions

2.1.10 With regards to Asset 1, the HPSEBL has submitted that there has been a variation of IDC Charges as compared to DPR of the project and as per actuals as on COD. Therefore, it is prayed that the increase in IDC from Rs. 3.71 Cr as in DPR to Rs. 4.75 Cr as on COD due to time overrun be not transferred to beneficiaries.

Petitioner's Response

2.1.11 In reply to the averments made by the Stakeholder, it is submitted that as per the DPR, the IDC was Rs. 3.71 Cr whereas, the IDC as on COD is Rs. 5.97 Cr (revised as per reply to Deficiency Note 2 of the Commission by Petitioner) and such increase is attributable to the interest incurred due to delay in Commissioning of the asset for which detailed justification has already been provided. The Respondent/Stakeholder, instead of countering the claims on the basis of facts, has made a general statement asking for disallowance of such increase which is devoid of any merit.

Commission's Observations

2.1.12 In order to approve the IDC, the Commission has taken into consideration interest rate as per agreement between Government of Himachal Pradesh and HPPTCL. Further, the delay occurred during construction of the project has been dealt in this Order after analysing the reasons/ justifications put forth by the Petitioner. Furthermore, the Commission has calculated the normative IDC for the project and made requisite adjustments for approval of IDC which have been detailed under Chapter 3 of this Order.

Regarding Cost-overrun and Time-overrun of Asset-2:

Stakeholder's Submissions

2.1.13 With regards to Asset 2, the estimated cost as per DPR, was Rs. 122.02 Cr, whereas the actual completion cost as on COD has been Rs. 150.70 Cr inclusive of IDC and DC charges. Further, the effective date of project execution was 13.08.2018 and the work was to be executed within 24 months that is up to 12.08.2020. However, the project was Commissioned on 04.08.2022, which is a delay of approximately 24 months. Hence, the Petitioner has submitted that the time overrun, and cost overrun occurred in completion cost should not be transferred to the beneficiaries.

Petitioner's Response

2.1.14 In reply to the averments made by the Respondent/Stakeholder, it is submitted that Asset-2 was delayed by 24 months due to uncontrollable factors and detailed justification for the delay in Commissioning of the asset has already been submitted in the main Petition. Further, it is submitted that the submissions of Respondent are general statements and are not backed by any rationale. The Respondent has failed to clarify as to why the time and cost overrun should not be allowed. The Petitioner, therefore, has requested that the submissions of the Respondent/Stakeholder may be summarily rejected.

Commission's Observations

2.1.15 With regards to Asset-2, the Commission has taken into consideration the reasons for delay and cost overrun and has scrutinized the same based on the documentation submitted by the Petitioner. In order to approve the Capital cost of the Asset, the Commission has considered the reasons and duration of delays during the construction and analyzed them with regard to controllable and uncontrollable aspects. The detailed analysis with respect to the same is detailed under Chapter 3 of this Order.

<u>Consideration of Normative Debt:Equity ratio for Asset-2:</u>

Stakeholder's Submissions

2.1.16 With regards to Asset 2, the HPSEBL has submitted that the Petitioner has infused 34.46% equity and received loan 65.54% of the project cost from KfW. As per HPERC Transmission Tariff Regulations, 2011, normative Debt:Equity ratio of 70:30 may be considered for working out the ARR of this project. The stakeholder has further submitted that the grant/consumer contribution may be adjusted from the Capital Cost, while determination of Tariff as per HPERC Transmission Tariff Regulations, 2011. It has been further submitted that the RoE (Return on Equity) shall be computed as per Regulation 19 of HPERC Transmission Tariff Regulations, 2011 based on actual basis at the time of truing up subject to limit/ratio as per provisions of HPERC Transmission Tariff Regulations, 2011.

Petitioner's Response

2.1.17 In reply to the averments made by the Respondent, the Petitioner has submitted that the Debt:Equity ratio for working out the ARR of Asset-2 is as per HPERC Transmission Tariff Regulations, 2011 and the Debt:Equity ratio of 70:30 has been considered for working out the ARR. Also, the RoE has been worked out as per Regulation 19 of HPERC Transmission Tariff Regulations, 2011 and may be allowed.

Commission's Observations

2.1.18 The Commission has taken into consideration the respective provisions of the HPERC Transmission Tariff Regulations, 2011, for arriving at the Debt:Equity ratio and for calculating RoE as per Regulation 19 of HPERC Transmission Tariff Regulations, 2011. The detailed analysis with respect to the same is detailed under Chapter 3 of this Order.

IDC and DC for Asset-2:

Stakeholder's Submissions

2.1.19 With regards to Asset 2, the HPSEBL has submitted that there has been variation of IDC Charges as compared to DPR of the Project and as per actuals as on COD. Therefore, it is prayed that the increase in IDC from Rs. 4.24 Cr as in DPR to Rs. 9.62 Cr as on COD due to time overrun shall not be transferred to beneficiaries. Further, DC charges were not considered in DPR whereas Rs. 5.97 Cr has been claimed as on COD towards DC. Therefore, it is prayed to allow the DC charges as per HPERC Transmission Tariff Regulations, 2011.

Petitioner's Response

2.1.20 In reply to the averments made by the Stakeholder, the HPPTCL has submitted that as per the DPR, the IDC was Rs. 4.24 Cr whereas, the IDC as on COD has been Rs. 10.96 Cr (revised as per reply to Deficiency letter of the Commission by Petitioner) for Asset-2 and such increase is attributable to the interest incurred due to delay in Commissioning of the asset for which detailed justification has been provided. The HPSEBL instead of countering the claims on the basis of facts, has made a general statement asking for disallowance of such increase which is devoid of any merit and hence, liable to be rejected. Further, with regard to Departmental Charges (DC), it is submitted that the DC Charges as on COD is Rs. 6.09 Cr (revised as per reply to Deficiency Note 2 of the Commission by Petitioner) for Asset-2 and is an expense allowable under HPERC Transmission Tariff Regulations, 2011 and hence may be allowed.

Commission's Observations

2.1.21 In order to approve the IDC, the Commission has taken into consideration interest rate as per agreement between Govt. of Himachal Pradesh and HPPTCL along with the reasons for delay during construction of the project. Furthermore, the Commission has calculated the normative IDC for the project and made requisite adjustments for approval of IDC. Also, with regard to Departmental Charges (DC), it is allowed at 11% of the hard cost as per the provisions of the DPR. The detailed analysis with respect to IDC and DC charges is detailed under Chapter 3 of this Order.

Additional Capital Expenditure (ACE) for Asset-1 and Asset-2:

Stakeholder's Submissions

2.1.22 The HPSEBL has submitted that the Petitioner has claimed Rs. 50.52 Lakh and Rs. 91 Lakh Additional Capital Expenditure from 2022 to 2024 for Asset-1 and Asset-

2 respectively. Additional Capital Expenditure may be considered after prudence check as per regulation 16 of HPERC Transmission Tariff Regulations, 2011.

Petitioner's Response

2.1.23 In reply to the averments made by the Respondent, it is submitted that additional capitalisation has been sought in accordance with Regulation 16 of the HPERC Transmission Tariff Regulations, 2011 and hence may be allowed accordingly.

Commission's Observations

2.1.24 In the absence of adequate details regarding the additional capitalization claimed by the Petitioner, the Commission has not allowed any additional capitalization beyond the cost as per latest amendment to LoA (Letter of Award) for both Asset-1 and Asset-2. However, the same shall be considered during subsequent true up filing when the actual expenditure details are available along with supporting documents. In addition, the Commission has not allowed any IDC and DC Charges claimed as part of ACE. The detailed analysis with respect to the same is detailed under Chapter 3 of this Order.

3. APPROVAL OF CAPITAL COST

3.1 Introduction

3.1.1 The HPPTCL has submitted a Petition for approval of Capital cost and determination of Tariff for the period from COD to FY 2023-24 for 33/132/220 kV, 2×100 MVA GIS Sub-station at Dehan in District Kangra (Asset-1) and 220 kV D/C Dehan-Hamirpur Transmission Line (Asset-2), in accordance with the provisions of the 'HPERC Transmission Tariff Regulations, 2011', as amended from time to time.

3.1.2 Regulation 14 of the HPERC Transmission Tariff Regulations 2011, provides 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 Capital cost and ARR for each year as proposed by the Petitioner from COD until the end of the 4th Control Period i.e., FY 2023-24. The Petitioner has submitted separate ARRs for 33/132/220 kV, 2X100 MVA GIS Sub-station at Dehan referred to as Asset-1 and 220 kV D/C Transmission Line from Dehan Sub-station to 400/220 kV Kankari Sub-station of PGCIL at Hamirpur referred to as Asset-2.

3.1.4 The original Petition lacked detailing and supporting information to validate the Capital cost for each of the assets. Also, details such as final Auditor's Certificate, standard time period of construction, beneficiary details, etc. was not provided as part of the main Petition. Information provided in the Petition was inadequate and the Commission had to seek additional submissions and supporting documents from the Petitioner through deficiency letters for reviewing the Capital cost and ARR. With respect to few queries, 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 Sub-Station and Transmission line. The scrutiny and prudence check undertaken by the Commission for approval of Capital cost has been discussed in the following paragraphs.

3.1.6 Relevant technical details and configuration of the assets as submitted by Petitioner have been provided as follows:

Table 4: Asset Details

Asset	Name of Sub-Station	Type	Voltage Level (kV)	No. of Transformers/Bays/ Line Length	COD
Asset-1	220/132 kV, 2×100 MVA GIS Sub-station at Dehan	GIS	220/132 kV	***Transformers:*** 2×100 MVA ***Bays:*** 220 kV – 5 No.s 132 kV – 5 No.s	04.08.2022
Asset-2	220 kV D/C Twin-Moose Transmission Line from Dehan to Hamirpur	AC	220 kV	57.939 KM Line Length	04.08.2022

3.2 Summary of the Project

Petitioner Submissions

3.2.1 The Petitioner has submitted that 220/132 kV, 2×100 MVA GIS Sub-station at Dehan (Asset-1) and 220 kV D/C Transmission Line from Dehan to Hamirpur (Asset-2) was primarily planned to cater to the evacuation needs of 220 MW of power from upcoming small Hydro Electric Power Plants (HEPs) in Kangra river basin of Himachal Pradesh.

3.2.2 The Petitioner has informed that the system was developed as part of Green Energy Corridor Scheme -1 to facilitate integration of large-scale renewable generation capacity addition as envisaged during the 12th Five-Year Plan period in various renewable rich states of Andhra Pradesh, Gujarat, Himachal Pradesh, Karnataka, Maharashtra, Rajasthan, Tamil Nadu, and Jammu & Kashmir.

3.2.3 The Petitioner has conveyed that these Assets are being currently utilized as a system strengthening scheme and HPSEBL is the only Beneficiary of both the Assets. It has been further submitted that these assets are part of Intra-State Transmission System as the same is only utilized by the State Discom. The Petitioner has requested to allow the Annual Transmission charges to be recovered directly from the HPSEBL.

3.2.4 In its 32nd Board Meeting held on 28.12.2016, the Board of Directors (BoD) of the Petitioner had approved the aforesaid scheme. The estimated cost in the Detailed Project Report (DPR) was Rs. 110.80 Cr. for Asset-1, which is inclusive of cost towards 132 kV LILO interconnection of Dehan to Bassi line of HPSEBL at 220/132 kV Dehan Substation of HPPTCL amounting to Rs. 3.40 Cr. The Petitioner has further submitted that the capitalisation and ARR of the said 132kV LILO portion shall be done as a separate asset. Accordingly, the effective DPR cost of Rs. 106.79 Cr. (exclusive of LILO or Interconnection Cost along with its IDC cost and DC Cost) has been considered by the Petitioner for Asset-1. Further, the estimated cost as per the DPR of Rs. 122.02 Cr. has been considered by the Petitioner for Asset-2. The Petitioner has also submitted that the Scheme was discussed in the 39th Standing Committee Meeting of CEA held on 29.05.2017 & 30.05.2017.

3.2.5 Subsequent to BoD and CEA approvals, the contract for construction of 33/132/220 kV GIS Sub-station at Dehan was awarded on Turnkey basis to M/s GE T&D India Ltd. vide LOA dated 19.02.2018 at the bid price of Rs. 75.54 Cr. for supply and erection part combined, which was amended to Rs. 75.72 Cr. vide letter dated 02.04.2018.

3.2.6 Further, the contract for construction of 200 kV D/C Twin Moose Transmission Line from Dehan to Hamirpur was awarded on Turnkey basis to M/s Skipper Ltd. vide LOA dated 05.04.2018 at the bid price of Rs. 110.68 Cr. for supply and erection part combined.

