

**Approval of Capital Cost and Determination
of Tariff for 4th Control Period from CoD to
FY 2023-24 for 66/22 kV Substation
Nirmand (Bagipul) (Asset-1) and 66 kV D/C
Nirmand–Kotla Transmission Line(Asset-2)**

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



**Himachal Pradesh Electricity Regulatory
Commission
January 21, 2025**

**BEFORE THE HIMACHAL PRADESH ELECTRICITY REGULATORY COMMISSION AT
SHIMLA**

PETITION NO: 116/2024

Decided on :21.01.2025.

CORAM

Sh. DEVENDRA KUMAR SHARMA

Sh. YASHWANT SINGH CHOGAL

Sh. SHASHI KANT JOSHI

In the matter of:

Approval of Capital Cost and Determination of Tariff for 4th Control Period from CoD to FY 2023-24 for 66/22 kV Substation Nirmand (Bagipul) (Asset-1) and 66 kV D/C Nirmand – Kotla Transmission Line (Asset-2) under the Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011, as amended from time to time, and under Section 62, read with Section 86 of the Electricity Act, 2003.

AND

In the matter of:

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

ORDER

The Himachal Pradesh Power Transmission Corporation Limited (hereinafter called the 'HPPTCL' or 'Petitioner' or 'Applicant') has filed the present Petition for the Approval of Capital Cost and Determination of Tariff for 4th Control Period from CoD to FY 2023-24 for 66/22 kV Substation Nirmand (Bagipul) (Asset-1) and 66 kV D/C Nirmand – Kotla Transmission Line (Asset-2) under the Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011, as amended from time to time, and under Section 62, read with section 86 of the Electricity Act, 2003.

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

After considering the Petition filed by the Applicant, the facts presented by the Applicant in its subsequent filings, the responses of the Applicant to the objections and documents available on record, the Commission in exercise of powers vested in it under Section 86 of the Electricity Act, 2003 and 12(1) of HPERC Tariff Regulation, 2011 along with its subsequent amendments, passes the following Order for determining the capital cost and transmission tariff for 66/22 kV Substation Nirmand (Bagipul) (Asset-1) and 66 kV D/C Nirmand – Kotla Transmission Line (Asset-2) from COD to FY2023-24. While determining the capital cost and Aggregate Revenue Requirement (ARR) for 66/22 kV Substation at Nirmand (Bagipul) and 66 kV D/C Nirmand – Kotla Transmission Line to 66/220 kV substation at Kotla, 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, Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019, as amended from time to time (hereinafter referred to as 'CERC Tariff Regulations, 2019') and HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011, as amended from time to time. Details of prudence check and approach adopted by the Commission with regard to approval of capital cost and ARR for Sub-station and Transmission line are summarized in the detailed Order contained in Chapters 1 to 4 (Pages 6 to 52).

-Sd-
(SHASHI KANT JOSHI)
Member

-Sd-
**(YASHWANT SINGH
CHOGAL)**
Member (Law)

-Sd-
**(DEVENDRA KUMAR
SHARMA)**
Chairman

Shimla

Dated: 21st January, 2025

Table of Contents

1.	INTRODUCTION	6
1.1	Himachal Pradesh Electricity Regulatory Commission	6
1.2	Himachal Pradesh Power Transmission Corporation Ltd.	7
1.3	Multi Year Tariff Framework	8
1.4	Interaction with the Petitioner.....	8
1.5	Public Hearings	9
2.	STAKEHOLDER OBJECTIONS.....	10
2.1	Introduction.....	10
3.	APPROVAL OF CAPITAL COST	13
3.1	Introduction.....	13
3.2	Summary of the Project	14
3.3	Project Implementation	17
3.4	Date of Commercial Operations (COD)	18
3.5	Energy flow and Nature of Asset.....	18
3.6	Capital Cost	19
3.7	Overheads (IDC and Departmental Charges)	24
3.8	Project Funding	31
3.9	Additional Capitalisation	34
4.	APPROVAL OF ARR AND TARIFF	37
4.1	Background	37
4.2	Depreciation	37
4.3	Interest on Loan.....	40
4.4	Return on Equity	43
4.5	O&M Expenses	45
4.6	Interest on Working Capital	47
4.7	Aggregate Revenue Requirement	49
4.8	Transmission Charges	51

List of Tables

Table 1: Communication with the Petitioner.....	8
Table 2: List of Newspapers for publication of Stakeholders comments	9
Table 3: List of Newspapers for Public Notice by Commission	9
Table 4: Sub-Station details	15
Table 5: Transmission Line details.....	15
Table 6: Abstract of Capital Cost (INR Lakh).....	15
Table 7: CODs of the elements of Transmission system.....	18
Table 8: Capital Cost comparison – Sub-station (INR Lakh)	19
Table 9: Capital Cost comparison – Transmission Line (INR Lakh)	20
Table 10: Capital Cost as on COD as per the Statutory Auditor’s Certificate (INR Lakh)	20
Table 11: Cost breakup as per DPR (INR Lakh)	21
Table 12: Amendments in Contract for Sub-Station (INR Lakh).....	22
Table 13: Comparison between Award Cost and Claimed Cost for the Services and Supplies of the Sub-station (INR Lakh)	22
Table 14: Amendments in Contract for the Transmission Line	22
Table 15: Comparison between Award Cost and Claimed Cost for the Services and Supplies of the Transmission Line (INR Lakh)	23
Table 16: Other Expenses - Line and Sub-Station (INR Lakh)	23
Table 17: Hard Cost (including land cost)– Transmission Line and Sub-Station (INR Lakh).....	24
Table 18: IDC and Departmental charges claimed by Petitioner (INR Lakh)	25
Table 19: Project Timelines as submitted by Petitioner.....	25
Table 20: Reasons for time overrun as claimed by the Petitioner	26
Table 21: Important dates for construction of Substation	27
Table 22: Important dates for construction of Transmission Line	28
Table 23: Revised Benchmark IDC –Substation (INR Lakh).....	29
Table 24: Revised Benchmark IDC – Transmission Line (INR Lakh)	29
Table 25: IDC upto COD approved by Commission (INR Lakh)	30
Table 26: Approved Departmental Charges (DC) (INR Lakh).....	30
Table 27: Approved Capital Cost (INR Lakh)	30
Table 28: Project funding proposed by the Petitioner.	32
Table 29: Funding Pattern approved by Commission.....	33
Table 30: Additional capitalization proposed for Transmission Line (INR Lakh)	34
Table31:Additional capitalization approved for Substation (INR Lakh)	35
Table 32: Additional capitalization approved for Transmission Line (INR Lakh)	35
Table 33: Funding of additional capitalisation approved by the Commission	35
Table 34: Depreciation claimed by Petitioner (INR Lakh)	38
Table 35: Depreciation approved by Commission (INR Lakh)	39
Table 36: Interest on Loan claimed by Petitioner (INR Lakh)	40
Table 37: Interest on Loan approved by Commission (INR lakh)	42
Table 38: RoE claimed by Petitioner (INR Lakh)	43
Table 39: RoE approved by Commission (INR Lakh)	44
Table 40: O&M Expenses claimed by Petitioner (INR Lakh)	46
Table 41: Normative O&M Expenses – Transmission Line	47
Table 42: Normative O&M Expenses – Sub-Station.....	47
Table 43: O&M Expenses approved by Commission (INR Lakh)	47
Table 44: Interest on Working Capital claimed by Petitioner (INR Lakh)	48
Table 45: Interest on Working Capital approved by Commission (INR Lakh)	49
Table 46: Summary of ARR claimed by Petitioner (INR Lakh).....	50
Table 47: Summary of ARR approved by Commission (INR Lakh).....	50

1. INTRODUCTION

1.1 Himachal Pradesh Electricity Regulatory Commission

1.1.1 The Himachal Pradesh Electricity Regulatory Commission (hereinafter referred to as 'HPERC' or 'the Commission'), constituted under the Electricity Regulatory Commission Act, 1998, came into being in December, 2000 and started functioning with effect from 5th January, 2001. After the enactment of the Electricity Act, 2003 on 25th May, 2003, the HPERC has been functioning as a statutory body with a quasi-judicial and legislative role under Electricity Act, 2003.

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.

1.1.2 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 proviso 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 vide notification No. MPP-A-(1)-4/2006-Loose, dated 11th September, 2008.

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

- a) All new works of construction of Sub-Stations of 66 kV and above.
- b) All new works of laying/ construction of transmission lines of 66 kV and above.
- c) Formulation, updating, execution of Transmission Master Plan for the state for strengthening of Transmission network and evacuation of power including new works under schemes already submitted by the Himachal Pradesh State Electricity Board (HPSEB) under this plan to the Financial Institutions for funding and where loan agreements have not yet been signed.
- d) All matters relating to planning and co-ordinations of the transmission related issues with CTU, CEA, Ministry of Power, State Government and HPSEBL.
- e) Planning and co-ordination with the IPPs/ CPSUs/ State PSUs/ Other Departments or organizations or agencies of the Central Government and State Government, HPSEBL and HPPCL with regard to all transmission related issues.

1.2.4 HPPTCL was declared the State Transmission Utility (STU) by the GoHP vide order dated 10th June, 2010 and as a result thereof, the Commission has recognized HPPTCL as a deemed "Transmission Licensee" as per the Commission's Order dated 31st July, 2010 in Petition No. 32 of 2010 filed by HPPTCL under Sections 14 and 15

of the Act, for grant of Transmission Licensee in the State of Himachal Pradesh. Prior to FY 2010-11, the transmission tariff was being determined as a part of the tariff orders applicable to HPSEBL system.

1.3 Multi Year Tariff Framework

- 1.3.1 The Commission follows the principles of Multi Year Tariff (MYT) for determination of tariffs, in line with the provisions of Section 61 of the Electricity Act, 2003 (hereinafter to be referred to as the "Act").
- 1.3.2 The MYT framework is also designed to provide predictability and reduce regulatory risk. This can be achieved by approval of a detailed capital investment plan for the Petitioner, considering the expected network expansion and load growth during the Control Period. The longer time span enables the Petitioner to propose its investment plan with details on the possible sources of financing and the corresponding capitalization schedule for each investment.
- 1.3.3 The Commission had specified the terms and conditions for the determination of tariff in the year 2004, based on the principles as laid down under Section 61 of the Electricity Act 2003.
- 1.3.4 Thereafter, the Commission had notified the HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011. These MYT Regulations notified in the year 2011 were amended as (First Amendment) Regulations, 2013 on 1st November, 2013 and (Second Amendment) Regulations, 2018 on 22nd November, 2018 (The Regulations and its subsequent amendments combined shall be herein after referred to as "HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations 2011" or "HPERC Tariff Regulations, 2011).

