Approval of Capital Cost and determination of Tariff for the 4^{th} and 5^{th} Control Period from COD to FY 2028-29

for

220 kV D/C Sunda – Hatkoti Twin Moose Transmission Line (Asset-1), 220/66 kV System of 132/220/66 kV GIS Sub-station at Sunda (Asset-2) and 5 Nos. 220 kV Bays of 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda (Asset-3)

Himachal Pradesh Power Transmission Corporation Limited (HPPTCL)

Himachal Pradesh Electricity Regulatory Commission
10^{th} March 2026

BEFORE THE HIMACHAL PRADESH ELECTRICITY REGULATORY COMMISSION AT SHIMLA

PETITION NO: 210/2025

Decided on: 10.03.2026

CORAM

Sh. YASHWANT SINGH CHOGAL

Sh. SHASHI KANT JOSHI

In the matter of:

Approval of Capital Cost and determination of Tariff for the 4th and 5th Control Period from COD to FY 2028-29 for 220 kV D/C Sunda – Hatkoti Twin Moose Transmission Line (Asset-1), 220/66 kV System of 132/220/66 kV GIS Sub-station at Sunda (Asset-2) and 5 Nos. 220 kV Bays of 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda (Asset-3) under the Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011 as amended from time to time, Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2023, as amended from time to time, and under Section 62, read with Section 86 of the Electricity Act, 2003.

AND

In the matter of:

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

ORDER

The Himachal Pradesh Power Transmission Corporation Limited (hereinafter called the 'HPPTCL' or 'Petitioner' or 'Applicant') has filed the present Petition with the Himachal Pradesh Electricity Regulatory Commission (hereinafter referred to as 'the Commission' or 'HPERC') for the Approval of Capital Cost and Determination of Tariff for 4th and 5th

Control Periods from COD to FY 2028-29 for 220 kV D/C Sunda – Hatkoti Twin Moose Transmission Line (Asset-1), 220/66 kV System of 132/220/66 kV GIS Sub-station at Sunda (Asset-2) and 5 Nos. of 220 kV Bays of 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda (Asset-3) under the Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011, as amended from time to time (herein after referred to as "HPERC Transmission Tariff Regulations, 2011"), Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2023, as amended from time to time (herein after referred to as "HPERC Transmission Tariff Regulations, 2023"), and under Section 62, read with Section 86 of the Electricity Act, 2003.

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

After considering the Petition filed by the Applicant, the facts presented in its subsequent submissions, the responses of the Applicant to the objections and documents available on record, the Commission in exercise of powers vested in it under Section 86 of the Electricity Act, 2003 and 12(1) of HPERC Transmission Tariff Regulations, 2011, and HPERC Transmission Tariff Regulations, 2023, passes the following Order for determining the Capital cost and Transmission Tariff for 4th and 5th Control Periods from COD to FY 2028-29 for 220 kV D/C Sunda – Hatkoti Twin Moose Transmission Line (Asset-1), 220/66 kV System of 132/220/66 kV GIS Sub-station at Sunda (Asset-2) and 5 Nos. of 220 kV Bays of 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda (Asset-3). While determining the Capital cost and Aggregate Revenue Requirement (ARR) for abovementioned assets, the Commission has also taken into consideration the guidelines laid down in Section 61 of the Electricity Act, 2003, the National Electricity Policy, the National Tariff Policy, CERC (Terms and Conditions of the Tariff) Regulations, 2019, as amended from time to time, CERC (Terms and Conditions of the Tariff) Regulations, 2024, as amended from time to time, HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011, as amended from time to time and HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2023, as amended from time to time. Details of prudence check and approach adopted by the Commission with regard to approval of Capital cost and ARR for Sub-station, Transmission Line and 5 Nos. of 220 kV Bays are summarized in the detailed Order contained in Chapters 1 to 4.

-Sd-	-Sd-
(SHASHI KANT JOSHI)	**(YASHWANT SINGH CHOGAL)**
Member	**Member (Law) – Cum Chairman**

Place: Shimla
Dated: 10th Mar 2026

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1. INTRODUCTION

1.1 Himachal Pradesh Electricity Regulatory Commission

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

1.1.2 Functions of the Commission

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

a) determine the tariff for generation, supply, transmission and wheeling of electricity, wholesale, bulk or retail, as the case may be, within the State:

   Provided that where open access has been permitted to a category of consumers under Section 42, the State Commission shall determine only the wheeling charges and surcharge thereon, if any, for the said category of consumers;

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

c) facilitate intra-state transmission and wheeling of electricity;

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

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

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

g) levy fee for the purposes of this Act;

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

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

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

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

1.1.3 The State Commission is also empowered under the Electricity Act, 2003 to advise the State Government on all or any of the following matters, namely:-

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

b) promotion of investment in electricity industry;

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

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

1.2 Himachal Pradesh Power Transmission Corporation Ltd.

1.2.1 Himachal Pradesh Power Transmission Corporation Limited (hereinafter referred to as 'HPPTCL' or 'the Petitioner') is a deemed licensee under first, second and fifth provisio 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 vide Notification No. MPP-A-(1)-4/2006-Loose, dated 11th September, 2008.

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

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

b) All new works of laying/ construction of transmission lines of 66 kV and above;

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

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

e) Planning and co-ordination with the IPPs/ CPSUs/ State PSUs/ Other Departments or organizations or agencies of the Central Government and

State Government, HPSEBL and HPPCL with regard to all transmission related issues.

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

1.3 Multi Year Tariff Framework

1.3.1 The Commission follows the principles of Multi Year Tariff (MYT) for determination of tariffs, in line with the provision of Section 61 of the Electricity Act, 2003.

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 has notified the HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011, hereinafter to be referred as HPERC Transmission Tariff Regulations, 2011 or MYT Regulations for short. 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. Thereafter, the Commission has notified the HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2023 on 14.03.2024 (The Regulations shall be hereinafter referred to as "HPERC Transmission Tariff Regulations, 2023").

1.4 Interaction with the Petitioner

1.4.1 The HPPTCL filed the present application for Approval of Capital Cost and Determination of Tariff for the period from COD to FY 2023-24 for 220 kV D/C Sunda – Hatkoti Twin Moose Transmission Line (Asset-1) and 220/66 kV System of 132/220/66 kV GIS Sub-station at Sunda (Asset-2) with the Commission on 11.04.2023. In addition, the Petitioner submitted the Supplementary Petition for Approval of Capital Cost and Determination of Tariff for the period from COD to FY 2023-24 for 5 Nos. 220 kV Bays of 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda (Asset-3), with the Commission on 23.12.2023. Based on various observations/deficiencies pointed out by the Commission, HPPTCL has submitted further details and clarifications subsequently.

1.4.2 The Commission admitted the Petition submitted by the HPPTCL vide Interim Order dated 15.09.2025. There have been a series of interactions between the HPPTCL and the Commission, both written and oral, wherein the Commission sought additional information/clarifications and justifications on various issues, critical for the analysis of the Petition. In addition, the Petitioner submitted the Interlocutory Application (IA) along with the affidavit on 01.12.2025. Through the IA, the Petitioner has requested the Commission to approve the tariff for the 5th control period also.

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

Table 1: Communication with the Petitioner

Sl.	Letter from the Commission	Response from the Petitioner
1	HPERC-F(1)-58/2023-606 dated 05.06.2023	Filing No. 82 of 2023 dated 29.12.2023
2	HPERC-F(1)-58/2023-494 dated 24.05.2024	Filling No. 344 of 2025 dated 08.07.2025
3	HPERC-F(1)-58/2023-2064-65 dated 25.07.2025	Filling No. 460 of 2025 dated 28.08.2025 Filling No. 470 of 2025 dated 06.09.2025

1.5 Public Hearings

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

Table 2: List of Newspapers for Publication of Salient features for Stakeholders Comments

Sl.	Name of News Paper	Date of Publication
1.	Amar Ujala (Hindi)	19.09.2025
2.	Hindustan Times (English)	19.09.2025

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.	Amar Ujala (Hindi)	21.09.2025
2.	Times of India (English)	21.09.2025

1.5.3 The stakeholders were requested to file their objections by 24.10.2025. The HPPTCL was required to submit replies to the suggestions/ objections to the Commission by 31.10.2025 with a copy to the objectors on which the objectors were required to submit rejoinder by 04.11.2025.

1.5.4 The Commission decided to conduct the Public Hearing and, therefore, through the aforesaid Public Notice informed the public about the scheduled date of Public Hearing as 10.11.2025. All the parties, who had filed their objections/ suggestions, were informed about the date, time and venue of the Public Hearing for presenting their case.

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

2. STAKEHOLDER OBJECTIONS

2.1 Introduction

2.1.1 As detailed out in Chapter-1 of this Order, the Commission through Public Notice in various newspapers informed the Public/Stakeholders about the dates of filing the comments/ objections and public hearing etc. for the Petition of approval of Capital cost and Determination of Tariff for 4th and 5th Control period from COD to FY 2028-29 for 220 kV D/C Sunda – Hatkoti Twin Moose Transmission Line (Asset-1), 220/66 kV System of 132/220/66 kV GIS Sub-station at Sunda (Asset-2) and 5 Nos. of 220 kV Bays of 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda (Asset-3).

2.1.2 Accordingly, as scheduled, the Public Hearing was conducted on 10.11.2025 in the Commission. The Commission has received Comments/Suggestions on the Petition from the Directorate of Agriculture (Department of Agriculture). Issues raised by the Stakeholder in the written submission, along with reply given by the Petitioner and views of the Commission on the issues raised are summarized in the following paragraphs:

Issues regarding Agriculture Land:

Stakeholders' Submissions

2.1.3 With respect to the themes related to the Protection of Agricultural land, Minimizing impact on farms, Compensation for affected farmers, Safety considerations and Establishing coordination between HPPTCL and the Agriculture Department, the Respondent, Directorate of Agriculture (Department of Agriculture), has submitted the following for consideration:

A. **Protection of Agricultural land**: New infrastructure, such as transmission lines, be routed to avoid prime agricultural and horticultural areas to the greatest extent possible.

B. **Minimizing impact on farms:** In order to address the operational limitations caused by transmission lines, including issues related to farm machinery, irrigation systems, and general field accessibility, it is submitted that impact on farms should be minimum.

C. **Compensation for affected farmers**: It has been insisted that fair and timely compensation for any agricultural land which must be used for towers or rights-of-way be paid which include not just land value but also, potential loss of productivity.

D. **Safety considerations**: Concerns have been raised about electrical hazards and the potential impact of electromagnetic fields (EMFs) on human and animal health, as well as on crop yields.

E. **Maintenance and coordination**: Establishing clear procedures for coordination between HPPTCL and the Agriculture Department for vegetation management and maintenance activities within the transmission corridor, particularly in farmed areas.

2.1.4 It has been prayed to consider the aforesaid comments.

Petitioner's Response

2.1.5 In reply to the averments made by the Respondent, the Petitioner has submitted that the HPPTCL while executing any project takes due care of the issues highlighted by the Respondent. Further, HPPTCL being a State Transmission Licensee strictly adheres to all applicable laws, rules, guidelines, and standards issued by the Central, State Government and any other Authority in relation to the planning, routing, construction, operation, and maintenance of transmission infrastructure.

Commission's Observations

2.1.6 The Commission has taken note of the submissions of the Stakeholder and the Petitioner. The Commission observes that the Petitioner has, in general, been adhering to the prescribed procedures and statutory requirements while undertaking Right of Way (ROW) activities. The Petitioner typically obtains the necessary approvals from the concerned authorities, prior to execution of works, and ensures due compensation to affected landowners. The Commission further notes that the Petitioner follows established norms related to route alignment, vegetation management, and maintenance activities within the transmission corridor, in accordance with applicable laws, rules, and guidelines. In cases where any deviation or non-compliance is observed, the Department of Agriculture may raise specific issues or lodge formal complaints with the higher authorities of HPPTCL as well as before the Commission for appropriate examination and necessary directions. The Commission notes that such a mechanism provides adequate oversight and ensures corrective action, if required.

3. APPROVAL OF CAPITAL COST

3.1 Introduction

3.1.1 HPPTCL has submitted a Petition for the approval of Capital Cost and determination of Tariff for the period from COD to FY 2023-24 for 220 kV D/C Sunda – Hatkoti Twin Moose Transmission Line (Asset-1) and 220/66 kV System of 132/220/66 kV GIS Sub-station at Sunda (Asset-2). In addition, the Petitioner also submitted a Supplementary Petition for the approval of Capital Cost and determination of Tariff for the period from COD to FY 2023-24 for 5 Nos. 220 kV Bays of 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda (Asset-3).

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

"14. Capital cost of the project
(1) The capital cost for a project shall include-

(a) the expenditure incurred or projected to be incurred, including interest during construction and financing charges, any gain or loss on account of foreign exchange risk variation during construction on the loan - (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii)being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed, - up to the date of commercial operation of the project, as admitted by the Commission, after prudence check;
(b) capitalised initial spares subject to the ceiling norms as per regulation 15;
(c) additional capital expenditure determined under regulation 16:
Provided that the assets forming part of the project, but not in use, shall be taken out of the capital cost.

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

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

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

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

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

3.1.3 The Commission has reviewed the proposed capital cost and ARR for each year as filed by the Petitioner from COD until the end of the Control Period i.e., FY 2023-24. The Petitioner has submitted separate ARRs for 220 kV D/C Sunda – Hatkoti Twin Moose Transmission Line referred to as Asset-1, 220/66 kV System of 132/220/66 kV GIS Sub-station at Sunda referred to as Asset-2 and 5 Nos. 220 kV Bays of 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda referred to as Asset-3.

3.1.4 The original and supplementary Petitions lack 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 and supplementary petition. Information provided in the Petitions was inadequate and the Commission had to seek additional submissions and supporting documents from the Petitioner through deficiency letters for reviewing the capital cost and ARR. With respect to few queries, the information provided by the Petitioner in response to the queries of the Commission remained incomplete and/or could not be validated through appropriate supporting documents specifically for consideration of Interest During Construction (IDC) and Departmental Charges (DC).

3.1.5 The Commission has undertaken detailed prudence check and adequate assumptions, wherever required, for approving the capital cost of Sub-Station and transmission line. The scrutiny and prudence check undertaken by the Commission for approval of capital cost has been discussed in the following paragraphs.

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

Table 4: Details of Asset-1

Name of Transmission Line	Type of Line	Type of Conductor	Voltage Level (kV)	No. of Circuit	Line Length (Circuit Kms.)	COD
220 kV D/C Sunda-Hatkoti Transmission Line	AC	Twin Moose	220 kV	D/C	25.33	03.08.2022

Table 5: Details of Asset-2

Name of Sub-Station	Type	Voltage Level (kV)	No. of Transformers	No. of Bays	COD
220/66 kV system of 132/220/66 kV GIS Sub-station at Sunda	GIS	220/66 kV	1×100 MVA	220 kV – 2 66 kV - 7	03.08.2022

Table 6: Details of Asset-3

Name of Sub-Station	Type	Voltage Level (kV)	No. of Bays	COD
220 kV Bays of 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda	GIS	220 kV	220 kV – 5	03.08.2022

3.2 Summary of the Project

Petitioner's Submissions

3.2.1 The Petitioner has submitted that the Transmission Line (Asset-1) was planned to evacuate estimated power of 232 MW in Tangnu, Andhra and Rupin Valleys and other HEPs awarded to various IPP's by Government of HP. As number of projects are coming up in Pabbar river basin in Himachal Pradesh, therefore HPPTCL is intending to construct Integrated transmission system in the area due to the limited corridors availability.

3.2.2 The Petitioner further submitted that at present, Andhra HEP (17 MW), Andhra Stage 2 (5 MW), Simla Hydro HEP (5 MW) and Gumma HEP (3 MW) are evacuating power from the said Transmission Line (Asset-1) and supplying power to HPSEBL, which has further benefitted HPSEBL in improving the quality of supply in Rohru-Hatkoti area, Chirgaon area and Dodra-Kwar area.

3.2.3 Further, the Petitioner submitted that the scheme for 220/66 kV system of 132/220/66 kV GIS Sub-station at Sunda (Asset-2) was envisaged under Intra State System Strengthening Scheme in Himachal Pradesh-NR (Part B) with the objective of evacuating 64 MW of power of Small HEP's being pooled to Andhra Sub-station. Further, the HPPTCL envisaged to evacuate the same by constructing a LILO of 66 kV Andhra-Samoli Transmission Line at Sunda Sub-station and by construction of 66/220 kV, 80/100 MVA Sub-Station at Sunda.

3.2.4 Further, the Petitioner in its supplementary Petition submitted that the 66/132/220 kV Pooling Sub-station at Sunda consists of two systems namely 220/132 kV, 2x80/100 MVA system and 220/66 kV, 80/100 MVA system. Further, it is submitted that 220 kV main bus bars and GIS facilities are common for both the systems i.e., 132/220 kV and 66/220 kV system. Therefore, 5 Nos. 220kV Bays of 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda are being claimed as Asset-3 by excluding 2x80/100 MVA transformer banks along with associated system. This Asset-3 as claimed has 220kV bays with 2 Nos. Line bays for Sunda-Hatkoti Circuit-I & II, 1 No. bus coupler bay and 2 Nos. bus VT bays i.e., 3 Nos bays are associated with 220 kV GIS bus bar. It is pertinent to mention that 220 kV main GIS busbar is covered in Asset-3 whereas Asset-2 is having extension of 220 kV main GIS bus-bar.

3.2.5 The Petitioner has further submitted that the HPSEBL is the sole beneficiary of the Assets as the Assets are being used by HPSEBL to draw power as well as to improve quality of supply to various distribution areas.

3.2.6 In its Board Meeting held on 22.03.2012 vide Agenda Item no. 15.07, Board of Directors (BoD) of the Petitioner has approved the scheme for construction of 220 kV D/C Sunda-Hatkoti Transmission Line (Asset-1) in Distt. Shimla, Himachal Pradesh, so as to improve imbalance and better evacuation of energy along with improvement of local economy. The combined cost as estimated in the Detailed Project Report (DPR) was Rs. 69.20 Crore, included Interest During Construction (IDC) of Rs. 2.10 Crore and cost towards overheads as Rs. 5.32 Crore. This Scheme along with the cost was further approved by Central Electricity Authority (CEA) vide letter dated 05.06.2012.

3.2.7 Subsequent to BoD and CEA approvals, the contract for construction of 220 kV D/C (Twin Moose) Transmission line on Towers from 132/220 kV Pooling Substation at Sunda to 220 Switching Station at Hatkoti in Shimla District of Himachal Pradesh was awarded on Turnkey basis to M/s Shyama Power India Ltd. vide LOAs dated 28.05.2015 for both contracts viz. Supplies (Contract-1) and Services & Civil works (Contract-2) for Rs. 32.68 Crore and Rs. 23.74 Crore respectively.

3.2.8 With respect to Asset-2, in its 32nd Board Meeting held on 28.12.2016 vide Agenda Item no. 32.05, Board of Directors (BoD) of the Petitioner has approved the scheme for construction of 220/66 kV portion of 132/220/66 kV GIS Sub-station at Sunda (Asset-2). As per Original DPR for Asset-2, the estimated project cost was Rs. 63.00 Crore, which included Rs. 15.00 Crore towards cost of LILO of 66 kV Andhra-Samoli Line at Sunda. However, the cost claimed as per the Detailed Project Report (DPR), excluding LILO of 66 kV Andhra-Samoli Line at Sunda is Rs. 45.67 Crore, which includes Interest During Construction (IDC) of Rs. 1.82 Crore and cost towards overheads as Rs. 4.19 Crore. The Scheme was further discussed in the 39th Standing Committee Meeting on Power System Planning- Northern Region on 29th and 30th May 2017, wherein the CEA approved the cost towards all 17 packages of intra-state transmission schemes under Green Energy Corridor, which also included the Asset-2. This is as recorded in its Minutes of Meeting dated 28.07.2017.

3.2.9 Subsequent to BoD and CEA approvals, the contract for construction of 66/220 kV, 80/100 MVA Single Phase Transformer Bank with 1 No. Spare Transformer in the yard of 132/220 kV GIS Sub-station at Sunda in Shimla District of Himachal Pradesh was awarded on Turnkey basis to M/s TBEA Energy (India) Private Ltd. vide LOAs dated 08.03.2019 at the Bid Price of USD 17,35,166.40 and Rs. 24.87 Crore in two parts viz. Supplies and Erection portion.

3.2.10 With respect to Asset-3, in its Board Meeting held on 22.03.2012 vide Agenda Item no. 15.07, Board of Directors (BoD) of the Petitioner has approved the scheme for construction of 132/220 kV portion of 132/220/66 kV GIS Sub-station at Sunda in Dist. Shimla, Himachal Pradesh, with capacity of 2x80/100 MVA. The combined cost as estimated in the Detailed Project Report (DPR) was Rs. 77.01 Crore, included Interest During Construction (IDC) of Rs. 2.49 Crore and cost towards overheads as Rs. 7.19 Crore. This Scheme along with the cost was further approved by Central Electricity Authority (CEA) vide letter dated 05.06.2012.