3.2.7 The Petitioner has submitted that the actual cost of Asset-1 as on COD i.e., 04.08.2022 is Rs. 84.94 Cr. including IDC and Departmental charges and the actual cost of Asset-2 as on COD inclusive of IDC and Departmental Charges is Rs. 152.15 Cr. The comparison of Capital cost of the project as per original scope of work and actual Capital cost incurred as on COD as submitted by the Petitioner in its Petition is as shown under:

Table 5: Comparison of Capital cost as on COD submitted by the Petitioner (Rs. Cr.)

Particulars	Cost as per DPR		Actual Cost as on COD	
	Dehan Sub-station (Excluding LILO of Dehan-Bassi TL)	Dehan - Hamirpur TL	Dehan Sub-station	Dehan - Hamirpur TL
Hard Cost	93.13	117.78	75.32	135.10
IDC	3.71	4.24	5.97	10.96
Departmental Charges	9.95	-	3.65	6.09
Total	**106.79**	**122.02**	**84.94**	**152.15**

Commission's Analysis

3.2.8 The Commission has reviewed the Petitioner's and Stakeholder's submissions in detail. For the purpose of this Order, the Commission has considered the same terminology as referred to by the Petitioner with 220/132 kV, 2×100 MVA GIS Sub-station at Dehan as Asset-1 and 220 kV D/C Transmission Line from Dehan to Hamirpur as Asset-2.

3.2.9 The Petitioner in its 32nd BoD meeting held on 28.12.2016 got the approval for implementation of Asset-1 and Asset-2. Copy of the BoD Resolutions were analysed as submitted along with the Petition.

3.2.10 The BoD approved the Capital costs of Asset-1 and Asset-2 as Rs. 106.79 Cr. (Excluding LILO of 132 kV Dehan-Bassi Transmission Line) and Rs. 122.02 Cr. approved in the DPR respectively including IDC and DC. The Scheme was further discussed and CEA approval was accorded in the 39th meeting of Standing Committee on Power System Planning of Northern Region (SCPSPNR) held on 29.05.2017 & 30.05.2017. The Petitioner has submitted the Minutes of meeting (MoM) dated 28.07.2027 of the meetings held on 29.05.2017 & 30.05.2017.

3.2.11 From the analysis of the said MoM document, the Commission finds that the transmission works amounting to Rs. 271 Cr. for evacuation of RE Power in Himachal Pradesh were discussed and agreed in the 32nd meeting of SCPSPNR held on 31.08.2013. However, in view of GoHP not meeting the required criteria on loan disbursement to HPPTCL under KfW financing, GoHP was requested to revise the schemes in a meeting taken by Additional Secretary, MoP on 08.05.2014. Accordingly, the Petitioner vide its letter dated 03.07.2014 has submitted the revised scope of intra-state transmission schemes under Green Energy Corridor to Power System Planning and Appraisal Division of CEA. The intra-state transmission schemes for Himachal Pradesh in its present form comprises of 17 packages amounting to Rs. 909.46 Cr., out of which Rs. 715.9 Cr. with 13 packages have been allocated to HPPTCL. Accordingly, the CEA had granted the approval of Rs. 227 Cr. for both the Asset-1 and the Asset-2 against the DPR cost of Rs. 227 Cr. (Excluding LILO of 132 kV Dehan-Bassi Transmission Line).

3.2.12 Based on the analysis of the LoA documents and copy of bid evaluation report, the Commission observes that the project execution for Asset-1 was awarded to M/s. GE T&D India Ltd. on turnkey basis post conducting a competitive bidding process. The work was awarded for "Design, Engineering, Manufacture, Fabrication, Testing of Equipment, Transportation to Site, Insurance, Storage, Erection and Commissioning of 33/132/220 kV GIS Sub-station at Dehan (Patti), District – Kangra (H.P.). The work was awarded on 19.02.2018 at the cost of Rs. 75.54 Cr., which was amended to Rs. 75.72 Cr. vide letter dated 02.04.2018 for supply and erection part combined due to revision in quantities of plant and spare parts. As per the amended LoA document, the Supply Contract was awarded at Rs. 63.50 Cr. and Services Contract at Rs. 12.22 Cr., with the time-period for execution as 24 months from the effective date (i.e., 25.06.2018).

3.2.13 Further, there were 9 number of amendments issued, with the last amendment on 21.12.2022, that resulted in revision of the contract value to Rs. 71.81 Cr. as against the original awarded cost of Rs. 75.72 Cr. This revision in contract value was predominantly on account of the following:

a. Replacement of 33kV, 95 sq. mm XLPE Cable with 33kV, 185 sq. mm XLPE Cable due to short circuit current limitations.

b. Change in quantities of supply and services including civil works during detailed engineering and as per site requirement.

c. Change in quantities of Air conditioning & Ventilation system, Power & Control Cables and Earth Mat & Associated Accessories, SF6 Gas Purity Detector & Oil Testing Kit, Earthing Material items during detailed engineering and as per site requirement.

d. Additional work with respect to the PLCC connectivity of 132/220 kV GIS Dehan Sub-station with PowerGrid Sub-station at Kankari.

3.2.14 With regards to Asset-2, the Commission observes that the project execution was awarded to M/s. Skipper Ltd. on turnkey basis post conducting a competitive bidding process. The work was awarded for Design, Engineering, Manufacture, Test, Deliver, Install, Complete and Commissioning of 220 kV D/C Transmission Line from Dehan (Patti) at Palampur to 400/220 kV PGCIL Sub-station at Kankari (Hamirpur) Himachal Pradesh. The work was awarded on 05.04.2018 at a cost of Rs. 110.68 Cr. including supply contract of Rs. 60.45 Cr. and Erection & Design Contract of Rs. 50.23 Cr. The effective date of the contracts (Supply and Services) for Asset-2 was 13.08.2018 and time-period for execution as per the LoA was 24 months from the effective date.

3.2.15 For the awarded contract for Asset-2, there were 6 number of amendments issued with the last amendment on 13.01.2023 for both Supply and Service contracts. As a result of the amendments, the original awarded cost of Rs. 110.68 Cr. was revised to Rs. 119.51 Cr. on account of impact of variation in quantities of Supplies & Services and change in type of revetment predominantly.

3.2.16 In response to the query raised, the Petitioner updated the project cost as on COD for both Asset-1 and Asset-2. Accordingly, the hard cost claimed by the Petitioner are Rs. 75.32 Cr. and Rs. 135.10 Cr. as on COD for Asset-1 and Asset-2 respectively. The cost has been claimed as per certification by the Statutory

Auditors. Asset-1 and Asset-2 were envisaged at a grant, debt and equity ratio of 40:40:20, with grant received from MNRE-NCEF and debt secured from KfW.

3.2.17 The Commission has reviewed the Petition and supporting annexures in detail and found several deficiencies in the information provided. In order to undertake in-depth analysis, the Commission through various discrepancy letters sought information and supporting documents such as approvals of BoD/competent agencies, details of awards/ contracts, correspondences, documents against project funding, details and justifications regarding amendments to contracts and time and cost overrun, payments made to Contractors, and COD certificate, etc.

3.3 Commercial Operation Date (COD) of Asset

Petitioner Submissions

3.3.1 The Petitioner has submitted that the Asset-1 and Asset-2 were scheduled to be Commissioned on 24.06.2020 and 12.08.2020 respectively. However, the actual date of Commissioning of the Project was 04.08.2022.

3.3.2 The Petitioner has submitted that the implementation of the project was delayed by approximately 25 months and 24 months for Asset-1 and Asset-2 respectively due to reasons entirely beyond the control of the Petitioner.

3.3.3 The primary reasons for the delay highlighted by the Petitioner for Asset-1 were delay in shifting of 11 kV and 33 kV overhead power lines by HPSEBL, restrictions due to COVID-19, delay due to additional supply of station transformer, delay due to supply amendment in 33 kV HT Cable and Heat Termination Kit, delay due to inclement weather conditions, increase in scope due to additional communication works and delay due to pre-Commissioning activities.

3.3.4 Further, the main reasons for the delay highlighted by the Petitioner for Asset-2 were delay due to obstruction of work on various Tower locations by Private Landowners, COVID-19, delay in erection, stringing and felling of trees on Government Land with private possession and delay due to pre-Commissioning activities.

3.3.5 In view of the above, the Petitioner has sought approval of Capital cost and determination of transmission charges for both the Assets from 04.08.2022 (COD) till the end of the control period i.e. FY 2023-24.

Commission's Analysis

3.3.6 The Petitioner has submitted that both circuits of 220 kV D/C transmission line from Dehan to Hamirpur (Asset-2) were successfully charged on 09.06.2022. Further, some peripheral civil works of 132/220 kV Dehan Sub-station were completed after 09.06.2022.

3.3.7 As per the documentary proofs submitted by the Petitioner, the Commission has noted that the application for initial charging of 220/132 kV GIS Sub-Station at Dehan and 220 kV D/C transmission line from 220/132 kV GIS Sub-Station at Dehan to PGCIL's 400/220 kV GIS Sub-Station at Hamirpur was submitted to

HPSLDC on 20.06.2022, after getting necessary approval from the Chief Electrical Inspector, GoHP for charging both the assets.

3.3.8 The said letter dated 20.06.2022 also mentions that the 220 kV Dehan-Hamirpur transmission line is to be back-charged from PGCIL's Hamirpur end, as no power flow shall take place through 220/132 kV Incoming Transformers (ICTs) till Commissioning of LILO of 132 kV Dehan-Bassi transmission line. Further, 132 kV GIS is to be back-charged from 220 kV GIS side which is to be energised through 220 kV Dehan-Hamirpur transmission line. Along with the above, 2 number of 33/0.415 kV, 250 kVA Station Transformer supplied from 33 kV Tertiary of 220/132/33 kV ICTs shall also be charged.

3.3.9 After complying with all the observations raised by NRLDC and HPSLDC, the charging approvals of 220 kV GIS & 132 KV GIS were given by NRLDC and HPSLDC on 20.07.2022 and 21.07.2022 respectively. The documentary proof against these approval letters have been analysed by the Commission. Accordingly, various Bays of 220/132 kV Dehan Sub-Station were charged from 26.07.2022 to 4.08.2022. The Commission has also analysed the letter dated 10.01.2023 from HPSLDC to the Petitioner wherein the time-stamped events on the initial charging of Asset-1 and Asset-2 were confirmed. Further, the HPSLDC has also given its confirmation on COD date as 04.08.2022 in its letter dated 10.01.2023.

3.3.10 The Commission has observed that while the Asset-1 and Asset-2 were commissioned on 04.08.2022, the actual flow of power through these transmission assets started from 03.09.2024 only.

3.3.11 Therefore, the Commission approves the actual COD of the Project as 04.08.2022 primarily based on the certificates issued to this effect by the 'HPSLDC'. The summary of the COD dates claimed, approval granted from Electrical Inspectorate, actual charging of Assets and approved COD for Asset-1 and Asset-2 are given as below:

Table 6: Approved Commercial Operation Date (COD) for Asset-1 and Asset-2

Asset	Electrical Inspectorate Approval	Date of Charging of Assets	Claimed COD	Approved COD
Asset-1	17.05.2022	26.07.2022 to 4.08.2022	04.08.2022	04.08.2022
Asset-2	12.05.2022	09.06.2022	04.08.2022	04.08.2022

3.4 Energy flow and Nature of Asset

Petitioner Submissions

3.4.1 The Petitioner has submitted that the Asset-1 and Asset-2 were envisaged to evacuate 220 MW of power generated from upcoming small HEP's in Kangra river basin of Himachal Pradesh. The assets were further approved by CEA as a part of Green Energy Corridor Scheme -1, which was planned to facilitate integration of large-scale renewable generation capacity addition as envisaged during the 12th Five Year Plan period in various renewable rich states of Andhra Pradesh, Gujarat, Himachal Pradesh, Karnataka, Maharashtra, Rajasthan, Tamil Nadu and Jammu & Kashmir.

3.4.2 Further, the Petitioner has submitted that since many projects were expected to come up in the Kangra valley of Himachal Pradesh, therefore, HPPTCL planned to construct an Integrated Transmission System in the area due to the limited corridors availability because of hilly terrain constraints and as such large number of circuits cannot be constructed.

3.4.3 Further, the Petitioner has submitted that the schemes are being currently utilized as a system strengthening scheme as the only beneficiary of the transmission scheme is HPSEBL for both the Assets. Therefore, the transmission system shall form a part of the Intra State Transmission Network.

Commission's Analysis

3.4.4 As per the DPR, the transmission system was proposed to evacuate power from the small HEPs in Kangra river basin of Himachal Pradesh with capacity estimated to be around 220.20 MW. The flow of power through the transmission system of the Petitioner was envisaged from 54 number of small HEPs.

