

**Approval of Capital Cost and determination
of Tariff for the period from COD
(20.05.2022) to FY 2023-24 for 66kV GIS
Switching Sub-station at Urni (Asset-1) and
for the period from COD (20.05.2022) to FY
2023-24 for 66kV D/C Line from Urni
Switching Station to Wangtoo Sub-station
(Asset-2)**

**Himachal Pradesh Power Transmission
Corporation Limited (HPPTCL)**



**Himachal Pradesh Electricity Regulatory
Commission
June 12, 2024**

**BEFORE THE HIMACHAL PRADESH ELECTRICITY REGULATORY COMMISSION AT
SHIMLA
PETITION NO: 01/2024**

CORAM

**Sh. DEVENDRA KUMAR SHARMA
Sh. YASHWANT SINGH CHO GAL
Sh. SHASHI KANT JOSHI**

In the matter of:

Approval of Capital Cost and determination of Tariff for the period from COD (20.05.2022) to FY 2023-24 for 66kV GIS Switching Sub-station at Urni (Asset-1) and for the period from COD (20.05.2022) to FY 2023-24 for 66kV D/C Line from Urni Switching Station to Wangtoo Sub-station (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 called the 'HPPTCL' or 'Petitioner') has filed a 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 the period from COD (20.05.2022) to FY 2023-24 for 66kV GIS Switching Sub-station at Urni (Asset-1) and for the period from COD (20.05.2022) to FY 2023-24 for 66kV D/C Line from Urni Switching Station to Wangtoo Sub-station (Asset-2) under the Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Transmission Tariff) Regulation, 2011 and subsequent amendments and under Section 62, read with Section 86 of the Electricity Act, 2003. (hereinafter referred to as "the Act").

The Commission having heard the applicant, interveners, consumers and consumer representatives through various representations and having had formal interactions with the officers of the HPPTCL and having considered the documents available on record, herewith accepts the Petition with modifications, conditions and directions specified in the following Tariff Order. It is important to highlight that the Petitioner took significant time in responding to the clarification 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. The delay in submission of information and lack of complete information remained a major bottleneck which has resulted in delay of this Tariff Order.

The Commission has determined the Capital Cost and Aggregate Revenue Requirement (ARR) for 66kV GIS Switching Sub-station at Urni (Asset-1) and 66kV D/C Line from Urni Switching Station to Wangtoo Sub-station (Asset-2) in accordance with the guidelines laid down in Section 61 of the Electricity Act, 2003, the National Electricity Policy, the National Tariff Policy, CERC Tariff Regulations, 2019 and HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011 and subsequent amendments thereof. 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.

-Sd-

(SHASHI KANT JOSHI)
Member

-Sd-

(YASHWANT SINGH CHOGAL)
Member Law

-Sd-

(DEVENDRA KUMAR SHARMA)
Chairman

Place: Shimla

Dated: 12th June 2024

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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 5th January, 2001. After the enactment of the Electricity Act, 2003 on 25th 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 there of 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 provision 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 MYT Transmission Regulations, 2011").

1.3.5 The Commission issued the first Multi-Year Tariff (MYT) Order for HPPTCL for the period FY 2011-12 to FY 2013-14 on 14th July, 2011 and thereafter for the second Control Period (FY 2014-15 to FY 2018-19) on 10th June, 2014. The Commission has also issued the Tariff Order on True Up for the FY 2014-15 to FY 2015-16 and Mid Term Review for Third Control Period FY 2016-17 to FY 2018-19. Thereafter, on 29th June, 2019, the Commission issued the MYT Order for the fourth Control Period (FY 2019-20 to FY 2023-24). Thereafter, on 28th December, 2022, the Commission issued the True-Up Order of Third Control Period from FY 2014-15 to FY 2018-19.

1.4 Admission of Petition and Interaction with the Petitioner

- 1.4.1 The HPPTCL filed the application for approval of Capital Cost and determination of Tariff for the period from COD (20.05.2022) to FY 2023-24 for 66kV GIS Switching Sub-station at Urni (Asset-1) and for the period from COD (20.05.2022) to FY 2023-24 for 66kV D/C Line from Urni Switching Station to Wangtoo Sub-station (Asset-2), with the Commission on 20th December, 2022. Based on various observations/deficiencies pointed out by the Commission, HPPTCL has submitted further details and clarifications subsequently. In addition, the Petitioner submitted the Interlocutory Application along with the affidavit on 14th June, 2023.
- 1.4.2 The Commission admitted the Petition submitted by the HPPTCL vide Interim Order dated 10th January, 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, various 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)-50/2023-3200 dated 17.02.2023	Filing No. 219 of 2022 dated 24.04.2023
2	HPERC-F(1)-50/2023-745 dated 17.06.2023	Filing No. 219 of 2022 dated 05.12.2023
3	HPERC-F(1)-50/2023-2445-46 dated 20.01.2024	Filing No. 219 of 2022 dated 10.04.2024
4	HPERC-F(1)-50/2023-529-30 dated 29.05.2024	Filing No. 219 of 2022 dated 07.06.2024

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)	18.01.2024
2.	The Tribune (English)	18.01.2024

- 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)	24.01.2024
2.	Indian Express (English)	24.01.2024

- 1.5.3 The stakeholders were requested to file their objections by 26th February, 2024. The HPPTCL was required to submit replies to the suggestions/ objections to the Commission by 01st March, 2024 with a copy to the objectors on which the objectors were required to submit rejoinder by 05th March, 2024.
- 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 07th March, 2024 and its subsequent postponement to 14th March, 2024, due to administrative reasons . 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 14th March, 2024 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 as 07th March, 2024 and its subsequent postponement to 14th March, 2024, due to administrative reasons for the Petition of approval Capital Cost and determination of Tariff for the period from COD (20.05.2022) to FY 2023-24 for 66kV GIS Switching Sub-station at Urni (Asset-1) and for the period from COD (20.05.2022) to FY 2023-24 for 66kV D/C Line from Urni Switching Station to Wangtoo Sub-station (Asset-2).
- 2.1.2 Accordingly, the public hearing was conducted on 14th March, 2024. However, there were no comments or suggestions received from any Stakeholder with respect to the Petition .

3. APPROVAL OF CAPITAL COST

3.1 Introduction

3.1.1 HPPTCL has submitted a petition for approval of Capital Cost and determination of Tariff for the period from COD (20.05.2022) to FY 2023-24 for 66kV GIS Switching Sub-station at Urni (Asset-1) and for the period from COD (20.05.2022) to FY 2023-24 for 66kV D/C Line from Urni Switching Station to Wangtoo Sub-station (Asset-2).

3.1.2 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 Bays/ Line Length	COD
Asset-1	66 kV GIS Urni Sub-station	GIS	66 kV	3 No. of Bays of 66 kV	20.05.2022
Asset-2	66 kV D/C Urni - Wangtoo Transmission Line	D/C	66 kV	13.65 KM Line Length	20.05.2022

3.1.3 Regulation 14 of the HPERC Transmission 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:"

- 3.1.4 The Commission has reviewed the proposed capital cost and ARR for each year by the Petitioner from COD until the end of the Control Period i.e., FY 2023-24. The Petitioner has submitted separate ARRs for 66kV GIS Switching Sub-station at Urni referred to as Asset-1 and 66kV D/C Transmission Line from Urni Switching Station to Wangtoo Sub-station referred to as Asset-2.
- 3.1.5 The original Petition lacks 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).
- 3.1.6 The Commission has undertaken detailed prudence check and adequate assumptions, wherever required, for approving the capital cost of 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.

3.2 Summary of the Project

Petitioner Submissions

- 3.2.1 The Petitioner has submitted that 66kV GIS Switching Sub-station at Urni (Asset-1) and 66kV D/C Transmission Line from Urni Switching Station to Wangtoo Sub-station (Asset-2) was primarily planned to cater to the evacuation needs of 40 MW of power from upcoming generating stations such as Raura-II HEP (20 MW), Raura HEP (8 MW), Brua HEP (9 MW) and Shaung HEP (3 MW) and other small upcoming SHPs in the Sangla valley region of Satluj basin.
- 3.2.2 The Petitioner has further submitted that Brua, Shaung and Raura SHEPs were granted connectivity at 66 kV Urni Switching Station for evacuation of power and the generating stations have executed Power Purchase Agreement (PPA) with HPSEBL for sale of entire generation. As per the PPA, HPSEBL shall bear the transmission charges for the evacuation arrangement and therefore, is the sole beneficiary of the system.
- 3.2.3 The Petitioner further conveyed that though the generating stations have got commissioned, but due to delay in commissioning of Asset-1 and Asset-2 of the Petitioner, it provided interim evacuation arrangement by LILO of one circuit of 220 kV Kashang Bhabha Transmission Line.
- 3.2.4 In its 15th Board Meeting held on 01.06.2012, Board of Directors (BoD) of the Petitioner has approved the aforesaid scheme. The combined cost as estimated in the Detailed Project Report (DPR) was INR 27.39 Crore including IDC of INR 0.89 Crore. This Scheme along with the cost was further approved by Central Electricity Authority (CEA) vide letter dated 5th June 2012.
- 3.2.5 Subsequent to BoD and CEA approvals, the contract for Design, Engineering, Manufacturing, Fabrication, Testing at Manufacturing works, Transportation of materials to the site, Insurance, Storage, Erection, Testing and Commissioning of 66 kV GIS Switching Sub-Station at Urni was awarded on Turnkey basis to M/s Alstom T&D India Ltd. vide LOAs dated 07.06.2014 for INR 20.41 Crore and INR 7.72 Crore for Supply & Service respectively.
- 3.2.6 Further, the contract for Design, Engineering, Manufacturing, Fabrication, Testing at Manufacturing works, Transportation of materials to the site, Insurance, Storage, Erection, Testing and Commissioning of 66 kV D/C Transmission line from 66 kV Switching Station at Urni to 400/220/66 kV Pooling Sub-station at Wangtoo was awarded on Turnkey basis to M/s Karnimata Construction Company vide LOAs dated 17.01.2015 for INR 7.50 Crore and INR 6.35 Crore for Supply and Service respectively.
- 3.2.7 The Petitioner submitted that the actual cost of Asset-1 as on COD i.e., 20.05.2022 is INR 35.43 Crore including IDC and Departmental charges and the actual cost of Asset-2 as on COD inclusive of IDC and Departmental Charges is INR 29.93 Crore. The comparison of Capital Cost of the project as per original scope of work and actual Capital Cost incurred as on COD is as shown under:

Table 5: Comparison of Capital Cost as on COD (INR Crore)

Particulars	Cost as per DPR		Actual Cost as on COD	
	Urni Sub-station	Urni - Wangtoo TL	Urni Sub-station	Urni - Wangtoo TL
Hard Cost	14.91	9.31	28.23	23.31
IDC	0.55	0.33	5.31	5.20
Departmental Charges	1.59	0.71	1.89	1.42
Total	17.05	10.35	35.43	29.93

Commission's Analysis

- 3.2.8 The Commission has reviewed the Petitioner's submissions in detail and for the purpose of this Order, the Commission has considered the same terminology as referred to by the Petitioner with 66kV GIS Switching Sub-station at Urni as Asset-1 and 66kV D/C Transmission Line from Urni Switching Station to Wangtoo Sub-station as Asset-2.
- 3.2.9 The Petitioner in its 15th BoD meeting held on 1st June, 2012 got 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 at an estimated cost of INR 18.10 Cr. and INR 9 Cr. as against the tentative cost of INR 17.05 Cr. and INR 10.35 Cr. approved in the DPR respectively including IDC and DC. From the scrutiny of the supporting documents submitted by the Petitioner, it has been observed that the DPR was submitted to CEA for approval. Accordingly, the CEA had granted the approval of INR 27.4 Cr. for both the Asset-1 and the Asset-2 combined.
- 3.2.11 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. Alstom T&D India Ltd. on turnkey basis post conducting a competitive bidding process. The work was awarded for Asset-1 for Design, Engineering, Manufacturing, Fabrication, Testing at Manufacturing works, Transportation of the materials to site, Insurance, Storage, Erection, Testing and Commissioning of 66 kV GIS Switching Sub-Station at Urni. The work was awarded on 7th June, 2014 at the cost of INR 28.13 Cr. which included the Supply Contract of INR 20.41 Cr. and Services & Training Contract of INR 7.72 Cr. with a time-period for execution of 15 months from the effective date (i.e., 21.02.2016).
- 3.2.12 Further, there were 3 number of amendments issued, with the last amendment on 16.01.2020, that resulted in revision of the contract value to INR 26.50 Cr. as against the original awarded cost of INR 28.13 Cr. This revision in contract value was on account of impact of GST on Supplies and Services, delay in site handover and variation in quantities of Supplies and Services predominantly.
- 3.2.13 With regards to Asset-2, the Commission observes that the project execution was awarded to M/s. Karnimata Construction Company on turnkey basis post conducting a competitive bidding process. The work was awarded for Asset-2

for Design, Engineering, Manufacturing, Fabrication, Testing at Manufacturing facilities, Transportation to site, Insurance, Storage, Erection, Testing and Commissioning of 66 kV D/C Transmission line from 66 kV Switching Station at Urni to 400/220/66 kV Pooling Sub-station at Wangtoo. The work was awarded on 17th Jan, 2015 at a cost of INR 13.85 Cr. including supply contract of INR 7.50 Cr. and Services Contract of INR 6.35 Cr. The effective date of the contracts (Supply and Services) for Asset-2 was 11.03.2015 and time-period for execution as per the LoA was 15 months from the effective date (i.e., 10.06.2016).