3.2.11 Subsequent to BoD and CEA approvals, the contract for construction of 132/220 kV GIS Sub Station having 132 kV and 220 kV GIS Equipment, 7 x 26.66/33.33 MVA, 22/132/220 kV, Single Phase Auto Transformers and other Sub Station Equipment and associated Civil Works at Sunda was awarded on Turnkey basis to M/s TBEA Energy (India) Private Ltd. vide LOAs dated 05.04.2018 at the Bid Price of Rs. 62.91 Crore in two parts viz. Supplies and Erection portion, which consists of both voltage levels (220 kV & 132 kV). However, for consideration of 220 kV GIS system consisting of 5 Nos. bays only, the bifurcation of complete BOQ as per the original Award has been worked out between 132 kV and 220 kV system. Accordingly, the ratio of 47.50:52.50 has been arrived based on expenditures of 220 kV & 132 kV system in the Original Award.

3.2.12 The Petitioner submitted that the actual cost of Asset-1 as on COD i.e., 03.08.2022 is Rs. 129.79 Crore including IDC and Departmental charges, the actual cost of Asset-2 as on COD inclusive of IDC and Departmental Charges is Rs. 41.94 Crore and the actual cost of Asset-3 as on COD inclusive of IDC and Departmental Charges is Rs. 45.90 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 7: Comparison of Capital Cost as on COD for Asset-1 (Rs. Crore)

Particulars	Cost as per DPR	Actual Cost as on COD
Supply & Erection Works	48.17	85.49
Contingency @ 3%	1.45	-
Forest Clearance and other misc. expenses	12.16	7.29
Departmental Charges	5.32	6.10
Interest During Construction	2.10	30.92
Total	**69.20**	**129.79**

Table 8: Comparison of Capital Cost as on COD for Asset-2 (Rs. Crore)

Particulars	Cost as per DPR	Actual Cost as on COD
Supply & Erection Works	38.07	37.38
Contingencies	1.59	-
Misc. Expenses (Labour Licence Fee, Home Guard Salary, Inauguration Exp. Water Supply, Line Shifting & Other Exp.)	-	1.51#
Departmental Charges	4.19	1.40
Interest During Construction	1.82	1.65

Particulars	Cost as per DPR	Actual Cost as on COD
Total	**45.67***	**41.94**

** Cost of Rs. 45.67 Crores has been worked out after exclusion of LILO cost amounting to Rs. 15 Crores and after considering its impact in DC & IDC cost.*

 # Amount of Rs. 1.51 Crores includes misc. expenses and Consultancy Charges.

Table 9: Comparison of Capital Cost as on COD for Asset-3 (Rs. Crore)

Particulars	Cost as per DPR	DPR allocated Cost*	Actual Cost as on COD
Supply & Erection Works	58.90	27.98	29.23
Contingencies	1.96	0.93	-
Misc. Expenses (Land Acquisition and Civil Works)	6.47	3.07	10.44#
Departmental Charges	7.19	3.42	1.51
Interest During Construction	2.49	1.18	4.71
Total	**77.01**	**36.58**	**45.90**

** Apportioned cost of DPR to 220 kV system in same ratio as worked out based on the ratio of 47.50:52.50 arrived based on expenditures of 220 kV & 132 kV system in the Original Award.*

 # Amount of Rs. 10.44 Crores includes Land Cost of Rs. 10.32 Crore and other misc. expenses of Rs. 0.12 Crore.

Commission's Analysis

3.2.13 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 220 kV D/C Sunda – Hatkoti Twin Moose Transmission Line as Asset-1, 220/66 kV System of 132/220/66 kV GIS Sub-station at Sunda as Asset-2 and 5 Nos. 220 kV Bays of 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda as Asset-3.

3.2.14 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.

3.2.15 With respect to Asset-1, the Petitioner in its BoD meeting held on 22.03.2012 got approval vide Agenda Item No. 15.07 for implementation of 220 kV D/C Sunda – Hatkoti Twin Moose Transmission Line. In addition, the CEA had also granted its approval on 05.06.2012 at Rs. 69.20 Cr., which is similar to the cost as per the DPR including IDC and DC. Copy of the BoD Resolution, CEA approval letter and DPR were analysed in detail by the Commission for Asset-1.

3.2.16 In addition, 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. Shyama Power India Ltd. on turnkey basis post conducting a competitive bidding process. The work was awarded for Asset-1 for "Design, Manufacture, Test, Deliver, Install, Complete and Commission certain Facilities, viz. Construction of 220 kV D/C (Twin Moose) Transmission line on Towers from 132/220 kV Pooling Substation at Sunda to 220 Switching Station at Hatkoti". The work was awarded on 28.05.2015 at the cost of Rs. 56.42 Cr. which included the Supply Contract of Rs. 32.68 Cr. and Services & Civil Works of Rs. 23.74 Cr. with a time-period for execution of 18 months from the effective date (i.e., 29.08.2016).

3.2.17 Further, there were 4 number of amendments issued, with the last amendment on 05.06.2023, that resulted in revision of the contract value to Rs. 86.14 Cr. as against the original awarded cost of Rs. 56.42 Cr. The revisions in contract were on account of impact due to Variation in Quantities, GST Implication and revised rates for Revetment Work due to negotiation thereof predominantly.

3.2.18 Further, the capital cost as on COD claimed by the Petitioner for Asset-1 is Rs. 129.79 Cr., which is as certified by the Statutory Auditor. The HPPTCL had secured funding for the project from Asian Development Bank (ADB) for Asset-1, with debt-equity ratio envisaged at 70:30 as per DPR.

3.2.19 With respect to Asset-2, the Petitioner in its 32nd BoD meeting held on 28.12.2016 got approval vide Agenda Item No. 32.05 for implementation of 220/66 kV System of 132/220/66 kV GIS Sub-station at Sunda. In addition, the CEA had also granted its approval in 39th Standing Committee Meeting on Power System Planning - Northern Region (SCMPSPNR) held on 29.05.2017 & 30.05.2017 at Rs. 77 Cr., which is similar to the cost as per the DPR including IDC and DC. The capital cost as per DPR at Rs. 77 Cr. also includes cost towards LILO of 66 kV Andhra-Samoli Line at Sunda of Rs. 15 Cr. However, Cost of Rs. 45.67 Cr. has been worked out after exclusion of LILO cost amounting to Rs. 15 Cr and its corresponding impact in DC & IDC cost. Copy of the BoD Resolution, CEA approval letter and DPR were analysed in detail by the Commission for Asset-2.

3.2.20 In addition, based on the analysis of the LoA documents and copy of bid evaluation report, the Commission observes that the project execution for Asset-2 was awarded to M/s. TBEA Energy (India) Private Ltd. on turnkey basis post conducting a competitive bidding process. The work was awarded for Asset-2 for "Design, Engineering, Manufacture, Fabrication, Testing at manufacturers works, Transportation to site, Insurance, Storage, Erection, Testing and Commissioning of Additional 66/220 kV, 80/100 MVA Single Phase Transformer Bank with 1 No. Spare Transformer in the yard of 132/220 kV GIS Sub-station at Sunda". The work was awarded on 08.03.2019 at a cost of USD 17,35,166.40 and Rs. 24.87 Cr., which included supply contract of USD 17,35,166.40 and Rs. 20.54 Cr. and Services and Civil Works of Rs. 4.33 Cr., with a time-period for execution of 18 months from the effective date (i.e., 23.05.2019).

3.2.21 Further, there were 5 number of amendments issued with the last amendment on 03.11.2023. As a result of the amendments, the original awarded cost of USD 17,35,166.40 and Rs. 24.87 Cr. was revised to USD 17,35,166.40 and Rs. 25.81 Cr. on account of impact of addition of new items, deviation in civil quantities and deviation of items against the Original BOQ predominantly.

3.2.22 Further, the capital cost as on COD claimed by the Petitioner for Asset-2 is Rs. 41.94 Cr., which is as certified by the Statutory Auditor. The HPPTCL had secured funding for the project from KfW for Asset-2, with debt-grant-equity ratio envisaged at 40:40:20 as per DPR.

3.2.23 With respect to Asset-3, the Petitioner in its BoD meeting held on 22.03.2012 got approval vide Agenda Item No. 15.07 for construction of 132/220 kV system of 66/132/220 kV Pooling Sub-station at Sunda. In addition, the CEA had also granted its approval on 05.06.2012 at Rs. 77.01 Cr., which is similar to the cost as per the DPR including IDC and DC. However, the Petitioner is only claiming for approval of 5 Nos. of 220 kV Bays of 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda as Asset-3. Copies of the BoD Resolution, CEA approval letter and DPR have been analysed in detail by the Commission for 132/220 kV system of 66/132/220 kV Pooling Sub-station at Sunda.

3.2.24 Further, the Petitioner has submitted that out of the 2 No. of Transformer Banks of 80/100 MVA each at 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda, one is proposed to be shifted to 132/220 kV Tahliwal Sub-station and the other to be shifted to 132/220 kV Una Sub-station, along with their CRP panels and the associated accessories.

3.2.25 In addition, based on the analysis of the LoA documents and copy of bid evaluation report, the Commission observes that the project execution for 132/220 kV system of 66/132/220 kV Pooling Sub-station at Sunda was awarded to M/s. TBEA Energy (India) Private Ltd. on turnkey basis post conducting a competitive bidding process. The work was awarded for "Design, Engineering, Manufacturing, Testing at Manufacturers Works, Transportation to Site, Insurance, Loading/Unloading, Storage, Erection, Testing and Commissioning of 132/220 kV GIS Sub Station having 132 kV and 220 kV GIS Equipment, 7*26.66/33.33 MVA, 22/132/220 kV, Single Phase Auto Transformers and other Sub Station Equipment and associated Civil Works at Sunda in Shimla Dist. of Himachal Pradesh on Turnkey Basis". The work was awarded on 05.04.2018 at a cost of USD 22,62,502 and Rs. 48.19 Cr., which included supply contract of USD 22,62,502 and Rs. 36.76 Cr. and Services and Civil Works of Rs. 11.43 Cr., with a time-period for execution of 24 months from the effective date (i.e., 25.05.2018).

3.2.26 Further, there were 10 number of amendments issued with the last amendment on 15.02.2024. As a result of the amendments, the original awarded cost of USD 22,62,502 and Rs. 48.19 Cr. was revised to USD 22,62,502 and Rs. 49.85 Cr. on account of impact of Addition of Epoxy Flooring, GST Implementation, variation in Supply and Civil works items predominantly.

3.2.27 Further, the capital cost as on COD claimed by the Petitioner for 132/220 kV system of 66/132/220 kV Pooling Sub-station at Sunda is Rs. 85.21 Cr., which is as certified by the Statutory Auditor. The HPPTCL had secured funding for the project from Asian Development Bank (ADB) for 132/220 kV system of 66/132/220 kV Pooling Sub-station, with debt-equity ratio envisaged at 80:20 as per DPR.

3.2.28 In reply to the query raised by the Commission, the Petitioner has submitted the bifurcation of original awarded cost as per LOA along with all its 10 amendments into 3 portions namely (a) 5 No. of 220 kV Bays; (b) 3 No. of 132 Bays; and (c) 2 X 80/100 MVA Transformer Bank. Based on the analysis of the BOQ documents submitted, the Commission has worked out the ratio of 35.15%:21.33%:43.52% arrived based on expenditures of 220 kV Bays, 132 kV Bays and Transformer Bank as per the latest amendment cost to the LOA.

3.2.29 Accordingly, the Commission has tabulated the details in the following tables with regard to approvals, contractor details, DPR, Awarded and COD cost for all the Assets.

Table 10: Asset-wise dates of various Approvals, Awards and COD of Assets

Asset	BOD Approval Date	CEA Approval Date	Contract Award Date	Contract Effective Date	Scheduled COD Date	Actual COD
Asset-1	22.03.2012	05.06.2012	28.05.2015	29.08.2016	28.02.2018	03.08.2022
Asset-2	28.12.2016	29.05.2017 & 30.05.2017	08.03.2019	23.05.2019	23.11.2020	03.08.2022
Asset-3	22.03.2012	05.06.2012	05.04.2018	25.05.2018	25.05.2020	03.08.2022

Table 11: Asset-wise details of various Costs as per documentary proofs (Rs. Cr.)

Asset	Contractor Details (A)	DPR Cost (B)	Awarded Cost (C)	Final Cost post Amendment (D)	Cost as on COD as per Auditor's Certificate (E)
Asset-1	M/s Shyama Power India Ltd.	69.20	56.42	86.14	129.79
Asset-2	M/s TBEA Energy (India) Private Ltd.	45.67*	USD 17,35,166.40 and Rs. 24.87 Cr. (Rs. 37.63 Cr.) **	USD 17,35,166.40 and Rs. 25.81 Cr. (Rs. 38.57 Cr.) **	41.94
Asset-3	M/s TBEA Energy (India) Private Ltd.	29.99#	USD 8,16,257 and Rs. 14.08 Cr. (Rs. 19.39 Cr.) ##	USD 8,16,257 and Rs. 17.39 Cr. (Rs. 22.70 Cr.) ##	36.65#

** Worked out after exclusion of LILO cost of 66 kV Andhra-Samoli Line at Sunda amounting to Rs. 15 Crores and its impact on DC & IDC cost.*

*** Exchange rate of 1 USD = Rs. 73.55 considered as per Bid Evaluation Report for Asset-2.*

 # Apportioned the cost at 35.15% (based on expenditure of 220 kV Bays as per the latest amendment cost to the LOA) after excluding the Cost of Land. Cost of Land has been considered wholly.

Exchange rate of 1 USD = Rs. 65.07 considered as per Bid Evaluation Report for Asset-3 based on the respective State Bank of India Bill Collection Selling Exchange rate.

3.3 Commercial Operation Date (COD) of Asset

Petitioner's Submissions

3.3.1 The Petitioner has submitted that the Asset-1, Asset-2 and Asset-3 were scheduled to be commissioned on 28.02.2018, 23.11.2020 and 25.05.2020 respectively. However, the actual date of commissioning of the Projects was 03.08.2022.

3.3.2 The Petitioner has submitted that the implementation of the project was delayed by approximately 53 months, 20 months and 26 months for Asset-1, Asset-2 and Asset-3 respectively due to reasons entirely beyond their control.

3.3.3 The main reasons for the delay highlighted by the Petitioner for Asset-1 were delay due to Re-routing of the Transmission Line, introduction of 3 Nos. of Multi-Circuit Dead End Towers and delay in testing of the same, delay in site hand-over due to FCA case approval and public disputes on several locations, non-approval of shutdown of 66kV Andhra-Samoli Transmission line, non-approval of Shutdown on 66kV Samoli Nogli Transmission Line, delay due to meteorological conditions, delay due to ROW issues and delay in getting approval from Chief Electrical Inspector.

3.3.4 For Asset-2, the primary reasons for the delay highlighted by the Petitioner were due to COVID-19 pandemic, non-availability of Drawings and Inclement weather conditions.

3.3.5 Further, for Asset-3, the primary reasons for the delay highlighted by the Petitioner were due to COVID-19 pandemic, non-availability of work fronts due to presence of scrap materials and large boulders, Inclement weather conditions and delay in COD of 220/66 kV system of Sunda Substation.

3.3.6 In view of the above, the Petitioner has sought approval of Capital Cost and determination of transmission charges for all the Assets from 03.08.2022 (COD) till the end of 4th control period i.e., FY 2023-24. Further, in the Interlocutory Application submitted along with the affidavit dated 01.12.2025, the Petitioner has prayed the Commission to determine the tariff for the 5th MYT Control Period from FY 2024-25 to FY 2028-29 in accordance with the Regulation 12(3) of the HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2023.

Commission's Analysis

3.3.7 With respect to commissioning of all the Assets, the Petitioner has submitted the Electrical Inspector (EI) certificates in reply to the deficiency letter of the Commission. As per Regulations 6(1) of CEA (Grid Standards) Regulations, 2010, introduction of an element in the State Grid requires concurrence of HPSLDC in the form of Operation Code. The Chief Electrical Inspectorate (CEI) approval is one of the requirements for 1st time charging of a new transmission element. Accordingly, approval for energizing these assets was provided by the Chief Electrical Inspectorate for all the Assets (For Asset-1, CEI approval provided on 12.05.2022. For Asset-2 and Asset-3, CEI approval was provided on 15.07.2022).

3.3.8 Further, the Commission has analysed the letter dated 10.01.2023 from HPSLDC to HPPTCL on issuance of certificate for successful initial charging and COD, wherein the timestamp of events on the charging of Asset-1 and Asset-2 are given. As per the analysis of the said letter dated 10.01.2023, the Commission has observed that Asset-1, Asset-2 and 220/132 kV System of 132/220/66 kV GIS Sub-station at Sunda were charged on 02.08.2022, 03.08.2022 and 20.08.2022 respectively. In addition, the Commission has observed that the circuit breaker of HPSEBL's 66 kV Sunda-Samoli circuit (Bay 607) and 66 kV

Sunda-Andhra circuit (Bay 606) was closed on 22.08.2022. Therefore, the Commission has concluded that the Asset-1, Asset-2 and Asset-3 were brought into operation only after interconnection with HPSEBL system when 66 kV Sunda-Samoli and 66 kV Sunda-Andhra feeders were charged on 22.08.2022. Accordingly, the Commission approves the actual COD of the Project as 22.08.2022 against the claimed COD date by the Petitioner as 03.08.2022.

3.3.9 The summary of the COD dates claimed, actual charging of Assets and approved COD for Asset-1, Asset-2 and Asset-3 is given as below:

Table 12: Commercial Operation Date (COD) approved by the Commission

Asset	Date of Charging of Assets	Claimed COD	Approved COD
Asset-1	02.08.2022	03.08.2022	22.08.2022
Asset-2	03.08.2022	03.08.2022	22.08.2022
Asset-3	20.08.2022	03.08.2022	22.08.2022

3.4 Energy flow and Nature of Asset

Petitioner's Submissions

3.4.1 The Petitioner has submitted that the Transmission Line (Asset-1) was planned to evacuate estimated power of 232 MW in Tangnu, Andhra and Rupin Valleys and other HEPs awarded to various IPP's by Government of HP. As number of projects are coming up in Pabbar river basin in Himachal Pradesh, therefore HPPTCL is intending to construct Integrated transmission system in the area due to the limited corridors availability.

3.4.2 The Petitioner has submitted that the scheme for 220/66 kV system of 132/220/66 kV GIS Sub-station at Sunda (Asset-2) was envisaged under Intra State System Strengthening Scheme in Himachal Pradesh-NR (Part B) with the objective of evacuating 64 MW of power of Small HEP's being pooled to Andhra Sub-station. Further, the HPPTCL envisaged to evacuate the same by constructing a LILO of 66 kV Andhra-Samoli Transmission Line at Sunda Sub-station and by construction of 66/220 kV, 80/100 MVA Sub-Station at Sunda.

3.4.3 The Petitioner submitted that 220 kV main bus bars and GIS facilities are common for both the systems i.e. 132/220 kV and 66/220 kV system. Therefore, 5 Nos. 220 kV Bays of 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda is being claimed as Asset-3 by excluding 2x80/100 MVA transformer banks along with associated system and tariff is being sought separately, which remains uncovered in Asset-2 i.e. 66/220 kV portion of 66/132/220 kV Sunda substation. The Asset-3 claims 3 Nos of bays associated with 220 kV GIS bus bar. It is therefore, mentioned that 220 kV main GIS bus bar is covered in Asset-3. The Petitioner mentioned that the Asset-3 is primarily utilized for evacuation of power from SHEPs to HPSEBL and to improve load imbalance and quality of supply in the Rohru-Hatkoti area, Chirgaon area and Dodra-Kwar area.

3.4.4 Further, the Petitioner has submitted that the HPSEBL is the sole beneficiary of all the 3 Assets as these Assets are being used by HPSEBL to draw power as well as to improve quality of supply to various distribution areas.

Commission's Analysis

3.4.5 As per the DPR for Asset-1, the total available potential in the Pabbar valley in Himachal Pradesh is about 496.80 MW, out of which 385.80 MW (except the power of Swara Kuddu of 111 MW) of generation will be evacuated through this transmission line (Asset-1). The Asset-1 was constructed to evacuate power from Rupin valley (103.60 MW including 45 MW from Rupin HEP), Andhra valley (38.20 MW), Tangnu valley (90 MW including 44 MW from Tangnu Romai HEP) and other HEPs such as Chirgaon Majhgaon HEP (60 MW), Paudital Lassa (24 MW) and Dhamwari Sunda HEP (70 MW).

