

**Approval of Capital Cost and determination
of tariff for 220/33kV system of
400/220/33 kV Pooling Station at Lahal
along with 220 kV S/C Transmission from
Lahal Pooling station to Budhil HEP from
COD to FY 2023-24**

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



**Himachal Pradesh Electricity Regulatory
Commission
November 17, 2023**

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

PETITION NO: 28/2023

Decided on : 17 November 2023

CORAM

Sh. DEVENDRA KUMAR SHARMA

Sh. YASHWANT SINGH CHOGAL

Sh. SHASHI KANT JOSHI

In the matter of:

Approval of MYT petition for Approval of Capital Cost and determination of Tariff for the period starting from COD to FY 2023-24 for 220/33 kV system of 400/220/33 kV pooling station at Lahal along with 220 kV S/C Transmission Line from Lahal pooling station to Budhil HEP under the Himachal Pradesh Electricity Regulatory Commission (terms and conditions for determination of transmission tariff) regulation, 2011 as amended from time to time and under Section 62, read with Section 86 of the Electricity Act, 2003.

AND

In the matter of:

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

ORDER

The Himachal Pradesh Power Transmission Corporation Limited (hereinafter called the 'HPPTCL' or 'Petitioner') has filed the present Petition with the Himachal Pradesh Electricity Regulatory Commission (hereinafter referred to as 'the Commission' or 'HPERC') for the approval of capital cost and determination of tariff for the period starting from COD to FY 2023-24 for 220/33kV system of 400/220/33 kV Pooling Station at Lahal along with 220 kV S/C Transmission from Lahal Pooling station to Budhil HEP under the Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Transmission Tariff) Regulation, 2011, as amended from time to time and under Section 62, read with section 86 of the Electricity Act, 2003. (herein after referred to as "the Act").

The Commission having heard the Petitioner, interveners and stakeholders through various representations and having had formal interactions with the officers of the HPPTCL and having considered the documents available on record, herewith accepts the Petition with modifications, conditions and directions specified in the following Tariff Order.

It is also to be highlighted that the Petitioner took significant time in responding to the clarification and queries raised by the Commission. On several occasions, the information provided was either incomplete or did not address the query of the commission adequately. As a result, even post the written submissions, clarifications were sought verbally from the Petitioner. The delay in submission and lack of complete information remained a major bottleneck which has resulted in delay of this Tariff Order.

The Commission has determined the capital cost and Aggregate Revenue Requirement (ARR) for 220/33kV system of 400/220/33 kV Pooling Station at Lahal along with 220 kV S/C Transmission from Lahal Pooling station to Budhil HEP in accordance with the guidelines laid down in Section 61 of the Electricity Act, 2003, the National Electricity Policy, the National Tariff Policy, CERC Tariff Regulations, 2019 and HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011 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 60).

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(SHASHI KANT JOSHI)
Member

**(YASHWANT SINGH
CHOGAL)**
Member

**(DEVENDRA KUMAR
SHARMA)**
Chairman

Shimla

Dated: 17 November, 2023

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1. INTRODUCTION

1.1 Himachal Pradesh Electricity Regulatory Commission

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

1.1.2 Functions of the Commission

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

- a) determine the tariff for generation, supply, transmission and wheeling of electricity, wholesale, bulk or retail, as the case may be, within the State: Provided that where open access has been permitted to a category of consumers under section 42, the State Commission shall determine only the wheeling charges and surcharge thereon, if any, for the said category of consumers;
- b) regulate electricity purchase and procurement process of distribution licensees including the price at which electricity shall be procured from the generating companies or licensees or from other sources through agreements for purchase of power for distribution and supply within the State;
- c) facilitate intra-state transmission and wheeling of electricity;
- d) issue licences to persons seeking to act as transmission licensees, distribution licensees and electricity traders with respect to their operations within the State;
- e) promote co-generation and generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person, and also specify, for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution licence;
- f) adjudicate upon the disputes between the licensees, and generating companies and to refer any dispute for arbitration;
- g) levy fee for the purposes of this Act;
- h) specify State Grid Code consistent with the Indian Electricity Grid Code specified with regard to grid standards;

- i) specify or enforce standards with respect to quality, continuity and reliability of service by licensees;
- j) fix the trading margin in the intra-state trading of electricity, if considered, necessary; and
- k) Discharge such other functions as may be assigned to it under this Act.

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

- a) promotion of competition, efficiency and economy in activities of the electricity industry;
- b) promotion of investment in electricity industry;
- c) reorganization and restructuring of electricity industry in the State;
- d) Matters concerning generation, transmission, distribution and trading of electricity or any other matter referred to the State Commission by State Government.

1.2 Himachal Pradesh Power Transmission Corporation Ltd.

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

1.2.2 The Government of Himachal Pradesh (hereinafter referred to as 'GoHP' or the 'State Government' formed HPPTCL through a notification vide its 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 its order dated 10th June, 2010 and as a result thereof the Commission recognized HPPTCL as a deemed "Transmission Licensee" as per the Commission's Order

dated 31st July, 2010 in Petition No. 32 of 2010 filed by HPPTCL under Sections 14 and 15 of the Act, for grant of Transmission Licensee in the State of Himachal Pradesh. Prior to FY 2010-11, the transmission tariff was being determined as a part of the tariff orders applicable to HPSEBL system.

1.3 Multi Year Tariff Framework

- 1.3.1 The Commission follows the principles of Multi Year Tariff (MYT) for determination of tariffs, in line with the provisions of Section 61 of the Act.
- 1.3.2 The MYT framework is also designed to provide predictability and reduce regulatory risk. This can be achieved by approval of a detailed capital investment plan for the Petitioner, considering the expected network expansion and load growth during the Control Period. The longer time span enables the Petitioner to propose its investment plan with details on the possible sources of financing and the corresponding capitalization schedule for each investment.
- 1.3.3 The Commission had specified the terms and conditions for the determination of tariff in the year 2004, based on the principles as laid down under Section 61 of the Electricity Act 2003.
- 1.3.4 Thereafter, the Commission had notified the HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011. The MYT Regulations notified in the year 2011 were amended as (First Amendment) Regulations, 2013 on 1st November, 2013 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").
- 1.3.5 The Commission issued the first Multi-Year Tariff (MYT) Order for HPPTCL for the period FY 2011-12 to FY 2013-14 on 14th July, 2011 and thereafter for the second Control Period (FY 2014-15 to FY 2018-19) on 10th June, 2014. The Commission has also issued the Tariff Order on True Up for the FY 2014-2015 to FY 2015-2016 and Mid Term Review for Third Control Period FY 2016-2017 to FY 2018-19. Thereafter, on 29th June, 2019, the Commission issued the MYT Order for the fourth Control Period (FY 2019-20 to FY 2023-24).

1.4 Interaction with the Petitioner

- 1.4.1 Since the submission of the Petition, there have been a series of interactions between the Petitioner 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.
- 1.4.2 Based on preliminary scrutiny of the Petition, the Commission vide letter No. HPERC-F(1)-46/2022-2353-54 dated 07th December, 2022 has issued first set of deficiencies identified in the Petition, the reply to which was submitted by the Petitioner on dated 02nd January, 2023. Subsequently, the Commission issued a second set of deficiencies vide letter No. HPERC-F(1)-46/2022-3201 dated 17th February, 2023, the reply to which was submitted by the Petitioner on 18th April, 2023. Thereafter, a third set of deficiencies letter issued vide e-mail dated 22nd July, 2023, which was replied by the Petitioner on 16th August, 2023.