- 3.2.14 For the awarded contract for Asset-2, there were three number of amendments issued with the last amendment on 13.12.2019 and 10.12.2021 for Supply and Service contracts respectively. As a result of the amendments, the original awarded cost of INR 13.85 Cr. was revised to INR 20.73 Cr. on account of impact of GST on Supplies and Services, delay in site handover and variation in quantities of Supplies and Services predominantly.
- 3.2.15 The hard cost claimed by the Petitioner are INR 28.23 Cr and INR 23.31 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 debt-equity ratio of 80:20. HPPTCL had secured funding for the project from Asian Development Bank (ADB) for both the Assets.
- 3.2.16 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 Urni Switching Station was completed and ready to charge on 26.09.2020. However, the Switching station could not be put to use as the 66 kV Transmission line connecting the Urni Switching Station to Wangtoo Sub-station was delayed due to uncontrollable reasons. It was only after the commissioning of Asset-2 (20.05.2022), the complete system could be charged and put to use.
- 3.3.2 In view of the above, the Petitioner has sought approval of Capital Cost and determination of transmission charges for both the Assets from 20.05.2022 (COD) till the end of the control period i.e., FY 2023-24.

Commission's Analysis

- 3.3.3 With respect to the Asset-1, the Commission has analysed that the construction work of Substation was completed on 30.06.2019 and final approval to energise the installations of 66kV Urni Substation was received from Chief Electrical Inspectorate (EI) on dated 27.08.2019. Against the claim, Petitioner has submitted the EI certificate as part of Petition. However, the Petitioner had to rely on other Utility's transmission system for charging of said Substation (Asset-1) due to non-availability of the 66kV associated Urni-Wangtoo Transmission line (Asset-2) as the same was delayed.
- 3.3.4 Accordingly, the Petitioner had requested the M/s. DLI Power (India) Pvt. Ltd. to complete their pending works in regard of 66kV S/C Raura-Urni line via letter dated 26.09.2020 for charging of 66kV Urni Switching sub-station via Raura-Urni 66kV line. The sub-station was successfully charged on 26.09.2020 via Raura-Urni 66kV line. The Commission observes that the substation was tested on 26.09.2020, which was verified based on the intimation letter dated 10.11.2020 from the HPPTCL to M/s DLI Power (India) Pvt. Ltd.
- 3.3.5 With respect to Asset-2, the Petitioner has submitted EI certificate dated 17.05.2022 in reply to the deficiency letter of the Commission. Accordingly, final approval to energise the installations of 66kV D/C line from Urni Substation to Wangtoo Substation was received from Chief Electrical Inspectorate on dated 17.05.2022. In addition, the Petitioner has submitted that permission was accorded by the HPSLDC vide letter dated 19.05.2022 for initial charging/ energization of Asset-2 and it was charged on 20.05.2022.
- 3.3.6 As per the Regulation 3 (18) of HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011 and its amendments thereof, the date of commercial operation is the date when the transmission system comes into regular service after successful charging the element. The excerpt of the Regulation 3 (18) is reproduced below for reference:

"3. Definitions:

...

(18) **"date of commercial operation"** or "COD" means the date declared by the transmission licensee from 0000 hour of which an element of the transmission system is in regular service after successful charging and trial operation:

Provided that the date shall be the first day of a calendar month and transmission charge for the element shall be payable and its availability shall be accounted for, from that date:

Provided further that in case an element of the transmission system is ready for regular service but is prevented from providing such service for reasons not attributable to the transmission licensee, its suppliers or contractors, the Commission may approve the date of commercial operation prior to the element coming into regular service;"

- 3.3.7 It is observed that while the Asset-1 and Asset-2 were commissioned on 20.05.2022, the actual flow of power through these transmission assets started from 10.03.2023 only.
- 3.3.8 In view of the definition as per the Regulation as discussed above, the Commission feels appropriate to consider the COD for both Asset-1 and Asset-2 as 10.03.2023 based on the actual utilization of the assets. 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 is 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	27.08.2019	26.09.2020	20.05.2022	10.03.2023
Asset-2	17.05.2022	20.05.2022	20.05.2022	10.03.2023

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 primarily planned to cater to the evacuation needs of 40 MW of power from the upcoming generating stations such as Raura-II HEP (20 MW), Raura HEP (8 MW), Brua HEP (9 MW), Shaung HEP (3 MW) and other small SHPs in the Sangla valley region. This 40 MW of power is proposed to be first pooled at 66 kV Switching Sub-Station at Urni and further evacuated through 66 kV D/C line up to 400/220/66 kV Pooling Sub-station at Wangtoo.
- 3.4.2 Further, the Petitioner has submitted that as the only beneficiary of the transmission scheme is HPSEBL, the transmission system shall form a part of the Intra State Transmission Network.

Commission's Analysis

- 3.4.3 As per the DPR, the total potential of small HEPs in Sangla valley (Satluj basin) is estimated to be around 40 MW. The flow of power through the transmission system of the Petitioner was envisaged from Raura HEP (8 MW), Raura-II HEP (20 MW), Brua HEP (9 MW) and Shaung HEP (3 MW).
- 3.4.4 In regard to a query of the Commission regarding flow of power through the assets, the Petitioner has informed that Brua HEP (9MW), Shaung HEP (3MW) and Raura HEP (12MW) have permanent connectivity at 66kV Urni Substation. Further, the Petitioner has conveyed that the future beneficiary identified so far is Raura-II HEP (24MW). It is observed that total capacity with connectivity arrangements in place have increased from 40 MW to 48 MW vis-a-vis the DPR envisaged capacity. In addition, other small HEPs in Sangla valley are also expected to evacuate their power as they start generating.

- 3.4.5 The Commission has further analysed that Raura HEP, Brua HEP and Shaung HEP have signed PPAs with HPSEBL. As HPSEBL is the sole beneficiary from these generating stations. The HPPTCL has signed TSA with HPSEBL on dated 14.07.2022. The Petitioner has also shared a copy of the supplementary TSA signed with the HPSEBL for increased transmission capacity of 670 MW as part of reply to the queries of the Commission. In addition, the Petitioner has also clarified that there are no open access agreements with any other HEPs in respect to the transmission assets claimed under this Petition.
- 3.4.6 The Petitioner has further submitted that the above mentioned HEPs namely, Raura HEP, Brua HEP and Shaung HEP were commissioned before the commissioning of 66kV Urni Substation (Asset-1) and 66kV Urni-Wangtoo Transmission line (Asset-2) but due to non-availability of Asset-1 and Asset-2, the said generators were evacuating their power through Circuit-I of 220kV Kashang-Bhaba Transmission line as an interim measure provided by the Petitioner.
- 3.4.7 For shifting from the interim power evacuation arrangement, these Generators were asked by the Petitioner to deposit the bay charges so that power evacuation through permanent arrangement i.e., Urni Substation and associated line can be done. However, the Generators/IPPs had filed cases before the Commission/Hon'ble APTEL in respect of the Bay charges. The details regarding the same as given by the Petitioner are as under:

Table 7: Cases before the Commission in respect of Bay charges

Name of Party filing Case	Petition No.	Nature of Case/Petition	Case filed before	Stay Order	Present Status
M/s DLI India Pvt. Ltd. (for Raura HEP) (12 MW)	32/2022	Petition for adjudication of dispute regarding demand of Bay Charges	HPERC	Stay Order given on dated 20.05.2022	Matter decided on 07.02.2023. M/s DLI India Pvt. Ltd. was asked to pay the entire bay charges being the only beneficiary to bay number 609.
M/s DLI India Pvt. Ltd.	DFR No. 85/2023	Petition Against HPERC Order dated 07.02.2023	APTEL	HPPTCL was directed vide Order dated 21.02.2023 to not take coercive action against Appellant on the condition of payment of half of demand of Rs 3.33 Cr. as Bay Charges and further to connect Generator at Urni Substation.	Matter pending before Hon'ble APTEL. Rs 1.66 Cr. have been deposited by M/s DLI India Pvt. Ltd.

Name of Party filing Case	Petition No.	Nature of Case/Petition	Case filed before	Stay Order	Present Status
M/s Brua Hydrowatt Ltd.	Petition No. 35/2022	Petition for adjudication of dispute regarding Bay Charges	HPERC	Stay Order given on dated 06.08.2022	Matter decided on 27.12.2022. M/s Brua Hydrowatt Ltd. was asked to pay the entire bay charges on behalf of other generators (namely, Raura-II HEP and Shaung HEP), considering it as lead partner for bay number 608.
M/s Brua Hydrowatt Ltd.	Appeal No. 30/2023	Appeal against HPERC Order dated 27.12.2022	APTEL	Hon'ble APTEL has passed the direction to continue with the interim arrangement for evacuation of power, till disposal of this Appeal.	Matter was decided by Hon'ble APTEL on 17.03.2023, in which HPERC's Order dated 27.12.2022 has been disposed-off. The HPPTCL was directed to immediately provide connectivity to the generating stations of the Brua and Shaung, on payment of corresponding charges for the Bay in proportion to their capacities.

3.4.8 As per the analysis of the documents submitted by the Petitioner against payment of bay charges, the Petitioner has received bay charges amounting to INR 1.67 Cr. from M/s DLI Power pursuant to Hon'ble APTEL Judgement dated 21.02.2023 passed in Appeal bearing DFR No. 85/2023. Further, Brua HEP and Shaung HEP have also deposited bay charges amounting to INR 85.71 lakh and INR 35.00 lakh respectively pursuant to the Hon'ble APTEL judgement dated 17.03.2023 passed in Appeal No. 30/2023.

3.4.9 After making the payment of bay charges by the Generators based on Hon'ble APTEL's Judgements, M/s DLI Power was granted connectivity through Urni Substation & associated line on dated 10.03.2023 and Brua HEP & Shaung HEP were granted connectivity on 02.04.2023. However, these Generators were not connected earlier and there was no power flow through the said system prior to dated 10.03.2023.

3.4.10 It is observed that while the Asset-1 and Asset-2 were commissioned on 20.05.2022, the actual flow of power through these transmission assets had started from 10.03.2023 only. The Commission feels that the delays caused in

commissioning of the assets has resulted in requirement for alternate arrangements which could have best been avoided by the Petitioner. It is felt that recovery of ARR from the date of commissioning would result in charging the cost from the consumers in the State specially when the assets were not being utilized. Therefore, the Commission has approved the recovery of the ARR for these transmission assets from the date of actual utilisation of the assets i.e., from 10.03.2023 for both Asset-1 and Asset-2. The matter of recovery of ARR by the Petitioner has been discussed in detail in Chapter 4 of this Order.

- 3.4.11 Additionally, the Commission has reduced the recovered bay charges from the generators amounting to INR 2.88 Cr. (INR 1.67 Cr. + INR 0.35 Cr. + INR 0.8571 Cr.) from the Capital Cost as on COD of Asset-1, which has been dealt in subsequent sections 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 works for implementation of Asset-1 were awarded to M/s. Alstom T&D India Ltd. On turnkey basis for construction of 66 kV GIS Switching Sub-Station at Urni. The contractor was notified for Asset-1 about the supplies (First Contract) and the Services (Second Contract) vide notifications dated 7th June, 2014.
- 3.5.2 The effective date of the contracts (First & Second Contract) for Asset-1 as per Contract Agreement was 28th Nov, 2014. This was notified to M/s. Alstom T&D India Ltd. Vide letter dated 6th Mar, 2018.
- 3.5.3 The scheduled construction period for the Asset-1 was 15 months. However, on account of the factors such as delay in soil investigation, hindrance in site development, inclement weather conditions & heavy landslides, delay in charging of Asset-2 & COVID-19 pandemic, etc., the charging of the Sub-station got delayed and was finally achieved on 26th Sept, 2020. However, due to delay in completion of Asset-2, the COD could be achieved on 20th May, 2022.
- 3.5.4 The awarded contract for Asset-1 were amended vide Amendment Notifications 1-3 on account of deviation in quantity and inclusion of impact of GST, which were approved by the HPPTCL and the ADB . The summary of amendments carried out is as shown in the table below:

Table 8: Summary of Contract Value with Amendments issued for Asset-1

Particulars	Supply Contract (Value in INR Crore)	Service Contract (Value in INR Crore)	Total Value in INR Crore
Initial Award Price	20.41	7.72	28.13
1 st Amendment	0.22	0.03	0.25
2 nd Amendment	0.05	0.14	0.19

Particulars	Supply Contract (Value in INR Crore)	Service Contract (Value in INR Crore)	Total Value in INR Crore
3 rd Amendment	-1.32	-0.75	-2.07
Total	19.35	7.14	26.50

- 3.5.5 The Petitioner has submitted that the construction work of Substation was awarded to M/s Alstom T&D India Ltd. At a contract price of INR 28.13 Cr. (INR 20.41 Cr. for Supplies part plus INR 7.72 Cr. for erection part) against the DPR Cost of INR 17.05 Cr. for Asset-1, after following the competitive bidding process as per the ADB guidelines.
- 3.5.6 Further, the Petitioner submitted that the Contract Price after final amendment has been INR 26.50 Cr. resulting in savings in construction cost against the Original Contract Price of INR 28.13 Cr. for Asset-1.
- 3.5.7 In reply to the query, the Petitioner has further submitted that the payment amounting to INR 25.82 Cr. was released towards supply and erection works of Asset-1. Further, Liquidated Damages amounting to INR 12.37 lakh were deducted from the Contractor as per the terms & conditions of Contract.
- 3.5.8 The Petitioner has submitted that the Capital Cost of Asset-1 as on COD i.e., as on 20.05.2022 of the scheme inclusive of IDC and Departmental Charges is INR 35.43 Cr.
- 3.5.9 As there is not much cost overrun, the Petitioner had prayed the Commission to approve the actual Hard cost claimed as on COD for the purpose of working out the tariff for Asset-1.