1.4 Interaction with the Petitioner

- 1.4.1 The HPPTCL has filed the application/Petition for approval of Capital Cost and determination of Tariff for the period from COD to FY 2023-24 for 66/22 kV Substation Nirmand (Bagipul) (Asset-1) and 66 kV D/C Nirmand - Kotla Transmission Line (Asset-2) on 29th May, 2023. Based on various observations/deficiencies pointed out by the Commission, the HPPTCL has submitted further details and clarifications.
- 1.4.2 The Commission admitted the Petition submitted by the HPPTCL vide Interim Order dated 06.08.2024. There have been a series of interactions between the HPPTCL and the Commission, both written and oral, wherein the Commission sought additional information/clarifications and justifications on various issues, critical for the analysis of the Petition.
- 1.4.3 Based on the detailed scrutiny of the Petition, further clarifications/ information were sought by the Commission from time to time. The following submissions made by the Petitioner in response there to, have been taken on record:

Table 1: Communication with the Petitioner

Sl.	Submission of the Petitioner	Date
1	HPERC-F(1)-61/2023-944 dated 04.07.2023	Filing No. 100 of 2023 dated 30.01.2024

Sl.	Submission of the Petitioner	Date
2	HPERC-F(1)-61/2023-93 dated 10.04.2024	Filing No. 100 of 2023 dated 11.07.2024

1.5 Public Hearings

1.5.1 The interim order, inter alia, included direction to the Petitioner to publish the application in an abridged form and manner as per the "disclosure format" attached with the Interim Order for the information of all the stakeholders in the State. As per the direction, the Petitioner published the public notice in the following newspapers.

Table 2: List of Newspapers for publication of Stakeholders comments

Sl.	Name of News Paper	Date of Publication
1.	Amar Ujala	10.08.2024
2.	The Tribune	10.08.2024

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

Table 3: List of Newspapers for Public Notice by Commission

Sl.	Name of News Paper	Date of Publication
1.	Times of India	21.08.2024
2.	Dainik Bhaskar	21.08.2024

1.5.3 The stakeholders were requested to file their objections by 21st September, 2024. The HPPTCL was required to submit replies to the suggestions/ objections to the Commission by 28th September, 2024 with a copy to the objectors on which the objectors were required to submit rejoinder by 03rd October, 2024.

1.5.4 The Commission decided to conduct a public hearing and, therefore, issued a public notice informing the public about the scheduled date of public hearing as 5th October, 2024. All the parties, who had filed their objections/ suggestions, were also informed about the date, time and venue for presenting their case during the public hearing.

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 date for filing comments/ objections and the date of public hearing as 5th October, 2024.
- 2.1.2 Accordingly, the public hearing was conducted at HPERC office on 5th October, 2024. Himachal Pradesh State Electricity Board Ltd. (HPSEBL) submitted its comments/ suggestions in the matter before the Commission. Issues raised by stakeholders in its written and oral submissions, along with replies given by the Petitioner and views of the Commission are summarized in the following paras:

Stakeholder's Submissions

- 2.1.3 With regards to Asset 1, the effective date of project execution was 27th April, 2019. The work was to be executed within 24 months that is up to 26th April, 2021. However, the project was commissioned on 4th March, 2023 which is a delay of approximately 23 months. Hence, there is a time overrun for completion of the project. The cost overrun thus occurred in completion cost should not be transferred to the beneficiaries.

Petitioner's Response

- 2.1.4 The Petitioner clarified that with regard to the averments made by the HPSEBL, the detailed cause of delay along with its justifications has already been submitted before the Commission in the instant Petition and also in the replies to the deficiency note(s). Further, it is the Petitioner submitted that the statement made by HPSEBL asking that the cost overrun, and completion cost may not be transferred to the beneficiaries is general in nature. The statement is ambiguous statement devoid of any rationale and merit and therefore liable to be rejected.
- 2.1.5 The Petitioner has submitted the following reasons for delay in execution of the substation:

Sl.	Reason for Delay	Effective Delay (months)
1	Delay in Forest clearance	2.5
2	Covid - 19	8
3	Inclement Weather Conditions	2.5
4	Delay in FOTE Commissioning due to delay in execution of 66 kV Transmission Line	7
5	Charging along with Commissioning of associated Transmission Line	3

Sl.	Reason for Delay	Effective Delay (months)
	Total	23 Months

Commission's Observations

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

Stakeholder's Submissions

2.1.7 With regards to Asset 2, the effective date of project execution was 21st February, 2019. The work was to be executed within 24 months that is up to 20th February, 2021. However, the project was commissioned on 4th March, 2023 which is a delay of approximately 24.5 months. Hence, there is a time overrun for completion of the project. The cost overrun thus occurred in completion cost should not be transferred to the beneficiaries.

Petitioner's Response

2.1.8 The Petitioner clarified that with regard to the averments made above, the Petitioner has already submitted the detailed cause of delay along with its justifications before the Commission in the instant Petition and also in the replies to the deficiency note(s). Further, the Petitioner submitted that the statement made by the HPSEBL asking that the cost overrun and completion cost may not be transferred to the beneficiaries is general in nature. The statement is ambiguous and devoid of any rationale and merit and therefore, liable to be rejected.

2.1.9 The Petitioner has submitted the following reasons for delay in execution of the Transmission Line:

Sl.	Reason for Delay	Effective Delay (months)
1	Non-Approval of Forest Case	4.5
2	Handing over of Private land	4
3	Covid - 19	6
4	Inclement Weather Condition	4.5
5	Non-Availability of Shutdown on the 66 kV and 22 kV feeder	2
6	Delayed CoD of transmission line due to non-completion of codal formalities with HPSEBL	3.5
	Total	24.5 Months

Commission's Observations

2.1.10 The Commission has taken into consideration the time overrun cost involved in construction of the asset and has approved the same based on the documentation submitted by the Petitioner. The Commission has dealt with each cost aspect and the same is detailed under Chapter 3 of this Order.

Stakeholder's Submissions

2.1.11 HPSEBL submitted that there has been a huge variation of IDC as on COD in comparison to DPR of the project. The increase in IDC from Rs. 1.26 Cr. as in the DPR to Rs. 2.78 Cr. (revised as per reply to Deficiency Note 1 of the Commission by Petitioner) is huge and requested not to transfer the same to the beneficiaries.

Petitioner's Response

2.1.12 The Petitioner has submitted that Actual IDC (Rs. 2.78 Crores) vis-a-vis the DPR cost (Rs. 1.26 Crore) is higher mainly due to variation in the rate of interest considered in the DPR vis-à-vis actual rate of interest on loan. While preparing the DPR, IDC was computed at the rate of 4.64%, as against the actual loan @ 10% as per the ADB Loan Agreement read with lending agreement with GoHP. The same has also been specifically submitted in the Petition and in the reply to query No. 40 of deficiency note dated 04.07.2023 of the Commission. Therefore, the contention raised by the Respondent is devoid of any merit and hence liable to be rejected.

Commission's Observations

2.1.13 In order to approve the IDC, the Commission has taken into consideration interest rate as per agreement with Govt. of Himachal Pradesh and ADB and the reasons for delay during construction of the project. Furthermore, the Commission has calculated the normative IDC for the project and made requisite adjustments for approval of IDC which have been detailed under Chapter 3 of this Order.

3. APPROVAL OF CAPITAL COST

3.1 Introduction

- 3.1.1 HPPTCL has submitted a Petition for determination of capital cost for 66/22 kV Nirmand (Bagipul) Substation and 66 kV D/C Nirmand – Kotla Transmission Line from COD to FY 2023-24 in line with the provisions of the HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011.
- 3.1.2 Regulation 14 of the HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011, as amended from time to time, provides as under: -

"14. Capital cost of the project

(1) The capital cost for a project shall include-

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

(b) capitalised initial spares subject to the ceiling norms as per regulation 15;

(c) additional capital expenditure determined under regulation 16:

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

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

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

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

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

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

- 3.1.3 The Commission has reviewed the submitted capital cost by the Petitioner for 66/22 kV Nirmand (Bagipul) Substation and 66 kV D/C Nirmand - Kotla Transmission Line. The Petitioner has submitted separate ARRs for 66/22 kV Nirmand (Bagipul) Substation referred to as Asset-1 and 66 kV D/C Nirmand - Kotla Transmission Line referred to as Asset-2.
- 3.1.4 The original Petition for determination of capital cost and ARR for 66/22 kV Nirmand (Bagipul) Substation & 66 kV D/C Nirmand - Kotla Transmission Line from COD till FY 2023-24 lacked detailing and supporting information to ascertain the capital cost for the Sub-Station and Transmission line. Accordingly, the Commission sought additional submissions and supporting documents from the Petitioner through the deficiency letters for the purpose of reviewing the capital cost and ARR. In some of the cases, the information provided by the Petitioner in response to the queries of the Commission remained incomplete and/or could not be validated through appropriate supporting documents.
- 3.1.5 The scrutiny and prudence check undertaken by the Commission for approval of the capital cost of 66/22 kV Nirmand (Bagipul) Substation and 66 kV D/C Nirmand - Kotla Transmission Line has been discussed in the following paragraphs.

3.2 Summary of the Project

Petitioner's Submissions

- 3.2.1 The Petitioner has submitted that the Board of Director approval for both the Assets was granted on 24th June, 2013 under which these assets were to be included under Tranche 3 of Himachal Pradesh Clean Energy Transmission Programme.
- 3.2.2 As per the Petitioner, sole beneficiary of the system in line with Transmission Service Agreement has been Himachal Pradesh State Electricity Board Limited (HBSEBL). The Petitioner has claimed that the substation and associated transmission line has been interconnected with the network of HPSEBL. This shall help to get reliable system to evacuate power as well as to serve the consumers in the Nirmand valley.
- 3.2.3 The CEA approval was granted for both the assets on 24th May, 2016. The DPR cost of Substation has been Rs. 5602.08 Lakh which is inclusive of Interest during Construction (IDC) of Rs. 376.26 Lakh and Departmental Charges (DC) of Rs.504.25 Lakh. This also included contingency cost of Rs. 137.52 Lakh. As per the DPR, an amount of Rs. 4134.60 Lakh was assessed towards the transmission line.

This cost included IDC of Rs. 125.56 Lakh, DC of Rs. 365.99 Lakh and cost towards contingencies of Rs. 99.82 Lakh.

3.2.4 The relevant technical detail and configuration of the Sub-Station as submitted by the Petitioner in the Petition is tabulated as follows:

Table 4: Sub-Station details

Name of Sub-Station	Type of Sub-station	Voltage level KV	No. of Bays				COD
			765 KV	400 KV	66 KV	22 kV	
66/22 kV 2X10 MVA GIS Nirmand Substation	GIS	66/22	-	-	6	2	4 th March, 2023

3.2.5 The relevant technical details and configuration of the transmission line as submitted by the Petitioner is tabulated as follows:

Table 5: Transmission Line details

Name of Transmission line	Type of line (AC/HVDC)	S/C or D/C	Name of Sub-Conductors	Voltage level kV	Line Length (Km)	COD
66 kV Nirmand – Kotla Transmission Line	AC	D/C	ACSR WOLF	66	23.86	4 th March, 2023

3.2.6 The Petitioner has submitted that the tender for work of construction of the Substation and transmission line was floated through competitive bidding. Further, the Petitioner has submitted the breakup of the capital cost of Sub-station and transmission line as on COD vis-à-vis the amount approved in the DPR as follows:

Table 6: Abstract of Capital Cost (INR Lakh)

Particulars	Capital Cost –DPR	Capital Cost - Claimed
Sub-Station		
Hard Cost	4584.05	3504.79
Departmental charges	504.25	172.25
IDC	376.26	289.10
Contingencies/Other Misc Expenses	137.52	104.56
Sub-Total	5602.08	4070.70
Transmission Line		
Hard Cost	3543.22	2810.58
Departmental charges	365.99	199.48
IDC	125.56	278.41
Contingencies/Other Misc Expenses	99.82	719.14
Sub-Total	4134.60	4007.61
Total	9736.68	8078.31

3.2.7 The Petitioner has submitted that the construction of Substation and Transmission line was awarded separately on turnkey basis for Rs. 3979.84 Lakh and Rs. 2309.52

Lakh respectively. The cost of construction changed from the LOA amount due on account of deviation in quantities for which, two number of amendments each for the transmission line and the Substation were carried out by the Petitioner.