1.4.3 Thus, as observed above, based on the detailed scrutiny of the Petition, various clarifications/ information were sought by the Commission from time to time which have been taken on record:

Table 1: Communication with the Petitioner

Sl.	Submission of the Petitioner	Date
1	Filing No. 177 of 2022	02 nd January, 2023
2	Filing No. 177 of 2022	18 th April, 2023
3	Petition No. 28 of 2023	16 th August, 2023

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 Public Hearing

Sl.	Name of News Paper	Date of Publication
1.	Divya Himachal	05 th May, 2023
2.	Indian Express	05 th May, 2023

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

Table 3: List of Newspapers for Public Notice by Commission

Sl.	Name of News Paper	Date of Publication
1.	The Tribune	16 th May, 2023
2.	Dainik Bhaskar	16 th May, 2023

1.5.3 The stakeholders were requested to file their objections by 12th June, 2023. HPPTCL was required to submit replies to the suggestions/ objections to the Commission by 19th June, 2023 with a copy to the objectors on which the objectors were required to submit rejoinder by 24th June, 2023.

1.5.4 The Commission in order to conduct a public hearing issued a public notice informing the public about the scheduled date of public hearing as 27th June, 2023 which was further postponed to 30th June, 2023. 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 date of public hearing as 30th June, 2023.

2.1.2 Accordingly, the public hearing was conducted at HPERC on 30th June, 2023. HPSEBL submitted their comments/ suggestions before the Commission. Issues raised by HPSEBL in their written submission, along with replies given by the Petitioner and views of the Commission are summarized in the following Paras:

Stakeholders' Submissions

2.1.3 The stakeholders has submitted that the Petitioner has claimed in the Petition that the contract was awarded on 20.09.2014, however effective date of contract was approved as 10.07.2016. Petitioner has taken almost two years in the process of award of contract. The cost overrun caused by such delay shall not be transferred to beneficiaries of asset.

2.1.4 In the Petition, Petitioner has given reasons for time overrun that there was delay in the transportation of Power Transformers. It took almost five years to Petitioner in planning and executing the transportation of power transformers to Lahal.

2.1.5 In the Petition, cost approved in DPR is Rs. 58.4144 Cr. However cost claimed by Petitioner as on 20.03.2020 is Rs. 109.48 Cr. The Petitioner has submitted that cost overrun is due to increase in price which were in turn due to delay in execution of project. As delay on part of Petitioner is not completely justifiable, hence burden of addition cost shall not be transferred to the beneficiary.

Petitioner's Response

2.1.6 The Petitioner has submitted that although the LOA was issued on 20.09.2014, contract agreement could not be signed immediately. It has submitted that the contractor was required to execute contract agreement and submit performance guarantee against the award. Through multiple letters, firm was asked to do the needful at the earliest failing which HPPTCL would be constrained to cancel the award. In the meantime, joint route survey was undertaken by L&T, HPPTCL, HPPWD and Transporter. The report of the same as prepared by Transporter was submitted to HPPTCL vide letter dated 25.11.2014. In the said report, it was concluded that road for transportation of Transformers to Lahal is not transport worthy at several locations. After discussion between HPPTCL and M/s L&T with respect to joint survey regarding transportation constraint at Lahal and after conducting survey from Chamba to Lahal on 23.12.2014, an agreement was

signed on dated 04.02.2015. With regards to time overrun, it is submitted that major reasons which impacted progress of construction of Lahal Sub-station were hindrances by local, inclement weather conditions and constraints in transport of Power Transformers. These reasons of delay have further been elaborated under Para No. 4.4 of the tariff Petition. Regarding cost overrun incurred while construction, the Petitioner has submitted the details under Para No. 4.5 of Tariff Petition.

Commission's Observations

2.1.7 The Commission has taken due cognizance of the submissions of the stakeholder as well as the submission of the Petitioner with respect to the escalation of cost of the project. Detailed scrutiny has been performed as part of the prudence check which is also detailed in the subsequent chapters for arriving at the hard cost and other costs (IDC and department charges) for the transmission project. The same is detailed under Chapter 3 of this Order.

Stakeholders' Submissions

2.1.8 As per DPR, debt to equity ratio has been considered as 80:20, however at para number 4.12.2 of the Petition, Petitioner has taken equity share as 30% of total project cost. Therefore, return on equity shall be allowed as per DPR.

Petitioner's Response

2.1.9 The Petitioner has submitted that for preparation of DPR, funding scheme is considered on estimated basis i.e., 80:20 whereas actual funding of the project depends on project execution and actual fund available from various sources which may not be exactly in line with the DPR estimates. Therefore, the objection raised by the respondent is factually incorrect and hence liable to be rejected.

Commission's Observations

2.1.10 The Commission has scrutinized the aspect of funding with respect to the transmission project in detail as discussed in Chapter 3 of this Order.

Stakeholders' Submissions

2.1.11 The Asset-2 i.e. 220 kV single circuit line from Lahal pooling station to Greenko Buddhil HEP is constructed as an alternative to 400 kV Lahal-Chamera line. HPSEBL has used the said asset from 01.07.2020 to 11.01.2023 for evacuation of power from IPPs connected at Lahal Sub-station. Further it is submitted that due to delay in commissioning of 400 kV line, HPSEBL has to use 220 kV line for evacuation of power from Lahal pooling station, the extra loss borne by respondent due to transmission on lower voltage shall be compensated by the Petitioner.

Petitioner's Response

2.1.12 The submissions are general in nature and merits no response.

Commission's Observations

2.1.13 The Commission is of the view that the transmission assets are designed and implemented based on the requirement of all long-term beneficiaries. Therefore, irrespective of the commissioning and usage of the transmission assets by individual beneficiary, all the long-term beneficiaries are required to pay with respect to their assigned capacities. The Commission feels that the issue raised by the stakeholders is not related to the determination of capital cost and tariff of the Petition under consideration. The stakeholder can file Petition separately to adjudicate in the matter as per the relevant HPERC regulations.

Stakeholders' Submissions

2.1.14 In the Petition, Petitioner has submitted that COD of Asset-1 was 20.03.2020 and that of Asset-2 was on 27.06.2020. It is pertinent to mention here that till the commissioning of Asset-2 (i.e.220 kV Lahal Budhil line) Asset-1 had no significance for its beneficiary as there was no evacuation system in operation from the said Sub-station till commissioning of Asset-2. Hence, it is prayed by the stakeholders that the tariff may be allowed for Asset-1 only after commissioning of Asset-2.

Petitioner's Response

2.1.15 The Petitioner has responded that the works of 220KV single circuit line (Asset- 2) were envisaged to be completed by 16.09.2016. Furthermore, the work of 220 kV Pooling Sub-station (Asset-1) was envisaged to be completed by 30.12.2018 after the commissioning of 220 kV S/C line (Asset-2). However, on account of various uncontrollable reasons which are already provided in the relevant sections of the Petition, delay occurred in construction of Sub-station and Transmission Line. It has been Petitioned that without considering these uncontrollable parameters and justification provided by the Petitioner, the respondent has made incorrect observations and the Petitioner humbly prays to reject the submissions made by the respondent.

Commission's Observations

2.1.16 The Commission has sought Electrical Inspectorate (EI) Certificate (EIC) in addition to the documents submitted by the Petitioner for evaluation of the COD of the project.

2.1.17 The EIC had provided COD at a common date i.e. 20.05.2020 for both the Sub-station and the transmission line, therefore, the same has been considered as COD for the whole project.

Stakeholders' Submissions

2.1.18 Under Regulation 13(13) of the CERC Sharing Regulation 2020, an intra state transmission system for which tariff is approved by the CERC shall be included for sharing of transmission charges of DICs in accordance with these regulations. The present Petition of HPPTCL is for the tariff determination by Hon'ble HPERC and

after approval of the tariff, HPPTCL may approach the Hon'ble CERC for consideration of the asset as part of ISTS system.

Petitioner's Response

2.1.19 As per the Petitioner, the asset under consideration i.e. 33/220 kV portion of 33/220/400 kV Lahal Sub-station along with 220 kV S/C Lahal-Budhil Transmission Line is STU and thus, is intra-state in nature. On account of above fact, Transmission Tariff of the said line and mechanism of recovery of approved charges is to be decided by the Commission. The Petitioner has withdrawn its submissions made under Para 16 and Para 4.13.2 of Tariff Petition.