Table 9: Details of variation in Hard Cost (INR Crore) – Asset-1

Particulars	DPR Cost	Initial Contract Award Price	Contract Award Price after amendment 1 – 3	Actual Cost as on COD
Supply	8.95	20.41	19.35	19.35
Service	0.52	7.72	7.14	7.09
Cost of Land	3.00			0.86
Cost of Residential Colony	2.00			
Contingency @3%	0.43			
Entry Tax				0.73
Testing Charges				0.10
Other Expenses (Consultancy Salary, Survey, Misc. Expense, HT line Expense, Issue of power availability certificate by HPSEBL, Tender expenses, Meter security for new connection)				0.10
Total	14.90	28.13	26.50	28.23

- 3.5.10 With regards to Asset-2, the works for implementation was awarded to M/s. Karnimata Construction Company on turnkey basis, subsequent to the BoD and CEA approvals.
- 3.5.11 The contractor was notified for Asset-2 about the supplies (First Contract) and the Services (Second Contract) vide notification dated 17th Jan, 2015.
- 3.5.12 The effective date of the contracts (First & Second) for Asset-2 as per the Contract Agreement was 11th Mar, 2015 as notified to M/s. Karnimata Construction Company vide letter dated 27th Jul, 2015. .
- 3.5.13 The scheduled construction period for Asset-2 was 15 months i.e., upto 10.06.2016. However, due to delay on account of factors such as Soil Investigation, Stubbing and Foundation Work, Tower Erection, Tower Earthing, Stringing, etc., the COD got extended and was finally achieved on 20th May, 2022.
- 3.5.14 The awarded contract for Asset-2 was amended vide Amendment notifications 1-3 on account of Deviation in Quantity, Delay in Handover of Land and Inclusion of Impact of GST, which were approved by HPPTCL and the ADB . The summary of amendments carried out is as shown in the table below:

Table 10: Summary of Contract Value with Amendments Issued for Asset-2

Particulars	Supply Contract (Value in INR Cr.)	Service Contract (Value in INR Cr.)	Total Value in INR Cr.
Initial Award Price	7.50	6.35	13.85
1 st Amendment	0.01	0.32	0.33
2 nd Amendment	0.54	5.54	6.08
3 rd Amendment	1.48	-0.99	0.49
Total	9.51	11.20	20.72

- 3.5.15 The Petitioner has submitted that against the DPR Cost of INR 10.35 Cr. for Asset-2, the work for construction of Transmission Line was awarded to M/s Karnimata Construction Company for Contract Price of INR 13.85 Cr. (INR 7.50 Cr. for Supplies part plus INR 6.35 Cr. for erection part) after following the competitive bidding process as per ADB guidelines.
- 3.5.16 The Petitioner submitted that the major reason for increase in Contract Price was due to enhancement in services part of Contract which increased from INR 6.35 Cr. as per the Original Award to INR 11.20 Cr. as per the final amendment. Details showing variation in various items between Original Award with respect to (w.r.t.) final Award are as under:

Table 11: Detail of variation with respect to Services Contract between Initial Award and Final Amendment for Asset-2

Sr. No.	Description	Amount as per initial Award (in INR Lakh)	Amount as per final Amendment (in INR Lakh)
1	Survey Work	8.84	9.47

Sr. No.	Description	Amount as per initial Award (in INR Lakh)	Amount as per final Amendment (in INR Lakh)
2	Soil Investigation	8.32	9.74
3	Tower testing Charges for Special Tower	22.00	23.10
4	Benching Work	24.64	14.40
5	Foundation Work	251.98	176.41
6	Erection Work	92.06	111.87
7	Revetment Work	164.25	709.34
8	Stringing, sagging and clamping work	50.12	53.65
9	Installation of aviation requirements, painting of towers and miscellaneous works	8.32	8.85
10	Design Services	4.40	4.62
	TOTAL	634.93	1,121.45

3.5.17 It is submitted that the major reason for enhancement in cost as per final amendment w.r.t. initial award was due to increase in expense against Revetment work which increased from INR 164.25 Lakh as per initial award to INR 709.34 Lakh as per third amendment. Detailed breakup of expense for revetment work is as under:

Table 12: Detailed break-up of expense for revetment work for Asset-2

Sr. No.	Description	Amount as per initial Award (in INR Lakh)	Amount as per final Amendment (in INR Lakh)
1	Excavation for foundations in all kind of Soil/Rock	7.04	1.85
2	Lean Concrete M10	2.16	3.19
3	Coping with M15 Concrete	8.23	9.59
4	Rouble Masonary Work including Cement Mortar Work	127.15	687.78
5	Dry Stone Masonary	4.93	0
6	Excavation and Transportation of Soil	10.56	0
7	Providing Stone Packings at Weep Holes	4.18	6.93
	TOTAL	164.25	709.34

3.5.18 The Petitioner has submitted that as per initial award, unit rate for Rouble Masonary Work was considered as INR 7480/cum and quantity was considered as 1700 cum whereas the same as per the final award got increased, the breakup of which is as under:

Table 13: Detailed breakup of expense pertaining to Rouble Masonary Work as per final award for Asset-2

Sr. No.	Description	Amount (in INR Lakh)
1.	Rouble Masonary Work including Cement Mortar after including deviations beyond awarded quantities	534.45
2.	Reinforcement and Concreting in Tower Foundations	
a)	Tower Type B	22.13
b)	Tower Type C	48.66
c)	Tower Type D	82.54
	TOTAL (1+a+b+c)	687.78

- 3.5.19 Towards justification of increase in cost pertaining to Rouble Masonary Work, the Petitioner has clarified that the ex-works rate (excluding Entry Tax & CST) for Rouble Masonary work excluding Cement Mortar upto deviation of 15% of Awarded quantity was INR 6,657.17 per cum and for deviation beyond 15% of Awarded quantity is INR 5,850.00 per cum. In addition, the total quantity after third amendment for Rouble Masonary Work has increased to 7,155 cum. Therefore, an increase in both rate of Rouble Masonary works and Rouble quantity, has led to the overall increase in cost pertaining to Rouble Masonary Work.
- 3.5.20 Towards justification of increase in cost pertaining to Reinforcement and concreting in Tower Foundations, the Petitioner clarified that the ex-works rate (excluding entry tax & CST) for reinforcement, Concreting M10 and Concreting M20 were taken as Rs 69,626.20/cum, Rs 12,296.19/cum and Rs 14,802.42/cum respectively. In addition, total quantities for reinforcement and concreting for reinforcement, Concreting M10 and Concreting M20 were taken as 43.71 cum, 82.18 cum and 686.12 cum respectively. Therefore, an increase in both rates for reinforcement, Concreting M10 and Concreting M20 and their respective quantities, has led to the overall increase in cost pertaining to Reinforcement and concreting in Tower Foundations.
- 3.5.21 The Petitioner has submitted that the Capital Cost of Asset-2 as on COD i.e., as on 20.05.2022 of the scheme inclusive of IDC and Departmental Charges has been INR 29.54 Cr. The copy of Auditor's Certificate certifying the same has also been submitted.
- 3.5.22 With respect to the Project cost of INR 29.54 Crore as on COD for Asset-2, the Petitioner has submitted that the Hard Cost as on COD was INR 23.31 Cr. The Petitioner has prayed the Commission to approve the entire cost overrun as on COD as claimed above for the purpose of working out the tariff.

Table 14: Details of variation in Hard Cost (INR Crore) – Asset-2

Particulars	DPR Cost	Initial Contract Award Price	Contract Award Price after amendment 1 – 3	Actual Cost as on COD
Supply	3.78	7.50	9.52	9.44

Particulars	DPR Cost	Initial Contract Award Price	Contract Award Price after amendment 1 – 3	Actual Cost as on COD
Service	1.46	6.35	11.21	10.48
Miscellaneous Expense (Cost of type testing, Price contingencies @ 6.8%, PTCC clearance, Crop compensation)	1.19			
Contingency @3%	0.19			
ESS & RR Cost @ 2%	0.13			
Forest Clearance	2.37			
Centages and Contingencies for forest @ 8% of forest clearance	0.19			
Land				0.48
Diversion of Forest Land				2.63
Fruit Tree Compensation				0.17
Others				0.12
Total	9.30	13.85	20.73	23.31

Commission's Analysis

- 3.5.23 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.
- 3.5.24 Based on the scrutiny of the DPR submitted, the capital cost of Asset-1 has been INR 17.05 Cr inclusive of Departmental Charges (DC) and Interest During Construction (IDC). The scheme for construction of Asset-1 at Urni was approved in the 15th BOD Meeting of the Petitioner held on 1st June, 2012. Subsequently, the CEA gave its approval to Asset-1 on 5th June, 2012.
- 3.5.25 As per the copy of the contracts provided, the Supplies and Services contract for the Asset-1 was awarded to M/s. Alstom T&D India Ltd. On turnkey basis at INR. 28.13 Cr.
- 3.5.26 In response to the query raised by the Commission on major deviation in price as envisaged in DPR and that in initial award for Asset-1 along with the quantitative analysis in the 4th deficiency letter, the Petitioner submitted that the price increase was on account of the following:
- Provision of 4 Nos. 66kV line bays in the initial award against 2 Nos. 66kV line bays provisioned in the DPR.
 - Mandatory spares which were included for all the items in the initial award, however lump sum amount was considered in DPR.

- c. Increase in civil works as only 66 kV GIS Building was envisaged in the DPR, and other civil erection work were missed.
- d. Testing & maintenance equipment which were not envisaged in the DPR.
- e. DPR for construction of 66kV Switching Station was approved from CEA during June 2012 and was based on December 2011 price level whereas the work for the construction of said scheme was awarded during June, 2014, which led to 21% increase in Inflation.
- 3.5.27 In addition, the Petitioner has submitted the quantitative analysis/ calculations justifying the increase in cost in respect of final amended award price with DPR cost for Asset-1, which were cross-verified by the Commission with the supporting documents provided by the Petitioner, in response dated 07.06.2024 to 4th deficiency letter.
- 3.5.28 In support of the increase in awarded cost, the Petitioner has submitted the approval of Board of Directors (BoD) before placing the award for construction of Asset-I. Also, the Petitioner has submitted that in respect of 66kV Urni Sub-station, several meetings of Financial Bid Evaluation Committee (FBEC) were held on 07.02.2014, 24.02.2014 and 19.05.2014 wherein the matter of high quoted cost was deliberated. The bidder M/s ALSTOM T&D India Ltd. Had quoted a cost of INR 35.65 Cr. which was negotiated and adjusted for sales tax (on bought out items) and type test charges, civil quantities etc. resulting in final award value of INR 28.13 Cr. The same was also approved by M/s ADB vide email dated 21.05.2014 before issuance of the Award.
- 3.5.29 Post the award of contract, three 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 1

Sl.	Particulars	Date of Notification	Supply Contract (INR Cr.)	Services Contract (INR Cr.)	Total (INR Cr.)	Reason for Amendment
1	Initial Award Price	07.06.2014	0.41	7.72	28.13	
2	1 st Amendment	14.03.2018	20.64	7.75	28.38	• Variation in Quantity
3	2 nd Amendment	15.05.2018	20.68	7.90	28.58	• Implementation of GST
4	3 rd Amendment	16.01.2020	19.36	7.14	26.50	• Deviation in Quantity

- 3.5.30 The Petitioner has also submitted that variation between expenses for initial Award and final Award was due to reduction in prices of expenses considered for 'Automation, SCADA and other miscellaneous items' on account of technological advancements with the passage of time.
- 3.5.31 Based on the scrutiny of the Auditor's certificate as on COD (20.05.2022) provided by the Petitioner in its reply to the deficiency letters, the Commission

has analysed the different cost components as detailed out below for both Asset-1 and Asset-2.

- 3.5.32 The actual cost as on COD as per the Auditor's certificate can be divided into 3 sub-components, namely, (i) Part A: cost components which were part of the awarded cost to the contractor; (ii) Part B: cost components which were not part of the awarded cost and excluding Soft costs (Interest during construction (IDC) and Departmental charges (DC)); and (iii) Part C: Soft Cost (IDC and DC). The Commission is analysing only Part A and Part B cost components under this section and Part C is dealt in the next section.
- 3.5.33 Against the final awarded cost of INR 26.50 Cr. post 3rd amendment for Asset-1, the Petitioner has claimed an amount of INR 27.17 Cr. as on COD which is also supported by an Auditor certificate. A summary of cost claimed against Asset-1, award cost and Auditor certificate is summarized below:

Table 16: Summary of Cost claimed by the Petitioner against awarded cost – Asset 1

Sl.	Particulars	Total (INR Cr.)
1	Awarded Cost post 3 rd Amendment (Hard Cost)	26.50
2	Hard Cost claimed by the Petitioner	27.17
3	Hard Cost as per Auditor's Certificate	27.17

- 3.5.34 The Commission sought further break-up of INR 27.17 Cr. from the Petitioner, against which it submitted that the payment of INR 25.82 Cr. was released to the contractor which included price variations of INR 0.52 Cr. and service tax payments of INR 0.03 Cr. In addition, payment of INR 0.06 Cr. was also made to the additional contractor for civil works, i.e., Rajesh Kumar. Further, there was an expense of INR 0.73 Cr. made additionally towards Entry Tax paid by the Petitioner.
- 3.5.35 Against an amount of INR 25.82 Cr., the Commission has analysed the details of payment released to M/s Alstom T&D India Ltd and supporting documents submitted by the Petitioner. The claimed amount of INR 26.37 Cr. as on COD (post inclusion of Rs. 0.52 Cr. towards price variation and Rs. 0.03 Cr. of service tax) is marginally lower than the awarded contract (including amendments) value of Rs. 26.50 Cr. and the same is also supported by the Auditor Certificate. Accordingly, the Commission has approved the claimed amount of INR 26.37 Cr. as claimed by the Petitioner.
- 3.5.36 Further, in response to the query of the Commission, the Petitioner submitted that the payment of INR 6.40 lakh released to M/s Rajesh Kumar was against additional works which was necessary on account of issue of dumping site raised by M/s Alstom T&D India Ltd. During progress review meeting held on dated 08.04.2015. The Petitioner has agreed to arrange for the dumping site at the cost of the HPPTCL. As per the discussion held between the HPPTCL officials and M/s Alstom T&D India Ltd., the work was awarded to M/s Rajesh Kumar by PIU/SM (Project Implementation Unit/Senior Manager) as per the

Delegation of Financial Powers (DoFP) entrusted to SM. The Petitioner had also provided the copy of the agreement and documentary proof of the payment made in this regard. Accordingly, the Commission approves an amount of INR 6.40 lakh (INR 0.06 Crore) as claimed by the Petitioner.