- 3.2.8 The Petitioner has submitted that there has been a delay in commissioning of the Substation by 23 months. From the effective date of contract on 27th April, 2019, the time period for execution of the project was till 26th April, 2021. However, the Substation could only be completed by 4th March 2023. The major reasons for late commissioning included delay in forest clearance, COVID induced lockdown, inclement weather conditions, delay in establishment of communication network and delay in execution of associated transmission line.
- 3.2.9 The Petitioner has also submitted that there was a delay in commissioning of the Transmission Line by 24.5 months. From the effective date of contract on 21st February, 2019, the scheduled COD of the project was 20th February 2021. However, the Transmission Line could only be completed by 4th March, 2023 due to delay in forest clearance, COVID induced lockdown, inclement weather conditions, non-availability of shutdown on the 66 kV and 22 kV feeders and delay in completion of procedural formalities with HPSEBL.
- 3.2.10 The Petitioner has submitted that the beneficiary of the substation (Asset -1) and the transmission line (Asset -2) is HPSEBL.

Commission's Analysis

- 3.2.11 The Commission observes that the DPR cost of the 66/22kV GIS substation at Nirmand was Rs. 5602 Lakh. However, the Commission noted that the Board of Directors of the Petitioner had granted approval for Rs. 3800 Lakh only towards construction of the Substation. The Commission enquired from the Petitioner regarding the lower cost approved by their Board of Directors. In response, the Petitioner clarified that while the Board approval was granted in June, 2013, the submission to CEA for approval of the DPR was sought in August 2018. The CEA had raised certain queries and observations regarding the cost estimation and scope of work after technical appraisal and vetting. Thereafter, the Capital Cost of the Substation was revised to Rs. 5602.08 Lakh. Similarly, in case of the 66 kV transmission line from Nirmand to Kotla as well, the Commission noted that the BoD of the Petitioner had approved the cost of the transmission line for Rs. 2800 Lakh. However, in response to certain queries and observations raised by the CEA regarding the cost estimation and scope of work after technical appraisal and vetting, the cost was revised to Rs. 4134.60 Lakh. The major reason for increase in cost from BoD approved cost of Rs. 3800 Lakh to Rs. 5602.08 Lakh for the Substation has been due to revised estimation by the Petitioner based on 2018 cost level as BoD approval was at the cost level of 2012. Also, the cost increased due to revised IDC Charges, Civil Works and inclusion of mandatory spares as well. Similarly, the increase in cost for the transmission line from Rs. 2800 Lakh to Rs. 4134.60 Lakh was on account of inclusion of mandatory spares and revision of the estimation of Civil works. CEA advised the Petitioner to recompute the component wise costs for the transmission line based on its ongoing and completed works. Accordingly, based on ongoing and completed work of HPPTCL, a new DPR was prepared for the transmission line with a revised cost of Rs. 4134.60 Lakh with updated estimates.

- 3.2.12 The length of transmission line was envisaged to be 35 kms as per the DPR. However, the Petitioner has stated the same as 23.86 kms as part of the Petition. In response to the query raised by the Commission, the Petitioner has clarified that the DPR was prepared based on preliminary survey and after detailed survey the final length of transmission line was worked out as 23.86 kms.
- 3.2.13 The combined system (Asset-1 and Asset-2) has been primarily serving the HPSEBL by utilisation of power generated from HEPs in Nirmand Region.
- 3.2.14 In order to determine the final CoD of the combined Transmission System (Asset 1 and Asset 2), the Commission has taken into consideration, Electrical Inspector Certificate, Regulation 6(1) of CEA (Grid Standards) Regulations, 2010, and certificate from HP State Load Dispatch Centre (HPSLDC).

The aspect of delay in commissioning of the transmission system has been dealt in Para No. 3.7 in this Chapter.

3.3 Project Implementation

Petitioner's Submissions

- 3.3.1 As per the supporting documents submitted by the Petitioner, the LOA for the Sub-station was awarded on 11th February, 2019 to M/s. Kanohar Electric Ltd. (in collaboration with M/s Chung-Hsin Electric & Machinery Mfg. Corp., Taiwan) on turnkey basis. As stated in the Petition, the effective date i.e. the date of start of construction of the Assets, as per the L2 schedule of the contract was 27th April, 2019. The scheduled commissioning period for the complete Substation from the effective date of project execution was 24 months i.e., till 26th April, 2021.
- 3.3.2 It has been claimed by the Petitioner that the SCOD could not be achieved on account of delay in forest clearance, COVID induced lockdown, incremental weather conditions, delay in establishment of communication network, delayed COD of the associated transmission line. There was an overall delay of 23 months in commissioning of the Sub-station as per the Petition.
- 3.3.3 Further, with regard to the Asset-2, the Petitioner has claimed the COD on 4th March, 2023 for the 66 kV D/C Transmission Line. The LOA for the Transmission line was awarded on 20th December, 2018 to the M/s. Man Structural Pvt. Ltd. on turnkey basis. The effective date as per the L2 schedule of the Contract was 21st February 2019. The works of Transmission line was to be completed in 24 months. Accordingly, the Project was expected to be completed by 20th February, 2021.
- 3.3.4 The COD of the transmission line was achieved on 4th March, 2023 with a total delay of 24.5 months. The Petitioner has claimed that the delay was attributed to following major issues:
- Delay in forest clearance
 - COVID induced lockdown
 - Inclement weather conditions
 - Non-Availability of shutdown on the 66 kV and 22 kV feeders
 - Delay in completion of codal formalities with HPSEBL

Commission's Analysis

3.3.5 The Commission has sought the proofs from the Petitioner in order to determine the timelines of project implementation and ascertaining the force majeure events claimed. Accordingly, the Commission has taken into cognizance the submissions of the Petitioner and has detailed the same under Interest During Construction (IDC) section in Para No. 3.7 in this Chapter.

3.4 Date of Commercial Operations (COD)

Petitioner's Submissions

3.4.1 The Petitioner has claimed COD for 66/22 kV system of Substation (Asset-1) and 66 kV Transmission line (Asset-2) on 4th March, 2023.

3.4.2 The Petitioner has provided certificate from HPSLDC as the supporting document for proof of COD. Furthermore, the Petitioner has submitted that as per the Regulation 6(1) of CEA (Grid Standards) Regulations, 2010, introduction of an element in the Intra-State Transmission System of State Grid requires concurrence of HPSLDC in the form of Operational Code. The Electrical Inspector Certificate is required for 1st time charging of new element of the transmission system.

3.4.3 The COD of each element submitted and as accorded by the Electrical Inspectorate (EI) is summarized below:

Table 7: CODs of the elements of Transmission system

Particulars	COD claimed by Petitioner	COD accorded by the Electrical Inspectorate
Sub-Station	04-March-2023	2-April-2022
Line	04-March-2023	3-January-2023

Commission's Analysis

3.4.4 The Commission observes that the EI Certificate for Substation was issued in April, 2022. Furthermore, the EI Certificate for the Transmission Line was issued on 3rd January, 2023. The Substation was charged on no load on 6th May 2022. However, the full load charge through 66 kV Nirmand Kotla line was performed on 4th March, 2023. As per the documentary proofs submitted by the Petitioner, the Commission has noted that the application for initial charging of Asset-1 and Asset-2 was submitted to HPSLDC, after getting necessary approval from the Chief Electrical Inspector, GoHP for charging both the assets.

3.4.5 The documentary proofs against these approval letters such as intimation of charging, EI Certificate and HPSLDC letter have been analysed by the Commission. As per HPSLDC letter dated 3rd March, 2023, regarding initial charging of both the Assets (Substation and the Transmission Line), the Commission has considered 4th March, 2023 as the COD for 66/22 kV Substation and 66 kV Transmission Line.

3.5 Energy flow and Nature of Asset

Petitioner's Submissions

3.5.1 The Petitioner has submitted that HPSEBL has executed TSA on 17th January, 2023 with the Petitioner, which includes the Assets 66 kV Nirmand (Bagipul) substation

and 66 KV D/C Nirmand Kotla Transmission Line. Through the 66/22 kV Nirmand substation and associated 66 kV transmission line, the existing 22 kV network of HPSEBL in the area has been interconnected. HPSEBL shall get reliable system to evacuate power from small HEPs as well as to serve the consumers in the Nirmand valley. The Petitioner has requested that the transmission charges be directly recovered from the HPSEBL.

Commission's Analysis

- 3.5.2 As per the DPR of the Substation, the total potential of small HEPs in the Nirmand valley of Satluj basin is estimated to be 55 MW. This project was constructed to evacuate power from Umli (14.3 MW), Kurpan-III (16.3 MW), Shreekhand (8 MW) and other small hydroelectric plants awarded to various IPPs by Govt. of Himachal Pradesh. In the DPR, it was envisaged that 33 MW generation will come by 2017 and this power shall be pooled into Nirmand substation at 66 kV level and evacuated through 66 kV D/C Transmission Line to 220/66 kV Kotla Substation.
- 3.5.3 Furthermore, the Commission sought Single Line Diagram (SLD) of the transmission system to ascertain the connections to the Substation. The 66 kV busbar of the substation is connected to Umli, Shreekhand & Kurpan HEPs along with 66 kV D/C transmission line to Kotla. Also, the 22 kV busbar of the Substation is connected to HPSEBL feeder. In line with the TSA and the SLD submitted by the Petitioner, the sole beneficiary of the combined system is HPSEBL only as the SHEPs are connected at 66 kV level and supplying power to HPSEBL at 22 kV level.