Commission's Observations

2.1.20 The Commission observes that the transmission system under consideration in the current Petition seems prima facie an inter-state transmission asset. However, the same will depend upon the actual flow of the energy through the system. Therefore, the Commission directs the Petitioner to approach the appropriate authority for inclusion of the transmission system under POC/GNA mechanism.

Stakeholders' Submissions

2.1.21 The net ARR claim for COD to FY 2023-24 by Petitioner for Asset -1 and Asset-2 under 220/33 KV pooling Sub-station and associated transmission line from Lahal to Greenko Budhil HEP is as under:

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Asset – 1	57.83	1928.52	1931.74	1883.9	1836.75
Asset – 2	-	95.21	126.82	124.59	123.68
Total	57.83	2023.73	2058.56	2008.49	1960.43

2.1.22 HPSEBL has submitted that Petition for approval of capital cost and determination of tariff for 4th control period starting from COD to FY2023-24 for 220/33KV system of 400/220/33 KV pooling station at Lahal (asset-1) and 220KV single circuit line from Lahal pooling station to Greenko Budhil HEP (asset- 2) may be considered on merits and having prudence check of this by the Commission. Since at the receiving end, it is the Consumers of State of Himachal Pradesh, who will bear the cost.

Petitioner's Response

2.1.23 The Petitioner had submitted that the claims made by the respondent are general statement and merits no response from the Petitioner.

Commission's Observations

2.1.24 Considering the majority flow of power is for beneficiaries selling power outside the State, the Commission has directed the Petitioner to approach the relevant

authorities to include the transmission charges of the transmission system to be recovered through the CERC sharing mechanism.

3. APPROVAL OF CAPITAL COST

3.1 Introduction

3.1.1 HPPTCL has submitted a Petition for determination of capital cost for 220/33kV system of 400/220/33 kV Pooling Station at Lahal and 220 kV S/C Transmission Line from COD to FY 2023-24 in line with the provisions of the HPERC (Terms and Conditions for Determination of Transmission Tariff) Tariff Regulations 2011.

3.1.2 Regulation 14 of the HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations 2011, provides as under:-

"14. Capital cost of the project

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

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

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

(c) additional capital expenditure determined under regulation 16:

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

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

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

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

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

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

- 3.1.3 The Commission has reviewed the proposed capital cost for 220/33kV system of 400/220/33 kV Pooling Station at Lahal and 220 kV S/C Transmission Line from COD and ARR for each year from COD until the end of the Control Period i.e. FY 2023-24. Multiple set of deficiencies in the Petition were shared with the Petitioner to realistically validate the reasons for cost and time overrun, claimed amount, beneficiary details, etc.
- 3.1.4 The original Petition for determination of capital cost and ARR for 220/33kV system of 400/220/33 kV Pooling Station at Lahal and 220 kV S/C Transmission Line from COD lacks significant detailing and supporting information to ascertain the capital cost for the Sub-Station and line. Information provided in the Petition was inadequate for which the Commission sought additional submissions and supporting documents from the Petitioner through 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 Also, it is observed that the current Petition is for approval of capital cost of 220/33 kV system of 400/220/33 kV Pooling Station at Lahal which has been conceptualized and bid out on comprehensive basis (inclusive of 400/220 kV system). As part of the submissions, the Petitioner has been unable to provide actual information specific to the 220/33kV system i.e. cost break-up, auditor certificate, etc. (as on date of commissioning) resulting in assumptions at various stages while approving the capital cost. In the absence of adequate details, the Commission has relied on the various submissions and adequate appropriations which have been considered suitable for approval of capital cost and determination of tariff under the current Order.
- 3.1.6 The scrutiny and prudence check undertaken by the Commission for approval of capital cost of 220/33kV system of 400/220/33 kV Pooling Station at Lahal and 220 kV S/C Transmission Line has been discussed in the following paragraphs.

3.2 Summary of the Project

Petitioner Submissions

- 3.2.1 The Petitioner has submitted that scheme for construction of 220/33kV system of 400/220/33 kV Pooling Station at Lahal and 220 kV S/C Transmission Line from

Budhil HEP to Lahal Pooling Station was approved in the 15th Board of Directors (BOD) meeting to cater to small HEPs of about 60 MW.

- 3.2.2 The Petitioner submitted that in view of the proposed large HEPs i.e. 180 MW Bajoli Holi, 240 MW Kuther etc. along with various small HEPs awarded to IPPs in the area, the scope of project was increased to include a 400/220 kV Sub-station and associated transmission line. The additional capital expenditure has been treated as a new development and dealt in a separate Petition.
- 3.2.3 The CEA Approval was granted on 05.06.2012 for 200/33 kV Sub-station and 220 kV Transmission line (combined) at a cost of Rs. 67.4 Cr.
- 3.2.4 The DPR for construction of 220/33 kV Lahal Pooling station and 220 kV transmission line from Lahal to Budhil was prepared for a cost of Rs. 67.40 Cr. which included Rs. 8.98 Cr. for the transmission line. The cost also included an IDC of Rs. 2.18 Cr. and Departmental charges of Rs. 5.43 Cr. against both the assets. The DPR envisaged evacuation of 65.8 MW power from various HEPs in Ravi Basin.
- 3.2.5 The Petitioner has submitted BoD approval dated 07.06.2012 for various works undertaken under ADB Tranche -II including 220/33 kV Lahal Pooling Station and 220 kV Transmission line from Lahal to Budhil HEP.
- 3.2.6 The Petitioner also mentioned that 220/33 kV system of 400/220/33 kV Lahal Pooling Station (Asset 1) was completed on 20.03.2020 with a capital cost as on CoD of Rs. 109.48 Crore (inclusive of IDC and DC) while the 220 kV Transmission line from Lahal to Budhil HEP (Asset 2) was completed on 27.06.2020 with a capital cost as on CoD of Rs. 7.59 Crore (inclusive of IDC and DC).
- 3.2.7 Relevant technical details and configuration of the Sub-Station as submitted by the Petitioner in the original 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	220 KV	33 kV	
220/33 kV, 1x50/63 MVA System of 400/220/33 kV GIS Pooling Station at Lahal	GIS	220/33	-	-	4	4	20 th March, 2020

- 3.2.8 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
220kV Transmission Line from 400/220/33 kV Lahal Sub-station of HPPTCL to Budhil HEP	AC	S/C	Single Zebra	220	2.09	27 th June, 2020

3.2.9 HPPTCL has submitted that proposal for construction of 220/33 kV Pooling Station was clubbed with the proposal of construction of 400/220 kV Pooling Station (with DPR estimated cost of Rs. 249 Crore including IDC and DC of Rs. 13.03 Crore and Rs. 22.39 Crore respectively) and accordingly an integrated 400/220/33 kV Pooling Station was constructed in order to evacuate power from small and large hydro power plants operating in the region till Chamera-II Pooling Station of PGCIL.

3.2.10 Furthermore, a single tender was floated for the construction of complete 400/220/33 KV pooling station at Lahal. Another tender was floated for 220KV single circuit line on double circuit towers from the pooling station to Budhil HEP. The complete project was awarded in two parts i.e. supplies and erection part. The turnkey cost for the combined Sub-station (400/220/33 kV) was USD 1,11,900 and INR 232.44 Cr. and the award cost for transmission line was Rs. 4.81 Cr.

3.2.11 Further, the Petitioner submitted that the breakup of value of Sub-station and transmission line is as follows:

Table 6: Abstract of Capital Cost (INR Cr.)

Particulars	Capital Cost –DPR	Capital Cost* - Petition
Sub-Station		
Hard Cost	51.82	87.11
Departmental charges	4.71	5.93
IDC	1.89	16.44
Sub-Total	58.42	109.48
Transmission Line		
Hard Cost	7.97	6.09
Departmental charges	0.72	0.43
IDC	0.29	1.07
Sub-Total	8.98	7.59
Total	67.4	117.07

*Capital cost claimed as on COD

3.2.12 The Petitioner has submitted that the total cost of Transmission line has been contained within the DPR cost inclusive of amendments, Departmental Charge (DC) and Interest During Construction (IDC). However, the cost of Sub-station has increased due to impact of GST, Quantity variation, supply and service of differential relays, etc.