3.4.6 Further, from the analysis of the CEA approval letter dated 05.06.2012 for Asset-1, which was submitted as Annexure to the main petition, the Commission observes that out of the 385.80 MW of generation that would be evacuated through transmission line (Asset-1), only 38.20 MW of energy generated from Andhra valley is being evacuated through 220/66 kV System of 132/220/66 kV GIS Sub-station (Asset-2) at Sunda. Further, as 220 kV main GIS bus bar covered in Asset-3 is having extension of 220 kV main GIS busbar for Asset-2, this would improve load imbalance and quality of supply for energy generated from Andhra valley of 38.20 MW.

3.4.7 Further, as per the DPR for Asset-2, which was further approved in the 39th Standing Committee Meeting on Power System Planning - Northern Region on 29.05.2017 and 30.05.2017, the Commission observes that about 64 MW power from small HEP has been granted connectivity at Andhra powerhouse of HPSEBL. Since the pooled power cannot be consumed at the local area, HPPTCL has planned to evacuate the power by 66 kV S/C Andhra-Samoli line, which is LILOed at 220/66 kV System of 132/220/66 kV GIS Sub-station at Sunda (Asset-2).

3.4.8 With regard to the flow of power through the assets, the Petitioner submitted that at present Andhra HEP (17 MW), Andhra Stage 2 (5 MW), Simla Hydro HEP (5 MW) and Gumma HEP (3 MW) are evacuating power from the Transmission Line (Asset-1) and supplying power to HPSEBL, which has further benefitted HPSEBL in improving the quality of supply in Rohru-Hatkoti area, Chirgaon area and Dodra-Kwar area.

3.4.9 Further, the Commission, in one of the deficiency letters sought updated details from the Petitioner on the current and future beneficiaries of the project. The Petitioner in reply submitted that the only beneficiary of all the assets is Himachal Pradesh State Electricity Board Limited (HPSEBL). In this regard, the (Transmission Service Agreement) TSA has also been executed with the HPSEBL dated 17.01.2023. Therefore, the Petitioner is directed to recover on the transmission charges from the identified long-term /medium-term beneficiaries of the Transmission Asset as per terms and conditions of the TSA/ Open Access Agreements.

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

3.5 Capital Cost

Petitioner's submissions

3.5.1 The Petitioner has submitted that subsequent to the BoD and CEA approvals, the works for implementation of Asset-1 were awarded to M/s. Shyama Power India Ltd. on turnkey basis for construction of 220 kV D/C Sunda- Hatkoti Twin Moose Transmission Line. The contractor was notified for Asset-1 about the supplies (First Contract) and the Services (Second Contract) vide Letter of Award (LoA) dated 28.05.2015, after carrying out due competitive bidding process.

3.5.2 The effective date of the contracts (First & Second Contract) for Asset-1 was 29.08.2016. The scheduled construction period as per the approved L-2 schedule for the Asset-1 was 18 months i.e., by 28.02.2018. However, on account of the factors such as delay due to Re-routing of the Transmission Line, introduction of 3 Nos. of Multi-Circuit Dead End Towers and delay in testing of the same, delay in site hand-over due to FCA case approval and public disputes on several locations, non-approval of shutdown of 66kV Andhra-Samoli Transmission line, non-approval of Shutdown on 66kV Samoli Nogli Transmission Line, delay due to meteorological conditions, delay due to ROW issues and delay in getting approval from Chief Electrical Inspector, the charging of the Asset-1 got delayed and was finally achieved on 03.08.2022 with an overall delay of around 53 months.

3.5.3 The awarded contract for Asset-1 was amended vide four Amendment Notifications (1-4) on account of deviation in quantity, implication of GST, revised rates and Reimbursement of losses due to non-availability of store. The summary of amendments carried out is as shown in the table below:

Table 13: Summary of Contract Value with Amendments issued for Asset-1 (Rs. Crore)

Particulars	Supply Contract	Service Contract	Total Value
Initial Award Price	**32.68**	**23.74**	**56.42**
1st Amendment*	5.13	20.02	25.15
2nd Amendment	1.38	2.66	4.04
3rd Amendment	-	0.33	0.33
4th Amendment	0.03	-	0.03
Final Contract Value	**39.39**	**46.75**	**86.14**

**Deviation in quantity occurred due to change in line route & provision of Multi-Circuit Towers*

3.5.4 The Petitioner has submitted that the construction work of Asset-1 was awarded at a contract price of Rs. 56.42 Cr. (Rs. 32.68 Cr. for Supplies part plus Rs. 23.74 Cr. for erection part) against the DPR Cost of Rs. 69.20 Cr., after following the competitive bidding process.

3.5.5 Further, the Petitioner submitted that the Contract Price after final amendment has increased to Rs. 86.14 Crore vis-a-vis initial awarded cost of Rs. 56.42 Crore for Asset-1.

3.5.6 The Petitioner has submitted that the Capital Cost of Asset-1 as on COD i.e., as on 03.08.2022 of the scheme inclusive of IDC and Departmental Charges is Rs. 129.79 Cr.

3.5.7 Accordingly, the Petitioner has prayed the Commission to approve the actual cost claimed as on COD for the purpose of working out the tariff for Asset-1.

Table 14: Details of variation in Cost (Rs. Crore) as submitted by the Petitioner – Asset-1

<table>
<tr><th>Particulars</th><th>DPR Cost</th><th>Initial Contract Award Price</th><th>Contract Award Price after amendment 1 – 4</th><th>Actual Cost as on COD</th></tr>
<tr><td>Supply</td><td>34.12</td><td>32.68</td><td>39.39</td><td>39.00</td></tr>
<tr><td>Erection</td><td>14.05*</td><td>23.74</td><td>46.75</td><td>46.49</td></tr>
<tr><td>Contingency @ 3%</td><td>1.45</td><td colspan="2" rowspan="4">These expenses do not form part of award cost</td><td>-</td></tr>
<tr><td>Forest Clearance and other misc. expenses</td><td>12.16</td><td>7.29</td></tr>
<tr><td>Departmental Charges</td><td>5.32</td><td>6.10</td></tr>
<tr><td>Interest During Construction</td><td>2.10</td><td>30.92</td></tr>
<tr><td>Total</td><td>69.20</td><td>56.42</td><td>86.14</td><td>129.79</td></tr>
</table>

**Type Tests included*

3.5.8 With regards to Asset-2, the works for implementation was awarded to M/s. TBEA Energy (India) Private Ltd. on turnkey basis, subsequent to the BoD and CEA approvals. The contractor was notified for Asset-2 about the supplies (First Contract) and the Services (Second Contract) vide Letter of Award (LoA) dated 08.03.2019, after carrying out due competitive bidding process.

3.5.9 The effective date of the contracts (First & Second Contract) for Asset-2 was 23.05.2019. The scheduled construction period as per the approved L-2 schedule for the Asset-2 was 18 months i.e., by 23.11.2020. However, on account of the factors such as delay due to COVID -19, non-availability of Drawings and Inclement weather conditions, the charging of the Asset-2 got delayed and was finally achieved on 03.08.2022 with a delay of around 20 months.

3.5.10 The awarded contract for Asset-2 was amended vide five Amendment notifications (1-5) on account of change in Scope of Work and variation in quantity of material, equipment etc. The summary of amendments carried out is as shown in the table below:

Table 15: Summary of Contract Value with Amendments Issued for Asset-2

Particulars	Supply Contract		Service Contract	Total Contract Value	
	USD	Rs. Cr.	Rs. Cr.	USD	Rs. Cr.
Initial Award Price	**17,35,166.40**	**20.54**	**4.33**	**17,35,166.40**	**24.87**

Particulars	Supply Contract		Service Contract	Total Contract Value	
	USD	Rs. Cr.	Rs. Cr.	USD	Rs. Cr.
1st Amendment	-	-	0.11	-	0.10
2nd Amendment	-	1.38	0.03	-	1.42
3rd Amendment	-	(0.73)	(0.07)	-	(0.80)
4th Amendment	-	-	0.32	-	0.32
5th Amendment	-	-	(0.10)	-	(0.10)
Total	**17,35,166.40**	**21.19**	**4.62**	**17,35,166.40**	**25.81**

3.5.11 The Petitioner has submitted that as per the original DPR, the estimated project cost was Rs. 63.00 Crore for Asset-2. The cost included in the DPR was inclusive of Rs. 15.00 Crore towards cost of LILO of 66 kV Andhra-Samoli Line at Sunda. Therefore, the DPR Cost claimed by the Petitioner against Asset-2 is Rs. 45.67 Cr., which excludes the cost of Rs. 15 Cr. and its IDC and DC impacts towards LILO of 66 kV Andhra-Samoli Line at Sunda. Against the DPR Cost considered for Asset-2, the work for construction was awarded at Contract Price of USD 17,35,166.40 and Rs. 24.87 Cr. (USD 17,35,166.40 and Rs. 20.54 Cr. for Supplies part plus Rs. 4.33 Cr. for erection part) after following the competitive bidding process.

3.5.12 Further, the Petitioner has submitted that the Contract Price after final amendment has increased to USD 17,35,166.40 and Rs. 25.81 Crore vis-a-vis initial awarded cost of USD 17,35,166.40 and Rs. 24.87 Crore for Asset-2.

3.5.13 The Petitioner has submitted that the Capital Cost of Asset-2 as on COD i.e., as on 03.08.2022 of the scheme inclusive of IDC and Departmental Charges is Rs. 41.94 Cr.

3.5.14 Further, the Petitioner has submitted that for the purpose of comparison, conversion of dollar component i.e., USD 17,35,166.40 to Rupees is carried out as per Bills Clearing (B.C.) Selling Market Rate of Exchange (MRE) established by State Bank of India (SBI) on 08.02.2019 (28 days prior to the date of Contract Award) i.e., 1 USD= Rs. 71.29.

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

Table 16: Details of variation in Cost (Rs. Crore) as submitted by the Petitioner – Asset-2

Particulars	DPR Cost	Initial Contract Award Price	Contract Award Price after amendment 1 – 5	Actual Cost as on COD
Supply & Erection Cost	38.87	37.24**	38.18**	37.38
Contingency	1.59	These expenses do not form part of award cost		-
Misc. Expenses (Labour Licence Fee, Home Guard Salary, Inauguration Exp. Water Supply, Line Shifting &	-			1.51#

Particulars	DPR Cost	Initial Contract Award Price	Contract Award Price after amendment 1 – 5	Actual Cost as on COD
Other Exp.)				
Departmental Charges	*4.19*			*1.40*
Interest During Construction	*1.82*			*1.65*
Total	**45.67***	**37.24**	**37.97**	**41.94**

** Cost of Rs. 45.67 Crores has been worked out after exclusion of LILO cost of 66 kV Andhra-Samoli Line amounting to Rs. 15 Crores and after considering its impact in DC & IDC cost.*
 # Amount of Rs. 1.51 Crores includes misc. expenses and Consultancy Charges.
*** Considered 1 USD= Rs. 71.29*

3.5.16 With regards to 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda (which includes Asset-3), the works for implementation was awarded to M/s. TBEA Energy (India) Private Ltd. on turnkey basis, subsequent to the BoD and CEA approvals. The contractor was notified for Asset-3 about the supplies (First Contract) and the Services (Second Contract) vide Letter of Award (LoA) dated 05.04.2018, after carrying out due competitive bidding process.

3.5.17 The effective date of the contracts (First & Second Contract) was 25.05.2018. The scheduled construction period as per the approved L-2 schedule for the 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda was 24 months i.e., by 25.05.2020. However, on account of the factors such as COVID -19, non-availability of work fronts due to presence of scrap materials and big boulders, Inclement weather conditions, delay in COD of 220/66 kV system of Sunda Substation and delay in COD of 220 kV D/C Sunda-Hatkoti Transmission Line, the charging of the Asset-3 got delayed and was finally achieved on 03.08.2022 with a delay of around 26 months.

3.5.18 The awarded contract for 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda was amended vide 10 (ten) Amendment notifications (1-10) on account of addition of Epoxy Flooring, amendment in GST, variation in supply quantities, change in scope of work and unit rates, etc. The summary of amendments carried out is as shown in the table below:

Table 17: Summary of Contract Value with Amendments Issued for 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda (which includes Asset-3)

Particulars	Supply Contract		Service Contract	Total Contract Value	
	USD	Rs. Cr.	Rs. Cr.	USD	Rs. Cr.
Initial Award Price	**22,62,502.12**	**36.76**	**11.43**	**22,62,502.12**	**48.19**
1st Amendment	-	-	0.09	-	0.09
2nd Amendment	-	(0.27)	-	-	(0.27)
3rd Amendment	-	(1.51)	-	-	(1.51)
4th Amendment	-	-	4.23	-	4.23
5th Amendment	-	-	0.68	-	0.68

Particulars	Supply Contract		Service Contract	Total Contract Value	
	USD	Rs. Cr.	Rs. Cr.	USD	Rs. Cr.
6th Amendment	-	(0.16)	0.07	-	0.09
7th Amendment	-	(1.19)	-	-	(1.19)
8th Amendment	-	-	0.002	-	0.002
9th Amendment	-	-	0.17	-	0.17
10th Amendment	-	(0.43)	-	-	(0.43)
Total	**22,62,502.12**	**33.20**	**16.66**	**22,62,502.12**	**49.85**

3.5.19 The Petitioner has submitted that as per the original DPR, the estimated project cost was Rs. 77.01 Crore for 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda. Against the DPR Cost considered for 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda, the work for construction was awarded for Contract Price of USD 22,62,502.12 and Rs. 48.19 Cr. (USD 22,62,502.12 and Rs. 36.76 Cr. for Supplies part plus Rs. 11.43 Cr. for erection part) after following the competitive bidding process.

3.5.20 Further, the Petitioner has submitted that the Contract Price after final amendment has increased to USD 22,62,502.12 and Rs. 49.85 Cr. Crore vis-a-vis initial awarded cost of USD 22,62,502.12 and Rs. 48.19 Crore for 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda.

3.5.21 The Petitioner has submitted that the Capital Cost of 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda as on COD i.e., as on 03.08.2022 inclusive of IDC and Departmental Charges is Rs. 85.21 Cr.

3.5.22 For segregating the Asset-3 from the 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda, the Petitioner has provided the bifurcation of complete BOQ as per the Original Award of the Contract between 132 kV and 220 kV system based on intended utilization of asset as under:

Table 18: Bifurcation of Original Award Cost of 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda into 220 kV & 132 kV System, as submitted by the Petitioner

Description	Total Contract Value	Contract Value (Original Award)
	Rs. Cr.	%
220 kV System	29.88	47.50%
132 kV System	33.03	52.50%
Total Original Award Cost	**62.91**	**100%**

Total Original Award Cost in Rs. Crore (USD portion to INR based on conversion factor @ 65.07)

3.5.23 The Petitioner submitted that the methodology adopted for segregating 220 kV side of 132/220 kV portion of 132/220/66 kV GIS Sub-station at Sunda, is as follows:

The common expenditure except the cost of Land has been allocated in the ratio of 47.50:52.50 among 220 kV and 132 kV system. The ratio of 47.50:52.50 has been arrived based on expenditures of 220 kV & 132 kV system in the Original Award of the Contract. The cost of Land has been allocated to 220 kV System and is being claimed in the instant Petition since 220 kV System is in operation for both 132/220 kV system as well as 220/66 kV system of 132/220/66 kV GIS Sub-station at Sunda.

3.5.24 Further, the Petitioner has submitted that for the purpose of comparison, conversion of dollar component i.e., USD 22,62,502.12 to Rupees is carried out as per Bills Clearing (B.C.) Selling Market Rate of Exchange (MRE) established by State Bank of India (SBI) on 27.05.2018 (28 days prior to the date of Contract Award) i.e., 1 USD= Rs. 65.07.

3.5.25 Accordingly, the Petitioner has prayed the Commission to approve the actual cost claimed as on COD for the purpose of working out the tariff for Asset-3.

Table 19: Details of variation in Cost (Rs. Crore) as submitted by the Petitioner – Asset-3

Particulars	DPR Cost	Allocated DPR Cost*	Allocated Contract Award Price after amendment 1 – 10*	Actual Cost claimed as on COD*
	A	B=47.50%*A	C	D
Supply & Erection Cost	58.90	27.98	30.87**	29.23
Contingency	1.96	0.93	These expenses do not form part of award cost	-
Misc. Expenses (Land Acquisition and Civil Works)	6.47	3.07		10.44#
Departmental Charges	*7.19*	*3.42*		*1.51*
Interest During Construction	*2.49*	*1.18*		*4.71*
Total	**77.01**	**36.58**	**30.87**	**45.90**

** Apportioned cost of DPR, LoA after amendment and actual cost as on COD to 220 kV system as worked out based on the ratio of 47.50:52.50 arrived based on expenditures of 220 kV & 132 kV system in the Original Award to the Contract.*
 # Amount of Rs 10.44 Crores includes Land Cost of Rs. 10.32 Crore and other misc. expenses of Rs. 0.12 Crore.
*** Considered 1 USD= Rs. 65.07.*

Commission's Analysis

3.5.26 The Commission noted that the Petition submitted by the Petitioner is for 3 assets for which the competent authorities had approved the schemes separately. Further, the Petitioner awarded the works separately for each asset. The Capital cost approved for each asset has been discussed in the following paragraphs:

A. <u>Asset-1: 220 kV D/C Sunda – Hatkoti Twin Moose Transmission Line:</u>

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

3.5.28 The Commission observes that the cost of Asset-1 as per DPR was Rs. 69.20 Cr. which includes Rs. 48.17 Cr. towards Supply & Erection cost, Rs. 13.61 Cr. towards Miscellaneous charges, Rs. 5.32 Cr. towards Departmental Charges and Rs. 2.10 Cr. towards Interest During Construction (IDC). The scheme for construction of Asset-1 was approved in its BoD meeting held on 22.03.2012 vide Agenda Item No. 15.07. Subsequently, the CEA gave its approval to Asset-1 on 05.06.2012. The Commission observes that the cost approved by the Board of Directors (BoD) for Asset-1 initially was at Rs. 76.90 Cr. However, the Central Electricity Authority (CEA) approved the cost for Asset-1 at Rs. 69.20 Cr., which is similar to the DPR.

3.5.29 As per the copy of the contracts provided, the Supplies and Services contract for the Asset-1 was awarded to M/s Shyama Power India Ltd. on turnkey basis at Rs. 56.42 Cr. In response to the query raised on major deviation in price as envisaged in DPR for the Supplies and Services at Rs. 48.17 Cr. and that in the initial award for Asset-1 at Rs. 56.42 Cr., the Petitioner has submitted that the DPR for construction of Asset-1 was approved based on price level of 4th quarter of 2011 whereas, the notification of award for the construction of said scheme was placed on 28.05.2015.

3.5.30 The Commission with respect to the selection process of Contractor has observed that the competitive bidding mechanism was followed by the Petitioner and the contract was awarded to M/s Shyama Power India Ltd. at an amount of Rs. 56.42 Cr. with a completion period of 18 months, from an effective date of 29.08.2016.

3.5.31 As per the subsequent submissions of the Petitioner, the Commission has noted that the awarded contract was amended four times owing to the factors such as deviation in quantity, revised rates for revetment works, GST implications, etc.

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

Table 20: Summary of Contract Value and Amendments for Asset-1 (Rs. Cr.)

Particulars	Date of Amendment	Supply Contract	Services Contract	Total Cost	Reasons for Amendment
Asset 1					
Award Price	28.05.2015	32.68	23.74	56.42	Original Contract Value
1st Amendment	01.03.2019	37.81	43.76	81.57	Variation in Quantities, GST Implication and Revised Rates for Revetment Work due to Negotiation thereof
2nd Amendment	31.12.2019	39.36	46.43	85.79	Deviation in quantity
3rd Amendment	22.12.2021	39.36	46.75	86.11	Deviation in quantity
4th Amendment	05.06.2023	39.39	46.75	86.14	Losses due to non-availability of store

3.5.33 The Commission, as per the submissions of the Petitioner, has noted the reasons for the 2nd and 3rd Amendment. As per the proofs submitted, the contract price revisions were attributed to variation in quantity due to increase in the length of power cable, number of soil investigations, benching of tower footings and control cable.

3.5.34 In addition, with regards to 4th Amendment, the contract price revision was attributed to Reimbursement of losses due to non-availability of store, which included expenses towards Store Rent, Store Watch & Ward and Store Staff Salary.

3.5.35 The Commission has noted that the major enhancement in contract price is due to 1st Amendment i.e., Rs. 25.15 Cr. As per these amendment letters, the variation in cost was on account of variation in quantities, GST implication and revised rates for Revetment works as shown in Table below:

Table 21: Summary of Deviation in Amendment No.1 - Supplies portion for Asset-1 (Rs. Cr.)

Sl. No.	Description	Deviation Amount (Rs. Cr.)
1	Enhancement due to variation in quantities	4.13
2	Impact due to introduction of GST	1.00
3	**Total deviation in Supplies portion**	**5.13**

3.5.36 Enhancement due to variation in quantities was primarily due to introduction of 3 No. of Multi Circuit Towers. Also, due to change in line route, line length was increased from 23 km to 25.33 km and consequently, the number of towers were increased from 65 to 69 which, further increased the quantities of ACSR Moose Conductor and OPGW along with its accessories.