3.4.5 With regard to a query on flow of power through the assets, the Petitioner has confirmed that the power can flow only after the Commissioning of LILO of 132 kV Dehan-Bassi transmission line. The Petitioner has submitted that the construction work of 132 kV D/C transmission line by LILO of existing 132 kV Dehan-Bassi line of HPSEBL at Tower No. 88 to 220 kV GIS Sub-station at Patti was completed on 27.02.2024. However, the complete LILO arrangement was made operational w.e.f 03.09.2024, after receiving approval from HPSLDC on 06.08.2024. In reply to a query, the Petitioner has submitted the monthly quantum of energy transmitted through Asset-1 and Asset-2 from September 2024 to February 2025.

3.4.6 Further, the Petitioner has submitted the list of upcoming and existing power plants with their generating capacity in Kangra river basin that are envisaged to be connected at 220/132 kV Dehan Sub-station. Transmission Service Agreement (TSA) for the Assets 1&2 has been signed with HPSEBL on dated 17.01.2023.

3.4.7 From the analysis of the TSA document, it is noted that the 220 kV Dehan Hamirpur Transmission Line was planned to evacuate 220 MW of Small HEPs and also power from Triveni Mahadev, Thana Plaun and Dhaulasidh HEPs. As of now, the LTA with SJVNL for Dhaulasidh HEP (66 MW) only has been signed on 28.12.2022 but the LTA would come into effect from 30.09.2026. However, neither of these HEPs have achieved COD and the status with regard to the same is also not clear.

3.4.8 Further, the Commission, in one of the deficiency letters sought updated details from the Petitioner on the current and future beneficiaries of the project. The Petitioner in reply submitted that the HPSEBL is the current beneficiary of both the Assets. However, after the LTA with SJVNL comes into effect from 30.09.2026, SJVNL shall also become the beneficiary of both the Assets from 30.09.2026.

3.4.9 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's submissions

3.5.1 The Petitioner has submitted that subsequent to the BoD and CEA approvals, the contract for construction of Asset-1 was awarded to M/s. GE T&D India Ltd. on turnkey basis for construction of 33/132/220 kV GIS Sub-station at Dehan. The Contractor was awarded the work for Asset-1 for the Supplies and Services combined vide notification dated 19.02.2018. Further, amendment in Notification of Award (NOA) was issued in said Contract vide letter dated 02.04.2018.

3.5.2 For Asset-1, the effective date of the Contract was approved as 25.06.2018. As per the approved L-2 schedule of the project, the time period for execution of project from effective date of contract for 33/132/220 kV GIS Sub-station at Dehan was 24 Months i.e., 24.06.2020.

3.5.3 However, on account of the factors such as delay in shifting of 11 kV and 33 kV overhead power lines by HPSEBL, delay due to COVID-19, delay due to additional supply of Station Transformer, delay due to supply amendment in 33 kV HT Cable and Heat Termination Kit, delay due to inclement weather conditions, increase in scope due to additional communication works and delay due to pre-Commissioning activities, the charging of the Sub-station (Asset-1) got delayed and was finally achieved on 04.08.2022 with a delay of over 25 months.

3.5.4 The awarded contract for Asset-1 was amended vide Amendment Notifications 1-9. The summary of amendments carried out along with the reasons are as shown in the table below:

Table 7: Summary of Incremental Amendments Issued for Asset-1 (Rs.)

Particulars	Total Contract Value (Rs.)	Reason for Amendment
Initial Award Price	**75,54,27,024.00**	
Amendment in NOA issued vide letter dated 02.04.2018	18,14,508.00	Variation in Quantities
1st Amendment	(20,64,803.00)	Variation in Quantities
2nd Amendment	1,25,93,557.00	Variation in Quantities of Civil Materials
3rd Amendment	6,61,963.00	Change in Specification of XLPE Cable
4th Amendment	(6,28,66,360.00)	Variation in Quantities
5th Amendment	29,01,648.00	Variation in Quantities of HVAC, Power & Control Cables and Earth Mat
6th Amendment	2,26,74,367.00	Variation in Quantities of Gas Purity Detector & Oil Testing Kits
7th Amendment	13,43,678.00	Variation in Quantities of Earth Materials and Additional Works of PLCC Connectivity to PGCIL S/S
8th Amendment	(1,14,91,201.00)	Variation in Quantities of Civil Materials
9th Amendment	(28,51,164.00)	Variation in Quantities
Final Value	**71,81,43,217.00**	

3.5.5 The Petitioner has submitted that the construction work of Sub-station was awarded to M/s GE T&D India Ltd. at a contract price of Rs. 75.72 Cr. (Rs. 63.50 Cr. for Supplies part plus Rs. 12.22 Cr. for erection part) against the DPR Cost of Rs. 106.79 Cr. for Asset-1, after following the competitive bidding process.

3.5.6 Further, the Petitioner has submitted that the Contract Price after final amendment has been Rs. 71.81 Cr. resulting in savings in construction cost against the Original Contract Price of Rs. 75.72 Cr. for Asset-1.

3.5.7 Further, the Petitioner has submitted that the cost of Supplies & Erection as on COD of Rs. 70.72 Cr. is lower than the final awarded cost of Rs. 71.81 Cr. It has been further informed that the increase in cost from final award cost of Rs. 71.81 Cr. to completed cost as on COD at Rs. 84.94 Cr. is on account of expenses towards IDC, DC, Consultancy Charges and other miscellaneous expenses (tender expenses, survey charges, training expenses, etc.).

3.5.8 As there is no cost over-run in completed cost as on COD when compared with the DPR cost, the Petitioner has prayed the Commission to approve the actual cost claimed as on COD for the purpose of working out the Tariff for Asset-1.

Table 8: Details of variation in Cost (Rs. Cr.) as submitted by the Petitioner– Asset-1

Particulars	DPR Cost	Initial Contract Award Price	Contract Award Price after amendment 1 – 9	Actual Cost as on COD
Supply	87.93*	63.50	58.94	58.52
Erection		12.22	12.87	12.20
Cost of Land	5.20	Said expenses do not form part of award cost		-
Misc. Expenses (Tender Expenses, Survey Expenses Training Expenses, FCA, Line Shifting, Soil Investigation Expenses, Consulting charges)	-			4.60#
Departmental Charges	*9.95*			*3.65*
Interest During Construction	*3.71*			*5.97*
Total	**106.79***	**75.72**	**71.81**	**84.94**

**Cost of Rs. 106.79 Cr. has been worked out after exclusion of LILO cost amounting to Rs 3.40 Cr. and after considering its impact in DC & IDC cost.*
 # Amount of Rs. 4.60 Cr. includes miscellaneous expenses and Consultancy Charges.

3.5.9 With regards to Asset-2, the works for implementation was awarded to M/s. Skipper Ltd. on turnkey basis, subsequent to the BoD and CEA approvals.

3.5.10 The Contractor was awarded the work for Asset-2 for Supplies and Services combined vide notification dated 05.04.2018.

3.5.11 As per the award, the effective date of Supply and Services Contract was 13.08.2018. The scheduled construction period for Asset-2 was 24 months i.e., upto 12.08.2020. However, due to delay on account of factors such as obstruction of work on various Tower locations by Private Landowners, delay due to COVID-19, delay in erection of Towers, stringing and felling of trees on Government Land with private possession and delay due to pre-Commissioning activities, the COD got extended and was finally achieved on 04.08.2022 with a delay of over 24 months.

3.5.12 The awarded contract for Asset-2 was amended vide Amendment notifications 1-6. The summary of amendments carried out is as shown in the table below:

Table 9: Summary of Incremental Amendments Issued for Asset-2 (Rs.)

Particulars	Total Contract Value (Rs.)	Reason for Amendment
Initial Award Price	1,10,68,16,829.11	
1st Amendment	8,89,86,537.41	Variation in Quantities
2nd Amendment	1,74,41,479.81	Variation in Quantities
3rd Amendment	-64,76,988.00	Change in Type of Revetment
4th Amendment	-21,18,083.91	Variation in Quantities
5th Amendment	-93,50,066.69	Variation in Quantities
6th Amendment	-1,75,538.09	Variation in Quantities
Final Value	**1,19,51,24,169.64**	

3.5.13 The Petitioner has submitted that against the DPR Cost of Rs. 122.02 Cr. for Asset-2, the work for construction of Transmission Line was awarded to M/s Skipper Ltd. for Contract Price of Rs. 110.68 Cr. (Rs. 60.45 Cr. for Supplies part plus Rs. 50.23 Cr. for erection part) after following the competitive bidding process.

3.5.14 Further, the Petitioner has submitted that there has been an increase in the Contract Price by approximately 8% at the end of Amendment-6 (Rs. 119.51 Cr.) against the Initial Contract Price of Rs. 110.68 Cr. for Asset-2, which is majorly on account of variation in quantities due to detailed engineering review.

3.5.15 Further, the Petitioner has submitted that the cost of Supplies & Erection as on COD of Rs. 119.51 Cr. is equal to the final awarded cost of Rs. 119.51 Cr. It is further conveyed that the increase in cost from final award cost of Rs. 119.51 Cr. to completed cost as on COD at Rs. 152.15 Cr. is on account of expenses towards Land Cost, ROW Expenses, Forest Clearance, IDC, DC, Consultancy Charges and other miscellaneous expenses (tender expenses, survey charges, supervision expenses, soil investigation expenses, etc.).

3.5.16 Accordingly, the Petitioner has prayed the Commission to approve the actual cost claimed as on COD for the purpose of working out the Tariff for Asset-2.

Table 10: Details of variation in Cost (Rs. Cr.) as submitted by the Petitioner – Asset-2

Particulars	DPR Cost	Initial Contract Award Price	Contract Award Price after amendment 1 – 6	Actual Cost as on COD
Supply	115.08	60.45	67.73	67.72
Erection & Testing		50.23	51.78	51.79

Particulars	DPR Cost	Initial Contract Award Price	Contract Award Price after amendment 1 – 6	Actual Cost as on COD
Cost of Land	2.70	Said expenses do not form part of award cost		0.80
Tender Expenses/Advertisement				0.0114
Forest Clearance/ PTCC Expense				0.51
Cutting/Lopping of Trees				0.0094
ROW Expenses				6.96
Site Supervision				0.1077
Survey Work				0.18
Legal Expenses				0.0083
Other Misc. Expenses				0.0001
AECOM Consultancy Charges	-			7.02
Departmental Charges	-			*6.09*
Interest During Construction	*4.24*			*10.96*
Total	**122.02**	**110.68**	**119.51**	**152.15**

Commission's Analysis

3.5.17 The Commission has undertaken scrutiny of the various components of the Capital cost. As part of the prudence check, 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. The Petitioner was also asked to submit the relevant approvals taken for the project from the Commission. The Capital cost approved for each asset has been discussed in the following paragraphs:

A. <u>Asset-1: 220/132/33 kV, 2 x 100 MVA GIS Sub-Station at Dehan:</u>

3.5.18 For Asset-1, the Commission has observed that the cost as per DPR was Rs. 110.80 Cr., which was inclusive of LILO of 132 kV Bassi-Dehan Line at Tower No. 88 to 220/132 kV Dehan Substation. However, the Petitioner has not claimed for the cost against LILO of 132 kV Bassi-Dehan Line in this Petition. Therefore, the cost as per DPR (exclusive of cost against LILO of 132 kV Bassi-Dehan Line and its DC and IDC) is Rs. 106.79 Cr. which includes Rs. 85.65 Cr. towards Supply & Erection cost, Rs. 7.48 Cr. towards Miscellaneous charges, Rs. 9.95 Cr. towards Departmental Charges and Rs. 3.71 Cr. towards Interest During Construction (IDC). The scheme for construction of Asset-1 was approved in the 32nd BoD Meeting of the Petitioner held on 28.12.2016. Subsequently, the CEA approval was accorded in 39th Standing Committee Meeting held on 29.05.2017 and 30.05.2017.

3.5.19 As per the copy of the contracts provided, the Supplies and Services contract for the Asset-1 was awarded to M/s. GE T&D India Ltd. on turnkey basis at Rs. 75.54

Cr., with amendment in Notification of Award (NOA) at Rs. 75.72 Cr. and with a completion period of 24 months.

3.5.20 The scope of work covered under this scheme is as under:

"Design, Engineering, Manufacture, Fabrication, Testing at Manufacturers Works, Transportation to Site, Insurance, Storage, Erection, Testing and Commissioning of 33/132/220 kV GIS Sub-station at Dehan (Patti), Distt. – Kangra (H.P.) on Turnkey Basis"

3.5.21 Post the award of contract, 9 no. of amendments were issued against the contract on account of multiple reasons. A summary of the amendments based on the review of the amended LoA documents has been provided as follows:

Table 11: Commission's analysis of Contract Value and Amendments – Asset 1 (Rs. Cr.)