3.2.13 The Petitioner has also submitted that there was a delay in commissioning of the project. From the effective date of contract on 17th July 2016, the time period for execution of project was 30th June 2018. The 220/33 KV portion of the project could only be completed by 20th March 2020 with a delay of 506 days. The major reason for delay included hindrance by locals, inclement weather conditions, delay in transportation of power Transformers, increase in scope. In case of the transmission line, the work under supply and services contract was envisaged to

be completed by 16th September, 2016 and 4th April 2017 respectively. However, the transmission line could only be commissioned by 27th June, 2020. The supply was delayed by 1382 days while the services were delayed by 1182 days. The major reason for delay included handing over of sites, additional civil work due to change in soil strata, change in type of tower, ROW issues, weather conditions and Covid induced lockdown.

3.2.14 The Petitioner has submitted that with regards to the evacuation arrangement of power, HPSEBL has signed a comprehensive Long-term Transmission Agreement (LTA) with HPPTCL. Further, HPPTCL and HPSEBL has also signed an agreement for use of 33 kV portion of the Sub-station. The HEPs wheeling through the system included various Small HEP's in Bharmour area of Ravi basin. The 65.8 MW was initially envisaged to be evacuated through 220 kV Transmission line from Budhil HEP to Lahal Sub-station and to the regional grid through the PGCIL Sub-station at Chamera. This arrangement was envisaged to take care of reliability and redundancy in the system to evacuate power in case of outage of any transmission line because of unforeseen conditions.

3.2.15 Furthermore, the Petitioner has submitted that owing to the large number of hydro generating stations being developed in the area, HPPTCL envisaged to construct a 400/220 kV pooling station at Lahal to evacuate power from large HEPs including 180 MW Bajoli Holi and 240 MW Kuther HEP along with various small HEPs awarded to IPP's by Government of Himachal Pradesh. With the upcoming of new 400KV transmission line, the 220KV transmission line would help in improving the reliability in case of any contingency arising due to outage of 400KV line affecting huge hydro evacuation requirement. As the 400KV transmission line could not be commissioned due to unforeseen delays, the system considered (220/33 kV Sub-station and 220 kV Line) is being used for evacuating Bajoli Holi HEP power and LTA has been signed on 3rd September 2015.

Commission's Analysis

3.2.16 The Commission observes that the original DPR envisages the cost as INR 67.4 Cr. which included 220/33 kV, 50/63 MVA Pooling Station at Lahal along with interconnection facility of 220 kV line from 220/33 kV Pooling Station at Lahal to 220 kV yard of Budhil HEP. However, considering the developments envisaged in the area, the Sub-station capacity was later enhanced by the Petitioner to include 400/220 kV component and 400 kV line. The cost of the new transmission system in its separate DPR was Rs. 249 Cr. which included components for 220/400 kV Sub-station and 400 kV Transmission Line.

3.2.17 The Commission observes that post the approval of DPR for 400/220 kV system, the two components of Sub-station, 220/33 kV and 400/220 kV, have been merged for the purpose of tendering and execution.

3.2.18 The Commission enquired regarding any prior approval sought from the Commission with regards to the project. It was submitted that approval from CEA and HPPTCL Board of Directors was accorded for the project. However, no separate submission was made for approval of the same from the Commission. Further, the Petitioner has submitted that the Commission vide letter dated 14.07.2020 had conveyed that the approval in such cases has to be sought on

case to case basis. Since the work for the transmission system had already commenced, therefore, the HPPTCL filed the instant Petition for approval of capital cost and tariff after COD of the assets.

3.2.19 The Commission observes that the Petitioner has not undertaken any investment approval with regards to the Project from the Commission. However, in view of the approval obtained from CEA vide letter dated 5th June 2012 and Board of Directors approval on 7th June 2012, the Commission has in its letter dated 14.7.2020 allowed the Petitioner to submit Petition on case to case basis with respect to project already under implementation. Therefore, the Commission is undertaking detailed scrutiny with respect to the Petition for Approval of Capital Cost and determination of tariff for 4th Control Period from CoD to FY 2023-24 for 220/33 kV System of 400/220/33 kV Pooling Station at Lahal (Asset-1) and 220 kV S/C Line from Lahal Pooling Station to Greenko Budhil HEP (Asset-2) in this order.

3.2.20 The Commission also enquired for delay in filing of Petition since the COD is over two years ago. The Petitioner submitted that owing to the complexity of the said Petition viz-a-viz bifurcation of 220/33kV elements and 400/220 kV elements of Sub-station took considerable time and COVID induced lockdown furthered the delay. The Commission observes, that the Transmission asset were commissioned during the month of March/June 2020 (as per Petitioner's submission), the delay in submission of the Petition for determination of Capital Cost and Tariff for the said Transmission asset is significantly high and rationale provided by the Petitioner does not entirely justify the reason for such large delay.

3.3 Project Implementation

3.3.1 The Petitioner has claimed the CoD on 25th June, 2019 for Sub-station. As per the supporting documents submitted by the Petitioner, the LOA for the combined Sub-station (400/220 kV and 220/33 kV) was awarded on 20th September, 2014 to M/s. Larsen and Toubro on turnkey basis. As stated in the Petition, the effective date of contract (which is the date after issuance of LOA and compliance to its requirement post which the contract comes into effect) was 10th July, 2016. The scheduled commissioning period for the complete Sub-Station from the effective date of project execution was 42 months. However, the period of execution for 220/33 kV portion was 30 Months i.e. till 30.06.2018 as per submission of the Petitioner.

3.3.2 It has been claimed by the Petitioner that the Sub-station construction was delayed on account of hindrance by locals, inclement weather condition, delay in transportation of transformer and change in scope of the work. There was a delay of 506 days in commissioning of the Sub-station as per the Petition.

3.3.3 In reply to a query of the Commission, the Petitioner vide their submission dated 02.01.2023 provided the breakup of cost components between the two systems i.e. 400/220 kV and 220/33 kV. It can be inferred from their submission that the cost has been divided between the two assets/systems based on bifurcation of BOQ items applicable to respective system. Further, it is observed that the award given was for combined Sub-station which included 220/33 kV system and 400/220 kV portion as well. In spite of repeated reminders by the Commission,

the Petitioner did not provide Auditor's certificate defining the clear break-up of the cost towards 220/33 kV system. However, non-maintenance of segregated cost of 220/33 kV and 400/220 kV systems has led to complexity in providing documents like separate Statutory Auditor Certificates, L2 schedule, IDC working sheet, separate loan availed by HPPTCL for both systems.

- 3.3.4 The Petitioner had claimed the COD on 27th June, 2020 for the 220 kV Transmission Line. As per the supporting documents submitted by the Petitioner, the LOA for the Transmission line was awarded on 11th March, 2015 to M/s. M J Engineering Works (P) Ltd. on turnkey basis. The LOA comprised of two parts i.e. Services and Supply. As per the Petition, the effective date of commencement of supply part was 17.09.2015 and that of commencement of services part was 5.4.2016. The works of Transmission line was to be completed in 12 months.
- 3.3.5 The supply was delayed by 1382 days while the services were delayed by 1182 days due to non-Handing over of sites, Additional Civil work due to soil strata, Tower type and locations, inclement weather conditions and COVID induced lockdown. Further, the Petitioner had submitted that in case of transmission line, tower T-8 was deleted during the detailed design stage as per site requirements. The tower was replaced by MCT tower which was executed by M/s Apar Industries against the award of 220kV D/C Bajoli Holi-Lahal line which also resulted in delay in commissioning of the transmission line.
- 3.3.6 The Commission understands that the work allocation and accounting for the Sub-station was inclusive of two parts (400/220 kV and 220/33 kV) was common. While the construction time of the whole Sub-station was 42 months but specific to 220/33 kV portion was 30 months. As per the submission of the Petitioner, the major delays in construction of Sub-station was due to hinderance by locals, inclement weather conditions, delay in transportation of Power Transformers and increase in scope. The Sub-station contract underwent 7 amendments. In case of the Transmission line, the construction period was expected to be 12 months. The time over run was on account of handing over of sites, ROW issues, change in tower type for tower T-8, additional civil work due to change in soil strata and inclement weather conditions. The Commission has undertaken a detailed study of the parameters involved in project implementation in the respective section of this Order.