Table 22: Summary of Deviation in Amendment No.1 - Installation and Services portion for Asset-1 (Rs. Cr.)

Sl. No.	Description	Deviation Amount (Rs. Cr.)
1.	Enhancement due to variation in quantities	18.90
2.	Impact due to introduction of GST	2.02
3.	Impact of negotiation for item Rubble Masonry Work	-0.91
4.	**Total deviation in Erection portion**	**20.02**

3.5.37 Subsequent to increase in line length and number of towers, there was also variation in installation & services quantities in the form of increased Survey work, Benching work and revetment works.

3.5.38 The Commission observes that the increase in line length and number of towers is relatively marginal, however, the corresponding increase in erection cost due to variation in quantities is considerably high at Rs. 18.90 Cr. While the justification submitted by the Petitioner indicates that the increase is on account of change in line route and consequent rise in installation and associated works, the Commission is of the view that such a high escalation requires careful scrutiny. Therefore, considering the submissions of the Petitioner, the Commission provisionally approves the cost towards Amendment-1, subject to detailed scrutiny at the time of truing-up and submission of BoD approval for the final cost including amendments to the LoA.

3.5.39 Further, the cost claimed as on COD (i.e., on 03.08.2022) by the Petitioner has been Rs. 85.49 Cr. (supply cost as Rs. 39.00 Cr. and service cost as Rs. 46.49 Cr.) against the last amended cost (i.e., vide 4th amendment) of Rs. 86.14 Cr. (supply cost as Rs. 39.39 Cr. and service cost as Rs. 46.75 Cr.). In this regard, the Commission sought justification from the Petitioner on deviation in cost as on COD against the last amended cost (i.e., vide 4th amendment), as no specific reason was submitted by the Petitioner. In response, the Petitioner has submitted that as on COD, the amount booked in favour of the two separate Contractors has been as below:

Table 23: Details of payments made to the Contractors for Asset-1 (Rs. Lakh)

Sl. No.	Name of firm/Contractor	Amount (Rs. Lakh)
1.	M/s Shyama Power India Limited	3,899.72
2.	M/s Zordor Industries (T -clamps for ACSR Moose Conductor)	0.13
3.	**Total cost of supply up to COD**	**3,899.85**

3.5.40 The Commission hereby notes that the payment made to the M/s Zordor Industries for installing T -clamps for ACSR Moose Conductor, is for the work outside the scope of the main contractor. Therefore, the Commission has disallowed this amount of Rs. 0.13 Lakh. In reply to the query, the Petitioner has submitted the payment proofs against these expenses mentioned. The Commission has scrutinized the payment proofs in detail and accordingly, has allowed only Rs. 3,899.72 Lakh.

3.5.41 No doubt, the Petitioner has submitted the Auditor's Certificate for the claimed amount as on COD in response to the query of the Commission, but, based on the due diligence of the supporting documents and Auditor's Certificate, the Commission has allowed an amount of Rs. 3,899.72 Lakh only against the claim of Rs. 3,899.85 Lakh.

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

Table 24: Hard Cost approved by Commission for Asset-1 (Rs. Cr.)

Particulars	DPR Cost	Amended Contract Cost	Claimed Cost as on COD	Approved Cost as on COD
Supply	34.12	39.39	39.00	39.00*
Service/Erection	14.05	46.75	46.49	46.49
Total	**48.17**	**86.14**	**85.49**	**85.49**

**Rs. 0.13 Lakh disallowed towards payment made to M/s Zordor Industries*

3.5.43 With regard to the 'Miscellaneous Expenses', the Petitioner has claimed an amount of Rs. 7.29 Cr. On initial scrutiny, the Commission did not find any details with regard to the payment. In response to the queries, the Petitioner submitted the supporting documents against the claimed amount of Rs. 7.29 Cr. In view of the submitted Auditor's Certificate and payment proofs for miscellaneous expenses, the Commission has approved the cost as described in the following table.

Table 25: Miscellaneous Expenses approved by Commission for Asset-1 (Rs. Cr.)

Particulars	DPR Cost	Claimed Cost as on COD	Auditor's Certificate	Approved as on COD
PTCC Clearance	0.01	-	-	-
Land Cost/Crop Compensation	0.22	2.54	2.54	2.54
Forest Clearance	11.04	3.18	3.18	3.18
Centages and Contingencies for forest @ 8%	0.88	-	-	-
Contingency @3%	1.45	-	-	-
Right of Way	-	1.21	1.21	1.21
Tree Compensation Charges	-	0.12	0.12	0.12
Survey Work	-	0.17	0.17	0.17
A&G Expenses	-	0.03	0.03	0.03
Testing Charges	-	0.03	0.03	0.03
Tender Expense/ Adv.	-	0.01	0.01	0.01
Total	**13.61**	**7.29**	**7.29**	**7.29**

B. Asset-2: 220/66 kV System of 132/220/66 kV GIS Sub-station at Sunda:

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

3.5.45 The Commission has observed that as per the original DPR, the estimated project cost was Rs. 63.00 Crore. The cost included in the DPR was inclusive of Rs. 15.00 Crore towards cost of LILO of 66 kV Andhra-Samoli Line at Sunda. Therefore, the Asset-2 cost as per DPR (after excluding Rs. 15 Cr. towards cost of LILO of 66 kV Andhra-Samoli Line at Sunda and its IDC and DC impacts) was Rs. 45.67 Cr. which included Rs. 32.87 Cr. towards Supply & Erection cost, Rs. 6.79 Cr. towards Miscellaneous charges, Rs. 4.19 Cr. towards Departmental Charges and Rs. 1.82 Cr. towards Interest During Construction (IDC). The scheme for construction of Asset-2 was approved in the 32nd BoD Meeting of the Petitioner held on 28.12.2016. Subsequently, the CEA gave its approval to Asset-2 in 39th Standing Committee Meeting on Power System Planning - Northern Region (SCMPSPNR) held on 29.05.2017 and 30.05.2017. The approval from the BoD and CEA for Asset-2 was for Rs. 63 Cr. inclusive of Rs. 15.00 Crore towards cost of LILO of 66 kV Andhra-Samoli Line at Sunda.

3.5.46 Further, the Commission has carried out the conversion of dollar component i.e., USD 17,35,166.40 to Rupees as per Bid Evaluation Report submitted by the Petitioner for Asset-2 i.e., 1 USD= Rs. 73.55 against the claim of 1 USD= Rs. 71.29.

3.5.47 As per the copy of the contracts provided, the Supplies and Services contract for the Asset-2 was awarded to M/s TBEA Energy (India) Private Ltd. on turnkey basis at USD 17,35,166.40 and Rs. 24.87 Cr. (Rs. 37.63 Cr. as per approved conversion rate at 1 USD= Rs. 73.55). In response to the query raised on major deviation in price as envisaged in DPR for the Supplies and Services at Rs. 32.87 Cr. as against the initial award for Asset-2 at Rs. 37.63 Cr., the Petitioner has submitted that the DPR for construction of Asset-2 was approved based on price level of 2016-17 whereas, the notification of award for the construction of said scheme was placed on 08.03.2019.

3.5.48 The Commission with respect to the selection process of Contractor has observed that the competitive bidding mechanism was followed by the Petitioner and the contract was awarded to M/s TBEA Energy (India) Private Ltd. at an amount of Rs. 37.63 Cr. with a completion period of 18 months, from an effective date of 23.05.2019.

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

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

Table 26: Summary of Contract Value and Amendments for Asset-2 (Rs. Cr.)

Particulars	Date of Amendment	Supply Contract	Services Contract	Total Cost	Reasons for Amendment
Asset 2					
Award Price	08.03.2019	33.33	4.33	37.63	Original Contract Value
1st Amendment	28.01.2021	33.33	4.44	37.74	Addition of new items in the Original BOQ
2nd Amendment	19.05.2022	34.68	4.47	39.15	Deviations in BOQ items and Inclusion of new items
3rd Amendment	10.06.2022	33.95	4.40	38.36	Deviations in BOQ items and Inclusion of new items
4th Amendment	21.01.2023	33.95	4.72	38.67	Deviations in Civil quantities
5th Amendment	03.11.2023	33.95	4.62	38.57	Deviations in Civil quantities

3.5.51 The Commission has noted that the reasons for 1st Amendment are attributed to use of Epoxy Flooring in GIS Halls and Soil Filling work for raising the required Finished Ground Level.

3.5.52 The Commission finds that the reasons for 2nd Amendment are attributed to deviations occurred in BOQ items i.e., Fire Detection System, Earthing Material and Power and Control Cables, etc. during detailed engineering and as per site requirement and inclusion of new items of Tools & Plants, Testing and Maintenance Equipment to complete the entire scope of work including additional and main works.

3.5.53 The Commission observes that the reasons for 3rd Amendment are attributed to deviations occurred in BOQ items i.e., 220 kV & 66 kV Structure, Ventilation System, PLCC Equipment, Fire Extinguishing System, LT & Control Cables & Earthing Materials, etc. during detailed engineering and as per site requirement and inclusion of new items of Tools & Plants i.e., Earth Resistance Tester, Electric Conductor Cutter & Flat File which were left inadvertently for inclusion in the issued Amendment No. 2.

3.5.54 The Commission, as per the submissions of the Petitioner, has noted that the reasons for the 4th and 5th Amendment are attributed to Deviations in Civil quantities.

3.5.55 Further, the cost claimed as on COD by the Petitioner has been Rs. 37.38 Cr. (supply cost as Rs. 34.77 Cr. and service cost as Rs. 2.61 Cr.) against the last amended cost of Rs. 38.57 Cr. (supply cost as Rs. 33.95 Cr. and service cost as Rs. 4.62 Cr.). In this regard, the Commission sought justification from the Petitioner as no specific reason for the same was submitted by the Petitioner. In response, the Petitioner has submitted that as on COD the amount booked in favour of the Contractor has been Rs. 37.38 Cr. against the final awarded cost of Rs. 38.57 Cr. In addition, the latest 2 (two) amendment to the LoA (i.e., 4th and 5th Amendment) were on 21.01.2023 and 03.11.2023 respectively, which are after the COD date of 03.08.2022.

3.5.56 The Commission sought payment proofs with regard to the payment made to the Contractor as on COD against Supplies and Services Contract. In response, the Petitioner has submitted the payment details. The Commission has done scrutiny of the payment proofs provided and observes that the claimed Capital cost as on COD is within the LOA after amendment.

3.5.57 Further, the Petitioner has also submitted the Auditor's Certificate for the claimed amount as on COD, in response to the Commission's query. Therefore, the Commission has approved an amount of Rs. 37.38 Cr. against the claim of Rs. 37.38 Cr. as per the supporting documents and Auditor's Certificate

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

Table 27: Hard Cost approved by Commission for Asset-2 (Rs. Cr.)

Particulars	DPR Cost	Amended Contract Cost*	Claimed Cost as on COD	Approved Cost as on COD
Supply	32.87	33.95	34.77	34.77
Service/Erection		4.62	2.61	2.61
Total	**51.39**	**38.57**	**37.38**	**37.38**

** Considered 1 USD= Rs. 73.55 for converting USD portion of the Contract*

3.5.59 With regard to the 'Miscellaneous Expenses', the Petitioner has claimed an amount of Rs. 1.51 Cr. On initial scrutiny, the Commission did not find any details with regard to the payment. In response to the queries, the Petitioner has submitted the supporting documents against the claimed amount of Rs. 1.51 Cr. In view of the submitted Auditor's Certificate and payment proofs for miscellaneous expenses, the Commission has approved the cost as described in the following table.

Table 28: Miscellaneous Expenses approved by Commission for Asset-2 (Rs. Cr.)

Particulars	DPR Cost	Claimed Cost as on COD	Auditor's Certificate	Approved as on COD
Land Acquisition	*0.20*	-	-	-
Forest Compensation Charges	*5.00*	-	-	-
Contingency @3%	*1.59*	-	-	-
AECOM Consultancy Expenses	-	1.42	1.42	1.42
Tender Expenses	-	0.0428	0.0428	0.0428
Testing Charges	-	0.0385	0.0385	0.0385
Site Supervision	-	0.0012	0.0012	0.0012
A&G Expense	-	0.0016	0.0016	0.0016
Total	**6.79**	**1.51**	**1.51**	**1.51**

C. Asset-3: 5 Nos. of 220 kV Bays of 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda:

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

3.5.61 The Commission observes that the cost for whole 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda as per DPR was Rs. 77.01 Cr. which included Rs. 57.20 Cr. towards Supply and Erection, Rs. 10.14 Cr. towards Miscellaneous charges, Rs. 7.19 Cr. towards Departmental Charges and Rs. 2.49 Cr. towards Interest During Construction (IDC). The scheme for construction of whole 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda was approved by the BOD in its meeting vide Agenda Item No. 15.07 held on 22.03.2012. Subsequently, the CEA gave its approval to whole 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda on 05.06.2012. The Commission observes that the cost approved by the Board of Directors (BoD) and Central Electricity Authority (CEA) was Rs. 77.01 Cr., which is similar to the DPR cost.

3.5.62 The Commission with respect to the selection process of Contractor observes that the competitive bidding mechanism was followed by the Petitioner for 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda and the contract was awarded to M/s TBEA Energy (India) Private Ltd. on turnkey basis at an amount of Rs. 62.91 Cr. with a completion period of 24 months, from the effective date of 25.05.2018.

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

3.5.64 The Commission had raised a query to provide the detail of the cost of whole 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda into 3 components namely (a) 5 No. of 220 kV bays; (b) 3 No. of 132 kV bays; and (c) 2 x 80/100 MVA Transformer Bank, instead of bifurcating into only 2 components i.e., 132 kV and 220 kV system, as claimed by the Petitioner. In response to the query, the Petitioner has provided the detailed BOQ with bifurcation of the whole 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda into 3 components for the Awarded Value along with all its amendments as shown below:

Table 29: Bifurcation of Awarded Contract Value and its Amendments for 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda as submitted by the Petitioner

Sl. No.	Particulars	Supplies		Erection	Total	
		USD	Rs.	Rs.	USD	Rs.
A.	**LOA**					
	220 kV Bays	8,20,408	10,17,53,674	10,65,21,237	8,20,408	20,82,74,910
	132 kV Bays	10,96,287	3,99,40,581	37,68,327	10,96,287	4,37,08,909
	Transformer Bank	3,45,807	22,58,96,173	40,21,474	3,45,807	22,99,17,647
	Sub-total	**22,62,502**	**36,75,90,428**	**11,43,11,038**	**22,62,502**	**48,19,01,466**
B.	**Amendment-1 (incremental change)**					
	220 kV Bays	-	-	8,54,910	-	8,54,910
	132 kV Bays	-	-	-	-	-
	Transformer Bank	-	-	-	-	-
	Sub-total	**-**	**-**	**8,54,910**	**-**	**8,54,910**
C.	**Amendment-2 (incremental change)**					
	220 kV Bays	-	(12,84,309)	-	-	(12,84,309)
	132 kV Bays	-	(2,24,097)	-	-	(2,24,097)
	Transformer Bank	-	(11,63,315)	-	-	(11,63,315)
	Sub-total	**-**	**(26,71,721)**	**-**	**-**	**(26,71,721)**
D.	**Amendment-3 (incremental change)**					
	220 kV Bays	-	(1,51,081)	-	-	(1,51,081)
	132 kV Bays	-	15,26,686	-	-	15,26,686
	Transformer Bank	-	(1,64,70,199)	-	-	(1,64,70,199)
	Sub-total	**-**	**(1,50,94,594)**	**-**	**-**	**(1,50,94,594)**
E.	**Amendment-4 (incremental change)**					
	220 kV Bays	-	-	4,22,52,521	-	4,22,52,521
	132 kV Bays	-	-	-	-	-
	Transformer Bank	-	-	-	-	-
	Sub-total	**-**	**-**	**4,22,52,521**	**-**	**4,22,52,521**
F.	**Amendment-5 (incremental change)**					
	220 kV Bays	-	-	68,76,503	-	68,76,503

Sl. No.	Particulars	Supplies		Erection	Total	
		USD	Rs.	Rs.	USD	Rs.
	132 kV Bays	-	-	1,97,409	-	1,97,409
	Transformer Bank	-	-	(3,18,704)	-	(3,18,704)
	Sub-total	**-**	**-**	**67,55,208**	**-**	**67,55,208**
G.	**Amendment-6 (incremental change)**					
	220 kV Bays	-	(16,66,864)	7,46,245	-	(9,20,619)
	132 kV Bays	-	-	-	-	-
	Transformer Bank	-	-	-	-	-
	Sub-total	**-**	**(16,66,864)**	**7,46,245**	**-**	**(9,20,619)**
H.	**Amendment-7 (incremental change)**					
	220 kV Bays	-	(1,19,09,838)	-	-	(1,19,09,838)
	132 kV Bays	-	-	-	-	-
	Transformer Bank	-	-	-	-	-
	Sub-total	**-**	**(1,19,09,838)**	**-**	**-**	**(1,19,09,838)**
I.	**Amendment-8 (incremental change)**					
	220 kV Bays	-	-	19,398	-	19,398
	132 kV Bays	-	-	-	-	-
	Transformer Bank	-	-	-	-	-
	Sub-total	**-**	**-**	**19,398**	**-**	**19,398**
J.	**Amendment-9 (incremental change)**					
	220 kV Bays	-	-	16,70,899	-	16,70,899
	132 kV Bays	-	-	-	-	-
	Transformer Bank	-	-	-	-	-
	Sub-total	**-**	**-**	**16,70,899**	**-**	**16,70,899**
K.	**Amendment-10 (incremental change)**					
	220 kV Bays	-	(43,19,510)	-	-	(43,19,510)
	132 kV Bays	-	-	-	-	-
	Transformer Bank	-	-	-	-	-
	Sub-total	**-**	**(43,19,510)**	**-**	**-**	**(43,19,510)**
L.	**Final Cost including Amendments**					
	220 kV Bays	8,20,408	8,24,22,072	15,89,41,713	8,20,408	24,13,63,784
	132 kV Bays	10,96,287	4,12,43,170	39,65,736	10,96,287	4,52,08,907
	Transformer Bank	3,45,807	20,82,62,659	37,02,770	3,45,807	21,19,65,429
	Total	**22,62,502**	**33,19,27,901**	**16,66,10,219**	**22,62,502**	**49,85,38,120**

3.5.65 Based on the analysis of the detailed BOQ of the Awarded Contract value along with all its amendments for the whole 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda, the Commission found out that the cost towards Civil Works and Training imparted to the employees has not been segregated into the 3 components and has been claimed as part of Asset-3 only by the Petitioner. In addition, the cost of Land has been allocated to 220 kV System and is being claimed by the Petitioner, since 220 kV System is in operation for both 132/220 kV system as well as 220/66 kV system of 132/220/66 kV GIS Sub-station at Sunda. Therefore, the Commission has allocated these costs towards Civil Works and Training imparted to the employees between 3 components in the same ratio allocated between 220 kV bays, 132 kV bays and Transformer bays after excluding cost of Land. Accordingly, the revised BOQ with bifurcation of the 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda into 3 components for the Awarded Value along with all its amendments approved by the Commission is as shown below:

Table 30: Bifurcation of Awarded Contract Value and its Amendments for 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda as approved by the Commission

Sl. No.	Particulars	Supplies		Erection	Total	
		USD	Rs.	Rs.	USD	Rs.
A.	**LOA**					
	220 kV Bays	8,16,257	10,17,53,674	3,90,54,328	8,16,257	14,08,08,001
	132 kV Bays	10,97,586	3,99,40,581	2,48,90,645	10,97,586	6,48,31,226
	Transformer Bank	3,48,658	22,58,96,173	5,03,66,066	3,48,658	27,62,62,238
	Sub-total	**22,62,502**	**36,75,90,428**	**11,43,11,038**	**22,62,502**	**48,19,01,466**
B.	**Amendment-1 (incremental change)**					
	220 kV Bays	-	-	8,54,910	-	8,54,910
	132 kV Bays	-	-	-	-	-
	Transformer Bank	-	-	-	-	-
	Sub-total	**-**	**-**	**8,54,910**	**-**	**8,54,910**
C.	**Amendment-2 (incremental change)**					
	220 kV Bays	-	(12,84,309)	-	-	(12,84,309)
	132 kV Bays	-	(2,24,097)	-	-	(2,24,097)
	Transformer Bank	-	(11,63,315)	-	-	(11,63,315)
	Sub-total	**-**	**(26,71,721)**	**-**	**-**	**(26,71,721)**
D.	**Amendment-3 (incremental change)**					
	220 kV Bays	-	(1,51,081)	-	-	(1,51,081)
	132 kV Bays	-	15,26,686	-	-	15,26,686
	Transformer Bank	-	(1,64,70,199)	-	-	(1,64,70,199)
	Sub-total	**-**	**(1,50,94,594)**	**-**	**-**	**(1,50,94,594)**