Particulars	Date of Amendment	Supply Contract	Services Contract	Total Cost	Reasons for Amendment
Asset 1					
Award Price	19.02.2018	63.32	12.22	75.54	Original Contract Value
Award Price (Amendment in NOA)	02.04.2018	63.50	12.22	75.72	Variation in Quantities
1st Amendment	27.09.2019	62.62	12.90	75.52	Variation in Quantities
2nd Amendment	26.10.2020	62.62	14.16	76.78	Variation in Quantities of civil materials
3rd Amendment	06.03.2021	62.65	14.19	76.84	Change in specification of XLPE cable
4th Amendment	08.04.2021	56.63	13.92	70.56	Variation in Quantities
5th Amendment	25.08.2021	56.88	13.97	70.85	Variation in Quantities of HVAC, Power & Control Cables, and Earth Mat
6th Amendment	20.12.2021	59.10	14.02	73.11	Variation in Quantities of Gas Purity Detector & Oil Testing Kits
7th Amendment	10.06.2022	59.18	14.07	73.25	Variation in Quantities of Earth Materials and Additional Works of PLCC Connectivity to PGCIL S/S
8th Amendment	31.10.2022	59.18	12.92	72.10	Variation in Quantities of Civil materials
9th Amendment	21.12.2022	58.94	12.87	71.81	Variation in Quantities

3.5.22 The Commission has noted that the Contract Price after final amendment has been Rs. 71.81 Cr. resulting in savings in construction cost against the Original Contract Price of Rs. 75.72 Cr. for Asset-1.

3.5.23 Further, the cost claimed as on COD by the Petitioner has been Rs. 70.72 Cr. (supply cost as Rs. 58.52 Cr. and service cost as Rs. 12.20 Cr.) against the last amended cost of Rs. 71.81 Cr. (supply cost as Rs. 58.94 Cr. and service cost as Rs. 12.87 Cr.). In this regard, the Petitioner has submitted the payment vouchers as proof of payments made to the Contractor for both supply and erection components, in reply to the query raised by the Commission. On analysis of the payment vouchers, the Commission found out that there has been a payment made to the sub-Contractor namely M/s Telawne Power Equipment Pvt. Ltd. for supply of 1 No. of 33/0.433 kV, 250 kVA Auxiliary Station Transformer at Rs. 13.78 Lakh. In absence of any reasons provided on payment made to the Contractor namely M/s Telawne Power Equipment Pvt. Ltd., the Commission has disallowed Rs. 0.1378 Cr. from the Supply cost. The Petitioner is granted liberty to claim the same at the time of truing up with proper justification for such expenditure along with all the documentary evidence.

3.5.24 Further, the Commission observed that the cost of Supplies & Erection as on COD of Rs. 70.72 Cr. is lower than the final awarded cost of Rs. 71.81 Cr. In response to the Commission's query, the Petitioner has submitted the Auditor's Certificate for the claimed amount as on COD. Accordingly, the Commission has approved an amount of Rs. 70.59 Cr. against the claim of Rs. 70.72 Cr. as per the supporting documents and Auditor's Certificate.

3.5.25 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 12: Hard Cost approved by Commission for Asset-1 (Rs. Cr.)

Particulars	DPR Cost	Amended Contract Cost	Claimed Cost as on COD	Cost as per Auditor's certificate	Approved Cost as on COD
Supply	85.65	58.94	58.52	58.52	58.38
Service/Erection		12.87	12.20	12.20	12.20
Total	**85.65**	**71.81**	**70.72**	**70.72**	**70.59**

3.5.26 With regard to the 'Miscellaneous Expenses', the Petitioner has claimed an amount of Rs. 4.60 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. For the expense towards Line shifting charges, the Petitioner has submitted that the shifting work for 11kV and 33kV lines was carried out by HPSEBL. The Petitioner has made the payment to HPSEBL as deposit work. Shifting was required as these existing 11kV and 33kV lines owned by HPSEBL were causing hindrance . Thus, the matter was taken up with HPSEBL and amount of Rs. 0.73 Cr. was deposited on dated 31.01.2019.

3.5.27 For the expense towards AECOM consultancy services, based on the analysis of the clause 2.1(a) of a separate agreement signed 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 for implementation of KfW funded GEC projects. Based on the analysis of the supporting documents (contract copy, invoice copies and Audited Accounts) submitted by the Petitioner, the distribution of AECOM consultancy charges between different transmission assets funded by KfW has been as shown below:

Table 13: Distribution of AECOM consultancy charges for all assets of KfW (Rs. Cr.)

Asset Name	AECOM Expenses
220/400 kV, 315 MVA Additional Transformer at Gumma	3.16

Asset Name	AECOM Expenses
132/220 kV Sub-station at Dehan (Asset-1 under consideration)	3.82
33/132 kV Additional Transformer at Pandoh	0.95
33 kV GIS Switching Sub-station at Palchan	0.29
66/220 kV, 100 MVA Heiling Sub-station along with LILO at Bajoli	0.16
22/132 kV, 63 MVA Tangnu Romai Sub-station	0.002
33/132 kV, 31.5 MVA Rupin Sub-station	0.001
66/220 kV, 2x25/31.5 MVA Additional Sunda Sub-station	0.64
33/220 kV Additional Transformer at Charor Sub-station	1.09
132 kV D/C Transmission Line Tangnu Romai Sub-station – PS Sunda	0.67
220 kV D/C Transmission Line from Snail to Hatkoti	2.13
33 kV D/C Transmission Line Palchan-AD Hydro switchyard Prini	0.64
220 kV D/C Transmission Line from Dehan to Hamirpur (Asset-2 under consideration)	7.02
132 kV D/C Transmission Line Rupin-Sunda	0.01
66 kV Transmission Line Salum to Dalli	-
Total	**20.59**

3.5.28 The Commission is of the opinion that the AECOM consultancy charges are very high for Asset-1. In addition, in absence of proper justification for incurring such charges and varied expenses for different assets, the Commission has disallowed expenses towards AECOM Consultancy services of Rs. 3.82 Cr. for Asset-1. However, the Petitioner is granted liberty to claim the said expense along with proper justification for incurring such expenditure along with all the supporting documents at the time truing-up.

3.5.29 In view of the submitted documents and payment proofs, the Commission approves the cost as given in the following table:

Table 14: Miscellaneous Expenses approved by the Commission for Asset-1 (Rs. Cr.)

Particulars	DPR Cost	Claimed as on COD	Auditor Certificate	Approved Cost as on COD
Cost of Land	5.20	-	-	-
Cost of Residential Colony	2.28	-	-	-
Line shifting Charges	-	0.73	0.73	0.73
AECOM Consultancy Expenses	-	3.82	3.82	-
Testing Charges	-	0.03	0.03	0.03
Other Expenses	-	0.02	0.02	0.02
Total	**7.48**	**4.60**	**4.60**	**0.78**

B. <u>Asset-2: 220 kV Double Circuit Dehan-Hamirpur Transmission Line:</u>

3.5.30 For Asset-2, the Commission has observed that the cost as per DPR was Rs. 122.02 Cr., which included Rs. 115.08 Cr. towards Supply & Erection cost, Rs. 2.70 Cr. towards Miscellaneous charges, and Rs. 4.24 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 approval was accorded in 39th Standing Committee Meetings held on 29.05.2017 and 30.05.2017.

3.5.31 As per the copy of the contracts provided, the Supplies and Services contract for the Asset-2 was awarded to M/s. Skipper Ltd. on turnkey basis at Rs. 110.68 Cr., with a completion period of 24 months.

3.5.32 The scope of work covered under this scheme is as under:

"Design, Engineering, Manufacture, Test, Deliver, Install and Complete and Commission Certain Facilities viz. Construction of 220 kV D/C Transmission Line from Dehan (Patti) at Palampur to 400/220 kV PGCIL Sub-station at Kankari (Hamirpur) Himachal Pradesh on Turnkey Basis"

3.5.33 Post the award of contract, 6 no. of amendments were issued against the contract on account of multiple reasons. A summary of the amendments based on the review of the amended LoA documents has been provided as follows:

Table 15: Commission's analysis of Contract Value and Amendments – Asset 2 (Rs. Cr.)

Particulars	Date of Amendment	Supply Contract	Services Contract	Total Cost	Reasons for Amendment
Asset 2					
Award Price	05.04.2018	60.45	50.23	110.68	Original Contract Value
1st Amendment	12.04.2018	60.45	50.23	110.68	Change in contract clause
2nd Amendment (Part-I)	23.05.2020	65.88	53.70	119.58	Variation in Quantities
2nd Amendment (Part-II)	14.07.2021	67.75	53.57	121.32	Variation in Quantities
3rd Amendment	14.09.2021	67.75	52.92	120.68	Change in type of revetment
4th Amendment	07.04.2022	67.73	52.73	120.46	Variation in Quantities
5th Amendment	22.08.2022	67.73	51.80	119.53	Variation in Quantities
6th Amendment	13.01.2023	67.73	51.78	119.51	Variation in Quantities

3.5.34 The Commission has noted that the reasons for 2nd, 4th, 5th and 6th Amendment are attributed to variation in quantities of supply materials and their subsequent erection works, for which the detailed BoQ has been submitted by the Petitioner. In addition, 3rd Amendment is attributed to variation in cost of erection works due to change in type of revetment during detailed engineering. Further, there is no change in cost towards supply and erection works during 1st amendment, as it was only attributed to change in clause of the contract agreement.

3.5.35 the Commission has noted that there has been an increase in the Contract Price by approximately 8% at the end of Amendment-6 (Rs. 119.51 Cr.) against the initial Contract Price of Rs. 110.68 Cr. for Asset-2, which is majorly on account of variation in quantities due to detailed engineering review. The Commission has also noted that there has been no BOD approvals for all the amendments to the LoA. Therefore, in absence of BOD approvals obtained by the Petitioner, the Commission has provisionally approved Rs. 119.51 Cr., subject to review at the time of truing-up of the Order and submission of BOD approval letters.

3.5.36 Further, the cost claimed as on COD by the Petitioner has been Rs. 119.51 Cr. (supply cost as Rs. 67.72 Cr. and service cost as Rs. 51.79 Cr.). In this regard, the Commission has analysed the payment vouchers submitted as a proof of payments made to the Contractor for both supply and erection components and found to be in place.

3.5.37 Further, the Commission observed that the cost of Supplies & Erection as on COD of Rs. 119.51 Cr. is at the same level as the final awarded cost of Rs. 119.51 Cr. Also, in response to the Commission's query, the Petitioner has submitted the Auditor's Certificate for the claimed amount as on COD. Accordingly, the Commission has approved an amount of Rs. 119.51 Cr. against the claim of Rs. 119.51 Cr. as per the supporting documents and Auditor's Certificate.

3.5.38 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-2 (Rs. Cr.)

Particulars	DPR Cost	Amended Contract Cost	Claimed Cost as on COD	Cost as per Auditor's certificate	Approved Cost as on COD
Supply	115.08	67.73	67.72	67.72	67.72
Erection & Testing		51.78	51.79	51.79	51.79
Total	**115.08**	**119.51**	**119.51**	**119.51**	**119.51**

3.5.39 With regard to the 'Miscellaneous Expenses', the Petitioner has claimed an amount of Rs. 15.59 Cr. On initial scrutiny, the Commission did not find any details with regard to the payment. The analysis of the each expense item has been detailed out below in subsequent paras.

3.5.40 For the expense towards Forest Clearance/ Crop Compensation, the Petitioner has submitted the compensation letters along with payment proofs (Demand Drafts) issued to different farmers by the HPPTCL stating amount paid to the different land owners/ farmers for clearing their crop land. The proof of payment made to the farmers of Rs. 0.51 Cr. has been analysed by the Commission and found to be in place.

3.5.41 With regard to expense claimed against Right of Way (RoW), the Petitioner has submitted Demand Drafts issued by Punjab National Bank to different land owners as payment proofs along with agreements signed between HPPTCL and the land owners, thereby acknowledging the compensation received by the landlords vide cheque numbers and date of payment to substantiate the claim. The payment acknowledgement proof along with the agreements signed between HPPTCL and different land owners has been analysed by the Commission and accordingly, the Commission has allowed Rs. 6.96 Cr. against expense towards Right of Way.

3.5.42 The Petitioner has submitted the payment vouchers, approval letters from the respective executive of HPPTCL against expense towards Land Acquisition and Survey Work etc. Accordingly, these proof of payment made towards Land Acquisition and Survey Work of Rs. 0.80 Cr. and Rs. 0.18 Cr. respectively has been analysed by the Commission and found to be in place.