3.6 Capital Cost

Petitioner's submissions

- 3.6.1 The Petitioner has submitted that the Substation was awarded to M/s Kanohar Electrical Ltd. (in collaboration with M/s Chung-Hsin Electric and Machinery Mfg. Corp, Taiwan) vide LOA dated 11.02.2019 amounting to INR 3979.84 Lakh. The scheduled completion time of the substation was 24 months from effective date of contract.
- 3.6.2 The Transmission Line was awarded to M/s Man Structural Pvt. Ltd. Vide LOA dated 20.12.2018 amounting to INR. 2309.52 Lakh. The scheduled completion time from effective date of contract was 24 months.
- 3.6.3 The Petitioner has informed that the amendments in the cost was made due to change in awarded quantities in case of both the Substation and the transmission line as well.
- 3.6.4 The following table provides the DPR cost, awarded cost and claimed cost as on COD submitted for the Sub-station:

Table 8: Capital Cost comparison – Sub-station (INR Lakh)

Particular	Cost as per DPR	Award Cost	Cost After Amendments	Cost Claimed
Hard Cost of Asset-1	4183.30	3979.84	3816.61	3504.79
Other Expenses	538.27			104.56

Particular	Cost as per DPR	Award Cost	Cost After Amendments	Cost Claimed
IDC	376.26			289.10
Departmental Charges	504.25			172.25
Total Cost	5602.08	3979.84	3816.61	4070.70

3.6.5 The following table provides the DPR cost, Awarded Cost and claimed cost on COD submitted for the transmission line:

Table 9: Capital Cost comparison – Transmission Line (INR Lakh)

Particular	Cost as per DPR	Award Cost	Cost After Amendments	Cost Claimed
Hard Cost of Asset-2	3263.22	2309.52	3078.00	2810.58
Other Expenses	379.82			719.14
IDC	125.56			278.41
Departmental Charges	365.99			199.48
Total	4134.60	2309.52	3078.00	4007.61

3.6.6 In reply to a deficiency note, the Petitioner has submitted Statuary Auditor's certificate for claiming cost of both the assets. The details of the component wise total capital cost as on COD as per the Statuary Auditor's Certificate for the Substation (Asset-1) and the transmission line (Asset-2) has been provided in the table as follows:

Table 10: Capital Cost as on COD as per the Statutory Auditor's Certificate (INR Lakh)

Particulars	Capital Cost – Claimed
Sub-Station	
Land/preliminary works/ compensation etc.	104.56
Supplies, Erection and Civil Works	3,504.79
IDC	289.10
Departmental charges	172.25
Sub-Total	4,070.70
Transmission Line	
Land/preliminary works/ compensation etc.	719.14
Supplies, Erection and Civil Works	2,810.58
IDC	278.41
Departmental charges	199.48
Sub-Total	4,007.61

Particulars	Capital Cost – Claimed
Total	8,078.31

Commission's Analysis

- 3.6.7 The Commission has done a detailed scrutiny of the various components of the capital cost. As part of the prudence check, the Commission sought additional information and supporting documents including auditor's certificate, approvals of BOD, details of awards/ contracts, detail of correspondences, payments made to contractors, COD certificate, etc.
- 3.6.8 The Commission observes that the cost approved by the Board of Directors (BoD) by the Petitioner for the project has been less than the DPR cost. The BoD has approved cost of Rs. 3800 Lakh and Rs. 2800 Lakh respectively for the Substation and Transmission Line. However, the cost reflected in the DPRs of the Substation and Transmission Line has been Rs. 5602.08 Lakh and Rs 4134.60 Lakh respectively. The reasons for the difference in the cost were sought from the Petitioner.
- 3.6.9 In clarification, the Petitioner has informed that the CEA had made observations in the cost estimation and the scope of work submitted in the DPR to CEA for approval. Thereafter the DPR was revised to INR 5602 Lakh in case of Substation. The revision included modified estimated cost and revised scope of work after technical appraisal and vetting by CEA. The revised estimate was based on cost incurred in ongoing and completed works of HPPTCL during that period and also due to inclusion of mandatory spares as well as revised detailed estimation for civil works. Similarly, the DPR cost of the Transmission Line was also revised. The cost breakup of the Substation and the transmission line as per the DPR are as under:

Table 11: Cost breakup as per DPR (INR Lakh)

Particulars	Substation	Transmission Line
Cost of Supply	3064.06	1412.03
Cost of Erection	1119.24	1851.20
Cost of Land/ Crop Compensation	200.00	63.00
Cost of Residential Colony/PTCC Clearance	200.74	1.00
Sub-Total	4584.05	3327.22
Contingency	137.53	99.82
Project Overhead	504.25	365.99
Forest clearance with contingency		216.00
IDC	376.26	125.56
Total	5602.08	4134.60

- 3.6.10 The work for Substation was awarded with an expected completion time of 24 months. The contract was awarded to M/s Kanohar Electrical Ltd. at a cost of INR 3979.84 Lakh. Also, the Petitioner has submitted that there were two amendments issued resulting in reduction of cost to INR 3816.61 Lakh. The amendments, along

with details of approval for carrying out these amendments, are summarized as follows:

Table 12: Amendments in Contract for Sub-Station (INR Lakh)

Amendment	Date	Incremental Cost (INR Lakh)		Reason	Proof of Approval
		Supplies	Erection		
LOA	11.02.2019	2914.4	1065.41	Issuance of Award	
Amendment 1	13.09.2021	Nil	2.15	Addition of Epoxy flooring	Noting approved by Director (P&C)
Amendment 2	04.12.2021	-136.02	-29.36	Deviation in quantities	Noting approved by Director (P&C)
Final Cost		2778.41	1038.20		

3.6.11 The claimed cost by the Petitioner was revised in reply to a deficiency note and has been compared with the awarded cost as summarized below:

Table 13: Comparison between Award Cost and Claimed Cost for the Services and Supplies of the Sub-station (INR Lakh)

Particulars	Awarded Cost*	Claimed Cost	Statutory Auditor Certificate Cost
Services	2778.41	2759.49	2759.49
Supplies	1038.20	745.30	745.30
Total	3816.61	3504.79	3504.79

*Awarded cost inclusive of two (2) amendments .

3.6.12 The work for the transmission line was awarded to M/s Man Structural on turnkey basis at a cost of INR 2309.52 Lakh as per the LOA dated 20th December, 2018. The project underwent two amendments which have been elaborated as follows:

Table 14: Amendments in Contract for the Transmission Line

Amendment	Date	Incremental Cost (INR Lakh)		Reason	Proof of Approval
		Supplies	Erection/ Service		
LOA	20.12.2018	1065.18	1244.34	Issuance of Award	
Amendment 1	23.01.2021	141.48	-	Quantity Variation	Noting approved by Director (P&C)
Amendment 2	15.06.2021	-	627.56	Quantity Variation	Board of Director's Minutes of Meeting
Final Cost		1206.66	1871.90		

3.6.13 The cost claimed by the Petitioner and Statutory Auditor's certificate submitted has been compared with the awarded cost as summarized below:

Table 15: Comparison between Award Cost and Claimed Cost for the Services and Supplies of the Transmission Line (INR Lakh)

Particulars	Awarded Cost*	Claimed Cost	Statutory Auditor Certificate Cost
Services	1206.66	1200.27	1200.27
Supplies	1871.90	1610.21	1610.31
Total	3078.56	2810.48	2810.58

*Awarded cost inclusive of two (2) amendments

Other Costs

3.6.14 The details of Other Expenses under Hard Cost for Substation and Transmission Line are summarised below:

Table 16: Other Expenses - Line and Sub-Station (INR Lakh)

Particulars	Claimed (as on COD)
Sub-station	
Land	53.63
Testing Charges	8.96
Other Expenses (including Entry Tax, Survey Exp. etc)	41.97
Sub-Total	104.56
Transmission Line	
Land	188.08
Line Shifting Charges / Forest Clearance	519.98
Other Charges including Contingency, Bank Commission Etc.	11.08
Sub-Total	719.14
Total (Line and Sub-station)	823.70

3.6.15 To substantiate the claims for Other Expenses, the Petitioner has submitted proof of payments made for land acquisition. The Petitioner has also included Employee Cost as part of Other Expenses. In reply to a Deficiency Note, the Petitioner has submitted that the cost pertains to outsourced employees engaged at site.

3.6.16 Furthermore, the Petitioner has submitted charges for construction of store at site which were not included in the turnkey contractor's cost. It was submitted in reply to a deficiency note that the store was not part of original scope of work. It was constructed by the HPSEBL. The Petitioner has submitted the minutes of meeting and correspondence with the HPSEBL.

3.6.17 In case of the Transmission Line, the Commission had sought proof of payment made to Block Development Officer, Nirmand and Assistant Engineer (Dev), Rampur, PWD, for reconstruction of pucca road till the construction site. In response, the Petitioner has submitted the Office Order, Internal Communications and Hand Receipts for the said works.

3.6.18 The Commission enquired regarding the payment of Rs. 496.51 lakhs made for forest clearance. In reply to a deficiency note, the Petitioner submitted, in tabular

form, the payment made to respective Forest Offices at Anni and Rampur. Furthermore, the Petitioner has verified the Receipts/Challans totalling to Rs. 496.51 Lakhs towards forest clearance.

3.6.19 The Commission enquired regarding the cost incurred for shifting of lines and not being included in the original scope of work. The Petitioner submitted that HT-LT lines belong to the HPSEBL and hence, the shifting of same was undertaken by HPSEBL for which the Petitioner has made the payment.

3.6.20 The Commission has analysed the various submissions made by the Petitioner for Hard Cost. In line with the Statuary Auditor's certificate, the Hard Cost approved by the Commission for the Substation (Asset-1) and Transmission Line (Asset-2) is summarized in the following table:

Table 17: Hard Cost (including land cost)– Transmission Line and Sub-Station (INR Lakh)

Particulars	Awarded Cost	Awarded Cost After Amendment	Petitioner's Claim	Approved
Sub-station				
Supply and Material	2,914.43	2,778.41	2,759.49	2,759.49
Erection and Civil Works	1,065.41	1,038.20	745.30	745.30
Sub-total	3,979.84	3,816.61	3,504.79	3,504.79
Land Cost			53.63	53.63
Preliminary works, Compensatory Afforestation/ compensation for crop damage etc.			50.93	50.93
Total Sub-station Cost	3,979.84	3,816.61	3,609.35	3,609.35
Transmission Line				
Supply and Material	1,065.18	1,206.66	1,200.27	1,200.27
Erection and Civil Works including cost towards lab/protection/ fencing/ security accommodation etc.	1,244.34	1,871.90	1,610.31	1,610.31
Sub-total	2,309.52	3,078.56	2,810.58	2,810.58
Land Cost			188.08	188.08
Preliminary works, Compensatory Afforestation/ compensation for crop damage etc.			531.06	531.06
Total Transmission Line Cost	2,309.52	3,078.56	3,529.72	3,529.72
Grant Total	6,289.36	6,895.17	7,139.07	7,139.07

3.7 Overheads (IDC and Departmental Charges)

Petitioner's submissions

3.7.1 In case of the Substation, the Petitioner has submitted that Departmental Charges and IDC are well within the limit as approved in the DPR even after a time over run

of 23 months. The Petitioner has further stated that since the loan drawal was towards the end of the project execution, therefore, there is no major impact on the capital cost.

3.7.2 For the Transmission Line, the Petitioner has submitted that the Departmental Charges are well within the amount approved in the DPR. However, the IDC incurred was due to the time over run beyond the control of the Petitioner.

3.7.3 The following table provides the IDC and Departmental Charges as per DPR and the actual as claimed by Petitioner as on COD:

Table 18: IDC and Departmental charges claimed by Petitioner (INR Lakh)

Particulars	DPR	Claimed
Sub-Station		
IDC	376.26	289.10
Departmental charges	504.25	172.25
Sub Total	880.50	461.35
Transmission Line		
IDC	125.56	278.41
Departmental charges	365.99	199.48
Sub Total	491.56	477.89
Total	1372.06	939.24

Commission's Analysis

3.7.4 The Commission observes that the claimed amount out of the total amount of IDC and Departmental Charge are within the amount approved in the DPR. However, the Commission has undertaken a detailed review of the activities delayed post award of contract. The Petitioner has claimed a delay of 23 months in case of the Substation and a delay of 24.5 months in case of the Transmission Line. The schedule completion date of both the assets was 24 months from the effective date of contract.