3.5.37 The Petitioner has also claimed an amount of INR 73.19 lakh (INR 0.73 Cr.) towards Entry Tax. It is observed that the entry tax as per the terms of contract agreement is required to be reimbursed on actual basis. The Commission after review of the documentary proofs against the payments made towards entry tax has approved the amount of INR 73.19 lakh claimed by the Petitioner.

3.5.38 Regarding cost components under Part B, which were not part of the awarded cost, the Petitioner has incurred an expense of INR 1.06 Cr. as on COD as per the Audited Accounts for Asset-1, the details of which are as below:

Table 17: Summary of Cost components not part of awarded cost for Asset 1

Sl.	Particulars	Total (INR Cr.)
1	Cost of Land	0.86
2	Testing Charges	0.10
3	Other Expenses	0.10

3.5.39 It was observed that an amount of Rs. 0.10 Cr. was claimed against other expenses. Based on query of the Commission, the Petitioner has provided the following break-up :

Table 18: Break-up of Other Expenses as on COD for Asset-1 (INR Lakh)

Sr. No.	Description	Amount as per Auditor's Certificate (in INR Lakh)
1	Consultant Salary	0.65
2	Survey	1.00
3	Misc. Exp.	0.52
4	HT Line Exp.	5.86
5	Issue of Power Availability Certificate by HPSEBL	1.40
6	Tender Exp.	0.65
7	Meter Security for New Connection	0.16
	TOTAL	10.24

3.5.40 Against an expense made towards HT Line of INR 5.86 lakh, the Petitioner submitted that INR 5.86 lakh was deposited to HPSEBL for providing 22kV HT line from existing line of HPSEBL to 250kVA 22/0.4kV Auxiliary Transformer of 66kV GIS Switching sub-station on account of requirement of station supply. The Petitioner clarified that this amount was not a part of DPR and the same was urgently required to have sub-station power supply for 66kV GIS Switching

Sub-station Urni. The Petitioner has provided necessary supporting document with regard to the claim of INR 5.86 lakh in this regard.

- 3.5.41 Against clarification sought towards nature of the survey of sub-station land, the Petitioner clarified that it included preparation of topographical survey report and marking of cross-section of sub-station land. The Commission has also analysed the invoice raised with regard to the claim of INR 1.00 lakh and found to be in order. Accordingly, the Commission has approved an amount of INR 1.00 lakh towards Survey expense as claimed by the Petitioner.
- 3.5.42 Against the Miscellaneous expenses, the Petitioner has clarified that this expense majorly included expense incurred on account of installation of HPPTCL signboard at Urni sub-station, Wangtoo and PIU Office. In addition, it also included Mobile Allowance and other allowances paid to the employees who were engaged in the construction of sub-station. The Commission has cross-verified the claim of INR 0.52 lakh with the invoices and payment proofs provided by the Petitioner, as part of response dated 07.06.2024 to 4th deficiency letter.
- 3.5.43 Against the claim of INR 1.40 Lakhs towards Issuance of Power Availability Certificate (PAC), the Petitioner has clarified that for Load > 100 kW, PAC is required and accordingly the amount was deposited to HPSEBL for issuing PAC. The Commission has cross-verified this claim with payment proof provided by the Petitioner, as part of response dated 07.06.2024 to 4th deficiency letter.
- 3.5.44 The Commission has reviewed the documentary proof and payment receipts with respect to land acquisition and other costs claimed by the Petitioner and has approved the same in line with the claim of the Petitioner and Auditor Certificate.
- 3.5.45 Therefore, based on the review of the submissions of the Petitioner supported by Auditor's certificate as on COD, the Commission approves the hard cost for Asset-1 as on COD as claimed by the Petitioner as detailed below:

Table 19: Approved Hard Cost for Asset -1 (INR Cr.)

S. No.	Particulars	Cost as per DPR	Awarded Cost (Post 3 rd Amendment)	Actual Hard Cost claimed (As on COD)	Approved Hard Cost as on COD
1)	Supply	8.95	19.36	19.35	19.35
2)	Services	0.52	6.92	7.09	7.03
3)	Training expense		0.22		
4)	Entry Tax			0.73	0.73
	Sub-Total (A)	9.47	26.50	27.17	27.10
5)	Cost of Land	3.00		0.86	0.86
6)	Cost of Residential Colony	2.00			
7)	Testing Charges			0.10	0.10
8)	Other Expenses			0.10	0.10

S. No.	Particulars	Cost as per DPR	Awarded Cost (Post 3 rd Amendment)	Actual Hard Cost claimed (As on COD)	Approved Hard Cost as on COD
9)	Contingency @ 3%	0.43			
10)	Payment released to additional contractor for Civil Works i.e., M/s Rajesh Kumar				0.06
	Sub-Total (B)	5.43	-	1.06	1.13
	Total Hard Cost	14.90	26.50	28.23	28.23

- 3.5.46 For Asset-2, based on the scrutiny of the DPR submitted, the capital cost as per DPR is INR 10.35 Cr inclusive of Departmental Charges (DC) and Interest During Construction (IDC). The scheme for construction of Asset-2 from Urni to Wangtoo was approved in the BOD Meeting of the Petitioner held on 7th June, 2012. Subsequently, the CEA gave its approval on Asset-2 on 5th June, 2012.
- 3.5.47 As per the copy of contracts provided by the Petitioner, the Supplies and Services contract of the sub-station was awarded to M/s Karnimata Construction Company on turnkey basis at INR 13.85 Cr.
- 3.5.48 In response to the query raised by the Commission on major deviation in price as envisaged in DPR and that in initial award for Asset-2 along with the quantitative analysis in the 4th deficiency letter, the Petitioner has submitted that the price increase was on account of the following:
- The DPR cost was envisaged considering 12 km as transmission line length, whereas during the initial award of work, it was based on 13.4 km as transmission line length.
 - Due to refusal by Government of Himachal Pradesh (GoHP) for cutting of large Neoja trees, the provisioning of 11 Nos. Special Towers (Minutes of Meeting dated 20.10.2014) was necessitated which resulted in increase in weight of tower material. Accordingly, associated foundation, revetment & other works based on special tower design were also increased.
 - DPR for construction of 66kV Transmission Line was approved from CEA during June 2012 and was based on December 2011 price level whereas the work for the construction of said scheme was awarded during June, 2014, which led to 21% increase in Inflation.
- 3.5.49 In addition, the Petitioner submitted the quantitative analysis/ calculations justifying the increase in cost in respect of final amended award price with DPR cost for Asset-2, which were cross-verified by the Commission with the supporting documents provided by the Petitioner, in response dated 07.06.2024 to 4th deficiency letter.
- 3.5.50 The Petitioner has also submitted approval from the BoD before placing the award for construction of Asset-II to the lowest bidder. The Petitioner has

further submitted that the price offer of the L1 Bidder for Asset-II was INR 15.57 Cr. which was reduced by additional discount of 12% offered by the bidder during negotiations to INR 13.85 Cr. Accordingly, the work was awarded to M/S Karnimata Construction Company, Jodhpur (Rajasthan) at negotiated Price of INR 13.85 Cr. post approval of ADB vide e-mail dated 26.12.2014.

- 3.5.51 Post the award of contract, three no. of amendments were issued against the contract on account of multiple reasons. A summary of the amendments as per the submissions of the Petitioner has been provided as follows:

Table 20: Commission's analysis of Contract Value and Amendments – Asset 2

Sl.	Particulars	Date of Notification	Supply Contract (INR Cr.)	Services Contract	Total	Reasons for Amendment
1	Initial Award Price	17.01.2015	7.50	6.35	13.85	
2	1 st Amendment	05.02.2018	7.51	6.67	14.18	<ul style="list-style-type: none"> Implementation of GST
3	2 nd Amendment	04.01.2019/ 17.06.2020	8.04	12.21	20.25	<ul style="list-style-type: none"> Delay in Site Handover Quantity variation
4	3 rd Amendment	13.12.2019/ 10.12.2021	9.52	11.21	20.73	<ul style="list-style-type: none"> Variation in Quantity

- 3.5.52 It is observed from the documents submitted by the Petitioner that the awarded hard cost (post amendment 3) including supply and services contract was INR 20.73 Cr. Regarding the difference in hard cost at the time of award and post amendment-2, the Petitioner submitted that major reason for increase in Contract Price was due to enhancement in services part of Contract which increased from INR 6.35 Cr. as per original award to INR 11.21 Cr. as per final amendment. The Petitioner clarified that the increase in expense against Revetment work due to increase in unit rate for Rouble Masonary Work and quantity resulted in enhanced cost from INR 1.64 Cr. as per initial award to INR 7.09 Cr. as per the third amendment.

- 3.5.53 Based on the scrutiny of the Auditor's certificate as on COD (20.05.2022) provided by the Petitioner in reply to the Commission's query, the Commission has analysed the different cost components as detailed out below.

- 3.5.54 The actual cost as on COD as per the Auditor's certificate can be divided into 3 sub-components, namely, (i) Part A: cost components which were part of the awarded cost to the contractor; (ii) Part B: cost components which were not part of the awarded cost and excluding Soft costs (Interest during construction (IDC) and Departmental charges (DC)); and (iii) Part C: Soft Cost (IDC and DC). The Commission is analysing only Part A and Part B cost components under this section and Part C is dealt with in the next section.

- 3.5.55 Against the final awarded cost of INR 20.73 Cr. post 3rd amendment for Asset-2, the Petitioner has claimed an amount of INR 19.92 Cr. as on COD which is

also supported by an Auditor certificate. A summary of cost claimed against Asset-2, award cost and Auditor certificate is summarized below:

Table 21: Summary of Cost claimed by the Petitioner against awarded cost – Asset 2

Sl.	Particulars	Total (INR Cr.)
1	Awarded Cost post 3 rd Amendment (Hard Cost)	20.73
2	Hard Cost claimed by the Petitioner	19.92
3	Hard Cost as per Auditor's Certificate	19.92

3.5.56 The Commission sought the break-up of INR 19.92 Crores from the Petitioner, against which it submitted that the payment of INR 19.91 Crores was released to the contractor. In addition, a payment of INR 0.01 Crore was also made to the Tapri sub-contractor, i.e., Hempower construction which has been included under overall service cost. Against an amount of INR 19.91 Cr., the Commission has analysed the supporting documents of payments released to M/s Karnimata Construction Co. as submitted by the Petitioner. The Commission has verified all the payment receipts released to the contractor for both supply and services, which adds up to INR 19.91 Cr. Also, the claimed amount of INR 19.91 Cr. as on COD is lower than the awarded contract (including amendments) value of Rs. 20.73 Cr. and is also supported by the Auditor Certificate. Accordingly, the Commission has approved the claimed amount of INR 19.91 Cr. as part of hard cost.

3.5.57 Regarding cost components under Part B, which were not part of the awarded cost, the Petitioner has incurred an expense of INR 3.39 Cr. as on COD as per the Audited Accounts for Asset-2, the details of which are as below:

Table 22: Summary of Cost components not part of awarded cost for Asset 2

Sl.	Particulars	Total (INR Cr.)
1	Cost of Land	0.48
2	Diversion of Forest Land	2.63
3	Fruit Tree Compensation	0.17
4	Other Expenses	0.12

3.5.58 Towards expense of INR 0.12 Cr. (INR 12.09 Lakh) claimed under Misc. expenses, the Petitioner has provided the break-up in response to the deficiency letter as detailed below:

Table 23: Break-up of Other Expenses as on COD for Asset-2 (INR Lakh)

Sr. No.	Description	Amount as per Auditor's Certificate (in INR Lakh)
1	Testing Charges	1.12
2	Survey	7.18
3	GPS	0.45
4	Out Turn Charges	0.18
5	Shifting of HT Lines	1.21
6	Tender Exp.	1.61
7	Misc. Exp.	0.34
	TOTAL	12.09

- 3.5.59 Against the Land Cost and Diversion of Forest Land expenses, the Commission has analysed the payment proofs towards Land Cost of INR 47.50 Lakh, and towards Diversion of Forest land of INR 262.62 Lakh. The Commission has checked the hand receipts of the payment made to the Landowners of all land parcels, which were submitted by the Petitioner in reply to the queries raised.
- 3.5.60 With respect to Testing charges and Survey expenses, the Commission has analysed the Invoices and bills raised with regard to the claim of INR 1.12 lakh and INR 7.18 Lakhs respectively.
- 3.5.61 Against the claim of INR 1.21 Lakhs towards shifting of HT Lines, the Petitioner clarified that the HT/LT Lines of HPSEBL were coming in the ROW of the 66kV Urni Wangtoo Transmission Line to achieve the required line-to-line clearances. In addition, the Petitioner clarified that the shifting of these HT/LT Lines was done by HPSEBL, and an amount of INR 1.21 Lakhs was deposited to HPSEBL to cover the cost of line shifting. The Commission has verified this claim with the payment deposit proof against it to the HPSEBL.
- 3.5.62 Accordingly, with respect to other expenses, the Commission has reviewed the supporting documents made available along with Auditor certificate and the Commission accordingly has approved the cost claimed by the Petitioner.
- 3.5.63 Therefore, based on the review of the submissions of the Petitioner supported by the Auditor's certificate as on COD, the Commission approves the hard cost for Asset-II as on COD as claimed by the Petitioner as detailed below:

Table 24: Approved Hard Cost (INR Lakh) – Asset 2

S. No.	Particulars	Cost as per DPR	Awarded Cost (Post 3 rd Amendment)	Actual Hard Cost claimed (As on COD)	Approved Hard Cost as on COD
1)	Supply	3.78	9.52	9.44	9.44
2)	Services	1.46	11.21	10.48	10.47
	Sub-Total (A)	5.24	20.73	19.92	19.91