3.5.43 Against expense towards AECOM consultancy services, 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 for implementation of KfW funded GEC projects. Based on the analysis of the supporting documents (contract copy, invoice copies and Audited Accounts) submitted by the Petitioner, the distribution of AECOM consultancy charges between different transmission assets funded by KfW has been analysed as given in Table No.-14 of this Order. The Commission is of the opinion that the AECOM consultancy charges are very high for Asset-2. In addition, in absence of proper justification for incurring such charges and varied expenses for different assets, the Commission has disallowed expense towards AECOM Consultancy services of Rs. 7.02 Cr. for Asset-2. However, the Petitioner is granted liberty to claim the said expense along with proper justification for incurring such expenditure along with all the supporting documents at the time of truing-up..

3.5.44 The Commission has analysed the claim of the Petitioner for the expense towards other miscellaneous charges. The Petitioner has only submitted payment vouchers against Site supervision and administration of Rs. 0.11 Cr. out of Rs. 0.14 Cr. However, the Commission is of the opinion that Site supervision and administration charges are part of Departmental charges which has been allowed separately. In addition, the Petitioner has not submitted any proof for tender expense (Rs. 1.14 Lakh), cutting and lopping of trees (Rs. 0.94 Lakh), legal and other expense (Rs. 0.84 Lakh). Therefore, the Commission has not allowed any expense towards this claim of Rs. 0.14 Cr. for other miscellaneous charges.

3.5.45 In view of the submitted documents and payment proof, the Commission approves the cost in the following table:

Table 17: Miscellaneous Expenses approved by Commission for Asset-2 (Rs. Cr.)

Particulars	DPR Cost	Claimed as on COD	Auditor Certificate	Approved Cost as on COD
Forest Clearance/ Crop Compensation	2.70	0.51	0.51	0.51
Right of Way	-	6.96	6.96	6.96
Land Acquisition	-	0.80	0.80	0.80
Survey Work	-	0.18	0.18	0.18
AECOM Consultancy Expenses	-	7.02	7.02	-
Others	-	0.14	0.14	-
Total	**2.70**	**15.59**	**15.59**	**8.44**

3.6 Overheads (IDC and Departmental Charges)

Petitioner's submissions

3.6.1 With regard to IDC for Asset-1, the Petitioner has submitted that the provision for IDC was kept at Rs. 3.71 Cr. in the DPR. Owing to the time over-run, the actual IDC has increased to Rs. 5.97 Cr. upto COD (04.08.2022).

3.6.2 In this regard, the Petitioner has submitted that the IDC in the DPR was computed considering 24 Months as the timeline for implementation of project. However, there was a time delay of 25 Months in the implementation of project for reasons beyond the control of Petitioner. Therefore, the Petitioner has prayed to allow the actual IDC incurred for Asset-1 condoning the entire time over-run as it was beyond the control of Petitioner.

3.6.3 With regard to Departmental Charges for Asset-1, the Petitioner has submitted that the provision for Departmental charges in the DPR was kept at Rs. 9.95 Cr. This has been worked out at the rate of 11% of Rs. 90.42 Cr. (cost against supplies & erection + interconnection cost + land acquisition expenses + forest compensation charges). However, the actual Departmental Charges upto COD are Rs. 3.65 Cr. which is within 11% of the project cost. Therefore, the Petitioner has requested the Commission to allow the actual Departmental Charges as on COD.

3.6.4 Similarly, with regard to IDC for Asset-2, the Petitioner has submitted that the provision for IDC was kept at Rs. 4.24 Cr. in the DPR. Owing to the time over-run, the actual IDC has increased to Rs. 10.96 Cr. upto COD (04.08.2022).

3.6.5 The Petitioner has submitted that the IDC in the DPR was computed considering 24 Months as the timeline for implementation of project. However, there was a time delay of 24 Months in the implementation of project for reasons beyond the control of Petitioner. Therefore, the Petitioner has prayed to allow the actual IDC incurred for Asset-2 condoning the entire time over-run as it was beyond the control of Petitioner.

3.6.6 With regard to Departmental Charges for Asset-2, the Petitioner has submitted that the provision for Departmental charges in the DPR was not estimated. However, the actual Departmental Charges upto COD has been Rs. 6.09 Cr. which is within 11% of the project cost. Therefore, the Petitioner has requested the Commission to allow the actual Departmental Charges as on COD.

Table 18: IDC and Departmental charges claimed by the Petitioner (Rs. Cr.)

Particulars	As per DPR	Cost as on COD (Petitioner's Claim)
Asset-1 (Excluding LILO line cost)		
IDC	3.71	*5.97*
Departmental charges	9.95	*3.65*
Total	**13.66**	***9.62***
Asset-2		
IDC	4.24	10.96
Departmental charges	-	6.09
Total	**4.24**	**17.04**

Commission's Analysis

A. <u>Asset-1: 220/132/33 kV, 2 x 100 MVA GIS Sub-Station at Dehan:</u>

3.6.7 The Commission has reviewed the IDC and DC claimed with respect to the Auditor's Certificate provided by the Petitioner. The amounts of Rs. 5.97 Cr. for IDC and Rs. 3.65 Cr. against DC have been claimed by the Petitioner for the Asset-1 against the DPR approved amounts of Rs. 3.71 Cr. and Rs. 9.95 Cr., respectively. As per the DPR for Asset-1, the scheme was originally envisaged to be funded with the debt, grant and equity ratio of 40:40:20 with the debt component funded by KfW and grant portion received from NCEF-MNRE. As per the DPR, the provision for IDC was kept at Rs. 3.71 Cr. However, due to delay in implementation of project by 25 Months, the actual IDC has been claimed at Rs. 5.97 Cr. upto COD. With regards to Departmental Charges, as per the DPR, it was kept at Rs. 9.95 Cr., which has been worked out at the rate of 11% of Rs. 90.42 Cr. (cost against supplies & erection + interconnection cost + land acquisition expenses + forest compensation charges). However, the actual Departmental Charges upto COD are now claimed at Rs. 3.65 Cr. The comparison of the IDC and DC claimed by the Petitioner vis-a-vis the amount as per the Auditor's Certificate for Asset-1 is as under:

Table 19: IDC and Departmental charges claimed by Petitioner for Asset-1 (Rs. Cr.)

Particulars	DPR	As on COD	Auditor Certificate
Interest During Construction (IDC)	3.71	5.97	5.97
Departmental Charges (DC)	9.95	3.65	3.65

3.6.8 The Commission observed that the Petitioner has not submitted proper details, working and the basis for consideration of IDC and DC. Accordingly, justification on assumptions for consideration of DC and IDC in the Petition from the Petitioner was sought through the deficiency letters. The Commission in order to authenticate the claim also asked for the detailed computation of IDC. However, despite several queries, the Petitioner could not submit the detailed working of IDC as per the desired format.

3.6.9 The project was envisaged to be completed in 24 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 20: Reasons for time overrun for Asset-1

Sl.	Description of Event	Time Period	Total Delay	Effective delay w.r.t SCOD 24.06.2020
1	Delay in shifting of 11kV and 33kV overhead power lines by HPSEBL	10.01.2018 to 03.06.2020	29 months	Nil
2	Delay due to COVID-19	March 2020 to October 2020	6 months	4 months
3	Delay due to Additional Supply of station transformer	25.08.2020 to 17.09.2021	13 months	11 months
4	Delay due to supply amendment in 33kV HT Cable and Heat Termination Kit for 185 sq. mm	26.03.2021 to 18.11.2021	8 months	2 months
5	COVID-19 second wave	April 2021 to June 2021	3 months	Nil (due to overlap with Sr.No.4)
6	Delay due to inclement weather conditions	30.01.2019 to 10.04.2022	3 months	Nil (due to overlap with Sr.No.7)

Sl.	Description of Event	Time Period	Total Delay	Effective delay w.r.t SCOD 24.06.2020
7	Increase in Scope due to additional communication works	Nov 2021 to June 2022	7 months	7 months
8	Pre-commissioning activities	20.06.2022 to 04.08.2022	1 month	1 month
	Total Delay excluding overlapping period			**25 Months**

3.6.10 The Commission observes that there is a delay of ~25 months in commissioning of Asset 1 as per the details provided above. The Petitioner has submitted justification along with copy of supporting documents to substantiate its claim. However, under most cases of delay, it is observed that the supporting documents provide either the start date or end date of delay and fail to provide clarity on the exact period of the delay. Also, the efforts undertaken by the Petitioner during the delay period is not substantiated and cannot be completely attributed to uncontrollable aspects.

3.6.11 In some of the time-overrun cases, the Commission was not able to quantify the delay due to inadequate supporting documents. For example, in case of inclement weather condition, the Petitioner has submitted few newspaper clippings in support of its claim which cannot be considered as a proof towards actual delay of work at the site. Also, such weather conditions are expected to prevail during the few months of the year and the Petitioner was expected to factor in such climate conditions during award of the work.

3.6.12 With respect to delay due to additional supply of Station Transformer, the Petitioner has submitted that 2 Nos. of 33/0.4 kV 250 KVA Station Transformer were planned for the purpose of auxiliary supply in Dehan Sub-station. The supply of one transformer was to be fed from tertiary of Power transformer, while other station transformer was to be fed from HPSEBL 33 kV supply. Accordingly, the HPPTCL requested the HPSEBL vide letter dated 25.08.2020 to supply the estimate for providing 33 kV supply at station transformer of 132/220 kV Substation Dehan. However, due to non-submission of demand estimate from the HPSEBL, despite continuous follow up and reminder, the proposal was made to feed the second transformer also from tertiary of second Power Transformer on dated 12.01.2021. In addition, request was received from Sr. Manager, PIU Chamba on dated 14.06.2021 for urgent requirement of station transformer due to failure at 220/132 kV GIS Sub-station at Karian. The 33/0.4 kV Station Transformer of Telawne make was shifted from 220 kV GIS Dehan site on dated 14.06.2021. The award for additional supply of station transformer for 220 kV GIS Dehan site was given to M/S Telawne on dated 17.09.2021. However, due to delay in manufacturing and inspection , the timely delivery to the site was affected. The Commission is of the view that this delay is solely attributed to the Petitioner.

3.6.13 Further, with respect to delay of the transformer due to supply amendment in 33 kV 185 sq. mm HT Cable and Heat Termination Kit, the Petitioner submitted that during detailed engineering, the quantities for 33 kV 185 sq. mm XLPE Cable and Air conditioning equipment were finalized in accordance with the actual layout, and Heat Load Calculations. In addition, in view of the decision taken vide letter dated 12.01.2021, supply for the second Station Transformer was to be ensured through one of the ICTs (Incoming Transformers) on site in the absence of the HPSEBL 33 kV supply. Also, for this work, there was about 100 metre excavation, brick laying and sand filling done, which led to the overall delay.

3.6.14 Further, regarding delay due to increase in Scope due to additional communication works, the Petitioner submitted that as per actual requirements, PLCC (Power Line Carrier Communication) and FOTE (Fibre Optic Terminal Equipment) panels were required at 400/220kV PGCIL's Kankari end for the commissioning of Dehan substation, which was not awarded in the original BOQ. The matter was taken up with firm vide letters dated 12.11.2021 and 22.11. 2021 to expedite the works and complete the same on urgent basis. Thereafter, work was started but continuous work front was not available at 400 kV PGCIL, Kankari as frequent shutdown of charged Sub-station was not possible. The commissioning of FOTE and PLCC between both ends was started after erection and shifting work completion at Kankari. This additional work was completed by 30.06.2022 which led to the delay of 7 months (November 2021 to June 2022).

3.6.15 From fine reading of the submissions of the Petitioner and the supporting documentary proof, it can be concluded that certain delay on account of factors such as delay due to additional supply of Station Transformer, delay due to supply amendment in 33 kV 185 sq. mm HT Cable and Heat Termination Kit and delay due to increase in Scope due to additional communication works at PGCIL's Kankari end, could have been averted by proper planning at the inception stage of the project by appropriately including the same in the DPR. The Petitioner having significant experience in construction of similar lines in difficult geographies ought to have anticipated such delays and included the same in the DPR stage.

3.6.16 In addition, the details provided with respect to time overrun only mentioned various dates when issues emerged, or activities were completed. However, it could not be established that 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, fact remains that there was delay on account of reasons such as COVID-19, which weren't in the control of the Petitioner. Hence, on detailed analysis, of each of the reasons of delay the Commission has calculated the IDC as discussed below.