3.4 Date of Commercial Operations (CoD)

- 3.4.1 The Petitioner has claimed CoD for 220/33 kV Sub/station as 20.03.2020 and for 220 kV transmission line as 27.06.2020.
- 3.4.2 It is observed that the Petitioner did not provide any supporting documents for the CoD claimed for both the assets. In response to a query of the Commission, the Petitioner submitted that the CoD of the Sub-station has been claimed based on the completion certificate issued to M/s Larsen and Toubro. Also, the Petitioner submitted that the CoD of the Pooling Sub-Station was considered based on the fact that the construction work for the 220/33 kV portion of the Sub-station was completed, and the construction of Transmission line was about to complete. It was highlighted by the Petitioner that the Transmission Line was delayed due to

which the power flow through Sub-station and associated transmission line could only be started from July 2020.

- 3.4.3 In response to the queries of the Commission, the Petitioner also provided the EI certificate for both the assets. The Commission observed that the EI certificate was provided for the entire Sub-station (including 400/220 kV) for 20th May 2020. Also, EIC certificate accorded for the Transmission line was dated 20th May 2020. The CoD of each element submitted and accorded by the Electrical Inspector are as summarized below:

Table 7: CODs of the elements of Transmission system

Particulars	COD claimed by Petitioner	Final EIC
Sub-Station	20-Mar-20	20-May-20
Line	27-Jun-20	20-May-20

- 3.4.4 The Commission is of the view that since the date for both the assets is same as per the EIC, therefore, they can together be operated for commercial use. Accordingly, the Commission has considered as the COD for the whole project as 20th May, 2020.

3.5 Energy flow and Nature of Asset

Petitioner Submissions

- 3.5.1 The Petitioner has submitted that the 220/33 kV Pooling station was envisaged to evacuate energy of 65.8 MW from several small hydroelectric plants in the Bharmour area of Ravi basin which has been awarded to various IPP's by Government of Himachal Pradesh in the year 2014.
- 3.5.2 Owing to the other plants being constructed in the vicinity, a 400/220 KV pooling station was added in the same system to evacuate power from 180 MW Bajoli Holi and 240 MW Kuther Hydro Power Plants amongst others.
- 3.5.3 The Petitioner has submitted that presently, power of HPSEBL (31MW) and GMR Bajoli Holi HEP (120MW) is being evacuated through the Lahal Sub-station and 220kV S/C Lahal-Budhil Transmission line upto Chamera-III HEP. Power through the transmission assets is being evacuated to inter-state system and, therefore, the system may be considered as inter-state system for the purpose of recovery of Transmission charges.
- 3.5.4 Also, the Petitioner has made a reference of Hon'ble CERC order dated 23.09.2015 in Petition No. 550/TT/2014 in the matter of determination of transmission tariff for FY 2014-15 to FY 2018-19 for 220/33kV Sub-station at Karian and 220kV Transmission line from Karian to Chamera-II associated with 220kV system for Northern Grid in which the HPPTCL was directed to approach HPERC for determination of ARR and thereafter approach CERC for inclusion of line for PoC computation.
- 3.5.5 The power generated from the additional hydro plants were to be evacuated by 400 kV D/C line to Chamera PGCIL Pooling Sub-Station. Since the 400 kV D/C Transmission line is facing delays in completion, the 220KV transmission line and 220/33 KV system of 400/220/33 KV Lahal Sub-station was utilized to evacuate

power from Bajoli Holi plant. The Petitioner submitted that the LTA with Bajoli Holi HEP has been executed for 178.2 MW.

Commission's Analysis

- 3.5.6 As per the DPR, the Pooling Sub-station at Lahal was envisaged to evacuate power of Bharmour Area of Ravi Basin. As per the submission of Petitioner, based on the delays in construction of other assets in the Ravi basin as well as inclusion of large hydro generating stations being developed in the area, the scope of sub-station was further enhanced to include 400/220 kV pooling station at Lahal. Therefore, a new DPR was prepared for inclusion of 400/220 kV system in the Sub-Station for the purpose. The new system was constructed to evacuate energy from Bajoli Holi HEP (180 MW), Kuthehr (240 MW), Bara Bhangal (200MW), Harsar (70 MW) and other small HEPs. The total energy to be evacuated from the 400/220 kV system is expected to be 914 MW.
- 3.5.7 Further, the Petitioner submitted that the sole beneficiary of transmission asset from the date of commissioning till November 2021 was HPSEBL. Post November, 2021, Bajoli Holi HEP has also been utilizing the transmission asset for evacuation of its infirm /firm power.
- 3.5.8 It is observed that the 220/33kV part of the Sub-Station along with the transmission line has been constructed to evacuate power from the various small HEPs in the State. As per the DPR, total capacity to be evacuated through the Transmission assets was envisaged as 65.8 MW. In response to a query of the Commission with regards to beneficiaries of the project, the Petitioner has submitted details of transmission agreement signed with various beneficiaries including two large Hydro power plants Bajoli Holi (178.2 MW) and Kutehar (240 MW). Based on the analysis of various documents as well as enhancement of capacity to include 400/220 kV system in the Sub-Station, it is difficult to ascertain the utilization of 220/33 kV system of the Substation by the larger generating stations which are not supplying power to HPSEBL.
- 3.5.9 The Commission sought further clarification from the Petitioner with regard to the operability of Transmission Asset to be Intra-State or Inter-State. In response, the Petitioner submitted that while majority of power is flowing towards inter-state system points, no application has been submitted to NRPC/CERC for Inter-State System certification due to withdrawal of work of non- inter-state system certification subsequent to the notification of CERC (Sharing of ISTS Charges and Loss) Regulations, 2020 w.e.f 01.11.2020. Also, the Petitioner has requested that in the absence of any provision/regulations, the Commission may consider this system constructed by STU as an Intra-State Transmission system.
- 3.5.10 The Commission is of the opinion that considering the increased number of beneficiaries due to inclusion of 400/220kV additional portion of the sub-station, it is difficult to ascertain the actual status of the transmission assets covered in this Order. The Petitioner also has been modifying its response as it had mentioned in the main Petition that the transmission assets are inter-state and had later requested to consider the assets as intra-state without providing any justifiable reasons or supporting documents. In view of the underlying issues and considering that a number of large hydro power plants, which are not supplying power within the state of HP, are getting connected to the specified transmission

assets (including the 400/220kV portion of the substation), the 220/33kV substation and 220kV transmission line cannot be considered completely as part of intra-state network. Therefore, the Petitioner should approach appropriate agency/ CERC for inclusion of the transmission assets as part of inter-state network.

3.5.11 The Transmission Assets considered in this Petition were approved by CEA, as per the approval "HPPTCL has proposed 220/33 kV GIS substation for the purpose of evacuation of 66 MW power from Bharmour valley of Ravi basin in H.P. out of 65.8 MW power, 15 MW is expected to utilize for meeting the local area demand. 33/220 kV, 63 MVA ICT, one 220KV line bay, one 220KV bus coupler bay and one 33 kV transformer bay. It also includes 5 Nos 33 KV line bays, one 33 KV bus coupler bay and one 33 KV transformer bay included in substation works. Power from 220/33 KV Lahal PS shall be evacuated through 220 KV Lahal Budhil line and shall be terminated at 220KV Budhil Power House switchyard and from there to the regional grid, PGCIL Chamera PS, later on Lahal pooling station will be upgraded to 400KV level and would be connected to Chamera pooling station through 400 kV D/c line. **The work is as per comprehensive master plan evolved for evacuation of power from different river valley projects in Himachal Pradesh and is generally in order.**" It is observed that as per CEA approval of the Sub-Station and Transmission line forms part of a larger plan of energy evacuation from IPPs installed in Himachal Pradesh.