S. No.	Particulars	Cost as per DPR	Awarded Cost (Post 3 rd Amendment)	Actual Hard Cost claimed (As on COD)	Approved Hard Cost as on COD
3)	Misc. Expenses (Cost of Type Testing, Price contingencies, PTCC clearance and Crop compensation)	1.19			
4)	Land			0.48	0.48
5)	Diversion of Forest Land			2.63	2.63
6)	Fruit Tree Compensation			0.17	0.17
7)	Others			0.12	0.12
8)	Contingency @3%	0.19			
9)	ESS & RR Cost @ 2%	0.13			
10)	Forest Clearance	2.37			
11)	Centages and Contingencies for forest @ 8% of forest clearance	0.19			
12)	Payment released to Tapri Sub-Contractor i.e., M/s Hempower Construction				0.01
	Sub-Total (B)	4.07	-	3.39	3.40
	Total Hard Cost	9.31	20.73	23.31	23.31

3.6 Overheads (IDC and Departmental Charges)

Petitioner's submissions

- 3.6.1 With regard to IDC and Departmental Charges for Asset-1, the Petitioner has submitted that the provision for IDC was kept at INR 0.55 Crore and for Departmental charges as INR 1.59 Crore in the DPR. Owing to the time over-run, the actual IDC has increased to INR 5.31 Crore upto COD (20.05.2022).
- 3.6.2 Similarly, With regard to the IDC and the Departmental Charges for Asset-2, the Petitioner has submitted that the provision for IDC was kept at INR 0.33 Crore and that for Departmental charges as INR 0.71 Crore in the DPR. Owing to the time over-run, the actual IDC has increased to INR 5.20 Crore upto COD (20.05.2022).
- 3.6.3 The Petitioner has further submitted that the IDC at the DPR stage was computed on the basis of LIBOR (London Interbank Offered Rate) interest rate of 4.64% as against the actual interest rate of 10% which is being paid to GoHP as per the loan agreement. The reasons for such increase in IDC amount are as under:

- a. The Petitioner has submitted that if 10% Rate of Interest is considered, the IDC as per the DPR shall work out to INR 1.19 Crore and INR 0.72 Crore for Asset-1 and Asset-2 respectively.
- b. The Project cost on which the IDC was computed in DPR for Asset-1 was INR 16.50 Crore (Total DPR Cost less IDC) whereas in actual the Project cost as on COD i.e., 20.05.2022 is approximately INR 30.12 Crore (INR 35.43 Cr less IDC of INR 5.31 Cr.), an increase in hard cost of around 82.55% which in-turn increased the IDC.

Table 25: Details regarding IDC (INR Cr) – Asset 1

Cost without IDC	Interest Rate	IDC
As per DPR (INR 16.50 Crore)	LIBOR interest rate of 4.64%	0.55 Crore
	Actual RoI of 10%	1.19 Crore
As per actual execution of Project (INR 30.12 Crore)	Actual RoI of 10%(after considering Project cost of INR 30.12 Cr. against amount of INR 16.50 Cr.)	2.17 Crore
	Actual RoI of 10% due to time over-run	5.31 Crore (incurred)

- c. The Project cost on which the IDC was computed in DPR for Asset-2 was INR 10.01 Crore (Total DPR Cost less IDC) whereas in actual the Project cost as on COD is approximately INR 24.73 Crore (INR 29.93 Cr less IDC). Therefore, there was an increase of around 147% in Project cost which in turn has led to increase in IDC amount. The balance IDC of INR 3.24 Crore is on account of uncontrollable reasons.

Table 26: Details regarding IDC (INR Cr) – Asset 2

Cost without IDC	Interest Rate	IDC
As per DPR (INR 10.01 Crore)	LIBOR interest rate of 4.64%	0.33 Crore
	Actual RoI of 10%	0.72 Crore
As per actual execution of Project (INR 24.73 Crore)	Actual RoI of 10%(after considering Project cost of INR 24.73 Cr. against amount of INR 10.01 Cr.)	1.78 Crore
	Actual RoI of 10% due to time over-run	5.20 Crore (incurred)

- d. Uncontrollable factors like COVID-19, delay on construction of the Transmission line as the same was beyond the control of the Petitioner etc. have impacted the progress of the said Substation and has, therefore, also contributed to increase in IDC amount for Asset-1.

3.6.4 The Petitioner submitted that the actual Departmental Charges upto COD for Asset-1 and Asset-2 works out to be INR 1.89 Crore and INR 1.42 Crore respectively which is well within 11% of the project cost. The Petitioner has, therefore, prayed to allow the actual IDC incurred condoning the entire time

over-run as it was beyond the control of Petitioner and was attributable to uncontrollable and force majeure conditions.

Commission's Analysis

3.6.5 The Commission has reviewed the IDC and DC claimed with respect to the Auditor certificate provided by the Petitioner. In one of the replies to queries, the Petitioner has submitted the final Auditor's certificate as on COD for both Asset-1 and Asset-2. For Asset-1, the Petitioner claim for IDC and DC were matching as per the Auditor's certificate. However, for Asset-2, it is observed that there is a revision in actual cost as on COD as per Auditor's certificate. There is a difference between the actual cost as on COD and the claim as per the Petition, mainly due to revision of IDC component.

3.6.6 The following table provides the IDC and Departmental Charges as per original DPR and as claimed by Petitioner as on COD after revision for Asset-1 and Asset-2:

Table 27: IDC and Departmental charges claimed by Petitioner (INR Cr.)

Particulars	DPR	Claim as per Petition	Auditor's Certificate
Asset-1			
IDC	0.55	5.31	5.31
Departmental charges	1.59	1.89	1.89
Total	2.14	7.20	7.20
Asset-2			
IDC	0.33	5.20	4.81
Departmental charges	0.71	1.42	1.42
Total	1.04	6.62	6.23

3.6.7 Further, it is observed that the Petition lacks proper details, working and the basis for consideration of IDC and DC submitted by the Petitioner. The Commission sought justification on assumptions for consideration of DC and IDC from the Petitioner through the deficiency letters. The Commission in order to authenticate the Petitioner's claim also sought the detailed computation of IDC (Excel) considered including date of draw-down of debt, amount of debt, computation of IDC, etc. However, despite several submissions, the Petitioner could not submit the detailed working of IDC as per the desired format.

3.6.8 The project was envisaged to be completed in 15 months as per the contract awarded by the Petitioner, however, the actual time taken is almost four years (from the date of award of contract) which is significantly higher. As per the submission of the Petitioner, the major reasons of time overrun included the following:

Table 28: Reasons for time overrun

Sl.	Reason for Delay	Time Period	Description
	Asset-1		
1	Delay in Soil Investigation	~7 months (Upto August, 2015) from Scheduled date of Jan, 2015 (w.e.f 14.10.2014 to 31.08.2015)	<ul style="list-style-type: none"> Soil investigation team could not reach the site as per scheduled time because of collapse of Tapri-Reckong Peo Highway and the team was forced to stay at Rampur. This delayed the approval of soil investigation report as well as detailed engineering for which soil investigation is pre-requisite activity. The soil investigation report was approved on 07.07.2015. As per report, Site is made up of huge boulders which were required to be removed slowly due to site prone to land slide on upper hill side and further to avoid collapse of existing operational highway connecting Reckongpeo. This task of removing boulders at slow pace was a challenging task for HPPTCL. Finally, site was cleared on 31.08.2015.
2	Hindrance in site development	~ 16 months (Upto Feb, 2016)	<ul style="list-style-type: none"> Construction site of 66kV Urni Sub-station is located just adjacent to the Urni/Chagaon village road. The road is positioned in the proximity of the substation land. All the traffic was diverted through this road after a major landslide at NH-05 for a period of almost 18 months. Due to inadequate width of this road, diverted vehicular movement slowed down the pace of cutting works towards the hill as well as valley side to avoid further sliding of land to avoid disruption of the traffic movement. Retaining wall was also damaged during construction of said project due to landslides & took considerable time for restoration being addl. Activity.
3	Inclement Weather conditions & Heavy Landslides	~ 16 months (Jan 2015, Feb 2015, March 2015, April 2015, Nov 2015 Dec 2015, Feb 2016, April 2016, Aug 2016, Jan 2017)	<ul style="list-style-type: none"> Construction activities were hindered, and work was delayed due to continuous heavy rainfall, snowfall and landslides in and around the substation site. Further extreme low temperature during winter also hindered the site works.
4	Contractor Delay – Levy of LD for 14 months (w.e.f. 09.04.2019 to 24.06.2020)	12 months (Extension in completion time approved from	<ul style="list-style-type: none"> Contractor i.e., M/s Alstom T&D India Ltd. was not satisfactorily executing Contract and HPPTCL vide various letters requested firm to increase manpower deployment at site. However, as Contractor was not performing to the satisfaction

Sl.	Reason for Delay	Time Period	Description
		30.06.2018 to 30.06.2019)	of HPPTCL, Liquidated Damages (L.D.) to the tune of Rs 12.37 lakh was levied on Contractor as per terms and conditions of Contract.
5	Delay in completion/ charging due to non-availability of 66kV supply & COVID-19	13 months (30.06.2019/ 27.08.2019 to 26.09.2020)	<ul style="list-style-type: none"> Although construction work of Substation was completed on 30.06.2019 but time extension case was approved up to 30.06.2020 in favor of M/s Alstom T&D India Ltd. as 66kV associated Urni-Wangtoo Transmission line being constructed by HPPTCL was not ready. Arranging alternate 66kV Transmission line was further delayed on account of outbreak of COVID-19 Pandemic. HPPTCL on dated 26.09.2020 requested Raura HEP to complete their pending works in 66kV S/C Raura-Urni line so that charging of said Substation could be done.
6	Delay in COD due to non-availability of 66kV Urni-Wangtoo Line	20 months 26.09.2020 to 20.05.2022	<ul style="list-style-type: none"> Detailed reasons for delay in COD of 66kV Urni-Wangtoo Line is as given for Asset-2
Total Delay excluding overlapping period: 75 Months			
	Asset-2		
1	Non-approval of Forest Case	15.11.2011- 25.06.2018 (81 months) Effective Delay (11.05.2015 to 25.06.2018)	<ul style="list-style-type: none"> Due to non-approval of Forest Case for various Tower locations, work could not be started at said locations. Finally, Stage-I approval was received from MoEF on dated 25.09.2017. The stage-II approval was received on dated 25.06.2018. This construction activity at various locations was lagging for want of FCA clearance.
2	Extreme weather conditions	7 Months	<ul style="list-style-type: none"> Construction activities were hindered, and work was delayed due to continuous heavy rainfall, extreme low temperature and heavy snowfall which hampered the progress of work a lot.
3	Increase in scope of work	10 months (30.08.2019 to 17.06.2020)	<ul style="list-style-type: none"> After carrying out the detail engineering of the project, the scope of various works were increased for which additional time was required by the contractor for execution.
4	Impact of COVID-19	3 months (22.03.2020 to 30.06.2020)	<ul style="list-style-type: none"> COVID -19 was declared as global pandemic by WHO on 11.03.2020 and to control the spread of virus, Govt. of H.P imposed the complete lockdown from 22.03.2020 onwards in phased manner till 14.04.2020. Thereby impacting progress of construction of said Transmission line.

Sl.	Reason for Delay	Time Period	Description
5	Deviations from the award	30.08.2019-17.06.2020 (10 months)	<ul style="list-style-type: none"> During execution of construction work, it was observed that quantities of some of the items were deviating from the awarded quantities and said deviations impacted progress of works in negative way as amendments against said deviations were required to be approved.
6	Hindrances by locals	June 2017-March 2020 (33 months)	<ul style="list-style-type: none"> Construction work for said Transmission line was stopped by locals citing the reasons that their demands have not been fulfilled. Matter was taken up by HPPTCL at various levels to resolve the said issue which could finally be settled by March 2020.
7	Delay due to stay Order issued by Hon'ble High Court	19.03.2021-28.03.2022 (12 months)	<ul style="list-style-type: none"> During the stringing of the line between T-14 and T-15, the landowner of the ROW stopped the construction activities and approached the Hon'ble High Court for re-routing of the line. The Hon'ble High Court of H.P stayed the construction of Transmission line over the owner's land parcel through Stay Order dated 19.03.2021. Through Hon'ble High Court's Order dated 28.03.2022, the judgement was against the landowner and stay order was repealed. Therefore, there was a delay due to stay Order issued by Hon'ble High Court.
Total Delay excluding overlapping period: 71 Months			

3.6.9 The Commission observes that there is a delay of ~75 months in Asset 1 and ~71 months in Asset 2 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 document provide either the start date or end date of delay and fails 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.

3.6.10 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.

3.6.11 Further, from fine reading of the submissions of the Petitioner and the supporting documentary proofs, it may be stated that certain delay on account of factors such as delay due to soil investigation, non-availability of supply at

66KV, forest clearance, right of way issues, etc. which contributed to the delay 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 such as in instant case should have anticipated such delays and included the same in the DPR stage.

- 3.6.12 In fact, it is observed that the contract for transmission line was awarded earlier than the compliances for seeking forest clearance was fulfilled by the Petitioner. 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 seven years in project 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 proper planning and follow up at the Petitioner's end.
- 3.6.13 In addition, the details provided with respect to time overruns only mentioned various dates when issues emerged, or activities were completed. However, it could not be established 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, local hindrances and forest clearances, etc. 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.
- 3.6.14 With regards to the rate of interest, the Petitioner has submitted that as per the DPR, the IDC was computed on the basis of LIBOR (London Interbank Offered Rate) rate of 4.64%. However, actual interest rate of the loan is 10% which is to be paid to GoHP as per the loan agreement with GoHP. The Commission sought the supporting documentary proofs in support of the claim. Against the proof, the Petitioner submitted the loan agreement signed between HPPTCL and GoHP mentioning the rate of interest as 10%. Accordingly, the Commission has considered the rate of interest in line with the Petitioner's submission.
- 3.6.15 It is observed that while the Asset-1 and Asset-2 were commissioned on 20.05.2022, the actual flow of power through these transmission assets started from 10.03.2023 only. The Commission feels that the delays caused in commissioning of the assets have resulted in requirement for alternate arrangements which could have best been avoided by the Petitioner. Therefore, the Commission feels appropriate to allow IDC and DC only upto the date of commissioning of the assets i.e., till 20.05.2022 for both Asset-1 and Asset-2.
- 3.6.16 In view of revision in hard cost as well as rate of interest, the Commission has computed a revised benchmark for the IDC. A project duration of 15 months as per contract awarded has been considered to estimate the revised benchmark IDC.