Sl. No.	Particulars	Supplies		Erection	Total	
		USD	Rs.	Rs.	USD	Rs.
E.	**Amendment-4 (incremental change)**					
	220 kV Bays	-	-	4,22,52,521	-	4,22,52,521
	132 kV Bays	-	-	-	-	-
	Transformer Bank	-	-	-	-	-
	Sub-total	**-**	**-**	**4,22,52,521**	**-**	**4,22,52,521**
F.	**Amendment-5 (incremental change)**					
	220 kV Bays	-	-	68,76,503	-	68,76,503
	132 kV Bays	-	-	1,97,409	-	1,97,409
	Transformer Bank	-	-	(3,18,704)	-	(3,18,704)
	Sub-total	**-**	**-**	**67,55,208**	**-**	**67,55,208**
G.	**Amendment-6 (incremental change)**					
	220 kV Bays	-	(16,66,864)	7,46,245	-	(9,20,619)
	132 kV Bays	-	-	-	-	-
	Transformer Bank	-	-	-	-	-
	Sub-total	**-**	**(16,66,864)**	**7,46,245**	**-**	**(9,20,619)**
H.	**Amendment-7 (incremental change)**					
	220 kV Bays	-	(1,19,09,838)	-	-	(1,19,09,838)
	132 kV Bays	-	-	-	-	-
	Transformer Bank	-	-	-	-	-
	Sub-total	**-**	**(1,19,09,838)**	**-**	**-**	**(1,19,09,838)**
I.	**Amendment-8 (incremental change)**					
	220 kV Bays	-	-	19,398	-	19,398
	132 kV Bays	-	-	-	-	-
	Transformer Bank	-	-	-	-	-
	Sub-total	**-**	**-**	**19,398**	**-**	**19,398**
J.	**Amendment-9 (incremental change)**					
	220 kV Bays	-	-	16,70,899	-	16,70,899
	132 kV Bays	-	-	-	-	-
	Transformer Bank	-	-	-	-	-
	Sub-total	**-**	**-**	**16,70,899**	**-**	**16,70,899**
K.	**Amendment-10 (incremental change)**					
	220 kV Bays	-	(43,19,510)	-	-	(43,19,510)
	132 kV Bays	-	-	-	-	-
	Transformer	-	-	-	-	-

Sl. No.	Particulars	Supplies		Erection	Total	
		USD	Rs.	Rs.	USD	Rs.
	Bank					
	Sub-total	**-**	**(43,19,510)**	**-**	**-**	**(43,19,510)**
L.	**Final Cost including Amendments**					
	220 kV Bays	8,16,257	8,24,22,072	9,14,74,804	8,16,257	17,38,96,875
	132 kV Bays	10,97,586	4,12,43,170	2,50,88,054	10,97,586	6,63,31,224
	Transformer Bank	3,48,658	20,82,62,659	5,00,47,362	3,48,658	25,83,10,020
	Total	**22,62,502**	**33,19,27,901**	**16,66,10,219**	**22,62,502**	**49,85,38,120**

3.5.66 Further, the Commission has carried out the conversion of dollar component i.e., USD 22,62,502.12 to Rupees as per Bid Evaluation Report submitted by the Petitioner i.e., 1 USD= Rs. 65.07, which is same as claimed by the Petitioner.

3.5.67 Based on the detailed analysis provided above, the Commission has outlined the contract revision values as under:

Table 31: Summary of Contract Value and Amendments for 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda as approved by the Commission (Rs. Cr.)

Particulars	Date of Amendment	Supply Contract	Services Contract	Total Cost	Reasons for Amendment
Award Price	25.05.2018				Original Contract Value
220 kV Bays		15.49	3.91	19.39	
132 kV Bays		11.14	2.49	13.63	
Transformer Bank		24.86	5.04	29.89	
Sub-Total		**51.48**	**11.43**	**62.91**	
1st Amendment	26.08.2020				Addition of Epoxy Flooring
220 kV Bays		-	0.09	0.09	
132 kV Bays		-	-	-	
Transformer Bank		-	-	-	
Sub-Total		**-**	**0.09**	**0.09**	
2nd Amendment	20.11.2020				Reduction of GST from 28% to 18%
220 kV Bays		-0.13	-	-0.13	
132 kV Bays		-0.02	-	-0.02	
Transformer Bank		-0.12	-	-0.12	
Sub-Total		**-0.27**	**-**	**-0.27**	
3rd Amendment	11.02.2021				Variation in Supplies Items
220 kV Bays		-0.02	-	-0.02	
132 kV Bays		0.15	-	0.15	
Transformer Bank		-1.65	-	-1.65	
Sub-Total		**-1.51**	**-**	**-1.51**	
4th Amendment	19.04.2021				Variation in Civil Works Items

Particulars	Date of Amendment	Supply Contract	Services Contract	Total Cost	Reasons for Amendment
220 kV Bays		-	4.23	4.23	
132 kV Bays		-	-	-	
Transformer Bank		-	-	-	
Sub-Total		**-**	**4.23**	**4.23**	
5th Amendment	10.12.2021				Rectification
220 kV Bays		-	0.69	0.69	
132 kV Bays		-	0.02	0.02	
Transformer Bank		-	-0.03	-0.03	
Sub-Total		**-**	**0.68**	**0.68**	
6th Amendment	14.01.2022				Variation in the quantity of civil works including addition of an extra item and substitution of G.I. sheet with pre-painted sheet and deletion of SFRA Kit-1
220 kV Bays		-0.17	0.07	-0.09	
132 kV Bays		-	-	-	
Transformer Bank		-	-	-	
Sub-Total		**-0.17**	**0.07**	**-0.09**	
7th Amendment	28.07.2022				descoping of Testing and Maintenance Equipment and Tools and Plants
220 kV Bays		-1.19	-	-1.19	
132 kV Bays		-	-	-	
Transformer Bank		-	-	-	
Sub-Total		**-1.19**	**-**	**-1.19**	
8th Amendment	02.11.2022				Rectification
220 kV Bays		-	0.002	0.002	
132 kV Bays		-	-	-	
Transformer Bank		-	-	-	
Sub-Total		**-**	**0.002**	**0.002**	
9th Amendment	23.03.2023				Revised unit rates as per HPSR for civil works items deviating beyond 25%
220 kV Bays		-	0.17	0.17	
132 kV Bays		-	-	-	
Transformer Bank		-	-	-	
Sub-Total		**-**	**0.17**	**0.17**	
10th Amendment	15.02.2024				Variation in Quantity of Civil Works
220 kV Bays		-0.43	-	-0.43	
132 kV Bays		-	-	-	
Transformer Bank		-	-	-	

Particulars	Date of Amendment	Supply Contract	Services Contract	Total Cost	Reasons for Amendment
Sub-Total		**-0.43**	**-**	**-0.43**	
Final Cost including Amendments					
220 kV Bays		13.55	9.15	22.70	
132 kV Bays		11.27	2.51	13.78	
Transformer Bank		23.09	5.00	28.10	
Sub-Total		**47.91**	**16.66**	**64.58**	

3.5.68 Further, the cost towards supplies and services claimed as on COD by the Petitioner for 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda has been Rs. 61.55 Cr. (supply cost as Rs. 49.93 Cr. and service cost as Rs. 11.61 Cr.) against the last amended cost of Rs. 64.58 Cr. (supply cost as Rs. 47.91 Cr. and service cost as Rs. 16.66 Cr.). The Commission sought justification from the Petitioner as no specific reason was submitted regarding the differential cost. In response, the Petitioner has submitted that as on COD, the amount booked in favour of the Contractor has been Rs. 61.55 Cr. against final awarded cost of Rs. 64.58 Cr. and the same only is claimed. Also, the Commission has done scrutiny of the payment proofs provided and observes that the claimed Capital cost as on COD is within the LOA after amendment.

3.5.69 In response to the query of the Commission, the Petitioner has submitted an Auditor’s Certificate with respect to the claimed COD cost for 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda. Accordingly, after scrutiny to the supporting documents and Auditor’s Certificate, the Commission has allowed an amount of Rs. 61.55 Cr. as on COD which includes Rs. 49.93 Cr. towards Supply part and Rs. 11.61 Cr. towards Service part.

3.5.70 For segregating the cost for Asset-3 from the 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda, the Commission has considered the bifurcation of complete BOQ as per the Latest Amendment to the Original Contract between 220 kV system, 132 kV system and Transformer Bank based on intended utilization of asset as under:

Table 32: Bifurcation of Latest Awarded Cost of 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda into 220 kV, 132 kV System and Transformer Bank, as approved by the Commission

Description	Total Contract Value	Contract Value (Original Award)
	Rs. Cr.	%
5 No. of 220 kV Bays	22.70	35.15%
3 No. of 132 kV Bays	13.78	21.33%
2 X 80/100 MVA Transformer Bank	28.10	43.51%
Latest Amended Cost to the LoA (10^{th} Amendment)	**64.58**	**100%**

3.5.71 Accordingly, the Commission has apportioned the cost of DPR, LoA after amendment (10th Amendment) and actual cost as on COD to 220 kV system based on the ratio of 35.15% of the total cost of 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda as approved above.

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

Table 33: Hard Cost approved by Commission for Asset-3 (Rs. Cr.)

Particulars	Allotted DPR Cost	Amended Contract Cost	Claimed Cost as on COD	Approved Cost as on COD
Supply	16.77	13.55	23.72	17.55
Service/Erection	3.34	9.15	5.52	4.08
Total	**20.11**	**22.70**	**29.23**	**21.64**

3.5.73 With regard to the 'Miscellaneous Expenses', the Petitioner has claimed an amount of Rs. 10.44 Cr. On initial scrutiny, the Commission did not find any details with regard to the payment. In response to the queries, the Petitioner submitted the supporting documents against the claimed amount of Rs. 10.44 Cr.

3.5.74 In addition, the Commission has apportioned these Miscellaneous Expenses (except for Land Cost) as per DPR and as on COD to 220 kV system based on the ratio of 35.15% of the total cost of 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda as approved above.

3.5.75 In view of the submitted Auditor's Certificate and payment proofs for miscellaneous expenses, the Commission has approved the cost as described in the following table.

Table 34: Miscellaneous Expenses approved by Commission for Asset-3 (Rs. Cr.)

Particulars	Allotted DPR Approved	Claimed Cost as on COD	Auditor's Certificate	Approved as on COD
Price Contingencies @ 6.8%	0.60	-	-	-
Cost of Land	4.50	10.32	10.32	10.32
Residential Colony	0.69	-	-	-
Contingency @3%	0.69	-	-	-
Site preparation	-	0.0182	0.0384	0.0135
Site supervision and Site Admin.	-	0.0314	0.0662	0.0662
A&G Expense	-	0.0006	0.0012	0.0012
Shifting of HT lines	-	0.0595	0.1252	0.1252
Legal Expense	-	0.0001	0.0002	0.0002
CT/PT Meter Expense	-	0.0138	0.0291	0.0291
Other Miscellaneous Expense	-	0.0011	0.0023	0.0023
Total	**6.48**	**10.44**	**10.58**	**10.58**

3.6 Overheads (IDC and Departmental Charges)

Petitioner's submissions

A. <u>Asset-1: 220 kV D/C Sunda – Hatkoti Twin Moose Transmission Line:</u>

3.6.1 With regard to Interest during Construction (IDC) for Asset-1, the Petitioner has submitted that the provision for IDC was kept at Rs. 2.10 Crore in the DPR. Owing to the time over-run, the actual IDC has increased to Rs. 30.92 Crore upto COD (03.08.2022).

3.6.2 In this regard, the Petitioner has submitted that the IDC in the DPR was computed considering 24 Months as the timeline for implementation of project, however, against the same, there was a time delay of 53 Months in the implementation of project for reasons beyond the control of Petitioner.

3.6.3 The Petitioner has further submitted that the IDC at the DPR stage for Asset-1 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 as submitted by the Petitioner are as under:

a. If 10% Rate of Interest is considered, the IDC as per the DPR shall work out to Rs. 4.53 Crore for Asset-1.

b. The Project cost on which the IDC was computed in DPR for Asset-1 was Rs. 67.10 Crore (Total DPR Cost less IDC) whereas in actual the Project cost as on COD is Rs. 98.87 Crore (Rs. 129.79 Cr less IDC of Rs. 30.92 Cr.), which in-turn increased the IDC.

Table 35: Details regarding IDC as submitted by the Petitioner (Rs. Cr) – Asset 1

Cost without IDC	Interest Rate	IDC
As per DPR (Rs. 67.10 Crore)	LIBOR interest rate of 4.64%	2.10 Crore (As per DPR)
	RoI of 10% as per the loan agreement	4.53 Crore
As per actual execution of Project (Rs. 98.87 Crore)	RoI of 10% as per the loan agreement	6.67 Crore
	RoI of 10% due to time over-run	30.73 Crore (incurred)

3.6.4 Therefore, the Petitioner has prayed the Commission to allow the actual IDC incurred for Asset-1 condoning the entire time over-run as it was beyond the control of Petitioner.

3.6.5 With regard to Departmental Charges for Asset-1, the Petitioner has submitted that the provision for Departmental charges in the DPR was kept at Rs. 5.32 Crore, at the rate of 11% of Rs. 48.40 Crore (cost against supplies & erection + PTCC Clearance + crop compensation charges). As against the same, the actual Departmental Charges as on COD are Rs. 6.10 Crore which are within 11% of the actual hard cost and, therefore, the Petitioner has requested the Commission to allow the actual Departmental Charges as on COD.

B. Asset-2: 220/66 kV System of 132/220/66 kV GIS Sub-station at Sunda:

3.6.6 With regard to IDC for Asset-2, the Petitioner has submitted that the provision for IDC in the DPR prepared for construction of 220/66 kV portion of 220/132/66kV Sunda Substation was estimated at Rs. 2.40 Crore, which also included LILO of 66 kV Andhra-Samoli Transmission Line. However, the IDC claimed by the Petitioner excluding LILO of 66 kV Andhra-Samoli Transmission Line is Rs. 1.82 Crore. However, owing to the time over-run, the actual IDC is Rs. 1.65 Crore upto COD (03.08.2022).

3.6.7 In this regard, it is submitted that the IDC in the DPR was computed considering 24 Months as the timeline for implementation of project, however, against the same, there was a time delay of 20 Months in the implementation of project for reasons beyond the control of Petitioner. Therefore, the Petitioner has prayed the Commission to allow the actual IDC incurred for Asset-2 condoning the entire time over-run as it was beyond the control of Petitioner.

3.6.8 With regard to Departmental Charges for Asset-2, the Petitioner has submitted that the provision for Departmental charges in the DPR was Rs. 5.84 Crore (inclusive of LILO Cost) at the rate of 11% of Rs 53.07 Crore (cost against supplies & erection + interconnection cost + land acquisition expenses + forest compensation charges)). The same works out to be Rs 4.19 Crore (excluding LILO Cost) at the rate of 11% of Rs 38.07 Crore. As against the same, the actual Departmental Charges upto COD is Rs. 1.40 Crore which is within 11% of the project cost and therefore, the Petitioner has requested the Commission to allow the actual Departmental Charges as on COD.

C. Asset-3: 5 Nos. of 220 kV Bays of 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda:

3.6.9 With regard to IDC for 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda, the Petitioner has submitted that the IDC in the DPR was computed on the basis of LIBOR rate of 4.64% at Rs. 2.49 Cr. However, against the same the actual interest rate of the loan turned out to be 10% which is being paid to GoHP as per the Loan Agreement with GoHP. Had the rate of interest been the same as that of Loan Agreement i.e. 10% instead of LIBOR rate of 4.64%, IDC would have become Rs. 5.37 Crores. However, owing to the time over-run, the actual IDC is Rs. 9.91 Crore upto COD (03.08.2022).

3.6.10 With regard to Departmental Charges for 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda, the Petitioner has submitted that the provision for Departmental charges in the DPR was Rs. 7.19 Crore at the rate of 11% of Rs 65.37 Crore (cost against supplies & erection + land acquisition expenses + civil works). As against the same, the actual Departmental Charges upto COD are Rs. 3.17 Crore which are within 11% of the project cost and therefore, the Petitioner has requested the Commission to allow the actual Departmental Charges as on COD.

3.6.11 However, for claiming IDC and DC for Asset-3, the Petitioner has considered the percentage of 47.5% of the total IDC and DC incurred for 132/220 kV System of

132/220/66 kV GIS Sub-station at Sunda. Accordingly, the Petitioner has claimed Rs. 4.71 Cr. and Rs. 1.51 Cr. as IDC and DC respectively for Asset-3.

Commission's Analysis

A. <u>Asset-1: 220 kV D/C Sunda – Hatkoti Twin Moose Transmission Line:</u>

3.6.12 The Commission has reviewed the IDC and DC claimed with respect to the Auditor's Certificate provided by the Petitioner. An amount of Rs. 30.92 Cr. against IDC and Rs. 6.10 Cr. against DC have been claimed by the Petitioner against the Asset-1 which are higher than the DPR approved amount of Rs. 2.10 Cr. and Rs. 5.32 Cr., respectively. As per the DPR for Asset-1, the scheme was originally envisaged to be funded with the debt and equity ratio of 70:30 and the same has been funded by ADB, which are depicted in Table No. 36 below.

Table 36: IDC and Departmental charges claimed by Petitioner for Asset-1 (Rs. Cr.)

Particulars	DPR	As on COD	Auditor's Certificate
Interest During Construction (IDC)	2.10	30.92	30.92
Departmental Charges (DC)	5.32	6.10	6.10

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

3.6.14 The project was envisaged to be completed in 18 months as per the contract awarded by the Petitioner, however, the actual time of execution of the project was higher by almost 53 months. From the submissions of the Petitioner, the following reasons were identified to be the major reasons for time overrun:

Table 37: Reasons for time over-run for Asset-1

S. No.	Period of Delay	Net Delay (Months)	Effective Delay w.r.t SCOD i.e. 28.02.2018 (months)	Description of Hindrances
1	June 2016 to June 2021	60	40	Delay due to Re-routing of the Transmission Line
2	September 2017 to August 2018	9	0	Introduction of 3 Nos. of Multi-Circuit Dead End Towers and delay in testing of the same.
3	March 2017 to August 2019	28	0	Delay in site hand over due to FCA case approval and public disputes on several locations:
4	March 2020 to January 2022	22	7	Non-approval of shutdown of 66kV Andhra Samoli Transmission line
5	February 2022 to March 2022	1	1	Non-approval of Shutdown on 66kV Samoli Nogli Transmission

S. No.	Period of Delay	Net Delay (Months)	Effective Delay w.r.t SCOD i.e. 28.02.2018 (months)	Description of Hindrances
				Line
6	November 2021 to March 2022	3.5	0	Delay due to meteorological conditions and ROW issues
7	April 2022 to June 2022	3	3	Approval from Chief Electrical Inspector
	Total		**51***	

** However, utilization of the system was started w.e.f. August 2022 upon commissioning of 220/66kV portion of 220/132/66kV Sunda Substation. Therefore, overall delay in commissioning of the lines comes out as 53 months (w.e.f. February 2018 to August 2022)*

3.6.15 From fine reading of the submissions of the Petitioner and the supporting documentary proofs, it can be easily inferred that the major delays were on account of re- routing of the Transmission Line, delay in getting approval of shutdown of 66 kV Andhra Samoli Transmission line and approval from Chief Electrical Inspector. These delays could have been avoided by proper planning before initiation of the project as all the delays mentioned are to be taken care during the planning phase only. This shows that the Petitioner has not taken proper measures during the planning phase. Thus, the Commission is of the view that the above delay of 53 months could have been avoided by proper planning and timely taking up the matters with the concerned competent agencies and authorities.

3.6.16 Further, it would be unreasonable to consider that each individual activity led to the overall delay of almost 53 months in project execution. The Commission, is of the view that certain activities could have been undertaken in parallel, and the delay could have been shortened/ averted by proper planning and follow up at the Petitioner's end.

3.6.17 In addition, the details provided with respect to time overrun only mentioned various dates when issues emerged, or activities were completed. However, it could not be established as to how each activity had impacted the overall timeline of the project and whether other activities could have been planned in a manner where the delay could have been avoided. Hence, post detailed review of each of the reasons of delay, the Commission has calculated the IDC as discussed below.

3.6.18 The Petitioner has submitted the IDC cost of Rs. 30.92 Cr. as on COD against the DPR approved IDC of Rs. 2.10 Cr. Further, the Petitioner had initially not submitted the Auditor's Certificate in support of its claim. In response to the deficiency letter, the Petitioner submitted the Auditor's Certificate mentioning the IDC amount of Rs. 30.92 Cr. along with the calculation methodology.