3.7.5 The timelines for Transmission Line and Substation have been summarized in the table below:

Table 19: Project Timelines as submitted by Petitioner.

Description	Sub-Station	Transmission Line
LOA	11.02.2019	20.12.2018
Scheduled Completion date	26.12.2021	20.02.2021
COD Achieved	04.03.2023	04.03.2023

3.7.6 Further, the Petitioner has submitted various factors for time delay for both the assets. In case of overlapping days of delays, the Petitioner has considered effective delay wherein the delay has been accounted on the reason more prudent on those particular days of delay. As per the submissions of the Petitioner, the major reasons of time overrun include the following:

Table 20: Reasons for time overrun as claimed by the Petitioner

Sl.	Reason for Delay	Time Period (months)	Effective Delay (months)
Sub-station			
1	Delay in Forest clearance	2.5	2.5
2	Covid - 19	8	8
3	Inclement Weather Conditions	5	2.5
4	Delay in Fiber-Optic Transmission Equipment (FOTE) Commissioning due to delay in execution of 66 kV Transmission Line	7	7
5	Charging along with Commissioning of associated Transmission Line	3	3
	Total		23 Months
Transmission Line			
1	Non-Approval of Forest Case	4.5	4.5
2	Handing over of Private land	4	4
3	Covid - 19	6	6
4	Inclement Weather Condition	5	4.5
5	Non-Availability of Shutdown on the 66 kV and 22 kV feeder	4	2
6	Delayed CoD of transmission line due to non-completion of codal formalities with HPSEBL	3.5	3.5
	Total		24.5 Months

- 3.7.7 The construction of the Substation (Asset-1) couldn't commence due to delay in approval of forest clearance. The Petitioner has submitted that green trees in the approach road to the Substation obstructed the handover of site to turnkey contractor. The Petitioner has further submitted that even at the time of award, the forest clearance was pending at Ministry of Environment and Forest, Dehradun. On 30th May, 2019 after the approval was granted by Ministry, the process of felling for tree in the approach road for the substation was started on 9th July, 2019. Post the felling of trees, the site was handed over to the turnkey contractor.
- 3.7.8 The delay on account of COVID pandemic has been claimed for over 8 months. In this regard, the Commission enquired that the documentary proof submitted by the Petitioner do not conform to the dates. In reply to a deficiency note, the Petitioner submitted detailed timelines of activities it had undertaken for issuance of passes for workforce movement. Although the interstate movement was allowed by Govt. of Himachal Pradesh on 31st May, 2020, the final application of Lockdown passes was filed on 4th September 2020. The Commission observes that timely application for lockdown passes could have allowed the turnkey contractor to mobilize its teams at the earliest.
- 3.7.9 The Petitioner has submitted necessary documents for delay due to heavy rainfall, extreme low temperature, snowfall and landslide. The weather condition has delayed the work for 5 months. The Petitioner has also submitted the hindrance register and newspaper cuttings as part of the Petition.

- 3.7.10 The Petitioner has informed two reasons for delay in achieving COD of Substation on account of the associated Transmission Line. Firstly, the delay in construction of the Transmission Line also delayed the communication network (Fibre Optic Transmission Equipment) to be established for the substation operation. Further, due to non-availability of associated Transmission Line, the Substation could not be utilised on full load.
- 3.7.11 As per the submissions of the Petitioner, the construction time for Substation was 24 months. It is observed that there has been a delay of 23 months in achieving COD. The timelines for award, scheduled commissioning date and actual COD are tabulated as follows:

Table 21: Important dates for construction of Substation

Activity	Date
Award of Contract	11.02.2019
Effective date of contract	27.04.2019
End date of Contract	26.04.2021
COD Claimed	04.03.2023

- 3.7.12 The Construction of Transmission Line was delayed on account of non-approval of forest case and the Petitioner has submitted that as per the guidelines of Ministry of Environment And Forest, No Objection Certificates (NOC) from all the concerned Village Forest Rights Committees have to be collected. The Transmission Line falls under Kullu and Shimla Districts wherein the Petitioner had to convene Forest Rights Committee meetings to complete the formalities and obtain final NOC. The case for forest clearance was submitted by the Petitioner on 17th February 2018 and after the fulfilment of all the observations, the approval was granted by Ministry of Environment and Forest on 30th May, 2019. The site was finally handed over to the turnkey contractor on 9th July, 2019. The Petitioner has submitted correspondences with District Administration of Kullu and Shimla Districts along with application and approval from Ministry of Environment and Forest.
- 3.7.13 The Petitioner has submitted that out of 74 foundations for Transmission Line, 23 foundations were on private land. The landowners of Towers 4 and 23 were refusing to provide land for the construction while the land owners of Towers 31 and 32 were demanding compensation for the damage according to circle rates of the year 2019. The Petitioner had put an application to the District Administration of Kullu to issue order under Section 16 of the Indian Telegraph Act for **handing** over of land under Towers 4 and 23. The decision was in favour of the Petitioner. In reply to a deficiency note, the Petitioner has submitted that as per Minutes of 52nd Meeting of Board of Directors of HPPTCL, approval for payment of compensation for acquisition of Private Land at 7 No. locations for construction of 66kV Transmission Line by considering circle rates of FY 2019-20 was taken. Subsequently, land under Towers 31 and 32 were also handed over to the turnkey contractor for commencement of construction.
- 3.7.14 The Petitioner has also claimed delay on account of COVID pandemic. As per the submissions, 25 numbers labourer were issued lockdown passes after a quarantine period of 14 days. It was found that after the quarantine period, some of the labour tested positive for COVID requiring an additional quarantine period of 34 days. The

Petitioner has submitted relevant correspondence regarding the same. The Petitioner has also claimed the delay due to weather conditions including heavy rainfall, low temperature and landslide. The Petitioner has submitted newspaper cuttings as well as hindrance register from site for the same.

- 3.7.15 Furthermore, the Petitioner has submitted that the Transmission Line was crossing 66 kV Kotla-Nogli feeder of HPSEBL along with 22 kV HPSEBL, SJVN and Greenko feeders at different locations. The Petitioner had requested all the stakeholders for shutdown to carry out the stringing between towers. However, the stakeholders refused for shutdown in the month of September, being the peak season for power generation. The Petitioner has submitted relevant correspondences with all the stakeholders as part of proof for the delay.
- 3.7.16 Another reason of delay was on account of non-completion of procedural formalities with the HPSEBL. The Petitioner has informed that the approval for usage of communication system, of HPSEBL by HPPTCL and vice-versa, on non-commercial terms was reached on 3rd March, 2023. The Petitioner has submitted the minutes of meeting for the same.
- 3.7.17 Furthermore, the detailed timelines submitted for Transmission Line by the Petitioner are illustrated below:

Table 22: Important dates for construction of Transmission Line

Activity	Date
Award of Contract	20.12.2018
Effective date of start of Supply and Services	21.02.2019
End date of completion of Supply and Services	20.12.2022
COD Claimed	04.03.2023

- 3.7.18 With regard to the reasons for delay stated by the Petitioner, it has been observed that there were a few force majeure or uncontrollable events in respect of inclement weather conditions claimed by the Petitioner. The Commission has only considered those instances of inclement weather conditions where the construction activity had to be halted altogether. But the delay due to coordination with other stakeholders (shutdown and agreement for use of infrastructure) cannot be entirely attributable to uncontrollable factors. Also, delay on account of completion of procedural formalities with HPSEBL by the Petitioner cannot be treated as uncontrollable factors. Therefore, the delay resulting from such factors could have been avoided. It is observed that the dates of some of the delays are overlapping and the same has been considered by the Commission while calculating the IDC.
- 3.7.19 Accordingly, based on the reasons stated by the Petitioner, 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 two and half years 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).

3.7.20 The Commission hereby advises the Petitioner to build a strong project management team to oversee such projects with proper mechanisms in place to flag delays at each milestone and take corrective actions for the same. Due diligence for the site condition should be undertaken while preparing the DPR. The Commission also advises the Petitioner to avoid major changes in BoQ after award of contract.

3.7.21 In view of the revision in the hard cost vis-à-vis the DPR as well as the difference in the rate of interest considered with DPR, the Commission has computed a revised benchmark for the IDC. For assessing the benchmark IDC for Substation and Transmission Line, the Commission has assumed the disbursement of loan as 40% and 60% during the first and second year of construction as per the phasing in the DPR.

3.7.22 The benchmark IDC for Substation and Transmission Line as computed is summarized as follows:

Table 23: Revised Benchmark IDC –Substation (INR Lakh)

Particulars	Unit	Year I	Year II	Total
Debt disbursement	%	40%	60%	100%
Opening Debt (a)	INR Lakh	0.00	1210.11	
Addition during the year (b)	INR Lakh	1210.11	1815.17	
Closing Debt (c)	INR Lakh	1210.11	3025.28	
Average Debt (d=(a+c)/2)	INR Lakh	605.06	2,117.70	
Interest rate (e)	%	10%	10%	
Total IDC (f=d*e)	INR Lakh	60.51	105.88	166.39

Table 24: Revised Benchmark IDC – Transmission Line (INR Lakh)

Particulars	Unit	Year I	Year II	Total
Debt disbursement	%	40%	60%	100%
Opening Debt (a)	INR Lakh	0.00	1118.73	
Addition during the year (b)	INR Lakh	1118.73	1678.10	
Closing Debt (c)	INR Lakh	1118.73	2796.83	
Average Debt (d=(a+c)/2)	INR Lakh	559.37	1,957.78	
Interest rate(e)	%	10%	10%	
Total IDC (f=d*e)	INR Lakh	55.94	97.89	153.83

3.7.23 With respect to actual IDC incurred, the Petitioner was asked to submit an excel sheet for the working of IDC based on the loans availed. After several reminders, the Petitioner submitted Tariff forms in excel sheet towards the working of IDC. On preliminary scrutiny, several inconsistencies were observed in the excel sheet including higher rate of interest on the loans availed against the interest rate of 10% as per agreement with Govt. of Himachal Pradesh.

3.7.24 Interest rate of 10% in line with the terms and conditions of the loan agreement with Govt. of Himachal Pradesh has been considered. Further, the Commission feels that the inefficiency of the Petitioner along with delayed decision making as well as improper planning during execution of the project cannot be passed on to the **Consumers**.