3.6.17 As per the DPR, IDC amount was computed with 40% debt disbursement in 1st year and balance 60% disbursement in 2nd year. However, for assessing the benchmark IDC for Asset-1 & Asset-2, with project duration of 15 months for each asset, the Commission has assumed 20% debt disbursement in each quarter for 5 quarters. .

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

Table 29: Benchmark IDC – Asset-1

Particulars	Unit	Year I	Year I	Year I	Year I	Year II	Total
		Qtr-1	Qtr-2	Qtr-3	Qtr-4	Qtr-1	
Debt disbursement	%	20%	20%	20%	20%	20%	100%
Opening Debt (a)	INR Cr.	-	4.77	9.54	14.31	19.09	
Addition during the year (b)	INR Cr.	4.77	4.77	4.77	4.77	4.77	
Closing Debt I	INR Cr.	4.77	9.54	14.31	19.09	23.86	
Average Debt (d=(a+c)/2)	INR Cr.	2.39	7.16	11.93	16.70	21.47	
Interest rate (e)	%	2.50%	2.50%	2.50%	2.50%	2.50%	
Total IDC (f=d*e)	INR Cr.	0.06	0.18	0.30	0.42	0.54	1.49

3.6.19 Against the benchmark IDC of INR 1.49 Crore, the Petitioner has claimed IDC of INR 5.31 Cr. as on COD of Asset-1. The Petitioner has submitted Auditor's certificate of the Asset-1 in this regard.

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

Table 30: Benchmark IDC – Asset-2

Particulars	Unit	Year I	Year I	Year I	Year I	Year II	Total
		Qtr-1	Qtr-2	Qtr-3	Qtr-4	Qtr-1	
Debt disbursement	%	20%	20%	20%	20%	20%	100%
Opening Debt (a)	INR Cr.	-	3.84	7.69	11.53	15.37	
Addition during the year (b)	INR Cr.	3.84	3.84	3.84	3.84	3.84	
Closing Debt (c)	INR Cr.	3.84	7.69	11.53	15.37	19.21	
Average Debt (d=(a+c)/2)	INR Cr.	1.92	5.76	9.61	13.45	17.29	
Interest rate (e)	%	2.50%	2.50%	2.50%	2.50%	2.50%	
Total IDC (f=d*e)	INR Cr.	0.05	0.14	0.24	0.34	0.43	1.20

3.6.21 Against the benchmark IDC of INR 1.20 Crore, the Petitioner has claimed IDC of INR 4.81 Crore as on COD of Asset-2. The Petitioner has submitted the computation and the Auditor's certificate for Asset-2 in this regard.

3.6.22 As discussed in preceding paras, the Commission, commensurate to the delay on account of uncontrollable factors allows 50% of the excess IDC vis-à-vis

claimed over and above the revised benchmark IDC computed assuming no time delay. The computation is provided as follows:

Table 31: Approved IDC (INR Cr.)

Particular	Benchmark	Actual/Claimed	Difference	Approved = Actual -50% of difference
Asset-1	1.49	5.31	3.82	3.40
Asset-2	1.20	4.81	3.61	3.00

3.6.23 The Commission while approving the Departmental Charges has considered the minimum of the actual departmental charges and normative charges determined in accordance with the standard provisions of DPR (11% of hard cost). Accordingly, the Departmental Charges for both the assets are approved as follows:

Table 32: Approved DC (INR Cr.)

Particular	Normative (As per DPR) (A)	Claimed/Actual as on COD (B)	Approved (Min. of A&B)
Asset-1	1.59	1.89	1.59
Asset-2	0.71	1.42	0.71

3.6.24 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 and Asset-2 is summarized in the following table:

Table 33: Approved Capital Cost (INR Cr)

S. No.	Particulars	Claimed	Approved
	Asset-1		
1)	Hard Cost	28.23	28.23
a)	Supply	19.35	19.35
b)	Services	7.09	7.03
c)	Other Expenses	1.80	1.86
2)	IDC	5.31	3.40
3)	Departmental Charges	1.89	1.59
	Total	35.43	33.22
	Asset-2		
1)	Hard Cost	23.31	23.31
a)	Supply	9.44	9.44

S. No.	Particulars	Claimed	Approved
b)	Services	10.48	10.47
c)	Other Expenses	3.39	3.40
2)	IDC	4.81	3.00
3)	Departmental Charges	1.42	0.71
	Total	29.54	27.02

3.7 Project Funding

Petitioner Submissions

3.7.1 The Petitioner has quoted the Regulation 18 of the HPERC MYT Transmission 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 submitted that it has secured loan from ADB amounting to INR 21.12 Crore which is 59.63% of the project cost and has infused equity amounting to INR 14.30 Cr., which corresponds to 40.37% of the project cost. As the equity infused by the Petitioner exceeds the normative equity of 30% allowed under the HPERC MYT Transmission Regulations, 2011, the normative Debt: Equity ratio of 70:30 has been considered. The Debt: Equity ratio considered as on COD is as under:

Table 34: Project funding proposed by Petitioner – Asset-1

Particulars	Capital Cost (As per DPR) (INR Cr)	Debt: Equity Ratio as per DPR	Actual Debt: Equity (INR Cr)	Actual Debt: Equity Ratio	Normativ e Debt: Equity claimed (INR Cr)	Normativ e Debt: Equity Ratio claimed
Debt	13.63	80.00%	21.12	59.63%	24.80	70.00%
Equity	3.41	20.00%	14.31	40.37%	10.63	30.00%

Particulars	Capital Cost (As per DPR) (INR Cr)	Debt: Equity Ratio as per DPR	Actual Debt: Equity (INR Cr)	Actual Debt: Equity Ratio	Normative Debt: Equity claimed (INR Cr)	Normative Debt: Equity Ratio claimed
Project Cost	17.04	100.00%	35.43	100.00%	35.43	100.00%

3.7.3 With regards to Asset-2, the Petitioner submitted that it has secured loan from ADB amounting to INR 14.91 Crore which is 49.82% of the project cost and has infused equity amounting to INR 15.02 Crore, which corresponds to 50.18% of the project cost. As the equity infused by the Petitioner is beyond the normative equity of 30% allowed under the HPERC MYT Transmission Regulations, 2011, the normative Debt: Equity ratio of 70:30 has been considered. The Debt: Equity ratio considered as on COD is as under:

Table 35: Project funding proposed by Petitioner – Asset-2

Particulars	Capital Cost (As per DPR) (INR Cr)	Debt: Equity Ratio as per DPR	Actual Debt: Equity (INR Cr)	Actual Debt: Equity Ratio	Normative Debt: Equity claimed (INR Cr)	Normative Debt: Equity Ratio claimed
Debt	8.27	80.00%	14.91	49.82%	20.95	70.00%
Equity	2.06	20.00%	15.02	50.18%	8.98	30.00%
Project Cost	10.34	100.00%	29.93	100.00%	29.93	100.00%

3.7.4 The Petitioner submitted that for the preparation of DPR, funding of scheme is considered on estimated basis wherein actual funding of the project depends upon the project execution and actual fund available from various sources which may not be necessarily always in line with DPR. As the HPERC MYT Transmission Regulations, 2011 allows equity infusion upto 30%, the Petitioner has requested the Commission to approve the same.

Commission's Analysis

3.7.5 The Commission observes that the project was originally envisaged at a debt and equity ratio of 80:20 as provided in the DPR. As per the documents submitted by the Petitioner, the project is funded through ADB 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.

3.7.6 In response to the query raised in 3rd deficiency note dated 10.04.2024, the Petitioner has submitted that the actual loan drawn from GoHP was INR 2,403.71 Lakh and INR 1,844.29 Lakh, which is 67.85% and 62.44% of project cost as on COD for Asset-1 and Asset-2 respectively. Further, the equity infused was INR 1,138.97 Lakh and INR 1,109.57 Lakh, which is 32.15% and 37.56% of the project cost as on COD for Asset-1 and Asset-2 respectively. The

- Petitioner has considered the debt:equity ratio at 70:30 for the computation of tariff.
- 3.7.7 To verify the Debt and Equity claimed by the Petitioner, the Commission vide deficiency letters sought details of Debt-Equity received, Loan Agreement, Sanctioned Letters, Board of Director (BOD) approvals and other relevant documents. In response to the queries, the Petitioner has submitted the additional details and documents.
- 3.7.8 It is important to note here that the Commission had sought information of source of funding of equity, date of infusion along with documentary evidence for the equity infused in the project. But the Petitioner has failed to submit these details. 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.
- 3.7.9 In view of the above, it is noted that the project was originally envisaged at a debt and equity ratio of 80:20 as provided in the DPR against which the Petitioner has claimed a lower debt and higher equity infusion.
- 3.7.10 The Commission is of the view that since the funding of the Project was secured in accordance with the DPR, therefore, it has considered the same for the computation of tariff as on COD i.e., 80% debt and 20% equity for both Asset-1 and Asset-2.
- 3.7.11 In addition to the debt and equity, the Petitioner has received payments towards bay charges amounting to INR 1.67 Cr. from M/s DLI Power, INR 85.71 lakh from Brua HEP and INR 35.00 lakh from Shaung HEP as per the directions of the Hon'ble APTEL judgement as mentioned in the preceding section. Therefore, the Commission has reduced the total amount of bay charges from the capital Cost amounting to INR 2.88 Cr. (INR 1.67 Cr. + INR 0.35 Cr. + INR 0.8571 Cr.) recovered towards Asset-1.
- 3.7.12 The Commission has relied on the documentary proofs submitted and approved the normative debt-equity as follows:

Table 36: Normative Debt-Equity approved vis-à-vis on actuals

Particulars	Actuals (As on COD)		Approved (As on COD)	
	Capital Cost	% of Funding	Capital Cost	% of Funding
Asset-1				
Total Project Cost	35.43		33.22	
Less: Consumer contribution			2.88	
Balance Cost	35.43		30.35	
Debt	24.04	67.85%	24.28	80.00%
Equity	11.39	32.15%	6.07	20.00%

Particulars	Actuals (As on COD)		Approved (As on COD)	
	Capital Cost	% of Funding	Capital Cost	% of Funding
Total Cost	35.43	100.00%	30.35	100.00%
Asset-2				
Debt	18.44	62.44%	21.62	80.00%
Equity	11.10	37.56%	5.40	20.00%
Total Cost	29.54	100.00%	27.02	100.00%

- 3.7.13 The Commission observes that ADB has sanctioned a multi tranche financing facility (MFF) of \$350 million to the Government of India (GoI) under the Himachal Pradesh Clean Energy Transmission Investment Programme (HPCETIP) which was further channelized to HPPTCL through Government of Himachal Pradesh (GoHP). The proposed Program was targeted for the construction of transmission infrastructure of 66kV and above along with Sub-stations for evacuation of power of upcoming hydro power projects. However, the scheme itself implies that the financing support by the ADB is to promote the generation as well as evacuation of clean energy in the State. Further, the Commission is of the view that the Himachal Pradesh being a special category state receives these multi tranche financing from the GoI as 90% grant and 10% loan. The Commission has noted this aspect while finalising the tariff orders of the HPPCL hydro projects. However, no such information has been furnished by the Petitioner.
- 3.7.14 In this specific instance, it is noted that the multilateral agency i.e., the ADB, is funding this project in collaboration with the GoI and the GoHP. However, the GoHP has amended the terms and conditions of the financial assistance for extending it to the HPPTCL.
- 3.7.15 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 loan proceeds were extended by GoHP to the Petitioner as loan carrying interest rate of 10% per annum.
- 3.7.16 The Commission takes serious note against consideration of the amount as loan which was available as grant (90% of overall amount) to the State shall result in unnecessarily burdening the consumers of the State due to such treatment. It is also observed that the Petitioner is already facing financial challenges. The Commission feels that it would be prudent that the Petitioner takes up the matter with the GoHP regarding restructuring of the loan amount availed against the project on same terms and conditions as envisaged under the original scheme of funding i.e., 90% of the amount to be converted to grant. This would be in interest of the consumers of the State which would have to bear the burden of the additional interest cost and repayment of such loan that is being provided as grant.

- 3.7.17 Accordingly, the Commission has provisionally considered the debt amount availed under the ADB scheme as 90% grant and 10% debt. Further, after reducing such amount of grant from the total approved capital cost, the Commission has considered debt:equity as per the DPR for the balance amount in line with Regulation 10(C) of the HPERC MYT Transmission Regulations, 2011 which specify the following:

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

- 3.7.18 The details of the same is tabulated below:

Table 37: Debt, Grant and Equity on Approved Cost (Rs. Cr.)