3.6.19 The Petitioner has submitted the Departmental Charges (DC) as on COD as Rs. 6.10 Cr. against the DPR approved DC of Rs. 5.32 Cr. Further, the Petitioner had not submitted the Auditor's Certificate initially in support of its claim. However, in response to the deficiency letter, the Petitioner submitted the Auditor's Certificate mentioning the DC amount of Rs. 6.10 Cr.

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

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

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

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

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

Table 38: Computation of benchmark IDC for Asset-1 (Rs. Cr.)

Particulars	Unit	Year I	Year I	Year I	Year I	Year II	Year II	Total
		Qtr-1	Qtr-2	Qtr-3	Qtr-4	Qtr-5	Qtr-6	
Debt disbursement	%	16.67%	16.67%	16.67%	16.67%	16.67%	16.67%	**100%**
Opening Debt (a)	Rs. Cr.	0	11.54	23.07	34.61	46.14	57.68	
Addition during the year (b)	Rs. Cr.	11.54	11.54	11.54	11.54	11.54	11.54	
Closing Debt (c)	Rs. Cr.	11.54	23.07	34.61	46.14	57.68	69.21	
Average Debt (d=(a+c)/2)	Rs. Cr.	5.77	17.30	28.84	40.37	51.91	63.44	
Interest rate*(e)	%	10%	10%	10%	10%	10%	10%	
Total IDC (f=d*e)	**Rs. Cr.**	**0.14**	**0.43**	**0.72**	**1.01**	**1.30**	**1.59**	**5.19**

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

3.6.25 Against the benchmark IDC of Rs. 5.19 Cr., the Petitioner has claimed IDC of Rs. 30.92 Cr. as on COD for the Project. The Petitioner has submitted the computation and the Auditor's Certificate in this regard.

3.6.26 As discussed in preceding Paras, part of the delay could be considered under force majeure events and not attributable to the Petitioner. However, it would be unreasonable to consider that each individual activity led to the overall delay of almost 53 months in project execution. The Commission is of the view that other activities could have been undertaken in parallel, and the delay could have been shortened/ averted by proper planning and follow up at the Petitioner's end. The Commission, therefore, decides to allow sharing of excess amount of IDC (over and above the normative IDC) between the Petitioner and beneficiaries in equal ratio (50:50). The computation is provided as follows:

Table 39: IDC Approved by the Commission for Asset-1 (Rs. Cr.)

Particular	Benchmark (A)	Actual/Claimed (B)	Difference (C=B-A)	Approved (A+50%*C)

Particular	Benchmark (A)	Actual/Claimed (B)	Difference (C=B-A)	Approved (A+50%*C)
Asset-1	5.19	30.92	25.73	18.05

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

Table 40: DC approved by the Commission for Asset-1 (Rs. Cr.)

Particular	DPR	As on COD	Auditor's Certificate	Approved
Asset-1	5.32	6.10	6.10	6.10

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

Table 41: Claimed and Approved Project Cost for Asset-1 (Rs. Cr.)

S. No.	Particulars	Claimed as on COD	Approved as on COD
	Asset-1		
a)	Supply	39.00	39.00
b)	Services	46.49	46.49
c)	Miscellaneous Expenses	7.29	7.29
d)	**Hard Cost**	**92.78**	**92.78**
1)	IDC	30.92	18.05
2)	Departmental Charges	6.10	6.10
	Total	**129.79**	**116.93**

B. Asset-2: 220/66 kV System of 132/220/66 kV GIS Sub-station at Sunda:

3.6.29 The Commission has reviewed the IDC and DC claimed with respect to the Auditor's Certificate provided by the Petitioner. An amount of Rs. 1.65 Cr. against IDC and Rs. 1.40 Cr. against DC has been claimed by the Petitioner for the Asset-2 against the DPR approved amount of Rs. 1.82 Cr. and Rs. 4.19 Cr., respectively, as depicted in Table No. 42. As per the DPR, for Asset-2, the scheme was originally envisaged to be funded with the debt, grant and equity ratio of 40:40:20 and the same has been funded by KfW.

Table 42: IDC and Departmental charges claimed by Petitioner for Asset-2 (Rs. Cr.)

Particulars	DPR	As on COD	Auditor's Certificate
Interest During Construction (IDC)	1.82	1.65	1.65
Departmental Charges (DC)	4.19	1.40	1.40

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

3.6.31 The project was envisaged to be completed in 18 months as per the contract awarded by the Petitioner, however, the actual time of execution of the project was higher by almost 20 months. From the submissions of the Petitioner, the following reasons were identified to be the major reasons for time overrun.

Table 43: Reasons for time over-run for Asset-2

S. No.	Period of Delay	Net Delay (Months)	Effective Delay w.r.t SCOD i.e. 23.11.2020 (months)	Description of Hindrances
1	Jan 2020 to Oct 2020 & Mar 2021 to Jul 2021	9	9	Delay due to COVID-19 Pandemic
2	08.05.2019 to 20.02.2021	5	5	Delay due to revision of cable trench layout
3	23.05.2019 to 03.08.2022	4	4	Inclement weather conditions
	Total		**18***	

** Detailed case for delay on remaining period of 2 months has not been provided by the Petitioner*

3.6.32 From fine reading of the submissions of the Petitioner and the supporting documentary proof, it can be easily inferred that the major delay was on account of non-availability of drawings of cable trench layout to meet requisite technical specifications. This could have been avoided by proper planning before initiation of the project. Further, the Petitioner is having significant experience in construction of Sub-stations and Transmission lines and other related assets and was aware about the weather conditions prevailing in the State of Himachal Pradesh. Therefore, the Petitioner ought to have taken adequate steps to avoid such delays. Thus, the Commission is of the view that the above delay of 20 months could have been avoided by proper planning and timely taking up the matters with the concerned competent agencies and authorities.

3.6.33 In addition, the Commission has considered the delay of Covid-19 Pandemic under force majeure condition. However, it would be unreasonable to consider that each individual activity led to the overall delay of almost 20 months in project execution. The Commission is of the view that certain activities could have been undertaken in parallel, and the delay could have been shortened/ averted by proper planning and follow up at the Petitioner's end.

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

3.6.35 The Petitioner has submitted the IDC of Rs. 1.65 Cr. as on COD against the DPR approved IDC of Rs. 1.82 Cr. The Petitioner had initially not submitted the Auditor's Certificate in support of its claim. In response to a deficiency letter, the Petitioner submitted the Auditor's Certificate mentioning the IDC amount of Rs. 1.65 Cr. along with the calculation methodology.

3.6.36 The Petitioner has submitted the Departmental Charges (DC) as on COD as Rs. 1.40 Cr. against the DPR approved DC of Rs. 4.19 Cr. The Petitioner had initially not submitted the Auditor's Certificate in support of its claim. In response to a deficiency letter, the Petitioner submitted the Auditor's Certificate mentioning the DC amount of Rs. 1.40 Cr.

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

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

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

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

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

Table 44: Computation of benchmark IDC for Asset-2 (Rs. Cr.)

Particulars	Unit	Year I Qtr-1	Year I Qtr-2	Year I Qtr-3	Year I Qtr-4	Year II Qtr-5	Year II Qtr-6	Total
Debt disbursement	%	16.67%	16.67%	16.67%	16.67%	16.67%	16.67%	**100%**
Opening Debt (a)	Rs. Cr.	0	2.69	5.37	8.06	10.74	13.43	
Addition during the year (b)	Rs. Cr.	2.69	2.69	2.69	2.69	2.69	2.69	
Closing Debt (c)	Rs. Cr.	2.69	5.37	8.06	10.74	13.43	16.12	
Average Debt (d=(a+c)/2)	Rs. Cr.	1.34	4.03	6.72	9.40	12.09	14.77	
Interest rate*(e)	%	10%	10%	10%	10%	10%	10%	

Particulars	Unit	Year I Qtr-1	Year I Qtr-2	Year I Qtr-3	Year I Qtr-4	Year II Qtr-5	Year II Qtr-6	Total
Total IDC (f=d*e)	**Rs. Cr.**	**0.03**	**0.10**	**0.17**	**0.24**	**0.30**	**0.37**	**1.21**

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

3.6.42 Against the benchmark IDC of Rs. 1.21 Cr., the Petitioner has claimed IDC of Rs. 1.65 Cr. as on COD for the Project. The Petitioner has submitted the computation and the Auditor's Certificate in this regard.

3.6.43 As discussed in preceding paragraphs, part of the delay could be considered under force majeure events and not attributable to the Petitioner. However, it would be unreasonable to consider that each individual activity led to the overall delay of almost 20 months in project execution. The Commission is of the view that other activities could have been undertaken in parallel, and the delay could have been shortened/ averted by proper planning and follow up at the Petitioner's end. The Commission, therefore, decides to allow sharing of excess amount of IDC (over and above the normative IDC) between the Petitioner and beneficiaries in equal ratio (50:50). The computation is provided as follows:

Table 45: IDC Approved by the Commission for Asset-2 (Rs. Cr.)

Particular	Benchmark (A)	Actual/Claimed (B)	Difference (C=B-A)	Approved (A+50%*C)
Asset-2	1.21	1.65	0.44	1.43

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

Table 46: DC approved by the Commission for Asset-2 (Rs. Cr.)

Particular	DPR	As on COD	Auditor's Certificate	Approved
Asset-2	4.19	1.40	1.40	1.40

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

Table 47: Claimed and Approved Project Cost for Asset-2 (Rs. Cr.)

S. No.	Particulars	Claimed as on COD	Approved as on COD
	Asset-2		
a)	Supply	34.77	34.77
b)	Services	2.61	2.61
c)	Miscellaneous Expenses	1.51	1.50
d)	**Hard Cost**	**38.89**	**38.89**
1)	IDC	1.65	1.43
2)	Departmental Charges	1.40	1.40
	Total	**41.94**	**41.72**

C. Asset-3: 5 Nos. of 220 kV Bays of 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda:

3.6.46 The Commission has reviewed the IDC and DC claimed with respect to the Auditor's Certificate provided by the Petitioner. Amounts of Rs. 4.71 Cr. against IDC and Rs. 1.51 Cr. against DC have been claimed by the Petitioner for the Asset-3 against the DPR approved amounts of Rs. 1.18 Cr. and Rs. 3.42 Cr., respectively. As per the DPR for Asset-3, the scheme was originally envisaged to be funded with the debt and equity ratio of 80:20 and the same has been funded by ADB.

Table 48: IDC and Departmental charges claimed by Petitioner for Asset-3 (Rs. Cr.)

Particulars	DPR*	As on COD*	Auditor's Certificate
Interest During Construction (IDC)	*1.18*	4.71	9.91
Departmental Charges (DC)	3.42	1.51	3.17

** Apportioned cost of DPR and Capital Cost as on COD to Asset-3 at 47.50% of the total cost of 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda*

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

3.6.48 The project was envisaged to be completed in 24 months as per the contract awarded by the Petitioner, however, the actual time of execution of the project was higher by almost 26 months. From the submissions of the Petitioner, the following reasons were identified to be the major reasons for time overrun.

Table 49: Reasons for time over-run for Asset-3

S. No.	Period of Delay	Effective Delay w.r.t SCOD i.e. 25.05.2020 (Months)	Description of Hindrances
1	Feb 2020 - July 2020, April 2021 – June 2021	6	Delay due to COVID -19
2	Jan 2021- Sep 2021	6	Delay due to non-availability of work fronts due to presence of Scrap and Big Boulders
3	12.12.2018-15.12.2018, 4.1.2019-5.1.2019, 22.1.2019, 14.2.2019-16.2.2019, 18.2.2019-22.2.2019 (0.5 day), 12.3.2019, 20.3.2019 (0.5 day), 25.3.2019, 16.4.2019-23.6.2019 – 24.6.2019 (1 day in part), 2.4.2019 (0.5 day), 13.7.2019-15.7.2019 (2 days in part), 19.7.2019, 25.7.2019, 27.7.2019-28.7.2019 (1 day in the part), 1.8.2019, 5.8.2019 (0.5 day), 7.8.2019 (0.5 day), 8.8.2019-19.9.2019 (1	3	Inclement Weather Condition (Rainfall)

S. No.	Period of Delay	Effective Delay w.r.t SCOD i.e. 25.05.2020 (Months)	Description of Hindrances
	day in part), 12.8.2019 (0.5 day), 19.8.2019-21.8.2019, 28.9.2019-1.10.2019 (3.5 days in part), 4.11.2019, 7.11.2019, 8.11.2019 (0.5 day), 23.11.2019, 27.11.2019, 13.12.2019-15.12.2019, 14.1.2020, 28.1.2020 (0.5 day), 21.7.2020-22.7.2020, 26.11.2020, 18.10.2021, 3.12.2021, 16.6.2022-21.6.2022 (3.50days in part), 5.7.2022-6.7.2022, 20.7.2022		
4	09.2.2019-12.2.2019, 26.2.2019, 26.2.2019-29.2.2019, 7.1.2020-9.1.2020, 28.12.2020-29.12.2020, 8.1.2022-10.1.2022, 22.1.2022-24.1.2022, 2.2.2022-3.2.2022		Inclement Weather Condition (Snowfall)
5	May 2019 - Feb 2021	7	Delay in COD of 220/66 kV system of Sunda
6	Mar 2020-Jan 2022	4	Delay in COD of 220 kV D/C Sunda-Hatkoti transmission line
	Total	**26**	

3.6.49 From fine reading of the submissions of the Petitioner and the supporting documentary proof, it can be easily inferred that the major delays were on account of delay in COD of 220/66 kV system of Sunda (Asset-2), delay due to non-availability of work fronts caused by the presence of large boulders encountered during excavation and accumulation of scrap at the site and delay due to COVID-19. Additionally, Inclement Weather Conditions were also recorded from the Petitioner's submission. The Commission noted that the delay claimed by the Petitioner could have been avoided by proper planning before initiation of the project as all the delay mentioned are to be taken care during the planning phase only like approval from SLDC for COD dates, planning for inclement weather conditions and envisaging of large scrap and boulders at erection stages, etc. Therefore, the Petitioner ought to have taken adequate steps to avoid such delays and therefore, the Commission is of the view that the above delay of 26 months could have been avoided by proper planning and timely taking up the matters with the concerned competent agencies and authorities.

3.6.50 Additionally, the Commission has considered the delay of Covid-19 Pandemic under force majeure condition. However, it would be unreasonable to consider that each individual activity led to the overall delay of almost 26 months in project execution. The Commission is of the view that certain activities could have been undertaken in parallel, and the delay could have been shortened/ averted by proper planning and follow up at the Petitioner's end.

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

3.6.52 The Commission noted that the IDC cost as on COD as per Auditor's Certificate is Rs. 9.91 Cr. against the DPR approved IDC of Rs. 2.49 Cr. for 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda. Further, the Petitioner had initially not submitted the Auditor's Certificate in support of its claim. In response to the deficiency letter, the Petitioner has submitted the Auditor's Certificate mentioning the IDC amount of Rs. 9.91 Cr. along with the calculation methodology.

3.6.53 The Commission noted that as on COD the Petitioner has submitted the Departmental Charges (DC) as Rs. 3.17 Cr. against the DPR approved DC of Rs. 7.19 Cr. for 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda. Further, the Petitioner had initially not submitted the Auditor's Certificate in support of its claim. In response to the deficiency letter, the Petitioner submitted the Auditor's Certificate mentioning the DC amount of Rs. 3.17 Cr.

3.6.54 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

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

3.6.56 In view of revision in hard cost as well as rate of interest, the Commission has computed a revised benchmark for the IDC. A project duration of 24 months as per the contract has been considered to estimate the benchmark IDC.

3.6.57 For assessing the benchmark IDC with project duration of 24 months, the Commission has considered debt phasing as 40% and 60% in Year-1 and Year-2 respectively, as per the contract document.

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

Table 50: Computation of benchmark IDC for Asset-3 (Rs. Cr.)

Particulars	Unit	Year I	Year II	Total
Debt disbursement	%	40.00%	60.00%	**100%**
Opening Debt (a)	Rs. Cr.	0	10.61	
Addition during the year (b)	Rs. Cr.	10.61	15.92	
Closing Debt (c)	Rs. Cr.	10.61	26.53	
Average Debt (d=(a+c)/2)	Rs. Cr.	5.31	18.57	
Interest rate (e)	%	10.00%	10.00%	
Total IDC (f=d*e)	**Rs. Cr.**	**0.53**	**0.93**	**1.46**

3.6.59 Against the benchmark IDC of Rs. 1.46 Cr., the actual IDC cost as on COD after apportioning it to Asset-3 at 35.15% of the total cost of 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda was Rs. 3.48 Cr.

3.6.60 As discussed in preceding Paras, part of the delay could be considered under force majeure events and not attributable to the Petitioner. However, it would be unreasonable to consider that each individual activity led to the overall delay of almost 26 months in project execution. The Commission is of the view that other activities could have been undertaken in parallel, and the delay could have been shortened/ averted by proper planning and follow up at the Petitioner's end. The Commission, therefore, decides to allow sharing of excess amount of IDC (over and above the normative IDC) between the Petitioner and beneficiaries in equal ratio (50:50). The computation is provided as follows:

Table 51: IDC Approved by the Commission for Asset-3 (Rs. Cr.)

Particular	Benchmark (A)	Actual (B)	Difference (C=B-A)	Approved (A+50%*C)
Asset-3	1.46	3.48	2.03	2.47

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

Table 52: DC approved by the Commission for Asset-3 (Rs. Cr.)

Particular	DPR*	As on COD*	Auditor's Certificate	Approved
Asset-3	2.53	1.12	3.17	1.12

** Apportioned cost of DPR and Capital Cost as on COD to Asset-3 at 35.15% of the total cost of 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda*

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

Table 53: Claimed and Approved Project Cost for Asset-3 (Rs. Cr.)

S. No.	Particulars	Claimed as on COD	Approved as on COD
	Asset-3		
a)	Supply	23.72	17.55
b)	Services	5.52	4.08
c)	Miscellaneous Expenses	10.44	10.41
d)	**Hard Cost**	**39.68**	**32.05**
1)	IDC	4.71	2.47
2)	Departmental Charges	1.51	*1.12*
	Total	**45.90**	**35.63**

3.7 Project Funding

Petitioner's Submissions

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

"18. Debt-equity ratio

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

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

3.7.2 For Asset-1, as per the DPR, the scheme was originally envisaged to be executed with the debt and equity ratio of 70:30 and the same has accordingly been funded by ADB. For implementing the Asset-1, the Petitioner as on COD has drawn actual loan from ADB amounting to Rs. 84.78 Crore which is 65.46% of project cost, and the balance has been infused in the form of equity amounting to Rs. 44.73 Crore which is 34.53% of the project cost. As the equity infused by the Petitioner exceeds the normative equity of 30% allowed under the HPERC Transmission Tariff 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 54: Project funding proposed by Petitioner – Asset-1

Particulars	Capital Cost (As per DPR) (Rs. Cr)	Debt: Equity Ratio as per DPR	Actual Debt: Equity (Rs. Cr)	Actual Debt: Equity Ratio	Normative Debt: Equity claimed (Rs. Cr)	Normative Debt: Equity Ratio claimed
Debt	48.00	70.00%	84.79	65.46%	90.66	70.00%
Equity	21.00	30.00%	44.73	34.53%	38.86	30.00%
Project Cost	**69.20**	**100.00%**	**129.52**	**100.00%**	**129.52**	**100.00%**

3.7.3 With regards to Asset-2, as per the DPR, the scheme was originally envisaged to be executed with the debt, grant and equity ratio of 40:40:20 and the same has accordingly been funded by KfW. For implementing the Asset-2, the Petitioner has received NCEF grant from MNRE of Rs. 3.36 Crore and has drawn actual loan from KfW amounting to Rs. 21.05 Crore which is 57.08% of the project cost less grant and has infused equity amounting to Rs 15.83 Crore which is 42.92% of the project cost less grant. As the equity infused is more than the prescribed limit of normative equity allowed. Hence, normative debt equity ratio (less grant) of 70:30 has been considered for working out the components of Annual Revenue Requirement. The Debt:Grant:Equity ratio considered as on COD is as under:

Table 55: Project funding proposed by Petitioner – Asset-2

Particulars	Capital Cost (As per DPR) (Rs. Cr)	Debt: Equity Ratio as per DPR	Actual Debt: Equity (Rs. Cr)	Actual Debt: Equity Ratio	Normative Debt: Equity claimed (Rs. Cr)	Normative Debt: Equity Ratio claimed
Debt	17.98	40.00%	21.05	57.08%	25.82	70.00%
Equity	8.99	20.00%	15.83	42.92%	11.06	30.00%
Project Cost excluding Grant	**26.98**	**60.00%**	**36.88**	**100.00%**	**36.88**	**100.00%**
NCEF Grant	17.98	40.00%	3.36	-	3.36	-
Total Project Cost	**44.96**	**100.00%**	**40.24**	**-**	**40.24**	**-**

3.7.4 For 132/220 kV portion of 132/220/66 kV GIS Sub-station at Sunda, as per the DPR, the scheme was originally envisaged to be executed with the debt and equity ratio of 80:20 and the same has accordingly been funded by ADB. For implementing of 132/220 kV portion of 132/220/66 kV GIS Sub-station at Sunda, the Petitioner has drawn loan from ADB amounting to Rs. 59.73 Crore which is 70.10% of the project cost and has infused equity amounting to Rs. 25.48 Crore which is 29.90% of the project cost. As the equity infused is less than the prescribed limit of normative equity allowed under the HPERC Transmission Tariff Regulations, 2011, the actual debt: equity ratio of 70.10:29.90 has been considered for working out the components of Annual Revenue Requirement for Asset-3. The Debt: Equity ratio considered as on COD is as under:

Table 56: Project funding proposed by Petitioner – Asset-3

Particulars	Capital Cost (As per DPR) (Rs. Cr)	Debt: Equity Ratio as per DPR	Actual Debt: Equity (Rs. Cr)	Actual Debt: Equity Ratio	Normative Debt: Equity claimed (Rs. Cr)	Normative Debt: Equity Ratio claimed
Debt	61.61	80.00%	32.17	70.10%	32.17	70.10%
Equity	15.40	20.00%	13.72	29.90%	13.72	29.90%
Project Cost	**77.01***	**100.00%**	**45.90**	**100.00%**	**45.90**	**100.00%**

** For 132/220 kV portion of 132/220/66 kV GIS Sub-station at Sunda.*

Commission's Analysis

3.7.5 The Commission observes that the Assets-1 and 3 were originally envisaged at a debt and equity ratio of 70:30 and 80:20 respectively, as provided in the DPR. As per the documents submitted by the Petitioner, the Assets-1 and 3 have been funded through ADB, but the amount has been received by GoHP which has been further extended as loan to the Petitioner at an interest rate of 10%. Further, the Commission observes that the Asset-2 was originally envisaged at a debt, grant and equity ratio of 40:40:20 as provided in the DPR. As per the documents submitted by the Petitioner, the debt portion of Asset-2 has been funded through KfW, but the amount has been received by GoHP which has been further extended as loan to the Petitioner at an interest rate of 10%. A copy of the loan agreements signed between the Petitioner and GoHP has been submitted by the Petitioner.