3.7.25 Accordingly, the IDC approved by the Commission upto COD based on the above discussion has been as **under**:-

Table 25: IDC upto COD approved by Commission (INR Lakh)

Particular	Amount	Remarks
Sub-station		
IDC with no delay	166.39	As per Table 23
IDC Claimed	289.10	As per Petition
Excess IDC	122.71	
Allowable IDC due to time delay	61.35	50% of Excess IDC
Approved IDC	227.75	
Transmission Line		
IDC with no delay	153.83	As per Table 23
IDC Claimed	278.41	As per Petition
Excess IDC	124.58	
Allowable IDC due to time delay	62.29	50% of Excess IDC
Approved IDC	216.12	

3.7.26 In case of the departmental charges, the Commission has allowed the minimum normative charges determined in accordance with the provisions of DPR i.e., 11% of hard cost or actual departmental charges, whichever is lower. Since the actual departmental charges on COD is lower than 11% of the approved hard cost, actual departmental charges as on COD have been considered. The approved departmental charges are as below:

Table 26: Approved Departmental Charges (DC) (INR Lakh)

Particular	Claimed	Approved
Departmental Charges for Sub-station	172.25	172.25
Departmental Charges for Transmission line	199.48	199.48
Total Departmental Charges	371.73	371.73

3.7.27 In line with the Hard Cost, IDC and Departmental Charges as approved in the preceding sections, the approved project cost as on COD vis-à-vis that claimed by the Petitioner towards Substation (Asset-1) and associated Transmission Line (Asset-2) are summarized in the following table:

Table 27: Approved Capital Cost (INR Lakh)

Cost Heads	Claimed	Approved
Sub-station		

Cost Heads	Claimed	Approved
Land Acquisition Cost	53.63	53.63
Preliminary works	50.93	50.93
Materials and Supplies	2,759.49	2,759.49
Erection and Civil Works	745.30	745.30
Interest During Construction (IDC)	289.10	227.75
Departmental Charges	172.25	172.25
Sub - Total	4,070.70	4,009.35
Transmission Line		
Land Acquisition Cost	188.08	188.08
Preliminary works	531.06	531.06
Materials and Supplies	1,200.27	1,200.27
Erection and Civil Works	1,610.31	1,610.21
Interest During Construction (IDC)	278.41	216.12
Departmental Charges	199.48	199.48
Sub - Total	4,007.61	3,945.32
Total Capital Cost	8,078.31	7,954.66

3.8 Project Funding

Petitioner's Submissions

3.8.1 With regard to funding of the Project, the Petitioner has quoted the Regulation 18 of the HPERC (Terms and Conditions for Determination of 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."

3.8.2 In case of Substation (Asset-1), the Petitioner has claimed a loan drawl from ADB amounting to INR32.76 Cr. The infused equity by the Petitioner in the project is INR11.93 Cr. which accounts for 20.39% of the total Project cost. The Petitioner stated that the equity infused is less than the prescribed limit of normative equity

allowed under HPERC Tariff Regulations, 2011. Normative Debt:Equity of 79.61:20.39 has been considered for computing components of the ARR.

3.8.3 In case of the Transmission Line, the Petitioner has stated that the DPR allowed a debt equity ratio of 75:25. During implementation of the project, the Petitioner has drawn loan amounting to Rs. 21.36 Cr. which is 53.6% of the project cost and the balance has been infused by the equity amounting to Rs. 18.49 Cr. which is 46.3% of the Project cost. As the equity infused is more than the prescribed limit of normative equity i.e. 70:30, the normative debt:equity ratio has been considered for computing the components of Tariff.

3.8.4 The following table provides the project funding of the project as claimed by the Petitioner:

Table 28: Project funding proposed by the Petitioner.

Particulars	As per DPR (INR Lakh)	Debt: Equity Ratio	Actual Funding	Debt: Equity Ratio	Funding Claimed	Debt: Equity Ratio
Sub-station						
Debt	4482	80%	3276	80%	3276	80%
Equity	1120	20%	840	20%	840	20%
Project Cost	5602	100%	4116	100%	4116	100%
Transmission Line						
Debt	3101	75%	2137	53%	2803	70%
Equity	1034	25%	1867	47%	1201	30%
Project Cost	4135	100%	4004	100%	4004	100%

3.8.5 The Petitioner has not claimed any additional Capitalization for the Substation and Transmission Line in the main Petition. However, in reply to the queries of the Commission, the Petitioner has claimed Additional Capitalization for the Substation and Transmission Line which has been dealt in the respective Section.

Commission's Analysis

3.8.6 Based on the DPR and loan agreement submitted by the Petitioner, it is observed that the Substation (Asset-1) and Transmission Line (Asset-2) was conceptualised to be funded in debt-to-equity ratio of 80:20 and 75:25 respectively.

3.8.7 The Petitioner has also submitted an Interlocutory Application (IA) dated 21st September, 2024 requesting the debt:equity ratio for both the assets to be 70:30 rather than the ratio envisaged in the DPR. The Petitioner has submitted that the new debt:equity ratio is in line with the issue discussed in 59th BoD meeting held by the Petitioner on dated 31st August, 2024.

3.8.8 In response to a query of the Commission with respect to details of consumer contribution or subsidy availed by the Petitioner against the transmission asset, the Petitioner has clarified that no consumer grant was received for any of the Assets.

- 3.8.9 In this specific instance, it is noted that the multilateral agency i.e. the ADB, has funded this project in collaboration with the GoI and the GoHP. However, the GoHP has amended the terms and conditions of the financial assistance for extending it to the HPPTCL. While the entire multilateral funds were received by the State in the ratio of 90% grant and 10% loan from the Govt. of India, the entire loan proceeds were extended by GoHP to the Petitioner as loan carrying interest rate of 10% per annum.
- 3.8.10 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 provided that GoHP, vide letter dated 04.03.2023, has conveyed approval for restructuring of the ADB loan as 80% of disbursed loan to be converted into interest free loan, 10% of disbursed loan to be kept as interest bearing loan @10% and remaining 10% of disbursed loan to be converted to equity. It is observed that as per the GoHP letter dated 04.03.2023 and HPPTCL letter dated 08.08.2024, while partial relief has been provided but the entire terms and conditions have not been adopted resulting in additional equity consideration towards the project. The Commission is of the considered view that the debt equity considered against each scheme during the funding stage should be retained and the capital allocation by the GoHP to the Petitioner should be on the same terms & conditions as GoHP has received from the GoI on account of Himachal Pradesh being a special category State.
- 3.8.11 Accordingly, the Commission has provisionally considered the debt amount availed under the ADB scheme as 90% grant and 10% debt. Further, after reducing such amount of grant from the total approved capital cost, the Commission has considered debt:equity ratio as 70% debt and 30% equity for the balance amount in line with Regulation 10(C) of the 'HPERC Transmission Tariff Regulations, 2011' which specify the following:

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

- 3.8.12 Thus, the approved project funding for the Transmission line and Substation is summarized as follows:

Table 29: Funding Pattern approved by Commission

Particulars	Percentage	Amount (INR Lakh)
Substation		
Total Cost as approved by Commission	100%	4,009.35
Debt as per DPR	80%	3,207.48
Equity as per DPR	20%	801.87
Total Funding Requirement (A)		4,009.35
Normative Debt as calculated by Commission	Same as Debt as per DPR	3,207.48
Grant as per Normative Debt (B)	90%	2,886.73

Particulars	Percentage	Amount (INR Lakh)
Remaining Amount (C) =(A)-(B)		1,122.62
Approved Debt	70%	785.83
Approved Equity	30%	336.78
Transmission Line		
Total Cost as approved by Commission	100%	3,945.32
Debt as per ratio in DPR	75%	2,958.99
Equity as per ratio in DPR	25%	986.33
Total Funding Requirement (D)		3,945.32
Normative Debt as calculated by Commission	Same as Debt as per DPR	2,958.99
Grant as per Normative Debt (E)	90%	2,663.09
Remaining Amount (F) =(D)-(E)		1,282.23
Approved Debt	70%	897.56
Approved Equity	30%	384.67

3.9 Additional Capitalisation

Petitioner's Submissions

- 3.9.1 The Petitioner has not claimed any Additional Capitalization for the Substation and for the Transmission Line in the petition. However, in reply to the queries of the Commission, the Petitioner has claimed that after the COD, payment of Rs. 19.5 Lakh has been released to the contractor and bills amounting to Rs. 57 Lakh are still pending.
- 3.9.2 In case of the Transmission Line, payment of Rs. 62 Lakh has been released to the contractor against erection and civil works. The Additional Capitalization post COD claimed by the Petitioner is tabulated as follows:

Table 30: Additional capitalization proposed for Transmission Line (INR Lakh)

Particulars	FY 2023	FY 2024
Additional Capitalization		
Erection Work	36	26
Publication Expenses	0.00	0.1
Right of Way	0.00	10
DC	3.00	0.00
Total	39	36
Pending Liabilities and Bills		
Additional expenditure of land and tree compensation		10

Commission's Analysis

- 3.9.3 The Commission, in order to approve the additional capitalisation for each year, sought relevant documents from the Petitioner in support of its claim. The Petitioner

has submitted that payments made were for the Civil works undertaken post COD in line with the terms agreed earlier.

- 3.9.4 The Commission enquired regarding the payments made to the contractor for Substation for which the Petitioner has submitted Provisional Cost Certificate as part of the deficiency note. The Petitioner has also claimed Departmental Charges as part of Additional Capitalization. The Departmental Charges claimed after COD are not approved as there is no provision for the same in the Regulations. Further, Additional capitalisation claimed by the Petitioner is provisionally approved subject to truing up of the cost claimed after prudence check by the Commission. The claimed and provisionally approved additional capitalisation based on documentation submitted by the Petitioner for Substation, is tabulated as follows:

Table31:Additional capitalization approved for Substation (INR Lakh)

Particulars	Proposed	Provisionally Approved
Amount release to contractor after COD	19.5	19.5
Other Costs incurred after COD	2.26	2.26
Departmental Charges After COD	0.91	0
Pending Bills	56.59	56.59
Total	79.26	78.35

- 3.9.5 Further, in case of Transmission Line, INR 84.74 Lakh was incurred by the Petitioner post COD. It has been noted that these expenses included Departmental Charges post COD which, on similar lines as above, have not been considered by the Commission while approving the Additional Capitalization. The claimed and provisionally approved Additional Capitalization based on the documentation submitted by the Petitioner for Transmission Line is tabulated as follows:

Table 32: Additional capitalization approved for Transmission Line (INR Lakh)

Particulars	Proposed	Provisionally Approved
Amount release to contractor after COD	61.91	61.91
Other Costs incurred after COD	10.29	10.29
Departmental Charges After COD	2.54	0
Pending Bills	10	10
Total	84.74	82.20

- 3.9.6 The funding of the above additional capitalization has been considered as per the funding of the Substation and Transmission Line in accordance with the funding provided by ADB. The approved funding for additional capitalisation for line and Substation is summarized as follows:

Table 33: Funding of additional capitalisation approved by the Commission

Particulars	Additional Capitalization (INR Lakh)	% of Funding
Sub-station		
Debt	54.84	70%

Particulars	Additional Capitalization (INR Lakh)	% of Funding
Equity	23.50	30%
Sub-Total	78.35	100%
Transmission Line		
Debt	57.54	70%
Equity	24.66	30%
Sub-Total	82.20	100%

4. APPROVAL OF ARR AND TARIFF

4.1 Background

4.1.1 The Petitioner has proposed projections for FY 2020-21 (prorated) to FY 2023-24, in accordance with the HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011 as amended from time to time. As per the submissions of the Petitioner, ARR for each year of the Control Period has been divided into following elements:

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

4.1.2 The Commission has examined the Petition and the subsequent submissions made 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 (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011, Capital cost certificate by statutory auditor, CERC Tariff Regulations, 2019 and approved capital expenditure and funding plan for both Substation and the Transmission Line and has accordingly, approved the consolidated ARR for each year.