3.5.12 The Petitioner is directed to expedite the signing of TSA in addition to the connection agreement with the other beneficiaries of the system for recovery of the transmission charges in proportionate manner from all the beneficiaries of the transmission asset.

3.6 Capital Cost

Petitioner's submissions

3.6.1 The Petitioner has submitted that the project was awarded to M/s Larsen and Toubro for the combined Sub-station system i.e.400/220 & 220/33 kV and for M/s M.J. Engineering Works (P) Limited for Transmission Line. The scheduled construction periods for the Sub-Station (400/220 and 220/33 kV system) and transmission line were 42 months and 12 months respectively. The Petitioner also claimed that the approved DPR cost of combined system (220 kV Transmission Line and 220/33 kV Sub-station, excluding 400/220 kV Sub-station) was Rs. 67.4 Cr

3.6.2 The Scheme for construction of 220/33 kV Pooling Sub-station was clubbed with the proposal for construction of 400/220 kV Pooling Sub-station. Subsequently, the combined tender was floated and awarded to M/s Larsen and Toubro. The total award cost of the assets was Rs. 232.44 Cr and USD 111,900. The estimated time for completion for the combined system was 42 months. Further, the contract underwent seven number of Amendments.

3.6.3 The following table provides the DPR cost, Award cost, claimed cost on CoD (with Additional Capitalization) as per the Petition for Sub-station (220/33 kV system):

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

Particular	HPPTCL Board Approval	Cost as per DPR*	Award Cost	Cost After Amendments	Cost as on CoD (20.03.2020)	Additional Capitalization
Hard Cost of Asset-1	-	-	7,644.00	8,533.00	8,620.89	-
Other Expenses	-	-	-	-	90.41	-
IDC	-	-	-	-	1,643.45	-
Departmental Charges	-	-	-	-	593.44	-
Total	6,610.00	5,842.00	7,644.00	8,533.00	10,948.19	10.00

*After subtracting cost for transmission line

3.6.4 The work of transmission line was awarded with an expected construction period of 12 months. The Petitioner submitted that the Board Approval was granted for Rs. 12 Cr. However, as per the approved DPR, the cost envisaged for the Transmission line was Rs. 8.98 Cr including Interest During Construction (IDC) charges and Departmental Charges (DC). Subsequently, the contract for the line was awarded at a cost of Rs. 4.81 Cr. to M/s M.J. Engineering Works (P) Limited. The contract underwent 2 Amendments.

3.6.5 The following table provides the DPR cost, Award Cost, claimed cost as on CoD (with Additional Capitalization) & as on 31st March 2021 as per the audited certificate submitted for the transmission line:

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

Particular	HPPTCL Board Approval	Cost as per DPR*	Award Cost	After 2 nd Amendment	Cost as on CoD (27.06.2020)	Cost claimed as on (31.03.2021)
Hard Cost of Asset-2	-	-	481.05	586.53	551.30	585.22
Other Expenses	-	-	-	-	57.51	58.01
IDC	-	-	-	-	107.20	107.20
Departmental Charges	-	-	-	-	42.63	42.94
Total	1200.00	898.00	481.05	586.53	758.64	793.37

*Part of Sub-station DPR

3.6.6 In the Petition, the Petitioner has submitted that the reason for increase in cost of Transmission line was due to GST implications and change in award quantities.

3.6.7 The Petitioner has submitted that there was a delay in construction of line by 1052 days on account of factors such as delay in getting ownership of site, Additional Civil works, due to decision on type of towers and ROW issue for T-8,

Heavy Rainfall, Snowfall, Flash floods and COVID-19 Pandemic. The Petitioner has submitted that the COD was achieved on 27.06.2020 for Transmission Line.

- 3.6.8 The total capital cost claimed by the Petitioner for the Sub-Station (220/33 kV system) and the transmission line combined together has been provided in the table as follows:

Table 10: Capital Cost claimed by the Petitioner (INR Lakh)

Particulars	Capital Cost – Claimed
Sub-Station	
Land/preliminary works/ compensation etc.	90.41
Supplies, Erection and Civil Works	8,620.89
IDC	1,643.45
Departmental charges	593.44
Sub-Total	10,948.19
Transmission Line	
Land/preliminary works/ compensation etc.	57.51
Supplies, Erection and Civil Works	551.30
IDC	107.20
Departmental charges	42.63
Sub-Total	758.64
Total	11,706.83

Commission's Analysis

- 3.6.9 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 certificate, approvals of BOD, details of awards/ contracts, correspondences, payments made to contractors, COD certificate, etc. The Petitioner was also asked to submit the relevant approvals taken for the project from the Commission and any other approval with regard to revisions in Capital cost of the project.
- 3.6.10 The Petitioner had provided the Board approval and approval from CEA for the transmission sub-station and line. However, the Petitioner has also clarified that the Commission's approval for the project was not taken. It was also informed by the Petitioner that it has submitted the current Petition in line with Commission's letter dated 14.07.2020, wherein it was directed to approach the Commission for the schemes on one to one basis for approval wherein the work had already started. The Lahal Sub-station and associated Transmission Line was not part of the application dated 26.2.2019.
- 3.6.11 As per the Petitioner's Board approval, the cost of 220/33 kV Sub-station was Rs 66.10 Cr. and the same for the 220 kV Transmission Line was Rs. 12 Cr. In accordance with the DPR submitted by the Petitioner, the tentative cost for the 220/33 kV Sub-station and 200 kV transmission line was Rs. 67.40 Crore (including IDC and DC). It is observed that the DPR was for a 220/33 kV Sub-

station and associated line and the same was approved by CEA. CEA in its approval mentioned that the project is to be awarded based on competitive bidding and the project cost will be restricted to the actual bid price discovered through competitive bidding.

3.6.12 As discussed in previous sections, in order to cater to the evacuation of power from upcoming HEPs in Bharmour area, the capacity of the Sub-station was increased by the Petitioner from 220/33 kV Sub-station to 400/220/33 kV Sub-station.

3.6.13 On enquiry by the Commission regarding not filing a common Petition for 400/220/33 kV Sub-station and its associated Transmission Lines, the Petitioner has submitted, that the 220/33 kV segment of the Sub-station has been utilized since FY 2021. Since the construction of 400 kV Transmission line was delayed, the 400/220 kV portion of the Sub-station could not be utilized. The Petitioner has further submitted, that a separate Petition for 220/33 kV Sub-station at Lahal and associated Transmission Line from Budhil to Lahal was filed to avoid the additional burden of Transmission Charges for 400/220 kV system on the Consumers until its commissioning.