3.7.6 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. The Commission notes that, in reply to the query raised, the actual debt and equity details has been revised by the Petitioner for Asset-1 and Asset-2.

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

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

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

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

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

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

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

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

Table 57: Debt Equity Grant approved by the Commission (Rs. Cr.)

Particulars	Claimed (As on COD)		Approved (As on COD)	
	Capital cost	% of Funding	Capital cost	% of Funding
Asset-1				
Total Cost	**129.79**		**116.93**	
Normative Debt (A)			81.85	70.00%
Actual Debt (B)			84.79	
Grant (90%*minimum (A, B))			73.66	90.00%
Balance Requirement			**43.26**	
Debt	84.79	70.00%	30.28	70.00%
Equity	45.00	30.00%	12.98	30.00%
Total Cost less of grant	**129.79**	**100.00%**	**43.26**	**100.00%**
Asset-2				
Total Capital Cost as per DPR (A)			45.67	100.00%
MNRE Grant estimated as per DPR (B)			18.27	40.00%
Actual Capital Cost as on COD claimed (C)	41.94	100.00%		
Actual MNRE Grant received as on COD (D)	3.36	8.01%		
Total Capital Cost as on COD (E)	**41.94**	**100.00%**	**41.72**	**100.00%**
Approved MNRE Grant as on COD (F=Min(40%*E, B))			16.69	40.00%
Actual Debt as on COD (G)			22.23	
Portion of actual debt converted to Grant (90%) (H=90%*G)			20.01	
Total Debt as on COD (I=10%*G)	**22.23**	**53.00%**	**2.22**	**5.33%**
Total Grant as on COD (J=F+H)	**3.36**	**8.01%**	**36.69**	**87.95%**
Total Equity as on COD (K=E-I-J)	**16.36**	**38.99%**	**2.80**	**6.72%**
Asset-3				
Total Cost	**45.90**		**35.63**	
Normative Debt (A)			28.51	80.00%
Actual Debt (B)			25.69	
Grant (90%*minimum (A, B))			23.12	90.00%
Balance Requirement			**12.51**	
Debt	32.17	70.10%	8.76	70.00%
Equity	13.72	29.90%	3.75	30.00%
Total Cost less of grant	**45.90**	**100.00%**	**12.51**	**100.00%**

3.8 Additional Capitalisation

Petitioner's Submissions

3.8.1 For Asset-1, the Petitioner has projected an Additional Capitalisation Expenditure (ACE) of Rs. 90.91 Lakh during FY 2022-23 (from COD to 31.03.2023) and Rs. 7.00 Lakh in FY 2024-25 in accordance with Regulation 16(1) and Regulation 16(2) of HPERC Transmission Tariff Regulations, 2011. The detail of works under additional capitalization projected are as shown below:-

Table 58: Additional Capitalisation claimed – Asset-1 (Rs. Lakh)

Sr. No.	Particulars	FY 2022-23 (COD to 31.03.2023)	FY 2023-24
1	Erection and Civil Work	59.76	-
2	Material Supplied	-	2.68
	Sub Total (A)	**59.76**	**2.68**
3	Forest Clearance Expenses	-	3.46
4	Right of Way	0.35	-
5	Tree Compensation Charges	11.03	0.46
6	Shifting of Other Lines	1.97	-
	Sub Total (B)	**13.35**	**3.92**
	Total (C) = (A+B)	**73.11**	**6.60**
7	DC (Departmental Charges)	17.80	0.40
8	IDC (Interest During Construction)	-	-
	Total (D)	**17.80**	**0.40**
	Grand Total (E) = (C+D)	**90.91**	**7.00**

3.8.2 For Asset-2, the Petitioner has projected an Additional Capitalisation Expenditure (ACE) of Rs. 43.85 Lakh during FY 2022-23 (from COD to 31.03.2023) and Rs. 90.40 Lakh in FY 2024-25 in accordance with Regulation 16(1) and Regulations 16(2) of HPERC Transmission Tariff Regulations, 2011. The detail of works under additional capitalization projected are as shown below:-

Table 59: Additional Capitalisation claimed – Asset-2 (Rs. Lakh)

Sr. No.	Particulars	FY 2022-23 (COD to 31.03.2023)	FY 2023-24
1	Erection and Civil Work	21.99	88.11
2	Material Supplied	6.72	-
	Sub Total (A)	**28.71**	**88.11**
3	Testing Charges	0.94	-
4	Shifting of Other Utilities	2.55	-
	Sub Total (B)	**3.49**	**-**
	Total (C) = (A+B)	**32.20**	**88.11**

Sr. No.	Particulars	FY 2022-23 (COD to 31.03.2023)	FY 2023-24
5	DC (Departmental Charges)	11.65	2.29
6	IDC (Interest During Construction)	-	-
	Total (D)	**11.65**	**2.29**
	Grand Total (E) = (C+D)	**43.85**	**90.40**

3.8.3 For Asset-3, the Petitioner has projected an Additional Capitalisation Expenditure (ACE) of Rs. 115.81 Lakh during FY 2022-23 (from COD to 31.03.2023) and Rs. 374.47 Lakh in FY 2024-25 in accordance with Regulation 16(1) and Regulation 16(2) of HPERC Transmission Tariff Regulations, 2011. The detail of works under additional capitalization projected are as shown below:-

Table 60: Additional Capitalisation claimed– Asset-3 (Rs. Lakh)

Sr. No.	Particulars	FY 2022-23 (COD to 31.03.2023)	FY 2023-24
1	Erection and Civil Work	64.25	358.98
2	Material Supplied	20.00	0.73
	Sub Total (A)	**84.25**	**359.71**
3	Testing Charges	2.36	-
4	A&G Expense	0.29	-
5	Legal Expense	0.05	-
6	Other Misc. Expense	2.55	-
	Sub Total (B)	**5.25**	**-**
	Total (C) = (A+B)	**89.50**	**359.71**
7	DC (Departmental Charges)	12.28	14.76
8	IDC (Interest During Construction)	14.03	
	Total (D)	**26.31**	**14.76**
	Grand Total (E) = (C+D)	**115.81**	**374.47**

Commission’s Analysis

3.8.4 In accordance with Regulation 16 of the ‘HPERC Transmission Tariff Regulations, 2011’, the Commission has verified the claimed 'Additional Capital Expenditure'. Further, the Regulation provides for the same as follows:

“(1) The capital expenditure incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check-

(a) undischarged liabilities;

(b) works deferred for execution;

(c) procurement of initial capital spares within the original scope of work, subject to the provisions of regulation 15;

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

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

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

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

(b) Change in law or compliance of any existing law;

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

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

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

(f) Any additional capital expenditure, which has become necessary for efficient operation of the transmission system. The claim shall be substantiated with the technical justification duly supported by the documentary evidence like test results carried out by an independent agency in case of deterioration of assets, report of an independent agency in case of damage caused by natural calamities, obsolescence of technology, upgradation of capacity for the technical reason such as increase in fault level; and

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

Provided that any expenditure on acquiring the minor items or the assets including tools and tackles, furniture, air-conditioners, voltage stabilizers, refrigerators, coolers, computers, fans, washing machines, heat convectors, mattresses, carpets, etc., bought after the Cut-off Date shall not be considered for additional capitalization for determination of tariff:

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

3.8.5 The Commission in order to approve the additional capitalisation for all the Assets, sought justification and relevant documents from the Petitioner in support of its claim. In reply to the query, the Petitioner has provided the Auditor's Certificate for Additional Capital Expenditure (ACE) along with the relevant documents against each expense claimed towards ACE. In addition, the Commission has also analysed the supporting documents with respect to the claimed amounts towards Additional Capitalisation and found to be in place.

3.8.6 Further, the Petitioner has submitted that all the expenses claimed towards ACE are within the original scope of work, however, the payments to the contractors are made after the COD date. Accordingly, these expenses qualifies to be claimed as Additional Capital Expenditure (ACE) as per the provisions of the Regulations as mentioned above.

3.8.7 With respect to Asset-1, the Commission has allowed the Additional Capital Expenditure (ACE) claimed against supply cost, erection cost, Forest Clearance Expenses, Right of Way, Tree Compensation Charges and expense towards shifting of other Lines, based on the verification of payment proofs and Auditor's Certificate submitted by the Petitioner. In addition, the Commission observes that the actual hard cost for Asset-1 as on COD including post COD ACE for FY 2022-23 and FY 2023-24 is within the limit of awarded cost post latest amendment (4^{th} amendment) to LoA. In addition, the Commission has not approved any expense towards DC (Departmental Charges) as part of ACE for Asset-1, as no provision of the Regulations allows so.

3.8.8 With respect to Asset-2, the Commission has allowed the Additional Capital Expenditure (ACE) claimed against supply cost, erection cost, Testing Charges and expenses towards shifting of other Lines, based on the verification of payment proofs and Auditor's Certificate submitted by the Petitioner. In addition, the Commission observes that the actual hard cost for Asset-2 as on COD including post COD ACE for FY 2022-23 and FY 2023-24 is within the limit of awarded cost post latest amendment (5^{th} amendment) to LoA. In addition, the Commission has not approved any expense towards DC (Departmental Charges) as part of ACE for Asset-2, as no provision of the Regulations allows so.

3.8.9 With respect to Asset-3, the Petitioner has claimed the ACE for the whole 132/220 kV system of 66/132/220 kV Pooling Sub-station at Sunda, instead of only 5 Nos. of 220 kV Bays of 132/220 kV System of 132/220/66 kV GIS Sub-station at Sunda (Asset-3). Therefore, the Commission has apportioned the claimed ACE cost at 35.15% based on expenditure of 220 kV Bays as per the latest amendment (10^{th} amendment) cost to the LoA for Asset-3. In addition, the Commission observes that the actual hard cost for Asset-3 as on COD including post COD ACE for FY 2022-23 and FY 2023-24 is more than the awarded cost post 10^{th} amendment to LoA. Therefore, the Commission feels appropriate to limit the ACE claimed against supply cost, erection cost (Hard Cost) to the level of awarded cost post 10^{th} amendment to LoA. Further, the Commission has allowed the pro-rated ACE against Testing Charges based on the verification of payment proofs and Auditor's Certificate submitted by the Petitioner. Also, the Commission has not allowed any ACE claimed against A&G expense, legal fee and miscellaneous charges for Asset-3, as the Commission is of the opinion that these expenses are of operational nature and should be a part of O&M expense. Additionally, the Commission has not approved any expense towards DC (Departmental Charges) and IDC (Interest During Construction) as part of ACE for Asset-3, as no provision of the Regulations allows so.

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

Table 61: Additional Capitalisation approved by the Commission (Rs. Lakh)

Sr. No.	Particulars	FY 2022-23 (COD to 31.03.2023)	FY 2023-24
Asset-1			
1	Erection and Civil Work	59.76	-
2	Material Supplied	-	2.68
	Sub Total (A)	**59.76**	**2.68**
3	Forest Clearance Expenses	-	3.46
4	Right of Way	0.35	-
5	Tree Compensation Charges	11.03	0.46
6	Shifting of Other Lines	1.97	-
	Sub Total (B)	**13.35**	**3.92**
	Total (C) = (A+B)	**73.11**	**6.60**
7	DC (Departmental Charges)	-	-
8	IDC (Interest During Construction)	-	-
	Total (D)	-	-
	Grand Total (E) = (C+D)	**73.11**	**6.60**
Asset-2			
1	Erection and Civil Work	21.99	88.11
2	Material Supplied	6.72	-
	Sub Total (A)	**28.71**	**88.11**
3	Testing Charges	0.94	-
4	Shifting of Other Utilities	2.55	-
	Sub Total (B)	**3.49**	**-**
	Total (C) = (A+B)	**32.20**	**88.11**
5	DC (Departmental Charges)	-	-
6	IDC (Interest During Construction)	-	-
	Total (D)	-	-
	Grand Total (E) = (C+D)	**32.20**	**88.11**
Asset-3			

Sr. No.	Particulars	FY 2022-23 (COD to 31.03.2023)	FY 2023-24
1	Erection and Civil Work	22.59	76.66
2	Material Supplied	7.03	0.26
	Sub Total (A)	**29.62**	**76.91**
3	Testing Charges	0.83	-
4	A&G Expense	-	-
5	Legal Expense	-	-
6	Other Misc. Expense	-	-
	Sub Total (B)	**0.83**	**-**
	Total (C) = (A+B)	**30.45**	**76.91**
7	DC (Departmental Charges)	-	-
8	IDC (Interest During Construction)	-	-
	Total (D)	-	-
	Grand Total (E) = (C+D)	**30.45**	**76.91**

3.8.11 The funding of the above approved additional capitalization for Asset-1, Asset-2 and Asset-3 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 as amended from time to time (HPERC Transmission Tariff Regulations, 2011). As per the submissions of the Petitioner, ARR for each year of the Control Period has been divided into following elements:

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

4.1.2 The Commission has examined the petition and the subsequent submissions made 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 Transmission Tariff 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 Asset-1, Asset-2 and Asset-3 and accordingly approved the ARR for each year.

4.1.3 Further, as discussed in Para 3.3.8 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 22.08.2022. In line with the approach, the ARR components for the first year have been pro-rated based on the number of days starting from 22.08.2022.

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 are detailed in the subsequent sections.

4.2 O&M Expenses

Petitioner's Submissions

4.2.1 The Petitioner has submitted that as per the HPERC Transmission Tariff Regulations, 2011, Operation and Maintenance Expenses are computed considering the following methodology:

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

> *O&Mn = R&Mn + EMPn + A&Gn : Where –*
>
> *'EMPn' = [(EMPn-1) x (1+Gn) x (CPIinflation)] + Provision (Emp);*
>
> *'A&Gn' = [(A&Gn-1) x (WPIinflation)] + Provision(A&G);*
>
> *'R&Mn' = K x (GFA n-1) x (WPIinflation) ;*
>
> *'K' - is a constant (could be expressed in %). Value of K for each year of the control period shall be determined by the Commission in the MYT Tariff order based on licensee's filing, benchmarking of repair and maintenance expenses, approved repair and maintenance expenses vis-à-vis GFA approved by the Commission in past and any other factor considered appropriate by the Commission;*
>
> *'CPIinflation' – is the average increase in the Consumer Price Index (CPI) for immediately preceding three years before the base year;*
>
> *'WPIinflation' – is the average increase in the Wholesale Price Index (WPI) for immediately preceding three years before the base year;*
>
> *'EMPn' – employee's cost of the transmission licensee for the nth year (employee cost for the base year would be adjusted for provisions for expenses beyond the control of the licensee and one-time expected expenses, such as recovery/ adjustment of terminal benefits, implication of pay revisions, arrears and interim relief.);*
>
> *'Provision (Emp)'- Provision corresponding to clauses (iii), (iv) and (v) of sub regulation (1-a) of regulation 13, duly projected for relevant year for expenses beyond control of the Transmission Licensee and expected one-time expenses as specified above;*
>
> *'A&Gn' – administrative and general costs of the transmission licensee for the nth year;*
>
> *'Provision(A&G)'-Cost for initiatives or other one-time expenses as proposed by the Transmission licensee and approved by the Commission after prudence check;"*
>
> *'R&Mn' – Repair and Maintenance costs of the transmission licensee for the nth year;*
>
> *'GFAn-1' – Gross Fixed Asset of the transmission licensee for the n-1th year;*
>
> *'Gn' - is a growth factor for the nth year. Value of Gn shall be determined by the Commission in the MYT tariff order for meeting the additional manpower requirement based on licensee's filings, benchmarking, approved cost by the Commission in past and any other factor that the Commission feels appropriate;*

4.2.2 The Petitioner has further submitted that since the Scheme was commissioned on 03.08.2022, 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.

4.2.3 Accordingly, the Petitioner has projected O&M Expenses based on the number of Sub-station Bays and Line length for Asset-1, Asset-2 and Asset-3 respectively as mentioned in the CERC Regulations from COD to FY 2023-24 as shown in the table below.

Table 62: O&M Expenses claimed by Petitioner (Rs. Lakh)

Particulars	FY23	FY24
Asset-1		
Norm (Rs. Lakh per Km.)	0.98	1.01
Line Length	25.33	25.33
O&M Expenses	**24.75**	**25.61**
Asset-2		
Norm – 220 kV Bays (Rs. Lakh per Bay)	17.47	18.09
No. of Bays – 220 kV	2	2
Norm – 400 kV Transformer (Rs. Lakh per MVA)	0.398	0.411
Transformer Capacity – 400 kV	1 X 100	1 X 100
O&M Expenses	**114.54**	**118.38**
Asset-3		
Norm – 220 kV (Rs. Lakh per Bay)	17.47	18.09
No. of Bays – 220 kV	5	5
O&M Expenses	**87.36**	**90.44**

Commission's Analysis

4.2.4 The Commission has reviewed the submissions of the Petitioner. As the actual audited O&M expenses for sufficient number of years are not available for all the Assets, 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 4th Control Period.

4.2.5 As the regulations provide for O&M expenses based on voltage level, number of circuits and conductor size, the following norms have been considered as per the technical specifications of Asset-1, Asset-2 and Asset-3 for computation of O&M expense as per CERC Tariff Regulations, 2019:

Table 63: Normative O&M Expenses

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

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

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

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

Table 64: O&M Expenses approved by Commission (Rs. Lakh)

Particulars	Unit	FY23	FY24
Asset-1			
Line Length	km	25.33	25.33
Double Circuit (Twin & Triple Conductor) Norms	Rs. Lakh/Km	0.977	1.011
O&M Expenses – Asset-1	**Rs. Lakh**	**24.75**	**25.61**
Asset-2			
No. of Bays – 220 kV	No.	2	2
Bays norms (220 kV)	Rs. Lakh/bay	24.96	25.84
GIS	%	70%	70%
Transformer Capacity	MVA	1 X 100	1 X 100
Transformer norms (220/66 kV)	Rs. Lakh/MVA	0.272	0.282
O&M Expenses - Asset-2	**Rs. Lakh**	**62.14**	**64.38**
Asset-3			
No. of Bays – 220 kV	No.	5	**5**
Bays norms (220 kV)	Rs. Lakh/bay	24.96	25.84
GIS	%	70%	70%
O&M Expenses - Asset-3	**Rs. Lakh**	**87.36**	**90.44**

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

4.3 Depreciation

Petitioner's Submissions

4.3.1 The Petitioner has submitted the depreciation for FY 2022-23 and FY 2023-24 for Asset-1, Asset-2 and Asset-3 in accordance with the Regulation 23 of the HPERC Transmission Tariff Regulations, 2011 based on the actual capital cost.