3.6.17 The Commission has noted that the Petitioner has submitted the IDC cost of Rs. 5.97 Cr. as on COD against the DPR approved IDC of Rs. 3.71 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. 5.97 Cr. along with the calculation methodology.

3.6.18 The Commission noted that as on COD, the Petitioner has submitted the Departmental Charges (DC) as Rs. 3.65 Cr. against the DPR approved DC of Rs. 9.95 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. 3.65 Cr.

3.6.19 With regards to the rate of interest, the Commission sought the supporting documentary proof in support of rate of interest claimed 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.

3.6.20 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 24 months as per DPR has been considered to estimate the benchmark IDC.

3.6.21 For assessing the benchmark IDC with project duration of 24 months, the Commission has assumed 40% debt disbursement in 1st year (Rs. 12.00 Cr.) and balance 60% disbursement in 2nd year (Rs. 18.00 Cr.), as per the assumption considered in the DPR. The debt amount has been calculated at 40% of the approved capital cost as on COD excluding IDC component (Rs. 75.01 Cr.), as per the approved funding in the DPR.

3.6.22 The benchmark IDC computed for Asset-1 is summarized as follows:

Table 21: Computation of benchmark IDC for Asset-1 (Rs. Cr.)

Particulars	Unit	Year I	Year II	Total
Debt disbursement	%	40%	60%	100%
Opening Debt (a)	Rs. Cr.	-	12.00	
Addition during the year (b)	Rs. Cr.	12.00	18.00	
Closing Debt (c)	Rs. Cr.	12.00	30.01	
Average Debt (d=(a+c)/2)	Rs. Cr.	6.00	21.00	
Interest rate (e)	%	10%	10.00%	
Total IDC (f=d*e)	**Rs. Cr.**	**0.60**	**1.05**	**1.65**

3.6.23 Against the benchmark IDC of Rs. 1.65 Cr., the Petitioner has claimed actual IDC of Rs. 5.97 Cr. as on COD for Asset-1. The Petitioner has submitted the Auditor's Certificate in this regard. This actual IDC amount of Rs. 5.97 Cr. has been pro-rated to the approved capital cost to arrive at Rs. 5.52 Cr., which is used to calculate approved IDC as explained below.

3.6.24 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 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 22: IDC Approved by the Commission for Asset-1 (Rs. Cr.)

Particular	Benchmark (A)	Actual IDC pro-rated to approved capital cost (B)	Difference (C=B-A)	Approved (A+50%*C)
Asset-1	1.65	5.52	3.87	3.59

3.6.25 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 is lower than 11% of the approved hard cost, actual departmental charges as on COD have been considered. Accordingly, the DC for Asset-1 is approved as follows:

Table 23: DC approved by the Commission for Asset-1 (Rs. Cr.)

Particular	DPR	As on COD	Auditor Certificate	Approved
Asset-1	9.95	3.65	3.65	3.65

3.6.26 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 Asset-1 is summarized in the following table:

Table 24: 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*	*58.52*	*58.38*
b)	*Services*	*12.20*	*12.20*
c)	*Miscellaneous Expenses*	*4.60*	*0.78*
d)	**Hard Cost**	**75.32**	**75.18**
1)	IDC	5.97	3.59
2)	Departmental Charges	3.65	3.65
	Total	**84.94**	**78.60**

B. <u>Asset-2: 220 kV Double Circuit Dehan-Hamirpur Transmission Line:</u>

3.6.27 The Commission has reviewed the IDC and DC claimed with respect to the Auditor's Certificate provided by the Petitioner. The amount of Rs. 10.96 Cr. for IDC and Rs. 6.09 Cr. for DC has been claimed by the Petitioner for the Asset-2 against the DPR approved amount of Rs. 4.24 Cr. for IDC. In addition, the Commission observed that the provision for DC was not estimated in the DPR. 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 with the debt component funded by KfW and grant portion received from NCEF-MNRE. As per the DPR, the provision for IDC was kept at Rs. 4.24 Cr. However, due to delay in implementation of project by 24 Months, the actual IDC has been claimed at Rs. 10.96 Cr. upto COD. With regards to Departmental Charges, it was not estimated in the DPR. However, the actual Departmental Charges upto COD are now claimed at Rs. 6.09 Cr. The comparison of the IDC and DC claimed by the Petitioner vis-a-vis the amount as per the Auditor's Certificate for Asset-2 is as under:

Table 25: IDC and Departmental charges claimed by Petitioner for Asset-2 (Rs. Cr.)

Particulars	DPR	As on COD	Auditor Certificate
Interest During Construction (IDC)	4.24	10.96	10.96
Departmental Charges (DC)	-	6.09	6.09

3.6.28 The Commission observed that the Petitioner has not submitted proper details, working and the basis for consideration of IDC and DC. Accordingly, justification on assumptions for consideration of DC and IDC in the Petition from the Petitioner was sought through the deficiency letters. The Commission in order to authenticate the claim also asked for the detailed computation of IDC. However, despite several queries, the Petitioner could not submit the detailed working of IDC as per the desired format.

3.6.29 The project was envisaged to be completed in 24 months as per the contract awarded by the Petitioner, however, the actual time of execution of the project was higher by almost 24 months. From the submissions of the Petitioner, the following reasons were identified to be the major reasons for time overrun.

Table 26: Reasons for time overrun for Asset-2

Sl.	Description of Event	Time Period	Total Delay	Effective delay w.r.t SCOD 13.08.2020
1	Delay due to Obstruction of Work on various Tower locations by Private Land Owners	05.06.2019 to 01.11.2021	19 months	14 months
2	Spread of Covid-19 Pandemic	March 2020 to Oct 2020	6 months	Nil (due to overlap with Sr.No.1)
3	Delay in Erection	09.04.2021 to July2021	3 months	Nil (due to overlap with Sr.No.1)
4	Delay in Stringing	06.12.2019 to 07.12.2021	24 months	1 month
5	Felling of trees on Govt. land with private possession	March 2020 to June 2022	27 months	7 months
6	Pre-commissioning activities	09.06.2022 to 04.08.2022	2 months	2 months
	Total Delay excluding overlapping period			**24 Months**

3.6.30 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 obstruction of Work on various Tower locations by Private Land Owners, Transmission line stringing and felling of trees on Government land with private possession. Additionally, commercial issues like hindrance by local community as submitted by the Petitioner were also analysed. The Commission observed that the delay claimed by the Petitioner could have been avoided by proper planning before initiation of the project as all the delay mentioned like forest clearance, approval from competent authority, string of lines and local clearances 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 24 months could have been avoided by proper planning and timely taking up the matters with the concerned competent agencies and authorities.

3.6.31 In fact, it is observed that the contract for transmission line was awarded without getting mandatory forest clearance etc. Thus, based on the reasons stated by the Petitioner, part of the delay could be considered under force majeure or delay not attributable to the Petitioner, however, it would be unreasonable to consider that each individual activity led to the overall delay of almost 24 months in execution. The Commission, therefore, is of the view that the Petitioner could have avoided majority of the delay in execution of the transmission line with necessary forest approvals and adequate planning could have been undertaken before award of the project and the delay could have been shortened/ averted by undertaking certain activities in parallel.

3.6.32 In addition, the details provided with respect to time overrun 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. Hence, post detailed review of each of the reasons of delay, the Commission has calculated the IDC as discussed below.

3.6.33 The Commission observed that the Petitioner has submitted the IDC cost of Rs. 10.96 Cr. as on COD against the DPR approved IDC of Rs. 4.24 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. 10.96 Cr. along with the calculation methodology.

3.6.34 The Commission observed that as on COD, the Petitioner has submitted the Departmental Charges (DC) as Rs. 6.09 Cr. against the provision for DC, which was not estimated in the DPR. 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 certificate mentioning the DC amount of Rs. 6.09 Cr.

3.6.35 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 Petitioners submissions for the computation of IDC.

3.6.36 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 24 months as per DPR has been considered to estimate the benchmark IDC.

3.6.37 For assessing the benchmark IDC with project duration of 24 months, the Commission has assumed 40% debt disbursement in 1st year (Rs. 20.47 Cr.) and balance 60% disbursement in 2nd year (Rs. 30.71 Cr.), as per the assumption considered in the DPR. The debt amount has been calculated at 40% of the approved capital cost as on COD excluding IDC component (Rs. 127.95 Cr.), as per the approved funding in the DPR.

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

Table 27: Computation of benchmark IDC for Asset-2 (Rs. Cr.)

Particulars	Unit	Year I	Year II	Total
Debt disbursement	%	40%	60%	100%
Opening Debt (a)	Rs. Cr.	0	21.45	
Addition during the year (b)	Rs. Cr.	21.45	32.17	
Closing Debt (c)	Rs. Cr.	21.45	53.61	
Average Debt (d=(a+c)/2)	Rs. Cr.	10.72	37.53	
Interest rate (e)	%	10%	10.00%	
Total IDC (f=d*e)	**Rs. Cr.**	**1.07**	**1.88**	**2.95**

3.6.39 Against the benchmark IDC of Rs. 2.95 Cr., the Petitioner has claimed actual IDC of Rs. 10.96 Cr. as on COD for Asset-2. The Petitioner has submitted the Auditor's Certificate in this regard. This actual IDC amount of Rs. 10.96 Cr. has been pro-rated to the approved capital cost to arrive at Rs. 10.12 Cr., which is used to calculate approved IDC as explained below.

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 24 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 28: 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-1	2.95	10.12	7.17	6.54

3.6.41 In case of Departmental Charges, in absence of any clarity as to why the DC were not estimated in the DPR, the Commission has provisionally 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 on provisional basis, subject to review at the time of truing-up of the Order based on CAG approved Audited Accounts. Accordingly, the DC for Asset-1 are approved as follows:

Table 29: DC approved by the Commission for Asset-2 (Rs. Cr.)

Particular	DPR	As on COD	Auditor Certificate	Approved
Asset-1	-	6.09	6.09	6.09

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 Asset-2 is summarized in the following table:

Table 30: 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*	*67.72*	*67.72*
b)	*Services*	*51.79*	*51.79*
c)	*Miscellaneous Expenses*	*15.59*	*8.44*
d)	**Hard Cost**	**135.10**	**135.07**
1)	IDC	10.96	6.54
2)	Departmental Charges	6.09	6.09
	Total	**152.15**	**140.57**

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 For Asset-1, the Petitioner has submitted that it has received NCEF grant from MNRE of Rs. 30.18 Cr. and has drawn actual loan from KfW amounting to Rs. 36.99 Cr. which is 69.10% of the project cost less grant and has infused equity amounting to Rs. 16.54 Cr. which is 30.90% of the project cost less grant.

3.7.3 With regards to Asset-2, the Petitioner has submitted that it has received NCEF grant from MNRE of Rs. 40.95 Cr. and has drawn actual loan from KfW amounting to Rs. 71.93 Cr. which is 65.54% of the project cost less grant and has infused equity amounting to Rs. 37.82 Cr. which is 34.46% of the project cost less grant.

3.7.4 As the equity infused is more than the prescribed limit of normative equity allowed under the HPERC Transmission Tariff Regulations, 2011, hence, normative debt equity ratio of 70:30 has been considered for working out the components of Annual Revenue Requirement for both Asset-1 and Asset-2.

3.7.5 The Debt:Equity ratio as per DPR and as considered as on COD for Asset-1 and Asset-2 submitted by the Petitioner is as below:

Table 31: Project funding proposed by Petitioner – Asset-1

Particulars	Capital cost (As per DPR) (Rs. Cr)	Percentage (%) as per DPR	Actual Cost (As on COD) (Rs. Cr)	Percentage (%) as on COD	Normative Debt: Equity claimed (Rs. Cr)	Percentage (%) of Project Cost claimed
Debt	42.72	40.00%	36.99	69.10%	37.47	70.00%
Equity	21.36	20.00%	16.54	30.90%	16.06	30.00%
Cost excluding Grant Portion	**62.08**	**60.00%**	**53.53**	**100.00%**	**53.53**	**100.00%**
NCEF Grant	42.72	40.00%	30.18	-	30.18	-
Total Cost	**106.79**	**100.00%**	**83.71**	**-**	**83.71**	**-**

Table 32: Project funding proposed by Petitioner – Asset-2

Particulars	Capital cost (As per DPR) (Rs. Cr)	Percentage (%) as per DPR	Actual Cost (As on COD) (Rs. Cr)	Percentage (%) as on COD	Normative Debt: Equity claimed (Rs. Cr)	Percentage (%) of Project Cost claimed
Debt	48.81	40.00%	71.93	65.54	76.82	70.00%
Equity	24.40	20.00%	37.82	34.46	32.92	30.00%
Cost excluding Grant Portion	**73.21**	**60.00%**	**109.75**	**100**	**109.75**	**100.00%**
NCEF Grant	48.81	40.00%	40.95	-	40.95	-
Total Cost	**122.02**	**100.00%**	**150.70**	**-**	**150.70**	**-**

3.7.6 The Petitioner has further submitted that at the time of preparation of DPR, funding of scheme was considered on the basis of estimate i.e., 40:20:40 (Debt:Equity:Grant), wherein the actual funding of the project depends upon the project execution and actual funds available from various sources which may not be necessarily always in line with DPR. As the HPERC Transmission Tariff Regulations, 2011 allow equity infusion upto 30% less of grant portion, the Petitioner has requested the Commission to approve the same.