Sr. No.	Particulars	Approved Cost	Remarks
Asset-1:			
I	Total Project Cost Approved	30.35	As per Table No. 36
II	Normative Debt	24.28	As per Table No. 36
III	Actual Debt availed from ADB	24.04	As per Table No. 36
IV	Grant (90% of the ADB Scheme Loan)	21.63	Minimum (II and III) x 90%
V	Balance Requirement	8.71	(I-IV)
VI	Debt (70%)	6.10	(V x 70%)
VII	Equity (30%)	2.61	(V x 30%)
VIII	Total	30.35	(IV+VI+VII)
Asset-2:			
I	Total Project Cost Approved	27.02	As per Table No. 36
II	Normative Debt	21.62	As per Table No. 36
III	Actual Debt availed from ADB	18.44	As per Table No. 36
IV	Grant (90% of the ADB Scheme Loan)	16.60	Minimum (II and III) x 90%
V	Balance Requirement	10.42	(I-IV)
VI	Debt (70%)	7.30	(V x 70%)
VII	Equity (30%)	3.13	(V x 30%)
VIII	Total	27.02	(IV+VI+VII)

- 3.7.19 In case of ADB loans availed by the HPPTCL, the Commission has been considering the same in the past tariff orders issued and therefore corresponding depreciation as well as interest for servicing of such loans were being allowed to the Petitioner. This treatment was undertaken in view of the

limited information available to the Commission. However, the Commission had directed the Petitioner in these Orders to re-negotiate with GoHP and align the terms and conditions of the Loan Agreements in line with the tri-patriate agreement. But no information or update in this regard has been provided by the Petitioner. In this Order the Commission has preferred to consider the availability of loan through ADB funded projects as 90% grant considering the special category status to the State of Himachal Pradesh. The Commission shall also take appropriate decision with regard to the treatment of similar ADB loans for the previous projects during the truing-up.

- 3.7.20 The Petitioner is directed to take up this matter with the GoHP for extending the benefit of grant under the ADB funded projects and update the same to the Commission. Also, the Commission is of the view that the GoHP shall consider the transfer of grant as availed from the Government of India to the Petitioner for the benefit of the Consumers of the State.

3.8 Additional Capitalisation

Petitioner Submissions

- 3.8.1 For Asset-1, the Petitioner has projected an Additional Capitalisation Expenditure (ACE) of INR 0.25 Crore during FY 2022-23, INR 0.11 Crore in FY 2023-24 respectively in accordance with Regulation 16(1) and Regulations 16(2) of HPERC MYT Transmission Regulations, 2011 respectively. The detail of works under additional capitalization projected are as shown below.

Table 38: Additional Capitalisation – Asset-1 (INR Cr)

Sr. No.	Name of Work	Financial Year	Amount (INR Crore)
1	Furnishing of Rest Camp at 66kV Switching Station at Urni	FY 2022-23	0.20
2	External Water Supply at 66 kV Switching Station at Urni		0.05
3	Providing Hill Side Protection for the Safety of Sub-station	FY 2023-24	0.05
4	Supply of Spares for 66kV Switching Station Urni		0.06
	Total Project Cost		0.36

- 3.8.2 For Asset-2, the Petitioner has proposed no Additional Capital Expenditure (ACE) during FY 2022-23. Further, the ACE of INR 0.28 Crore has been projected during FY 2023-24 towards works which were part of original scope of work and has been claimed in accordance with Regulation 16(1) of HPERC MYT Transmission Regulations, 2011. The ARR computations are worked out based on the opening Capital Cost of INR 29.54 Crore as on COD and yearly ACE projected for the remaining period of the Control Period. The detail of works under additional capitalization projected are as shown below.

Table 39: Additional Capitalisation – Asset-2 (INR Cr)

Sr. No.	Name of Work	Financial Year	Amount (INR Crore)
1	Providing protection wall at Pit B of Tower No. 5	FY 2023-24	0.02

Sr. No.	Name of Work	Financial Year	Amount (INR Crore)
2	Providing protection wall at Pit B of Tower No. 37 (Near Kaksthal)		0.05
3	Providing protection wall at Pit A & B of Tower No. 8		0.06
4	Providing T&P and spares for 66 kV D/C UWTL		0.10
5	Providing protection wall at Pit D of Tower No. 35A		0.05
	Total project Cost		0.28

3.8.3 The Petitioner further has sought liberty to submit the details of actual ACE incurred during FY 2023-24 before the Commission for approval at the time of truing up once the audited accounts are available. The detail of the total project cost along with the ACE is shown in the table below:

Table 40: Details of Total Project Cost (INR Cr)

Name of the Asset	Cost as per Original DPR	Actual Cost as on COD	ACE during 2022-24 period		Total Cost of the Project
			FY 2022-23	FY 2023-24	
66 kV GIS Switching Sub-station at Urni	17.04	35.43	0.25	0.11	35.79
66 kV DC Urni Wangtoo Line	10.34	29.54	-	0.28	29.82

Commission's Analysis

3.8.4 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.

3.8.5 With regards to Asset-1, the additional capex/capitalisation proposed in FY 2022-23 is towards the Furnishing of Rest Camp and External Water Supply at 66 kV Switching Station at Urni and the same for FY 2023-24 is towards providing Hill Side Protection for the Safety of Sub-station and supply of Spares for 66kV Switching Station Urni. For Asset-2, the additional capex/capitalisation proposed in FY 2023-24 is towards providing protection wall at Pits of Tower and providing T&P and spares for 66 kV D/C Urni-Wangtoo Transmission Line.

3.8.6 The Commission observes that the actual project cost for Asset-1 as on COD including post COD Additional Capital Expenditure (ACE) projections for FY 2022-23 and FY 2023-24 is more than the awarded cost post 3rd amendment. Therefore, the Commission feels appropriate to limit the ACE projections to the level of awarded cost post 3rd amendment for Asset-1. Accordingly, the Commission has allowed ACE projection of INR. 0.13 Cr. for Asset-1 in FY 2022-23 and nil in FY 2023-24. In addition, the Commission has allowed the ACE projections as claimed by the Petitioner for Asset-2, as it is well within the limit of awarded cost post 3rd amendment. However, based on the Audited values,

the value of Additional Capital Expenditure (ACE) would be reviewed and revised at the time of true-up of respective years.

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

Table 41: Approved Additional Capitalisation (INR Cr)

Particulars	Financial Year	Claimed	Approved
Asset-1			
Furnishing of Rest Camp at 66kV Switching Station at Urni	FY 2022-23	0.20	0.13
External Water Supply at 66 kV Switching Station at Urni		0.05	-
Providing Hill Side Protection for the Safety of Sub-station	FY 2023-24	0.05	-
Supply of Spares for 66kV Switching Station Urni		0.06	-
Additional Capitalisation – Asset-1		0.36	0.13
Asset-2			
Providing protection wall at Pit B of Tower No. 5	FY2023-24	0.02	0.02
Providing protection wall at Pit B of Tower No. 37 (Near Kaksthal)		0.05	0.05
Providing protection wall at Pit A & B of Tower No. 8		0.06	0.06
Providing T&P and spares for 66 kV D/C UWTL		0.10	0.10
Providing protection wall at Pit D of Tower No. 35A		0.05	0.05
Additional Capitalisation – Asset-2		0.28	0.28

3.8.8 The funding of the above approved additional capitalization for Asset-1 and Asset-2 has been considered as per the Debt:Equity ratio (70% debt and 30% Equity) of the project as approved above.

4. APPROVAL OF ARR AND TARIFF

4.1 Background

4.1.1 The Petitioner has proposed projections for FY 2022-23 and FY 2023-24 in accordance with the HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011 (HPERC MYT Transmission Regulations, 2011) as amended from time to time. As per the submissions of the Petitioner, ARR for each year of the Control Period has been divided into following elements:

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

4.1.2 The Commission has examined the petition and the subsequent submissions made by the Petitioner 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 considered the provisions of HPERC MYT Transmission Regulations, 2011, 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 both Asset-1 and Asset-2 and accordingly approved the ARR for each year.

4.1.3 Further, as discussed in Para 3.4.10 of the previous Chapter, the Commission has approved the recovery of the ARR for transmission assets from the date of actual utilisation of the assets i.e., from 10.03.2023 for both Asset-1 and Asset-2. In line with the approach, the ARR components for the first year has been pro-rated based on the number of days starting from 10.03.2023.

4.1.4 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 Depreciation

Petitioner Submissions

4.2.1 The Petitioner has submitted the depreciation for each year of the Control Period for both Asset-1 and Asset-2 in accordance with the Regulation 23 of

the HPERC MYT Transmission Regulations, 2011 and its subsequent amendments based on the actual capital cost.

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

Table 42: Depreciation claimed by Petitioner (INR Lakh)

Particulars	FY23	FY24
Asset-1		
Opening GFA	3,542.68	3,567.68
Addition	25.00	11.00
Less: Grant	-	-
Closing GFA	3,567.68	3,578.68
Average GFA	3,555.18	3,573.18
Less: Freehold Land	85.79	85.79
Depreciable Value	3,469.39	3,487.39
Rate of Depreciation	5.28	5.28
Depreciation	158.59*	184.13
Asset-2		
Opening GFA	2,992.61	2,992.61
Addition	0.00	28.00
Less: Grant	-	-
Closing GFA	2,992.61	3,020.61
Average GFA	2,992.61	3,006.61
Less: Freehold Land	311.01	311.01
Depreciable Value	2,681.59	2,695.59
Rate of Depreciation	5.28	5.28
Depreciation	122.58*	142.33

*Asset-1 and Asset-2: Depreciation pro-rated for FY 2022-23 based on COD (20th May, 2022)

Commission's Analysis

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

"23. Depreciation

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

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

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

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

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

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

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

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

4.2.4 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 capital cost less of payments received towards bay charges from the generators (consumer contribution) and year wise capitalisation approved in the previous Chapter.

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

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

Table 43: Depreciation approved by Commission (INR Lakh)

Particulars	FY23	FY24
Asset-1		
Opening GFA	3,034.50	797.68
Less: Grant/ Consumer Contribution	2,163.34	-
Less: Freehold Land	73.49	73.49
Depreciable GFA (Opening)	797.68	724.19

Particulars	FY23	FY24
Addition	13.00	-
Closing Depreciable GFA	810.68	724.19
Rate of Depreciation	5.28%	5.28%
Depreciation	2.56*	38.34
Asset-2		
Opening GFA	2,702.05	1,005.99
Less: Grant/ Consumer contribution	1,659.86	-
Less: Freehold Land	36.20	36.20
Depreciable GFA (Opening)	1,005.99	969.78
Addition	-	28.00
Closing Depreciable GFA	1,005.99	997.78
Rate of Depreciation	5.28%	5.28%
Depreciation	3.20*	51.94

*Asset-1 and Asset-2: Depreciation pro-rated for FY 2022-23 based on date of utilisation of Assets (10th Mar, 2023)

4.3 Interest on Loan

Petitioner Submissions

- 4.3.1 The Petitioner has submitted the interest on loan in accordance with the Regulation 20 of the HPERC MYT Transmission Regulations, 2011 and its subsequent amendments.
- 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 i.e., INR 24.80 Crore and additional loan on normative basis for ACE proposed during 2022-23 to 2023-24.
- 4.3.3 For Asset-2, the Petitioner has considered the normative opening value of loan as on actual COD (i.e., 20.05.2022) as normative loan amounting to 70% of the total project cost i.e., INR 20.94 Crore and additional loan of INR 0.20 Crore on normative basis for ACE proposed during FY 2023-24.
- 4.3.4 The Petitioner has considered the interest rate of 10% as per the ADB Loan Agreement read with lending agreement with GoHP.
- 4.3.5 Further, with respect to computation of Loan the Petitioner submitted that Interest on Loan is being claimed from 20.05.2022 (i.e., COD) to FY 2023-24.
- 4.3.6 The computation of Interest on Loan for both the assets has been provided in the following table:

Table 44: Interest on Loan claimed by Petitioner (INR Lakh)

Particulars	FY23	FY24
Asset-1		
Opening Balance	2,479.88	2,497.38
Addition	17.50	7.70
Repayment	183.18	184.13
Closing Balance	2,314.19	2,320.94
Rate of Interest (%)	10.00%	10.00%
Interest on Loan	207.52*	240.92
Asset-2		
Opening Balance	2,094.82	1,953.24
Addition	0.00	19.60
Repayment	141.59	142.33
Closing Balance	1,953.24	1,830.51
Rate of Interest (%)	10.00%	10.00%
Interest on Loan	175.23*	189.19

*Asset-1 and Asset-2: Interest on Loan pro-rated for FY 2022-23 based on COD (20th May, 2022)

Commission's Analysis

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

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

"20. Interest and Finance Charges

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

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

Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered:

Provided further that if the transmission licensee does not have actual loan then the weighted average rate of interest of the transmission licensee as a whole shall be considered.

Provided further that if the Transmission Licensee as a whole does not have actual loan, then one (1) Year State Bank of India (SBI) MCLR / any replacement thereof as notified by RBI for the time being in effect applicable for one (1) Year period, as may be applicable as on 1st April of the relevant Year plus 200 basis points shall be considered as the rate of interest for the purpose of allowing the interest on the normative loan.

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

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

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

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

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

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

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

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

(7) The above interest computation shall exclude the interest on loan amount, normative or otherwise, to the extent of capital cost funded by consumer

contribution, deposit work, capital subsidy or grant, carried out by transmission licensee.”