3.6.14 It is observed, that the work for Sub-station was allotted for a combined system (400/220 kV and 220/33 kV) with an expected completion time of 42 months. The timelines for 220/33kV system of the Sub-station, however, was 30 months as also claimed by the Petitioner. As per the claim of Petitioner, out of the total DPR cost of Rs. 67.4 Cr, the approved cost of 220/33 kV Sub-station is for Rs. 58.42 Cr. Subsequently, a separate DPR was prepared to include 400/220 kV system at the Lahal substation. The combined contract was awarded to M/s Larsen and Toubro at a cost of Rs. 232.44 Cr and USD 111,900. Also, the Petitioner has submitted that there were in total 7 Amendments issued which escalated the total award cost to Rs. 260.65 Cr. and USD 132,042. The seven number amendments issued to M/s Larsen and Toubro during the execution of project are as follows:

Table 11: Amendments in Contract for Sub-Station (combined)

Amendment	Date	Change in Cost		Reason	Proof of Approval
		Supplies	Erection		
LOA	20.09.2014	Rs.185.54 Cr. +\$111,900	Rs. 46.90 Cr.		Noting approved by Director (P&C)
Amendment 1	10.04.2018	Rs.22.42 Cr. +\$20,142	Rs. 4.84 Cr.	GST implication	Letter issued to vendor by DGM (Contracts)
Amendment 2	18.05.2018	Nil	Rs. 5.21 Cr.	Quantity variation	MoM approved by Managing Director
Amendment 3	22.11.2018	Rs. 2.53 Cr.	Rs. 0.012 Cr.	Quantity variation	Noting approved by Director (P&C)
Amendment 4	21.10.2019	Rs. 0.17 Cr.	Rs. 0.027 Cr.	Differential relays	Letter issued to vendor by DGM (Contracts)
Amendment 5	20.01.2020	(Rs. 4.99 Cr.)	(Rs. 0.56 Cr.)	Quantity deviation	Noting approved by Director (P&C)

Amendment	Date	Change in Cost		Reason	Proof of Approval
		Supplies	Erection		
Amendment 6	07.03.2020	Nil	Rs. 0.073 Cr.	Extra items introduced	Noting approved by Director (Project)
Amendment 7	24.09.2020	(Rs. 1.04 Cr.)	(Rs. 0.49 Cr.)	Quantity deviation	Noting approved by Director (P&C)
Final Award Cost		Rs.204.64 Cr.+ \$132,042	Rs. 56.01 Cr.		

3.6.15 In relation to the current Petition, the Petitioner has claimed an amount of Rs.86.21 Cr. for Services and Supply as on 20.03.2020. Further, the Petitioner has also submitted that the final Award Cost after 7 Amendments for 220/33 kV system was Rs. 85.33 Cr. and there is slight variation between final award cost and actual cost as on COD for the Sub-station. Also, the Petitioner claimed that while there was a Dollar portion of the overall award cost of the Sub-station, there were no payments made in respect of the 220/33 kV system in Dollar denomination.

3.6.16 It was observed that the Auditor's Certificate submitted for claim of the Petitioner was for complete system (400/200 kV and 220/33 kV). The Auditor's Certificate for the combined system on COD, as on 31.03.2020 and as on 31.03.2021 was included as part of the Petition.

3.6.17 Further, the claimed cost by the Petitioner was compared with the awarded cost which is summarized below:

Table 12: Comparison between Award Cost and Claimed Cost for the Services and Supplies of the Sub-station (INR Lakhs)

Particulars	Awarded Cost*	Claimed Cost
Services	2,573.37	2,660.80
Supplies	5,960.09	5,960.09
Total	8,533.46	8,620.89

*Awarded cost inclusive of all seven (7) amendments as claimed by Petitioner

3.6.18 The Commission asked for the documentary proof of award cost and the subsequent amendments of the contract for the sub-stations (400/200 kV and 220/33 kV) separately for substantiating the awarded and actual cost for the 220/33 kV system as submitted in the Petition. The Petitioner has provided the break-up of award cost and the amended cost of the 220/33 kV system (which is based on the bookings done by internal accounts) in reply to deficiency letters of the Commission which was also not supported by the Auditor Certificate.

3.6.19 The Commission further enquired regarding appropriate rationale for bifurcation of cost as well as breakup of components of the Sub-station. In response, the Petitioner has submitted a component wise list installed in the Sub-station utilized across 400/220 kV system, 220/33 kV system and combined. Since the cost breakup of each component is unavailable, it is difficult to bifurcate the entire cost amongst the two elements to arrive at a component wise cost. In the absence of bifurcated cost on Auditor's Certificate as on CoD, the Commission is

constrained to consider the amount of Rs. 85.33 Cr. submitted by Petitioner as the final award cost for 220/33 kV system for Services and Supply.

3.6.20 It was observed that the land cost was reflected as nil corresponding to the 220/33 kV portion of the Sub-station. The Commission raised queries regarding the Land cost being booked exclusively under the Petition of 400/220 kV portion of the Sub-station. In this regards, the Petitioner submitted that land cost has been claimed as nil based on actual cost booking. Furthermore, the Petitioner has claimed that the 220/33 kV portion of the combined Sub-station constitute only a small portion of the land for the Sub-station. Accordingly, the Petitioner has claimed land cost under 400 kV portion in its respective Petition.

3.6.21 It is observed that the actual cost of the Sub-station for the 220/33 KV portion is higher than the awarded cost. However, the Petitioner has termed the variation as minor and has not provided any justification or supporting documents with respect to the increased cost. Further, the variation on account of GST and other quantities is already reflected in the amendments issued by the Petitioner. In view of the inadequate allocation of cost and lack of proper reasoning with regards to the actual cost, the Commission has approved the cost of Rs. 85.33 Cr in line with the Final Awarded Cost including the amendments towards the cost of Sub-station as on COD for the purpose of determination of capital cost.

3.6.22 As the Auditor certificates provided by the Petitioner towards the Sub-station, the cost was for the complete system (400/220/33 kV) and reflected as complete cost as on COD on 31.03.2020 and on 31.02.2021. The Commission has taken due cognizance of the auditor's certificate dated 31.03.2020 since it was the closest to the COD considered by the Commission and the Petitioner's submissions towards the turnkey contractor of the Sub-station.

3.6.23 Also, the Commission has considered Consumer grant of Rs. 96.56 Lakhs received for the 33 kV bay at the Sub-station from M/s Shivalik Energy Pvt. Ltd. as claimed by the Petitioner.

3.6.24 As per the Board approval of the Transmission line, it was expected to be completed at a cost of Rs. 12 Cr. As per the DPR of Sub-station and transmission line, the cost of transmission line was Rs. 8.98 Cr. inclusive of DC and IDC. Subsequently, the tender was floated for turnkey construction of the transmission line and awarded to M/s MJ Engineering Works (P) limited at a cost of Rs. 4.81 Cr as per the LOA for Supplies and Services submitted by the Petitioner dated 11.03.2015. The project underwent two amendments which have been elaborated as follows:

Table 13: Amendments in Contract for Transmission Line

Amendment	Date	Change in Cost		Reason	Proof of Approval
		Supplies	Erection		
LOA	11.03.2015	Rs. 2.25 Cr.	Rs. 2.56 Cr		
Amendment 1		Rs. 0.42 Cr.	Rs. 0.75 Cr.	GST implication	Office order by Director (Project)
Amendment 2		Rs. 0.15 Cr.	(Rs. 0.27 Cr.)	Quantity variation	Noting approved by Director (P&C)

Amendment	Date	Change in Cost		Reason	Proof of Approval
		Supplies	Erection		
Final Award Cost		Rs. 2.83 Cr.	Rs. 3.03 Cr.		

3.6.25 It is observed that the final services and supplies cost of the Transmission Line after two amendments was slightly higher than that submitted in Auditor's Certificate as on CoD. The claimed cost towards transmission line is within the contracted cost (including amendments) and, therefore, Commission has decided to approve the hard cost as on COD based on the Auditor's Certificate of the Petitioner.

3.6.26 Detail of other expenses for Transmission line and Sub-Station is summarised below:

Table 14: Other Expenses - Line and Sub/Station (INR Lakh)

Particulars	Claimed (as on COD)
Sub-station	
Land	-
Testing Charges	3.7
Other Expenses (including Entry Tax, Survey Exp. etc)	86.71
Sub-Total	90.41
Transmission Line	
Land	7.31
Line Shifting Charges	44.60
Other Charges including Contingency, Bank Commission Etc.	5.60
Sub-Total	57.51
Total (Line and Sub-station)	147.92

3.6.27 The Commission has considered the other expenses as per the Auditor certificate for the Transmission line. For the Sub-station, the Commission has considered the bifurcated internal cost booking (for 220/33 kV system and 400/220 kV system) of the Petitioner as per submissions of the Petitioner and proportionately divided the total cost as per the Auditor's Certificate for 31.03.2020.