Commission's Analysis

3.7.7 The Commission observes that the project was originally envisaged at a Debt: Grant: Equity ratio of 40:40:20 as provided in the DPR. As per the documents submitted by the Petitioner, the debt portion of the project is funded through KfW, but the loan has been received by GoHP which has further extended the loan to the Petitioner at an interest rate of 10%. A copy of the loan agreement signed between the Petitioner and GoHP has been submitted by the Petitioner.

3.7.8 To verify the Debt, Grant and Equity claimed by the Petitioner, the Commission vide deficiency letters sought details of Debt-Grant-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.

3.7.9 The Commission has observed that the copy of Auditor's Certificate provided does not specify the original debt, grant 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.

3.7.10 Further, the Commission observes that KfW has sanctioned loan to the Government of India (GoI) under Green Energy Corridor-I (GEC-I) Scheme 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.

3.7.11 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.

3.7.12 In view of the above, for both Asset-1 and 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 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.

3.7.13 The Commission on relying upon the documentary proof produced by the Petitioner has approved the normative debt-equity as follows:

Table 33: Debt Equity Grant approved by the Commission (Rs. Cr.)

Particulars	Formula	Actual (As on COD)		Approved (As on COD)	
		Capital cost	% of Funding	Capital cost	% of Funding
Asset-1					
Total Capital Cost as per DPR	A			106.79	100%
MNRE Grant estimated as per DPR	B			42.72	40%
Total Actual Capital Cost as on COD	C			84.94	100%
Actual MNRE Grant received as on COD	D			30.18	36%
Total Capital Cost as on COD	**E**	**84.94**	**100%**	**78.60**	**100%**
MNRE Grant pro-rated to approved capital cost	F=D/C*E			27.93	36%
Approved MNRE Grant as on COD	G=Min(40%*E,B)			31.44	40%
Actual Debt as on COD	H			40.08	
Portion of actual debt converted to Grant (90%)	I=90%*H			36.08	
Total Debt as on COD	**J=10%*H**	**40.08**	**47%**	**4.01**	**5%**
Total Grant as on COD	**K=G+I**	**30.18**	**36%**	**67.52**	**86%**
Total Equity as on COD	**L=E-J-K**	**14.67**	**17%**	**7.08**	**9%**
Asset-2					
Total Capital Cost as per DPR	A			122.02	100%
MNRE Grant estimated as per DPR	B			48.81	40%
Total Actual Capital Cost as on COD	C			152.15	100%
Actual MNRE Grant received as on COD	D			40.95	27%
Total Capital Cost as on COD	**E**	**152.15**	**100%**	**140.57**	**100%**
MNRE Grant pro-rated to approved capital cost	F=D/C*E			37.84	27%
Approved MNRE Grant as on COD	G=Min(40%*E,B)			48.81	35%
Actual Debt as on COD	H			77.61	
Portion of actual debt converted to Grant (90%)	I=90%*H			69.85	
Total Debt as on COD	**J=10%*H**	**77.61**	**51%**	**7.76**	**6%**
Total Grant as on COD	**K=G+I**	**40.95**	**27%**	**118.66**	**84%**
Total Equity as on COD	**L=E-J-K**	**33.58**	**22%**	**14.15**	**10%**

3.8 Additional Capitalisation

Petitioner Submissions

3.8.1 For Asset-1, the Petitioner has claimed Additional Capital Expenditure (ACE) of Rs. 0.18 Cr. post COD till 31.03.2023. Also, ACE of Rs. 1.21 Cr. has been claimed for FY 2023-24.

3.8.2 For Asset-2, the Petitioner has submitted that it has incurred an Additional Capital Expenditure (ACE) of Rs. 1.24 Cr. post COD till 31.03.2023. Further, the Petitioner has claimed an ACE of Rs. 0.34 Cr. during FY 2023-24.

3.8.3 The Petitioner has also sought liberty to submit the details of actual ACE incurred during the period from FY 2022-23 to FY 2023-24 before the Commission at the time of truing up once the Audited Accounts are available. The details of the total Project Cost along with the ACE is shown in the table below:

Table 34: Details of Total Project Cost as submitted by the Petitioner (Rs. Cr)

Name of the Asset	Cost as per Original DPR	Actual Cost as on COD	Additional Capital Expenditure		Total Cost of the Project
			FY 2022-23	FY 2023-24	
33/132/220 kV GIS Sub-station at Dehan (Asset-1)	106.79	84.94	0.18	1.21	86.34
220 kV D/C Transmission Line with Twin Moose Conductor from 33/132/220 kV GIS Sub-station at Dehan to PGCIL Sub-station at Hamirpur (Asset-2)	122.02	152.15	1.24	0.34	153.73

Commission's Analysis

3.8.4 In accordance with Regulation 16 of the 'HPERC Transmission Tariff Regulations, 2011' , 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."

3.8.5 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, the Petitioner has submitted the documentary proofs against all claims towards additional capitalisation, however, the Petitioner did not submit the Audited Accounts for FY23 and FY24 for both the Assets.

3.8.6 With regards to Asset-1, the additional capex/capitalisation proposed in FY 2022-23 and FY 2023-24 are towards supply of spares, its erection and Departmental charges. However, in absence of the Audited Accounts for FY23 and FY24, the Commission feels appropriate to limit the hard cost of the additional capitalisation to the level of awarded cost of last amendment of the contract i.e., 9th amendment for Asset-1. In addition, the Commission has not approved any expense towards DC (Departmental Charges) claimed as part of additional capitalisation, as per the assumptions in DPR, which is allowed at 11% of hard cost only upto COD. Accordingly, the Commission has provisionally allowed additional capitalisation projection for Asset-1 of Rs. 0.14 Cr. in FY 2022-23 and Rs. 1.08 Cr. in FY 2023-24. **Further, the Petitioner is directed to submit Auditor certificate along with details justification for incurring the ACE as the time of truing up.**

3.8.7 With regards to Asset-2, the additional capex/capitalisation proposed in FY 2022-23 and FY 2023-24 is towards pending payment of erection works of Transmission line prior to COD, Right of Way, Cutting and Lopping of trees, erection of Bird Flight Divertors and Departmental charges. However, in the absence of the Audited Accounts for FY23 and FY24, the Commission feels appropriate to limit the hard cost of the additional capitalisation to the level of awarded cost of last amendment of the contract i.e., 6th amendment for Asset-2. Accordingly, the Commission has not allowed any expense towards erection of Transmission line as additional capitalisation for Asset-2. Further, against expense towards Right of Way, the Commission has analysed the payment vouchers released to landowners towards compensation along with the contract agreements signed with the landowners for Right of Way and found that the amount of Rs. 15.27 Lakh has been inadvertently accounted in both FY 2022-23 and FY 2023-24. Therefore, the Commission has not allowed any expense towards ROW in FY 2023-24 against the claim of Rs. 15.27 Lakh. Further, against expense towards Bird Flight Divertors, the Commission has analysed the payment vouchers corresponding to works awarded to M/s Indolite for supply and installation of Bird Flight Divertors of various Transmission towers of HPPTCL and found to be in place. In addition, the Commission has not approved any expense towards DC (Departmental Charges) claimed as part of additional capitalisation, as per the assumptions in the DPR, which is allowed at 11% of hard cost only upto COD . Accordingly, the Commission has provisionally allowed additional capitalisation projection for Asset-2 of Rs. 0.58 Cr. in FY 2022-23 and Rs. 0.19 Cr. in FY 2023-24. **Further, the Petitioner is directed to submit Auditor certificate along with details justification for incurring the ACE as the time of truing up.**

3.8.8 Based on the Audited Accounts for FY 2022-23 and FY 2023-24, the value of additional capitalisation would be reviewed and revised at the time of true-up of respective years.

3.8.9 The following table summarises the additional capitalisation claimed and approved by the Commission for both the assets.

Table 35: Additional Capitalisation provisionally approved by the Commission (Rs. Cr.)

Particulars	Claimed		Approved	
	FY23	FY24	FY23	FY24
Asset-1				
Material Supplied	0.04	0.23	0.04	0.23

Particulars	Claimed		Approved	
	FY23	FY24	FY23	FY24
Erection and Civil Work	0.11	0.98	0.11	0.85
DC (Departmental Charges)	0.04	-	-	-
Additional Capitalisation – Asset-1	**0.18**	**1.21**	**0.14**	**1.08**
Asset-2				
Erection and Civil Work	0.44	-	-	-
Right of Way	*0.27*	*0.15*	*0.27*	-
Cutting and Lopping of Trees	*0.01*	-	*0.01*	-
Bird Flight Divertors	*0.31*	*0.19*	*0.31*	*0.19*
DC (Departmental Charges)	0.22	-	-	-
Additional Capitalisation – Asset-2	**1.24**	**0.34**	**0.58**	**0.19**

3.8.10 In the absence of any proof provided on the actual funding of the additional capitalization, the Commission has provisionally approved Debt:Equity ratio of 70:30 for additional capitalization of both the assets, subject to review at the time of truing-up of the Tariff Order. At the time of truing-up, if the capital for additional capitalization is being arranged from KfW through GoHP, then the Commission shall apply the similar treatment of 90% grant and 10% debt, as applied for Capital cost as on COD.

4. APPROVAL OF ARR AND TARIFF

4.1 Background

4.1.1 The Petitioner has proposed projections for FY 2022-23 and FY 2023-24 in accordance with the HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011, as amended from time to time (HPERC Transmission Tariff Regulations, 2011). 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 Transmission Tariff 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 has further submitted that since the Scheme was Commissioned on 04.08.2022, therefore, the Petitioner doesn't have the actual expenses of O&M. 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 Based on the above, the Petitioner has projected O&M Expense based on the number of Sub-station Bays and Line length for Asset-1 and Asset-2 respectively as mentioned in the CERC Tariff Regulations, 2019 from COD to FY 2023-24 as shown in the table below.

Table 36: O&M Expenses claimed by Petitioner (Rs. Lakh)

Particulars	Unit	FY23	FY24
Asset-1			
220 kV	Rs. Lakh/bay	17.47	18.09
132 kV	Rs. Lakh/bay	12.48	12.92
220 kV bays	No.	5	5
132 kV bays	No.	5	5
220/132/33 kV Transformer	Rs. Lakh/MVA	0.272	0.282
Capacity	MVA	2*100	2*100
Total O&M Expenses	**Rs. Lakh**	**204.17**	**211.45**
Asset-2			
220 kV line	Rs. Lakh/km	0.98	1.01
220 kV line	Km	57.939	57.939
Total O&M Expenses	**Rs. Lakh**	**56.61**	**58.58**

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 both Asset-1 and Asset-2, it is difficult to ascertain a realistic trend for O&M expenses for the upcoming years. In 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 above CERC 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 of Asset-1 and Asset-2 for computation of O&M expense as per CERC Tariff Regulations, 2019:

Table 37: Normative O&M Expenses

Item	Unit	FY23	FY24
220 kV (Bay)	Rs. Lakh/bay	24.96	25.84
132 kV (Bay)	Rs. Lakh/bay	17.83	18.46
220 kV (Transformer)	Rs. Lakh/MVA	0.272	0.282
D/C (Twin and Triple Conductor)	Rs. Lakh/km	0.977	1.011

4.2.6 Further, the CERC Tariff Regulations, 2019 stipulate that O&M expenses for the GIS Sub-station shall be allowed as worked out considering a factor of 0.70 over the normative O&M expenses for bays as provided in the table above.

4.2.7 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.

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

Table 38: O&M Expenses approved by Commission (Rs. Lakh)

Particulars	Unit	FY23	FY24
Asset-1			
220 kV Bays	No.	5.00	5.00
132 kV Bays	No.	5.00	5.00
Bays norms (220 kV Bays)	Rs. Lakh/bay	24.96	25.84
Bays norms (132 kV Bays)	Rs. Lakh/bay	17.83	18.46
GIS	%	0.70	0.70
Transformer Capacity	MVA	200	200
220/132 kV Transformer norms	Rs. Lakh/MVA	0.272	0.282
O&M Expenses - Asset-1	**Rs. Lakh**	**204.17**	**211.45**
Asset-2			
Line Length	km	57.939	57.939
Double Circuit (Twin & Triple Conductor) Norms	Rs. Lakh/Km	0.98	1.01
O&M Expenses – Asset-2	**Rs. Lakh**	**56.61**	**58.58**

4.2.9 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 Transmission Tariff Regulations, 2011.