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

Table 65: Depreciation claimed by Petitioner (Rs. Lakh)

Particulars	FY23	FY24
Asset-1		
Opening GFA	12,951.92	12,976.92
Less: Grant/ Consumer Contribution	-	-
Net Opening GFA	12,951.92	12,976.92
Addition	25.00	0.00
Net Closing GFA	12,976.92	12,976.92
Average GFA	12,964.42	12,976.92
Less: Land under full ownership	254.47	254.47
Depreciable Value	12.709.95	12,722.45
Rate of Depreciation	4.57%	4.57%
Depreciation	**580.89**	**581.55**
Asset-2		
Opening GFA	4,024.18	4,047.24
Less: Grant/ Consumer Contribution	335.87	335.87
Net Opening GFA	3,688.31	3,711.37
Addition	23.06	83.00
Net Closing GFA	3,711.37	3,794.37
Average GFA	3,699.84	3,752.87
Less: Land under full ownership	0.00	0.00
Depreciable Value	3,699.84	3,752.87
Rate of Depreciation	5.14%	45.14%
Depreciation	**190.28**	**193.08**
Asset-3		
Opening GFA	4,589.50	4,589.50
Less: Grant/ Consumer Contribution	0.00	0.00
Net Opening GFA	4,589.50	4,589.50

Particulars	FY23	FY24
Addition	0.00	0.00
Net Closing GFA	4,589.50	4,589.50
Average GFA	4,589.50	4,589.50
Less: Land under full ownership	1,031.85	1,031.85
Depreciable Value	3,557.65	3,557.65
Rate of Depreciation	5.28%	5.28%
Depreciation	**187.84**	**187.84**

Commission's Analysis

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

*"**23. Depreciation***

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

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

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

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

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

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

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

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

4.3.4 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.

4.3.5 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 will be considered at the weighted average depreciation rates as per norms approved in the HPERC Transmission Tariff Regulations, 2011 at the time of true-up.

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

Table 66: Depreciation approved by Commission (Rs. Lakh)

Particulars	FY23	FY24
Asset-1		
Opening GFA	11,692.53	4,399.35
Less: Grant	7,366.29	-
Less: Consumer Contribution	-	-
Net Opening GFA	4,326.24	4,399.35
Addition	73.11	6.60
Net Closing GFA	4,399.35	4,405.95
Average GFA	4,362.79	4,402.65
Less: Freehold Land	254.47	254.47
Depreciable Value	4,108.32	4,148.18
Rate of Depreciation	4.57%	4.57%
Depreciation	**187.75**	**189.57**
Asset-2		
Opening GFA	4,172.20	534.88
Less: Grant	3,669.52	-
Less: Consumer Contribution	-	-
Net Opening GFA	502.68	534.88
Addition	32.20	88.11
Net Closing GFA	534.88	622.99
Average GFA	518.78	578.94

Particulars	FY23	FY24
Less: Freehold Land	-	-
Depreciable Value	518.78	578.94
Rate of Depreciation	5.14%	5.14%
Depreciation	**26.67**	**29.76**
Asset-3		
Opening GFA	3,563.37	1,281.92
Less: Grant	2,311.89	-
Less: Consumer Contribution	-	-
Net Opening GFA	1,251.48	1,281.92
Addition	30.45	76.91
Net Closing GFA	1,281.92	1,358.84
Average GFA	1,266.70	1,320.38
Less: Freehold Land	1,031.85	1,031.85
Depreciable Value	234.85	288.53
Rate of Depreciation	5.28%	5.28%
Depreciation	**12.40**	**15.23**

4.4 Interest on Loan

Petitioner's Submissions

4.4.1 The Petitioner has submitted the interest on loan in accordance with the Regulation 20 of the HPERC Transmission Tariff Regulations, 2011.

4.4.2 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., Rs. 90.66 Crore and additional loan on normative basis for ACE proposed during 2022-23.

4.4.3 For Asset-2, the Petitioner has considered the normative opening value of loan as on COD as normative loan amounting to 70% of the total project cost (excluding MNRE Grant) i.e. Rs. 25.82 Crore and additional loan on normative basis for ACE proposed during FY 2022-23 to 2023-24.

4.4.4 For Asset-3, the Petitioner has considered the opening value of actual loan as on COD amounting to 70.10% of the total project cost i.e., Rs. 32.17 Crore.

4.4.5 The Petitioner has considered the interest rate of 10% as per the ADB Loan Agreement read with lending agreement with GoHP for Asset-1 and Asset-3 and at interest rate of 10% as per the KfW Loan Agreement read with lending agreement with GoHP for Asset-2.

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

Table 67: Interest on Loan claimed by Petitioner (Rs. Lakh)

Particulars	FY23	FY24
Asset-1		
Opening Balance	9,066.34	8,502.95
Addition	17.50	0.00
Repayment	580.89	581.55
Closing Balance	8,502.95	7,921.40
Rate of Interest (%)	10.00%	10.00%
Interest on Loan	**878.46**	**821.22**
Asset-2		
Opening Balance	2,581.82	2,407.34
Addition	16.14	58.10
Repayment	190.28	193.50
Closing Balance	2,407.68	2,271.86
Rate of Interest (%)	10.00%	10.00%
Interest on Loan	**249.47**	**233.96**
Asset-3		
Opening Balance	3,217.05	3,029.21
Addition	0.00	0.00
Repayment	187.84	187.84
Closing Balance	3029.21	2841.36
Rate of Interest (%)	10.00%	10.00%
Interest on Loan	**312.31**	**293.53**

Commission's Analysis

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

4.4.8 Regulation 20 of the HPERC Transmission Tariff Regulations, 2011 stipulates the following:

> ***"20. Interest and Finance Charges***
> *(1) Interest and finance charges on loan capital shall be computed on the outstanding loans, duly taking into account the schedule of repayment in accordance with the terms and conditions of relevant agreements of loan, bond or non-convertible debentures. Exception can be made for the existing or past loans which may have different terms as per the agreements already executed if the Commission is satisfied that the loan has been contracted for and applied to identifiable and approved projects.*

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Table 68: Interest on Loan approved by Commission (Rs. Lakh)

Particulars	FY23	FY24
Asset-1		
Opening Balance	3,028.36	2,891.79
Addition	51.18	4.62
Repayment	187.75	189.57
Closing Balance	2,891.79	2,706.84
Rate of Interest (%)	10.00%	10.00%
Interest on Loan	**296.01**	**279.93**
Asset-2		
Opening Balance	222.29	218.17
Addition	22.54	61.68
Repayment	26.67	29.76
Closing Balance	218.17	250.09
Rate of Interest (%)	10.00%	10.00%
Interest on Loan	**22.02**	**23.41**
Asset-3		
Opening Balance	876.03	884.95
Addition	21.31	53.84
Repayment	12.40	15.23
Closing Balance	884.95	923.55
Rate of Interest (%)	10.00%	10.00%
Interest on Loan	**88.05**	**90.42**

4.5 Return on Equity

Petitioner's Submissions

4.5.1 The Petitioner has submitted the Return on Equity (RoE) in accordance with the Regulation 19 of the HPERC Transmission Tariff Regulations, 2011.

4.5.2 For Asset-1 and Asset-2, the Petitioner has submitted that it has considered the Opening Equity as on COD as equity corresponding to 30% of the total Project Cost (excluding Grant).

4.5.3 For Asset-3, the Petitioner has submitted that it has considered the Opening Equity as on COD as actual equity corresponding to 29.90% of the total Project Cost.

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

Table 69: RoE claimed by Petitioner (Rs. Lakh)

Particulars	FY23	FY24
Asset-1		
Opening Equity	3,885.58	3,893.08
Addition	7.50	0.00
Closing Equity	3,893.08	3,893.08
Average Equity	3,889.33	3,893.08
RoE (%)	15.50%	15.50%
Return on Equity	**602.85**	**603.43**
Asset-2		
Opening Equity	1,106.49	1,113.41
Addition	6.92	24.90
Closing Equity	1,113.41	1,138.31
Average Equity	1,109.95	1,125.86
RoE (%)	15.50%	15.50%
Return on Equity	**172.04**	**174.51**
Asset-3		
Opening Equity	1,372.45	1,372.45
Addition	-	-
Closing Equity	1,372.45	1,372.45
Average Equity	1,372.45	1,372.45
RoE (%)	15.50%	15.50%
Return on Equity	**212.73**	**212.73**

Commission's Analysis

4.5.5 Regulation 19 of the HPERC Transmission Tariff Regulations, 2011 stipulates the following:

"19. Return on Equity

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

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

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

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

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

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

4.5.6 Equity corresponding to the Capital cost has been approved by the Commission in the previous Chapter under the head 'Project Funding'. The same has been considered for approving the return on equity. Equity corresponding to additional capitalization has been considered at 30% in the subsequent years.

4.5.7 The Commission has considered rate of return @ 15.50% for approval of RoE for the 4th Control Period. Any tax liability arising on the Petitioner during the Control Period will be trued-up at the end of Control Period/ Mid Term Review based on effective tax rate/ liability.

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

Table 70: RoE approved by Commission (Rs. Lakh)

Particulars	FY23	FY24
Asset-1		
Opening Equity	1,297.87	1,319.80
Addition	21.93	1.98
Closing Equity	1,319.80	1,321.78
RoE (%)	15.50%	15.50%
Return on Equity	**202.87**	**204.72**
Asset-2		
Opening Equity	280.39	290.05
Addition	9.66	26.43
Closing Equity	290.05	316.48
RoE (%)	15.50%	15.50%
Return on Equity	**44.21**	**47.01**
Asset-3		
Opening Equity	375.44	384.58
Addition	9.13	23.07
Closing Equity	384.58	407.65
RoE (%)	15.50%	15.50%
Return on Equity	**58.90**	**61.40**

4.6 Interest on Working Capital (IoWC)

Petitioner's Submissions

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

4.6.2 For Asset-1 and Asset-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 For Asset-3, the Petitioner has calculated the interest on working capital considering prevalent SBI MCLR as on 01.04.2022 and 01.04.2023 for FY 2022-23 and FY 2023-24 respectively plus 300 basis points.

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

Table 71: Interest on Working Capital claimed by Petitioner (Rs. Lakh)

Particulars	FY23	FY24
Asset-1		
O&M Expenses for 1 month	2.06	2.13
Maintenance Spares (at 15% monthly O&M Expenses)	0.309	0.320
Receivables for 2 months	354.06	344.71
Less: Consumer Security Deposit	-	-
Total Working Capital	**356.43**	**347.16**
Interest Rate (%)	10.50%	10.50%
Interest on Working Capital	**37.43**	**36.45**
Asset-2		
O&M Expenses for 1 month	9.55	9.86
Maintenance Spares (at 15% monthly O&M Expenses)	1.43	1.48
Receivables for 2 months	123.30	122.28
Less: Consumer Security Deposit	-	-
Total Working Capital	**134.27**	**13363**
Interest Rate (%)	10.00%	10.00%
Interest on Working Capital	**13.43**	**13.36**
Asset-3		
O&M Expenses for 1 month	7.28	7.54
Maintenance Spares (at 15% monthly O&M Expenses)	1.09	1.13
Receivables for 2 months	135.78	133.48
Less: Consumer Security Deposit	-	-

Particulars	FY23	FY24
Total Working Capital	**144.15**	**142.15**
Interest Rate (%)	10.00%	11.50%
Interest on Working Capital	**14.41**	**16.35**

Commission's Analysis

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

4.6.6 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."

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

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

Table 72: Interest on Working Capital approved by Commission (Rs. Lakh)

Particulars	FY23	FY24
Asset-1		
O&M Expenses for 1 month	2.06	2.13
Maintenance Spares (at 15% monthly O&M Expenses)	0.309	0.320
Receivables for 2 months	120.61	118.97

Particulars	FY23	FY24
Total Working Capital	**122.98**	**121.42**
Interest Rate (%)	10.00%	11.50%
Interest on Working Capital	**12.30**	**13.96**
Asset-2		
O&M Expenses for 1 month	5.18	5.36
Maintenance Spares (at 15% monthly O&M Expenses)	0.78	0.80
Receivables for 2 months	26.38	28.08
Total Working Capital	**32.33**	**34.25**
Interest Rate (%)	10.00%	11.50%
Interest on Working Capital	**3.23**	**3.94**
Asset-3		
O&M Expenses for 1 month	7.28	7.54
Maintenance Spares (at 15% monthly O&M Expenses)	1.09	1.13
Receivables for 2 months	41.96	43.92
Total Working Capital	**50.33**	**52.59**
Interest Rate (%)	10.00%	11.50%
Interest on Working Capital	**5.03**	**6.05**

4.7 Aggregate Revenue Requirement

Petitioner's 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 73: Summary of ARR claimed by Petitioner (Rs. Lakh)

Particulars	FY23	FY24
Asset-1		
Depreciation	580.89	581.55
Interest on Loan	878.46	821.22
Interest on Working Capital	37.43	36.45
Return on Equity	602.85	603.43
O&M Expenses	24.75	25.61
Total ARR – Asset-1	**2,124.37**	**2,068.26**
Pro-rata for no. of days in operation (Asset-1)	**1,402.67***	**2,068.26**
Asset-2		

Particulars	FY23	FY24
Depreciation	190.28	193.08
Interest on Loan	249.47	234.02
Interest on Working Capital	13.43	13.36
Return on Equity	172.04	174.51
O&M Expenses	114.54	118.38
Total ARR – Asset-2	**739.77**	**733.34**
Pro-rata for no. of days in operation (Asset-2)	**488.45***	**733.34**
Asset-3		
Depreciation	187.84	187.84
Interest on Loan	312.31	293.53
Interest on Working Capital	14.41	16.35
Return on Equity	212.73	212.73
O&M Expenses	87.36	90.44
Total ARR – Asset-3	**814.66**	**800.89**
Pro-rata for no. of days in operation (Asset-3)	**537.90***	**800.89**

**Asset-1, Asset-2 and Asset-3: ARR pro-rated for FY 2022-23 based on COD (03.08.2022)*

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 FY 2022-23 and FY 2023-24 is summarised in the table as follows:

Table 74: Summary of ARR approved by Commission (Rs. Lakh)

Particulars	FY23	FY24
Asset-1		
O&M Expenses	24.75	25.61
Depreciation	187.75	189.57
Interest on Loan	296.01	279.93
Interest on Working Capital	12.30	13.96
Return on Equity	202.87	204.72
Total ARR – Asset-1	**723.67**	**713.80**
Pro-rata for no. of days in operation (Asset-1)	**440.15***	**713.80**
Asset-2		
O&M Expenses	62.14	64.38
Depreciation	26.67	29.76

Particulars	FY23	FY24
Interest on Loan	22.02	23.41
Interest on Working Capital	3.23	3.94
Return on Equity	44.21	47.01
Total ARR – Asset-2	**158.27**	**168.49**
Pro-rata for no. of days in operation (Asset-2)	**96.27***	**168.49**
Asset-3		
O&M Expenses	87.36	90.44
Depreciation	12.40	15.23
Interest on Loan	88.05	90.42
Interest on Working Capital	5.03	6.05
Return on Equity	58.90	61.40
Total ARR – Asset-3	**251.74**	**263.54**
Pro-rata for no. of days in operation (Asset-3)	**153.12***	**263.54**

**Asset-1, Asset-2 and Asset-3: ARR pro-rated for FY 2022-23 based on actual utilisation (22.08.2022)*

4.8 Additional Submissions

Petitioner's **Submissions**

4.8.1 The Petitioner has prayed the Commission to allow Carrying Cost from the beneficiary at the rate as specified under Regulation 10(A) of HPERC Transmission Tariff Regulations, 2011 for the period starting COD till the issuance of the Bills.

4.8.2 Further, in the Interlocutory Application submitted along with the affidavit dated 01.12.2025, the Petitioner has prayed the Commission to determine the tariff for the 5th MYT Control Period from FY 2024-25 to FY 2028-29 in accordance with the Regulation 12(3) of the HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2023 (hereinafter referred to as "HPERC Transmission Tariff Regulations, 2023").

Commission's **Analysis**

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

4.8.4 Further, the Petitioner has not claimed any additional capitalisation for the 5th MYT Control Period in its Interlocutory Application submitted. However, as per Regulation 20(2) of the HPERC Transmission Tariff Regulations, 2023, the Commission is empowered to determine the Tariff on Suo-Moto basis. Regulation 20(2) of the HPERC Transmission Tariff Regulations, 2023 is reproduced below for reference:

"20. Determination of Tariff-

…

(2) Notwithstanding anything contained in these Regulations, the Commission shall have, at all times, the authority, either on Suo-motu basis or on a Petition filed by the Transmission Licensee, to determine the tariff or Fees and Charges, including terms and conditions thereof, of Transmission Licensee:

Provided that such determination of tariff or Fees and Charges may be pursuant to an agreement or arrangement or otherwise whether or not previously approved by the Commission and entered into at any time before or after the applicability of these Regulations."

4.8.5 Accordingly, the Commission has determined the Annual Revenue Requirement (ARR), for the 5th MYT Control Period on provisional basis, subject to review at the time of Mid-Term Review, which is as shown below.

Table 75: ARR approved by Commission for 5th MYT Control Period (Rs. Lakh)

Particulars	FY25	FY26	FY27	FY28	FY29
Asset-1					
O&M Expenses	21.81	22.95	24.14	25.41	26.75
Depreciation	189.72	189.72	189.72	189.72	189.72
Interest on Loan	261.20	242.23	223.25	204.28	185.31
Interest on Working Capital	13.99	14.04	13.67	13.31	12.95
Return on Equity	191.66	191.66	191.66	191.66	191.66
Total ARR	**678.38**	**660.59**	**642.45**	**624.38**	**606.39**
Asset-2					
O&M Expenses	55.14	58.05	61.06	64.24	67.70
Depreciation	32.02	32.02	32.02	32.02	32.02
Interest on Loan	23.41	20.21	17.00	13.80	10.60
Interest on Working Capital	3.89	4.03	4.07	4.10	4.15
Return on Equity	45.89	45.89	45.89	45.89	45.89
Total ARR	**160.35**	**160.20**	**160.04**	**160.06**	**160.37**
Asset-3					
O&M Expenses	72.35	76.13	80.15	84.35	88.76

Particulars	FY25	FY26	FY27	FY28	FY29
Depreciation	17.26	17.26	17.26	17.26	17.26
Interest on Loan	91.49	89.77	88.04	86.31	84.59
Interest on Working Capital	5.82	6.09	6.18	6.29	6.40
Return on Equity	59.11	59.11	59.11	59.11	59.11
Total ARR	**246.04**	**248.35**	**250.75**	**253.32**	**256.12**

4.8.6 Further, as per Regulation 12(3) of the HPERC Transmission Tariff Regulations, 2023, the Commission is empowered to grant Interim Tariff relief upto 70%, to avoid financial burden and to ensure smooth operations of the HPPTCL. Regulation 12(3) of the HPERC Transmission Tariff Regulations, 2023 is reproduced below for reference:

"20. Tariff determination-

…

(3) If the information furnished by the Transmission Licensee in the Petition is in accordance with these Regulations, the Commission, in case of a new transmission system or element thereof, through a specific prayer in the tariff application may consider granting interim tariff of up to seventy per cent (70%) of the tariff claimed from the date of commercial operation during the first hearing of the application."

4.8.7 Therefore, in the interest of justice, equity and to ensure uninterrupted transmission services in the State, the Commission hereby allows the Petitioner to recover the Interim Transmission Charges at 70%, determined for the 5th MYT Control Period as shown below. However, these Interim Transmission Charges determined are subject to review at the time of Mid-Term Review.

Table 76: Interim Tariff approved for 5th MYT Control Period (Rs. Lakh)

Particulars	FY25	FY26	FY27	FY28	FY29
Interim Transmission Charges Recoverable					
Asset-1	474.87	462.42	449.71	437.07	424.47
Asset-2	112.24	112.14	112.03	112.04	112.26
Asset-3	172.23	173.85	175.52	177.33	179.28

4.9 Transmission Charges

Petitioner's Submissions

4.9.1 The Petitioner has submitted that in absence of any tariff, the Petitioner is facing financial hardship in the upkeep of the assets. Therefore, the Commission may approve annual transmission charges that can be recovered from the beneficiaries as per the provisions of the TSA.

Commission's Analysis

4.9.2 The Commission sought information with regards to existing and future beneficiaries of all 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 executed with HPSEBL in response to the queries of the Commission.

4.9.3 Therefore, the Petitioner is directed to recover the transmission charges from the identified long-term /medium-term beneficiary of the Transmission Asset as per terms and conditions of the TSA/ Open Access Agreements and the Clause 33 of HPERC Transmission Tariff Regulations, 2011 which reads as under:

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

4.9.4 However, in case any LTA is signed in future with the Petitioner by any generator, the charges shall be payable in accordance with Regulation 33 of HPERC Transmission Tariff Regulations, 2011 or Regulation 45 of HPERC Transmission Tariff Regulations, 2023.

4.9.5 The Petition is disposed off as above.

-Sd-	-Sd-
(SHASHI KANT JOSHI)	**(YASHWANT SINGH CHOGAL)**
Member	**Member (Law) – Cum Chairman**

Place: Shimla
Dated: 10th Mar 2026