- 4.3.9 The Commission has approved the Interest on Loan in accordance with the HPERC MYT Transmission Regulations, 2011. Repayment equivalent to approved depreciation has been considered for each year in line with the regulations. Accordingly, the opening and closing loan balances for each year has been determined.
- 4.3.10 In the previous Chapter, the Commission has approved the project funding through a mix of debt, grant and equity. The loan amount from GoHP along with the normative loan has been considered for the purpose of computation of interest on loan and an interest rate of 10% has been considered in line with the agreement between GoHP and the Petitioner with regard to the payment of interest on the loans. The Commission as per para 3.7 of the previous chapter and the 'HPERC MYT Transmission Regulations, 2011', has considered the repayment of loan equal to depreciation and has computed the Interest on Loan from COD to FY 2023-24. The approved Interest on Loan for each year from the date of COD to FY-24 is summarized below:
- 4.3.11 However, the Commission directs the Petitioner to negotiate with GoHP and align the interest rate in line with the rate of interest agreed by GoHP with ADB. Any efforts in this direction will not only lead to better cost optimization in the form of lower interest costs, but also benefit the consumers of the State of Himachal Pradesh as a whole.
- 4.3.12 The following table provides the Interest on Loan approved by the Commission for each year:

Table 45: Interest on Loan approved by Commission (INR Lakh)

Particulars	FY23	FY24
Asset-1		
Opening Balance	609.81	616.35
Addition	9.10	-
Repayment	2.56	38.34
Closing Balance	616.35	578.01
Rate of Interest (%)	10.00%	10.00%
Interest on Loan	3.70*	59.72
Asset-2		
Opening Balance	729.53	726.33
Addition	-	19.60
Repayment	3.20	51.94
Closing Balance	726.33	693.99
Rate of Interest (%)	10.00%	10.00%
Interest on Loan	4.39*	71.02

*Asset-1 and Asset-2: Interest on Loan pro-rated for FY 2022-23 based on date of utilisation of Assets (10th Mar, 2023)

4.4 Return on Equity

Petitioner Submissions

- 4.4.1 The Petitioner has submitted the Return on Equity in accordance with the Regulation 19 of the HPERC MYT Transmission Regulations, 2011 and its subsequent amendments.
- 4.4.2 For Asset-1, the Petitioner has submitted that it has invested equity of INR 14.30 Crore (40.37% of project cost) as on COD of the project. The Petitioner has considered Normative Opening Equity (30%) of INR 10.62 Crore along with normative additional equity for ACE proposed during 2022-23 to 2023-24 for working out the RoE.
- 4.4.3 For Asset-2, the Petitioner has invested equity amounting to INR 15.02 Crore, which corresponds to 50.18% of the project cost. As the equity infused by the Petitioner is beyond the normative equity of 30% allowed under the HPERC MYT Transmission Regulations, 2011, the normative Equity of INR 8.98 Crore has been considered for computing RoE.
- 4.4.4 Since, the Petitioner's Profit before tax (PBT) for FY 2020-21 is nil, therefore, no income tax has been considered while claiming RoE. The Petitioner has sought liberty to adjust the same based on the actual position at the time of truing-up.
- 4.4.5 The RoE proposed by the Petitioner for each year is summarised in the table as follows:

Table 46: RoE claimed by Petitioner (INR Lakh)

Particulars	FY23	FY24
Asset-1		
Opening Equity	1,062.80	1,070.30
Addition	7.50	3.30
Closing Equity	1,070.30	1,073.60
RoE (%)	15.50%	15.50%
Return on Equity	143.12*	166.15
Asset-2		
Opening Equity	897.78	897.78
Addition	0.00	8.40
Closing Equity	897.78	906.18
RoE (%)	15.50%	15.50%
Return on Equity	120.47*	139.81

*Asset-1 and Asset-2: Return on Equity pro-rated for FY 2022-23 based on COD (20th May, 2022)

Commission's Analysis

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

"19. Return on Equity

(1) Return on equity shall be computed on the equity determined in accordance with regulation 18 and on pre-tax basis at the base rate of 15.5% to be grossed up as per sub-regulation (3) of this regulation:

(2) The rate of return on equity shall be computed by grossing up the base rate with the normal tax rate applicable to the concerned transmission licensee company:

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

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

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

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

4.4.7 The Commission in Chapter 03, para 3.7 (Project Funding) has detailed the working of debt, grant and equity. The Commission as per para 3.7 and the 'HPERC MYT Transmission Regulations, 2011', has computed the ROE from COD to FY 2023-24. The approved ROE for each year from the date of COD to FY 2023-24 is summarized below:

4.4.8 Based on the above submissions, 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 based on effective tax rate/ liability.

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

Table 47: RoE approved by Commission (INR Lakh)

Particulars	FY23	FY24
Asset-1		
Opening Equity	261.35	265.25
Addition	3.90	-
Closing Equity	265.25	265.25
RoE (%)	15.50%	15.50%

Particulars	FY23	FY24
Return on Equity	2.46*	41.11
Asset-2		
Opening Equity	312.66	312.66
Addition	-	8.40
Closing Equity	312.66	321.06
RoE (%)	15.50%	15.50%
Return on Equity	2.92*	49.11

*Asset-1 and Asset-2: Return on Equity pro-rated for FY 2022-23 based on date of utilisation of Assets (10th Mar, 2023)

4.5 O&M Expenses

Petitioner Submissions

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

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

O&M_n = R&M_n + EMP_n + A&G_n : Where -

'EMP_n' = [(EMP_{n-1}) x (1+G_n) x (CPIinflation)] + Provision (Emp);

'A&G_n' = [(A&G_{n-1}) x (WPIinflation)] + Provision(A&G);

'R&M_n' = 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;

'EMP_n' - 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;

- 4.5.2 The Petitioner has further submitted that since the Scheme was commissioned on 20.05.2022 and, therefore, the Petitioner doesn't have the actual expenses of O&M. The Petitioner, in 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. The relevant clause of the CERC Regulations is mentioned below.

"35 (3) Transmission system: (a) The following normative operation and maintenance expenses shall be admissible for the transmission system:

Particular	2019-20	2020-21	2021-22	2022-23	2023-24
<i>Norms for GIS Sub-station Bays (Rs Lakh per Bay)</i>					
<i>132 kV and below</i>	<i>11.26</i>	<i>11.65</i>	<i>12.06</i>	<i>12.48</i>	<i>12.92</i>

Particular	2019-20	2020-21	2021-22	2022-23	2023-24
<i>Norms for AC and HVDC lines (Rs Lakh per km)</i>					
<i>Double Circuit (Twin & Triple Conductor)</i>	<i>0.881</i>	<i>0.912</i>	<i>0.944</i>	<i>0.977</i>	<i>1.011</i>

- 4.5.3 Accordingly, 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 Regulations from COD to FY 2023-24 as shown in the table below.

Table 48: O&M Expenses claimed by Petitioner (INR Lakh)

Particulars	FY23	FY24
Asset-1		
Norm (INR Lakh per Bay)	12.48	12.92
No. of Bays	3.00	3.00
O&M Expenses	32.42*	38.77
Asset-2		

Particulars	FY23	FY24
Norm (INR Lakh per Km.)	0.977	1.011
Line Length	13.659	13.659
Total O&M Expenses	11.55*	13.81

*Asset-1 and Asset-2: O&M Expenses pro-rated for FY 2022-23 based on COD (20th May, 2022)

Commission's Analysis

4.5.4 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.

4.5.5 As the regulations provide for O&M expense based on voltage level, number of circuits and conductor size, the following norms have been considered as per the technical specifications of Asset-1 and Asset-2 for computation of O&M expense as per CERC Tariff Regulations, 2019:

Table 49: Normative O&M Expenses

Item	Unit	FY20	FY21	FY22	FY23	FY24
400 kV	INR Lakh/bay	32.15	33.28	34.45	35.66	36.91
220 kV	INR Lakh/bay	22.51	23.30	24.12	24.96	25.84
132 kV and below	INR Lakh/bay	16.08	16.64	17.23	17.83	18.46

4.5.6 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.

4.5.7 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.

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

Table 50: O&M Expenses approved by Commission (INR Lakh)

Particulars	Unit	FY23	FY24
Asset-1			
No. of Bays - 132 kV and below	No.	3.00	3.00
Bays norms	INR Lakh/bay	17.83	18.46
GIS	%	70%	70%
O&M Expenses - Asset-1	INR Lakh	2.26*	38.77
Asset-2			

Particulars	Unit	FY23	FY24
Line Length	km	13.659	13.659
Double Circuit (Single Conductor) Norms	INR Lakh/Km	0.42	0.43
O&M Expenses – Asset-2	INR Lakh	0.34*	5.91

*Asset-1 and Asset-2: O&M Expenses pro-rated for FY 2022-23 based on date of utilisation of Assets (10th Mar, 2023)

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

4.6 Interest on Working Capital (IoWC)

Petitioner Submissions

4.6.1 The Petitioner has computed interest on working capital as per Regulation 21 and 22 of the HPERC MYT Transmission Regulations, 2011 and its subsequent amendments thereof.

4.6.2 The Petitioner has calculated the interest on working capital considering prevalent SBI MCLR as on 01.04.2022 for FY 2022-23 plus 300 basis points. Further, the MCLR rate prevalent as on 01.04.2022 has been considered for remaining control period.

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

Table 51: Interest on Working Capital claimed by Petitioner (INR Lakh)

Particulars	FY23	FY24
Asset-1		
O&M Expenses for 1 month	3.12	3.23
Maintenance Spares (at 15% monthly O&M Expenses)	0.47	0.48
Receivables for 2 months	106.10	106.84
Total Working Capital	109.69	110.55
Interest Rate (%)	10.00%	10.00%
Interest on Working Capital	9.50*	11.06
Asset-2		
O&M Expenses for 1 month	1.11	1.15
Maintenance Spares (at 15% monthly O&M Expenses)	0.167	0.173
Receivables for 2 months	84.17	82.25

Particulars	FY23	FY24
Total Working Capital	85.45	83.57
Interest Rate (%)	10.00%	10.00%
Interest on Working Capital	7.40*	8.36

*Asset-1 and Asset-2: Interest on Working Capital pro-rated for FY 2022-23 based on COD (20th May, 2022)

Commission's Analysis

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

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

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

(a) O&M expenses for 1 month;

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

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

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

4.6.6 According to the provision for computation of interest on working capital, the Commission has considered the rate of interest on working capital as SBI MCLR as on 1st April of each year plus 300 basis points for FY 2022-23. For FY 2023-24, SBI MCLR as on 1st April, 2022 plus 300 basis points has been considered.

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

Table 52: Interest on Working Capital approved by Commission (INR Lakh)

Particulars	FY23	FY24
Asset-1		
O&M Expenses for 1 month	3.12	3.23
Maintenance Spares (at 15% monthly O&M Expenses)	0.47	0.48

Particulars	FY23	FY24
Receivables for 2 months	30.37	30.22
Total Working Capital	33.96	33.94
Interest Rate (%)	10.00%	10.00%
Interest on Working Capital	0.20*	3.39
Asset-2		
O&M Expenses for 1 month	0.48	0.49
Maintenance Spares (at 15% monthly O&M Expenses)	0.072	0.074
Receivables for 2 months	30.05	30.18
Total Working Capital	30.59	30.74
Interest Rate (%)	10.00%	10.00%
Interest on Working Capital	0.18*	3.07

*Asset-1 and Asset-2: Interest on Working Capital pro-rated for FY 2022-23 based on date of utilisation of Assets (10th Mar, 2023)

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 53: Summary of ARR claimed by Petitioner (INR Lakh)

Particulars	FY23	FY24
Asset-1		
Depreciation	158.59	184.13
Interest on Loan	207.52	240.92
Return on Equity	143.12	166.15
O&M Expenses	32.42	38.77
Interest on Working Capital	9.50	11.06
ARR – Asset – 1	551.15*	641.02
Asset-2		
Depreciation	122.58	142.33
Interest on Loan	175.23	189.19
Return on Equity	120.47	139.81
O&M Expenses	11.55	13.81
Interest on Working Capital	7.40	8.36

Particulars	FY23	FY24
ARR – Asset – 2	437.24*	493.49

*Asset-1 and Asset-2: ARR pro-rated for FY 2022-23 based on COD (20th May, 2022)

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 54: Summary of ARR approved by Commission (INR Lakh)

Particulars	FY23	FY24
Asset-1		
Depreciation	2.56	38.34
Interest on Loan	3.70	59.72
Interest on Working Capital	0.20	3.39
Return on Equity	2.46	41.11
O&M Expenses	2.26	38.77
ARR – Asset – 1	11.18*	181.33
Asset-2		
Depreciation	3.20	51.94
Interest on Loan	4.39	71.02
Interest on Working Capital	0.18	3.07
Return on Equity	2.92	49.11
O&M Expenses	0.34	5.91
ARR – Asset – 2	11.03*	181.05

*Asset-1 and Asset-2: ARR pro-rated for FY 2022-23 based on date of utilisation of Assets (10th Mar, 2023)

4.8 Transmission Charges

Petitioner Submissions

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

4.8.2 The Petitioner further submitted that in absence of any tariff, the Petitioner is facing financial hardship in the upkeep of the asset. Therefore, the Commission may approve an interim tariff @ 80% of the proposed annual transmission charges that can be recovered from the beneficiaries till the final tariff of the asset is issued by the Commission. The amount collected from the interim tariff for the said asset from the beneficiary will be adjusted after the issuance of the final tariff order. The above principle of approving interim tariff is in line with the approach adopted by the HPERC vide its Order dated 29.03.2022 while

issuing MTR order for 4th Control Period for HPSEBL while approving interim tariff for transmission assets.

Commission's Analysis

- 4.8.3 The Commission sought information with regards to existing and future beneficiaries of both the assets along with the signed TSAs as documentary evidence. In response, the Petitioner has submitted that the HPSEBL is the sole beneficiary for the project and has also submitted a copy of supplementary TSA signed with HPSEBL in response to the queries of the Commission.
- 4.8.4 From the review of the DPR, it is inferred that both the assets were envisaged for evacuation of generation capacity of ~40 MW in the Sangla valley, Satluj basin including Brua HEP (9MW), Shaung HEP (3MW) and Raura HEP (12MW) and Raura-II HEP (24MW). Also, as per the submissions of the Petitioner, it is envisaged that the total capacity with connectivity arrangements in place shall increase from 40 MW to 48 MW.
- 4.8.1 Based on the analysis of Transmission Service Agreement (TSA) signed with the HPSEBL and inclusion of the said transmission assets (both Asset-1 and Asset-2) in the TSA, it can be established that HPSEBL is the de-facto beneficiary of the system.
- 4.8.2 Further, the Petitioner is directed to recover the transmission charges from the identified long-term /medium-term beneficiary of the Transmission Asset as per the Clause 33 of MYT Regulations, 2011:

"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."

-Sd-

(SHASHI KANT JOSHI)
Member

-Sd-

(YASHWANT SINGH CHOGAL)
Member Law

-Sd-

(DEVENDRA KUMAR SHARMA)
Chairman

Place: Shimla

Dated: 12th June 2024