4.3.2 For Asset-1, the Petitioner has considered the normative opening value of loan as on COD amounting to 70.00% of the total project cost (excluding grant) i.e., Rs. 37.47 Cr. and additional loan on normative basis for additional capitalisation proposed during FY 2022-23 to FY 2023-24.

4.3.3 For Asset-2, the Petitioner has considered the normative opening value of loan as on COD amounting to 70.00% of the total project cost (excluding grant) i.e., Rs. 76.83 Cr. and additional loan on normative basis for additional capitalisation proposed during FY 2022-23 to FY 2023-24.

4.3.4 The Petitioner has considered the Interest rate of 10% as per the KfW Loan Agreement read with lending agreement with GoHP.

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

Table 39: Interest on Loan claimed by Petitioner (Rs. Lakh)

Particulars	FY23	FY24
Asset-1		
Opening Loan	3,746.81	3,497.36
Addition during the year	10.08	25.27
Repayment	259.53	260.86
Closing Balance	3,497.36	3,261.76
Rate of Interest (%)	10.00%	10.00%
Interest on Loan	**362.21**	**337.96**
Asset-2		
Opening Loan	7,682.28	7,265.30
Addition during the year	61.06	2.48
Repayment	478.04	480.44
Closing Balance	7,265.30	6,787.34
Rate of Interest (%)	10.00%	10.00%
Interest on Loan	**747.38**	**702.63**

Commission's Analysis

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

4.3.7 Regulation 20 of the HPERC Transmission Tariff 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."

4.3.8 The Commission has approved the Interest on Loan in accordance with the HPERC Transmission Tariff Regulations, 2011. Repayment equivalent to approved depreciation has been considered for each year in line with the HPERC Transmission Tariff Regulations, 2011. Accordingly, the opening and closing loan balances for each year has been calculated.

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

4.3.10 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.

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

Table 40: Interest on Loan approved by Commission (Rs. Lakh)

Particulars	FY23	FY24
Asset-1		
Opening Balance	400.83	356.89
Addition	10.08	75.85
Repayment	54.03	57.02
Closing Balance	356.89	375.71
Rate of Interest (%)	10.00%	10.00%
Interest on Loan	**37.89**	**36.63**
Asset-2		
Opening Balance	776.14	723.29
Addition	40.76	13.08
Repayment	93.61	95.37
Closing Balance	723.29	641.00
Rate of Interest (%)	10.00%	10.00%
Interest on Loan	**74.97**	**68.21**

4.4 Depreciation

Petitioner Submissions

4.4.1 The Petitioner has submitted the depreciation foreach year of the Control Period for both Asset-1 and Asset-2 in accordance with the Regulation 23 of the HPERC Transmission Tariff Regulations, 2011 based on the actual Capital cost.

4.4.2 In accordance with the HPERC Transmission Tariff Regulations, 2011, the depreciation for each year has been worked out by the Petitioner as shown in the following table:

Table 41: Depreciation claimed by Petitioner (Rs. Lakh)

Particulars	FY23	FY24
Asset-1		
Opening GFA	8,370.86	8,385.26
Less: Grant	3,018.28	3,018.28
Net Opening GFA	5,352.58	5,366.98
Addition	14.40	36.10
Net Closing GFA	5,366.98	5,403.08
Average GFA	5,359.78	5,385.03
Less: Land under full ownership	0.00	0.00
GFA excluding Land	5,359.78	5,385.03
Rate of Depreciation	4.84%	4.84%
Depreciation	**259.53**	**260.86**
Asset-2		
Opening GFA	15,069.90	15,157.13
Less: Grant	4,095.21	4,095.21
Net Opening GFA	10,974.69	11,061.92
Addition	87.23	3.55
Net Closing GFA	11,061.92	11,065.47
Average GFA	11,018.31	11,063.69
Less: Land under full ownership	77.93	77.93
GFA excluding Land	10,940.38	10,985.76
Rate of Depreciation	4.37%	4.37%
Depreciation	**478.04**	**480.44**

Commission's Analysis

4.4.3 The Commission has approved the depreciation in line with provisions of the Regulation 23 of the HPERC Transmission Tariff 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 calculated 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 Transmission Tariff 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 42: Depreciation approved by Commission (Rs. Lakh)

Particulars	FY23	FY24
Asset-1		
Opening GFA	7,860.16	7,874.56

Particulars	FY23	FY24
Less: Grant/ Consumer Contribution	6,751.57	6,751.57
Less: Freehold Land	-	-
Depreciable GFA (Opening)	1,108.59	1,122.99
Addition	14.40	108.35
Closing Depreciable GFA	1,122.99	1,231.34
Rate of Depreciation	4.84%	4.84%
Depreciation during the year	**54.03**	**57.02**
Cumulative Depreciation at the end of the year	54.03	111.05
Remaining Aggregate Depreciable Value at the end of the year	1,068.96	1,120.29
Asset-2		
Opening GFA	14,057.26	14,115.49
Less: Grant/ Consumer contribution	11,866.09	11,866.09
Less: Freehold Land	77.93	77.93
Depreciable GFA (Opening)	2,113.25	2,171.48
Addition	58.23	18.69
Closing Depreciable GFA	2,171.48	2,190.17
Rate of Depreciation	4.37%	4.37%
Depreciation during the year	**93.61**	**95.37**
Cumulative Depreciation at the end of the year	93.61	188.98
Remaining Aggregate Depreciable Value at the end of the year	2,077.86	2,001.18

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 Transmission Tariff Regulations, 2011 as amended from time to time.

4.5.2 For Asset-1, the Petitioner has submitted that it has considered the opening value of equity as on COD as normative equity corresponding to 30% of the total Project cost (excluding grant) i.e., Rs. 16.05 Cr. along with normative additional equity for additional capitalisation proposed during FY 2022-23 to FY 2023-24 for working out the RoE.

4.5.3 For Asset-2, the Petitioner has submitted that it has considered the opening value of equity as on COD as normative equity corresponding to 30% of the total

Project cost (excluding grant) i.e., Rs. 32.91 Cr. along with normative additional equity for additional capitalisation proposed during FY 2022-23 to FY 2023-24 for working out the RoE.

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

Table 43: RoE claimed by Petitioner (Rs. Lakh)

Particulars	FY23	FY24
Asset-1		
Opening Equity	1,605.77	1,610.09
Addition	4.32	10.83
Closing Equity	1,610.09	1,620.92
Average Equity	1,607.93	1,615.51
RoE (%)	15.50%	15.50%
Return on Equity	**249.23**	**250.40**
Asset-2		
Opening Equity	3,292.41	3,318.58
Addition	26.17	1.06
Closing Equity	3,318.58	3,319.64
Average Equity	3,305.49	3,319.11
RoE (%)	15.50%	15.50%
Return on Equity	**512.35**	**514.46**

Commission's Analysis

4.5.5 Regulation 19 of the HPERC Transmission Tariff 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."

4.5.6 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.

4.5.7 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.

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

Table 44: RoE approved by Commission (Rs. Lakh)

Particulars	FY23	FY24
Asset-1		
Opening Equity	707.75	712.07
Addition	4.32	32.51
Closing Equity	712.07	744.58
RoE (%)	15.50%	15.50%
Return on Equity	**110.04**	**112.89**
Asset-2		
Opening Equity	1,415.03	1,432.50
Addition	17.47	5.61
Closing Equity	1,432.50	1,438.11
RoE (%)	15.50%	15.50%
Return on Equity	**220.68**	**222.47**

4.6 Interest on Working Capital (IoWC)

Petitioner Submissions

4.6.1 The Petitioner has computed interest on working capital as per Regulations 21 and 22 of the HPERC Transmission Tariff Regulations, 2011.

4.6.2 The Petitioner has calculated the interest on working capital considering prevalent SBI MCLR as on 1st April of FY 2022-23 and FY 2023-24 plus 300 basis points.

4.6.3 In accordance with the above Regulations, the interest on working capital claimed is as shown below:

Table 45: Interest on Working Capital claimed by Petitioner (Rs. Lakh)

Particulars	FY23	FY24
Asset-1		
O&M Expenses for 1 month	17.01	17.62
Maintenance Spares (at 15% monthly O&M Expenses)	2.55	2.64
Receivables for 2 months	182.56	180.63
Total Working Capital	**202.12**	**200.89**
Interest Rate (%)	10.00%	11.50%
Interest on Working Capital	**20.21**	**23.10**
Asset-2		
O&M Expenses for 1 month	4.72	4.88
Maintenance Spares (at 15% monthly O&M Expenses)	0.708	0.732
Receivables for 2 months	304.22	298.51
Total Working Capital	**309.65**	**304.13**
Interest Rate (%)	10.00%	11.50%
Interest on Working Capital	**30.96**	**34.97**

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 Transmission Tariff 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 Therefore, 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 2022-23 and FY 2023-24.

4.6.7 The computation for working capital requirement and interest on working capital as approved by the Commission is shown in the table as follows:

Table 46: Interest on Working Capital approved by Commission (Rs. Lakh)

Particulars	FY23	FY24
Asset-1		
O&M Expenses for 1 month	17.01	17.62
Maintenance Spares (at 15% monthly O&M Expenses)	2.55	2.64
Receivables for 2 months	69.16	71.42
Total Working Capital	**88.73**	**91.69**
Interest Rate (%)	10.00%	11.50%
Interest on Working Capital	**8.87**	**10.54**
Asset-2		
O&M Expenses for 1 month	4.72	4.88
Maintenance Spares (at 15% monthly O&M Expenses)	0.71	0.73
Receivables for 2 months	75.66	75.66
Total Working Capital	**81.09**	**81.28**
Interest Rate (%)	10.00%	11.50%
Interest on Working Capital	**8.11**	**9.35**

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

Particulars	FY23	FY24
Asset-1		
Depreciation	259.53	260.86
Interest on Loan	362.21	337.96
Return on Equity	249.23	250.40
O&M Expenses	204.17	211.45
Interest on Working Capital	20.21	23.10
Total	**1,095.34**	**1,083.78**

Particulars	FY23	FY24
ARR (Pro-rata for 240 Number of days in operation*)– Asset – 1	**720.23***	**1083.78**
Asset-2		
Depreciation	478.04	480.44
Interest on Loan	747.38	702.63
Return on Equity	512.35	514.46
O&M Expenses	56.61	58.58
Interest on Working Capital	30.96	34.97
Total	**1,825.34**	**1,791.08**
ARR (Pro-rata for 240 Number of days in operation*)– Asset – 2	**1,200.23***	**1,791.08**

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 48: Summary of ARR approved by Commission (Rs. Lakh)

Particulars	FY23	FY24
Asset-1		
Depreciation	54.03	57.02
Interest on Loan	37.89	36.63
Interest on Working Capital	8.87	10.54
Return on Equity	110.04	112.89
O&M Expenses	204.17	211.45
Total	**414.99**	**428.54**
ARR (Pro-rata for 240 Number of days in operation*)– Asset – 1	**272.87***	**428.54**
Asset-2		
Depreciation	93.61	95.37
Interest on Loan	74.97	68.21
Interest on Working Capital	8.11	9.35
Return on Equity	220.68	222.47
O&M Expenses	56.61	58.58
Total	**453.98**	**453.98**
ARR (Pro-rata for 240 Number of days in operation*)– Asset – 2	**298.52***	**453.98**

4.8 Transmission Charges

Petitioner Submissions

4.8.1 The Petitioner has requested the recovery of ARR from HPSEBL along with carrying cost.

Commission's Analysis

4.8.2 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. The Petitioner in reply submitted that the HPSEBL is the current beneficiary of both the Assets. However, after the LTA with SJVNL comes into effect from 30.09.2026, SJVNL would also become the beneficiary of both the Assets from 30.09.2026. 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 SJVNL for Dhaulasidh HEP (66 MW) on 28.12.2022.

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

4.8.4 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.

4.8.5 Further, the Commission has observed that while the Asset-1 and Asset-2 were commissioned on 04.08.2022, the actual flow of power through these transmission assets started from 03.09.2024 only.

4.8.6 Therefore, the Petitioner is directed to recover the transmission charges from the identified long-term /medium-term beneficiary of the Transmission Asset as per terms and conditions of the TSA/LTA and 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."

4.8.7 The Petition is disposed off as above.

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

Place: Shimla
Dated: 17th July 2025