4.1.3 In this chapter, the Commission has detailed the methodology for computing each component of the ARR for 66 kV Transmission line and 66/22kV Nirmand (Bagipul) Substation including O&M expenses, Interest on loan, Depreciation, Return on Equity, Working Capital requirement, etc. for approving the total ARR for each year from COD till FY 2023-24 as detailed in the subsequent sections.

4.2 Depreciation

Petitioner's Submissions

4.2.1 The Petitioner has submitted the depreciation for each year of the Control Period in accordance with the Regulation 23 of the HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011, as amended from time to time, based on the actual capital cost. Consumer Contribution and cost of land has been adjusted to derive the depreciable value of the asset.

4.2.2 In accordance with the above Regulations, the depreciation for each year has been estimated as shown in the following table:

Table 34: Depreciation claimed by Petitioner (INR Lakh)

Particulars	FY23	FY24
Sub-Station		
Opening GFA	4116.23	4117.29
CC/Grants	-	-
Net Opening GFA Less Grant	4116.23	4117.29
Addition	1.06	30.00
Net Closing GFA	4117.29	4147.29
Average GFA	4116.76	4132.29
GFA excluding Land and CC/ Grant	4063.13	4078.66
Rate of Depreciation	4.91%	4.91%
Depreciation	199.41	200.17
Transmission Line		
Opening GFA	4003.78	4042.25
CC/Grants	-	-
Net Opening GFA Less Grant	4003.78	4042.25
Addition	38.47	0
Net Closing GFA	4042.25	4042.25
Average GFA	4023.02	4042.25
Less: Land under full ownership	188.08	188.08
GFA excluding Land and CC/ Grant	3834.94	3854.17
Rate of Depreciation	4.44%	4.44%
Depreciation	170.19	171.04
Line + Sub-Station		
Depreciation	369.6	371.21

Commission's Analysis

4.2.3 The Commission has approved the depreciation in line with provisions of the Regulation 23 of the HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011, as amended from time to time, which are as follows:

"23. Depreciation

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

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

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

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

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

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

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

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

4.2.4 The Commission has examined the depreciation proposed by the Petitioner in detail. The Petitioner has not provided the component wise depreciation, which was asked from the Petitioner in deficiency note. Thereafter, the Petitioner provided the working excel as part of Tariff Forms for both the assets. The Commission has, accordingly, approved the depreciation as per the approved Capital Cost and as per the provisions of the above Regulations.

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

Table 35: Depreciation approved by Commission (INR Lakh)

Particulars	FY23*	FY24
Sub-Station		
Net Opening GFA	0.00	1068.99
Addition	4009.35	78.35
Grant Portion	2886.73	0.00
Freehold Land	53.63	0.00
Depreciable Value	1068.99	1147.33
Rate of Depreciation (%)	4.91%	4.91%
Depreciation	1.94	54.56
Transmission Line		
Net Opening GFA	0.00	1094.15
Addition	3945.32	82.20
Grant Portion	2663.09	0.00
Freehold Land	188.08	0.00
Depreciable Value	1094.15	1176.35
Rate of Depreciation (%)	4.44%	4.44%
Depreciation	1.80	50.54
Total Depreciation	3.74	105.10

*Note: Interest on Loan for FY 2022-23 is on pro-rata basis i.e. from COD i.e. 27 days

4.3 Interest on Loan

Petitioner's Submissions

- 4.3.1 The Petitioner has submitted the interest on loan in accordance with the Regulation 20 of the HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011, as amended from time to time.
- 4.3.2 The Petitioner has claimed the interest on loan as per the ADB Loan agreement with Government of Himachal Pradesh at 10%.
- 4.3.3 The Petitioner has claimed that in the absence of any actual repayment, for the purpose of working out the Interest on Loan, the repayment has been considered equal to Depreciation charged during each year of the Control Period for calculation of Interest on Loan. The Computation of Interest on Loan has been shown as under:

Table 36: Interest on Loan claimed by Petitioner (INR Lakh)

Particulars	FY23	FY24
Substation		
Opening Balance	3276.73	3078.06
Addition	0.74	30.00
Repayment	199.41	200.17
Closing Balance	3078.06	2898.89
Rate of Interest	10.00%	10.00%
Interest on Loan	317.74	298.85
Transmission Line		
Opening Balance	2802.65	2659.30
Addition	26.93	0.00
Repayment	170.19	171.04
Closing Balance	2659.39	2488.34
Rate of Interest	10.00%	10.00%
Interest on Loan	273.10	257.39
Interest on Loan	590.84	556.24

Commission's Analysis

- 4.3.4 The Commission has considered the loan amount in line with the project funding in the previous chapter.
- 4.3.5 Regulation 20 of the HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011, as amended from time to time, stipulates the following:

"20. Interest and Finance Charges

(1) Interest and finance charges on loan capital shall be computed on the outstanding loans, duly taking into account the schedule of repayment in accordance with the terms and conditions of relevant agreements of loan, bond or non-convertible debentures. Exception can be made for the existing or past

loans which may have different terms as per the agreements already executed if the Commission is satisfied that the loan has been contracted for and applied to identifiable and approved projects.

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

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

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

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

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

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

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

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

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

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

(5) The transmission licensee shall make every effort to refinance the loan as long as it results in net benefit to the beneficiaries. The costs associated with such refinancing shall be borne by the transmission customers and any benefit on account of refinancing of loan and interest on loan shall be shared in the

ratio of 2:1 between the transmission licensee and the transmission customers. Refinancing may also include restructuring of debt.

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

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

- 4.3.6 The Commission has approved the Interest on Loan in accordance with the HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011, as amended from time to time. Repayment equivalent to approved depreciation has been considered for each year in line with the Regulations. Accordingly, the opening and closing loan balances for each year has been determined.
- 4.3.7 The Commission has considered the debt amount as per the approved funding, including additional capitalization as discussed in Chapter 3 earlier.
- 4.3.8 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 GoHP.
- 4.3.9 It is observed that the rate of interest charged from the Petitioner by the Govt. of Himachal Pradesh (GoHP) is 10% which is higher than the rate of interest agreed with the ADB. The Petitioner has submitted that the GoHP levies interest rate at 10% on all loans funded by ADB as per the agreement entered by the GoHP with HPPTCL.
- 4.3.10 Since ADB provides loan to GoHP which is transferred to the Petitioner for implementation, the rate of interest of 10% is applicable as per the agreement of the Petitioner with GoHP. The Commission is of the view that the rate of 10% is competitive as compared with the rates applicable on other transmission assets of HPPTCL and borrowings by similar utilities in other states from various sources and, therefore, approves the same for tariff determination for the Assets.
- 4.3.11 However, considering that the lending agencies may be charging at lower rate, the Commission directs the Petitioner to negotiate with GoHP and align the interest rate in line with the rate of interest agreed by the GoHP with ADB. Any efforts in this direction will not only lead to better cost optimisation in the form of lower interest costs, but also benefit the Consumers of the State of Himachal Pradesh as a whole.
- 4.3.12 The following table provides the Interest on Loan approved by the Commission for each year:

Table 37: Interest on Loan approved by Commission (INR lakh)

Particulars	FY23*	FY24
Sub-Station		

Particulars	FY23*	FY24
Opening Balance	0.00	783.89
Addition	785.83	54.84
Repayment	1.94	54.56
Closing Balance	783.89	784.17
Rate of Interest (%)	10%	10%
Interest on Loan	2.90	78.62
Transmission Line		
Opening Balance	0.00	895.76
Addition	897.56	57.54
Repayment	1.80	50.54
Closing Balance	895.76	902.76
Rate of Interest (%)	10%	10%
Interest on Loan	3.31	90.17
Total Interest on Loan	6.21	168.79

*Note: Interest on Loan for FY 2022-23 is on pro-rata basis i.e. from COD i.e. 27 days

4.4 Return on Equity

Petitioner's Submission

4.4.1 The Petitioner has considered the opening value of equity as on CoD as actual equity corresponding to 30% and 29.05% of the total Project cost for the Substation and Transmission Line respectively.

4.4.2 The Return on Equity (RoE) proposed by the Petitioner for each year is summarised in the table as follows:

Table 38: RoE claimed by Petitioner (INR Lakh)

Particulars	FY23	FY24
Substation		
Opening Equity	839.50	839.82
Addition	0.32	9.00
Closing Equity	839.82	848.82
Average Equity	839.66	844.32
RoE (%)	15.50%	15.50%
Return on Equity	130.15	130.87
Transmission Line		
Opening Equity	1201.13	1212.68
Addition	11.54	0.00
Closing Equity	1212.68	1212.68
Average Equity	1206.90	1212.68
RoE (%)	15.5%	15.5%

Particulars	FY23	FY24
Return on Equity	187.07	187.97
Total Return on Equity	317.22	318.84

Commission's Analysis

4.4.3 Regulation 19 of the HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations 2011, as amended from time to time, stipulates the following:

"19. Return on Equity

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

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

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

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

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

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

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

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

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

Table 39: RoE approved by Commission (INR Lakh)

Particulars	FY23*	FY24
Sub-Station		
Opening Equity	0.00	336.78
Addition	336.78	23.50
Closing Equity	336.78	360.29

Particulars	FY23*	FY24
RoE (%)	15.5%	15.5%
Return on Equity	1.93	54.17
Transmission Line		
Opening Equity	0.00	384.67
Addition	384.67	24.66
Closing Equity	384.67	409.33
RoE (%)	15.5%	15.5%
Return on Equity	2.21	61.70
Return on Equity (Total)	4.14	115.87

Return on Equity pro-rated for FY 2022-23 based on COD i.e. 27 days

4.5 O&M Expenses

Petitioner's Submission

4.5.1 The Petitioner has submitted that as per the HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011, as amended from time to time, 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&M_n = R&M_n + EMP_n + A&G_n : Where -

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

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

'R&M_n' = K x (GFA_{n-1}) x (WPIinflation) ;

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

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

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

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

'Provision (Emp)'- Provision corresponding to clauses (iii), (iv) and (v) of sub regulation (1-a) of regulation 13, duly projected for relevant year for

expenses beyond control of the Transmission Licensee and expected one-time expenses as specified above;

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

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

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

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

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

- 4.5.2 The Petitioner has requested to approve the O&M expenses as claimed considering the norms as per CERC Tariff Regulations, 2019 which shall be subject to truing up based on actual. The Petitioner's claim has been elaborated below:

Table 40: O&M Expenses claimed by Petitioner (INR Lakh)

Particulars	Units	FY23	FY24
Substation			
MVA	MVA	20.00	20.00
Norms for MVA	Rs. Lakh/MVA	0.272	0.282
2 AIS 66 kV Bays	Nos.	2	2
Norms for Bays (AIS)	Rs. Lakh/ Bay	17.83	18.46
6 GIS 22 kV Bays	Nos.	6	6
Norms for Bays (GIS)	Rs. Lakh/ Bay	12.48	12.92
O&M Expenses	INR Lakh	117.35	121.50
Transmission Line			
66 kV line	INR Lakh/km	0.279	0.289
66 kV line	km	23.86	23.86
O&M Expenses	INR Lakh	6.66	6.89
O&M Expenses	INR Cr	124.01	128.39

Commission's Analysis

- 4.5.3 Considering that O&M expenses submitted are for partial year and actual audited O&M expenses for sufficient number of years are not available, it is difficult to ascertain the trends for O&M expenses for the upcoming years. In the absence of any accurate benchmark, the Commission has relied upon the normative O&M expenses prescribed in the CERC Tariff Regulations, 2019.

- 4.5.4 The Commission enquired regarding the difference of line length between the DPR and as claimed in the Petition. The Petitioner has submitted that during the

construction phase, the line length was reduced after survey. The Commission has determined the O&M expenses for Substation and the Transmission Line separately. Based on the number of bays, voltage, circuit Kms and conductor size the following norms have been considered as per the technical details of Transmission Line and Substation for computation of O&M expenses:

Table 41: Normative O&M Expenses – Transmission Line

Item	Unit	FY23	FY24
Norms: Double Circuit (Single Conductor)	INR Lakh/km	0.419	0.433
66 kV Line	km	23.86	23.86
Total	INR Lakh	10.00	10.33

4.5.5 Based on the above norms, the Commission has approved the O&M expenses for each year. Also, a factor of 0.7 has been considered for computing the O&M for GIS bays. The Norms are based on CERC Tariff Regulations, 2019, as amended from time to time.

Table 42: Normative O&M Expenses – Sub-Station

Particular's	Unit	FY23	FY24
Norms: 132Kv and Below (Bays)	Lakh/bay	17.83	18.46
66 kV Bays (AIS)	No.	2.00	2.00
22 kV Bays (GIS)	No.	6.00	6.00
Norms: 132 kV and below Transformation Capacity	Rs. Lakh/MVA	0.27	0.28
Transformation capacity	MVA	20.00	20.00
Total	INR Lakh	115.99	120.09

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

Table 43: O&M Expenses approved by Commission (INR Lakh)

Item	FY23	FY24
Sub-station	8.58	120.09
Transmission Line	0.74	10.33
Total O&M Expenses	9.32	130.42

O&M Expenses pro-rated for FY 2022-23 based on COD i.e. 27 days

Sub-Station expenses multiplied by 0.7 as per CERC norms as this is a GIS bays at Sub-station

4.6 Interest on Working Capital

Petitioner's Submission

4.6.1 The Petitioner has computed interest on working capital as per Regulations 21 and 22 of the HPERC (Terms and Conditions for Determination of Transmission Tariff) Transmission Regulations, 2011, as amended from time to time.

4.6.2 The Petitioner has calculated the interest on working capital considering prevalent SBI MCLR as on FY 2022-23 plus 300 basis points. In accordance with the above referred Regulations, the interest on working capital claimed is as shown below:

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

Particulars	Units	FY23	FY24
Substation			
1/12th of O&M Expense	INR Lakh	9.78	10.13
Receivables equivalent to 2 months average billing	INR Lakh	129.91	127.91
Maintenance Spares (15% of O&M Expense of 1 month)	INR Lakh	1.47	1.52
Less: Consumer Security Deposit	INR Lakh	0	0
Total Working Capital	INR Lakh	141.16	139.55
Interest Rate on Working Capital (SBI MCLR + 300 basis point)	%	10.5%	11.5%
Interest on Working Capital		14.82	16.05
Transmission Line			
1/12th of O&M Expense	INR Lakh	0.55	0.57
Receivables equivalent to 2 months average billing	INR Lakh	108.07	105.92
Maintenance Spares (15% of O&M Expense of 1 month)	INR Lakh	0.08	0.09
Less: Consumer Security Deposit	INR Lakh	0	0
Total Working Capital		108.71	106.59
Interest Rate on Working Capital (SBI MCLR + 300 basis point)	%	10.5%	11.5%
Interest on Working Capital	INR Lakh	11.41	12.26
Interest on Working Capital (Substation and Line)	INR Lakh	26.23	28.31

Commission's Analysis

4.6.3 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 (Terms and Conditions for Determination of Transmission Tariff) Regulations 2011, as amended from time to time.

4.6.4 The relevant clauses of the Regulations 21 and 22 are reproduced below:

"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.”

- 4.6.5 According to the revised 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 in accordance with the HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011, as amended from time to time, as applicable for FY 2018-19.
- 4.6.6 The interest on working capital shall be trued-up based on the actual rates as on 1st April of relevant financial year and the HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011, as amended from time to time. The computation for approved working capital requirement and interest on working capital is shown in the table as follows:

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

Particulars	FY23*	FY24
Sub-Station		
O&M expenses for 1 month	0.71	10.01
Maintenance spares @ 15% of O&M Expenses for one month	0.11	1.50
Receivable for 2 months	2.62	52.48
Less: Consumer Security Deposit	0.00	0.00
Total Working capital	3.45	63.99
Interest rate	11.50%	11.65%
Interest on Working Capital	0.40	7.46
Transmission Line		
O&M expenses for 1 month	0.06	0.86
Maintenance spares @ 15% of O&M Expenses for one month	0.01	0.13
Receivable for 2 months	1.37	36.18
Less: Consumer Security Deposit	-	-
Total Working capital	1.44	37.17
Interest rate	11.50%	11.65%
Interest on Working Capital	0.17	4.33
Total Interest on Working Capital	0.56	11.79

Interest on Working Capital pro-rated for FY 2022-23 based on COD i.e. 27 days

4.7 Aggregate Revenue Requirement

Petitioner's Submission

- 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 46: Summary of ARR claimed by Petitioner (INR Lakh)

Particulars	Units	FY23	FY24
Substation			
O&M Expenses	INR Lakh	117.35	121.50
Interest on Loan	INR Lakh	317.74	298.85
Interest on Working Capital	INR Lakh	14.82	16.05
Depreciation	INR Lakh	199.41	200.17
Return on Equity	INR Lakh	130.15	130.87
Sub Total	INR Lakh	779.47	767.44
Pro-rata of O&M Cost for Number of days in operation during the Financial Year	INR Lakh	59.79	767.44
Transmission Line			
O&M Expenses	INR Lakh	6.66	6.89
Interest on Loan	INR Lakh	273.10	257.39
Interest on Working Capital	INR Lakh	11.41	12.26
Depreciation	INR Lakh	170.19	171.04
Return on Equity	INR Lakh	187.07	187.96
Sub Total	INR Lakh	648.43	635.55
Pro-rata of O&M Cost for Number of days in operation during the Financial Year	INR Lakh	49.74	635.55
ARR	INR Lakh	109.53	1,402.99

Commission's Analysis

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

Table 47: Summary of ARR approved by Commission (INR Lakh)

Particulars	Units	FY23	FY24
Sub-Station			
O&M Expenses	INR Lakh	8.58	120.09
Interest on Loan	INR Lakh	2.90	78.62
Interest on Working Capital	INR Lakh	0.40	7.46
Depreciation	INR Lakh	1.94	54.56
Return on Equity	INR Lakh	1.93	54.17
Sub Total	INR Lakh	15.75	314.90
Transmission Line			
O&M Expenses	INR Lakh	0.74	10.33
Interest on Loan	INR Lakh	3.31	90.17
Interest on Working Capital	INR Lakh	0.17	4.33

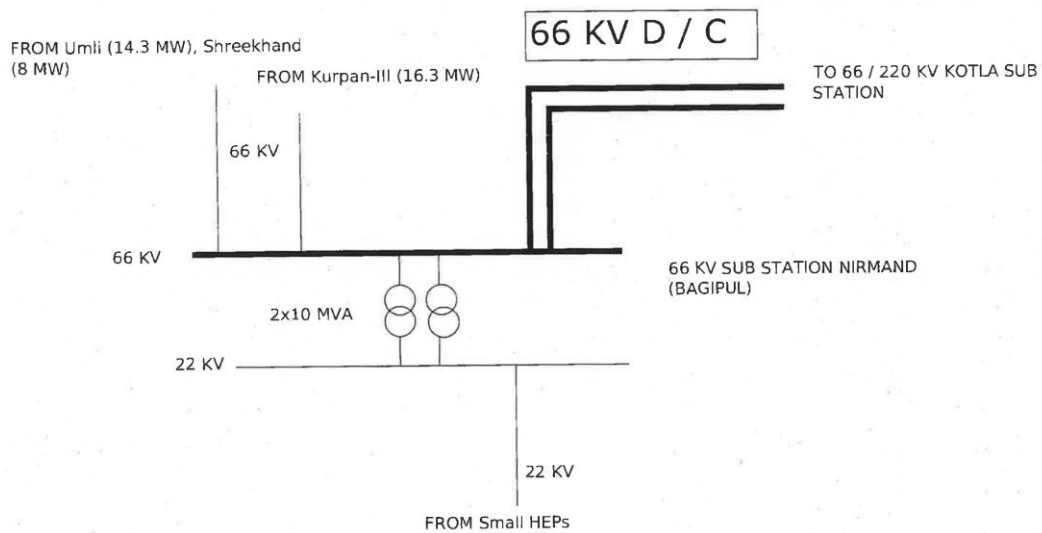
Particulars	Units	FY23	FY24
Depreciation	INR Lakh	1.80	50.54
Return on Equity	INR Lakh	2.21	61.70
Sub Total	INR Lakh	8.22	217.08
ARR	INR Lakh	23.97	531.98

4.8 Transmission Charges

Petitioner's Submission

4.8.1 The Petitioner has submitted a Single Line Diagram (SLD) as part of the Petition, showing connectivity of different power system elements with the Nirmand Bagipul transmission system of the Petitioner, as hereinafter:

Figure 1: SLD of the project – 66 kV Nirmand (Bagipul)-Kotla D/C Line



4.8.2 As per the SLD, the Nirmand (Bagipul) Substation is connected to Umli, Shreekhand and Kurpan SHEPs at 66kV level and to HPSEBL feeder at 22 kV level. Also, the 66 kV transmission line is connected with 66/220 kV sub-station of the HPSEBL. Accordingly, the Petitioner has submitted that HPSEBL is the sole beneficiary of the Transmission system (Substation and Transmission Line) and has also submitted the associated TSA.

Commission's Analysis

4.8.3 The Commission has taken into consideration the SLD submitted by the Petitioner as part of the Petition.

4.8.4 Furthermore, based on the analysis of Transmission Service Agreement (TSA) signed with the HPSEBL and inclusion of the transmission assets (both Substation and Transmission Line) in the TSA, it is established that HPSEBL is the de-facto beneficiary of the system.

4.8.5 The Commission observes that the Petitioner has taken considerable time in responding to the various queries of the Commission resulting in further delays in

release of Tariff Order. Given the concerns regarding status of transmission assets which led to significant delays, the Commission finds it appropriate to allow recovery to the extent of ARR and corresponding tariff determined against the transmission assets from the COD approved in this Tariff Order.

- 4.8.6 Further, the Petitioner is directed to recover the transmission charges from the identified long-term /medium-term beneficiary of the Transmission Assets as per the Clause 33 of Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011 and its subsequent amendments:

"33. Allocation of Transmission Service Charge and Losses

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

- 4.8.7 The Petition is accordingly disposed off in the above terms.

-Sd-
(SHASHI KANT JOSHI)
Member

-Sd-
**(YASHWANT SINGH
CHOGAL)**
Member (Law)

-Sd-
**(DEVENDRA KUMAR
SHARMA)**
Chairman

Shimla
Dated: 21.01.2025