3.6.28 The comparison of various cost elements across Awarded contract, Revised costs after amendments and as claimed in the Petition (on CoD) and as approved for the Transmission Line and Sub-station is summarized in the following table:

Table 15: Hard Cost (including land cost)- Transmission Line and Sub-Station(INR Lakh)

Particulars	Awarded	Revised Award Cost	Petitioner Claim (as on CoD)	Approved
Sub-station				
Supply and Material	5,404.00	5,960.09	5,960.09	5,960.09

Particulars	Awarded	Revised Award Cost	Petitioner Claim (as on CoD)	Approved
Erection and Civil Works	2,240.00	2,573.37	2,660.80	2,573.37
Sub-total	7,644.00	8,533.46	8,620.89	8,533.46
Land Cost	-	-	-	-
Preliminary works, Compensatory Afforestation/ compensation for crop damage etc.	-	-	90.41	90.33
Total	7,644.00	8,533.46	8,711.30	8,623.78
Transmission Line				
Supply and Material	225.14	282.57	278.03	278.03
Erection and Civil Works including cost towards lab/protection/ fencing/ security accommodation etc.	255.91	303.97	273.27	273.27
Sub-total	481.05	586.53	551.30	551.30
Land Cost	-	-	7.31	7.31
Preliminary works, Compensatory Afforestation/ compensation for crop damage etc.	-	-	50.20	50.70
Total	481.05	586.53	608.81	609.31
Grant Total	8,125.05	9,119.99	9,320.11	9,233.09

3.7 Overheads (IDC and Departmental Charges)

Petitioner's submissions

- 3.7.1 The Petitioner has submitted that the IDC and Departmental Charges have been claimed based on actual and that the time overrun took place during construction of Sub-Station and Transmission line.
- 3.7.2 With regard to the IDC of the Sub-station, the Petitioner has submitted that in the DPR, the combined IDC was Rs. 2.18 Cr. The same was bifurcated by the Petitioner as Rs. 1.89 Cr. and Rs. 0.29 Cr. for the Sub-station and Transmission Line respectively. Similarly, the combined Departmental charge as per DPR was Rs. 5.43 Cr. which was bifurcated as Rs. 4.71 Cr. and Rs. 0.72 Cr. between Sub-station and Transmission line respectively.
- 3.7.3 As per the Petitioner, the 220/33 kV Sub-station system of the project was expected to be commissioned by 30.06.2018, however, the actual COD was achieved on 20.03.2020 with a delay of 506 days. The major reasons for delay were hindrance by locals, inclement weather conditions, delay in transportation of power transformer and change in scope of work.

- 3.7.4 The IDC for Sub-Station and Transmission Line up to COD was Rs. 16.44 Cr. and Rs. 1.07 Cr. respectively. The Departmental charges for Sub-Station and Transmission Line up to COD were Rs. 5.93 Cr. and Rs. 0.43 Cr respectively.
- 3.7.5 Time overrun during the construction of Transmission Line occurred on account of factors such as Handing over of sites, additional civil works, change in soil strata, due to type of T-8 Tower and its gantry. Further, the inclement weather conditions and COVID induced pandemic has led to delays. The construction of transmission line was delayed due to hindrance by locals, inclement weather conditions, transportation of power transformer and increase in scope of work.
- 3.7.6 The rate of interest for calculation of IDC considered in the DPR is based on LIBOR rate as per ADB guidelines. However, since the Petitioner is bound by the Agreement between Government of Himachal Pradesh and HPPTCL, the interest rate has been considered at 10% for calculation of IDC.

Commission's Analysis

- 3.7.7 As discussed in previous sections, IDC and DC were included in the DPR cost. The following table provides the IDC and Departmental Charges as per DPR and actual as claimed by Petitioner as on COD:

Table 16: IDC and Departmental charges claimed by Petitioner (INR Lakh)

Particulars	DPR	Claimed (as on COD)
Sub-Station		
IDC	189.00	1,644.00
Departmental charges	471.00	593.00
Sub Total	660.00	2,237.00
Transmission Line		
IDC	29.00	107.00
Departmental charges	72.00	43.00
Sub Total	101.00	150.00
Total	761.00	2,387.00

- 3.7.8 The claim towards IDC has been very high as compared to the DPR cost. The Petitioner clarified in its Petition that higher IDC was on account of lower interest rate considered in the DPR as well as delay in commissioning of the project due to various uncontrollable aspects.
- 3.7.9 A review of the contracts awarded for the combined system of Sub-station by the Petitioner was undertaken. As per the contract document for Sub-station, LoA was given to the contractor on 20th September, 2014. The construction period for the whole system was 42 months whereas the same for 220/33kV system was 30 months. With regard to the Transmission line, as per the documents, LoA was given to the contractor on 11th March 2015. The construction period for the system was 12 months. The project was delayed due to multiple factors.
- 3.7.10 The timelines for Transmission Line and Sub-Station as submitted by the Petitioner have been summarized in the table below:

Table 17: Project Timelines as submitted by Petitioner

Description	Sub-Station	Transmission Line
LOA	20.02.2014	11.03.2015
Scheduled Completion date	31.12.2018	04.04.2017
CoD	20.03.2020	27.06.2020

3.7.11 It is observed that the EI certificate for the Sub-station and the Transmission line was given on 20.05.2020. It is worthwhile to mention that the whole system has a common COD ensuring utilization of assets commercially on 20.05.2020.

3.7.12 Further, the Commission enquired the Petitioner to quantify the time delay on account of factors submitted. As per the submission of the Petitioner, the major reasons of time overrun included the following:

Table 18: Reasons for time overrun as claimed by Petitioner

Sl.	Reason for Delay	Time Period	Description
Sub-station			
1	Handing over of site	315 days	<ul style="list-style-type: none"> Time required to resolve issues of local panchayat
2	Inclement weather conditions	318 days	<ul style="list-style-type: none"> Heavy rainfall and a major landslide occurred at different locations due to which the NH-154A became dysfunctional
3	Delay in the transportation of Power Transformers	270 days	<ul style="list-style-type: none"> Road widening and bridge strengthening done after conducting detailed design with M/s L&T. Additional development and crate work required for transportation
Transmission Line			
1	Handing over of site	371 days	<ul style="list-style-type: none"> Taking over of forest land allocated to M/s JSW Energy Limited Taking over of private land at tower location T-7 and T-8
2	Addl. Civil Work due to Change in Soil Strata	Overlapping period	<ul style="list-style-type: none"> Excavation of hard rock was not covered under scope of work but required as per site conditions
3	Regarding Type of Tower at Location No. T-8	656 days	<ul style="list-style-type: none"> Finalization of tower type for tower T-8 M/s APAR Industries authorized to dispatch the Stubs for MCT (1 set) & Special Tower (9 sets)
4	ROW issue between T-8 to 220kV Gantry	595 days	<ul style="list-style-type: none"> Taking over of site from a private party
5	Heavy Rainfall, Snowfall and Flash Floods	294 days	<ul style="list-style-type: none"> Stored materials being washed away due to heavy rainfall Landslides resulted in damaging of approach paths to various sites leading to non-accessibility of labor
6	COVID-19 Pandemic	25 days	<ul style="list-style-type: none"> Nationwide lockdown declared by Central Govt.

- 3.7.13 Against a tentative time period of 30 months and 12 months for construction of Sub-station and Transmission line respectively, the overall completion period from award of the project was ~6 years for Sub-station and ~5 years for Transmission Line.
- 3.7.14 The construction of Sub-station was delayed due to late handover of land to M/s Larsen and Toubro. The Local Panchayat carried out agitations over various issues from time to time. The major issues are elaborated as follows:
- The Sub-station land handed over to HPPTCL was adjoining HPPWD land which was to be used for construction of road. However, the land was encroached upon and the matter was resolved after police intervention on 26.07.2016. The Petitioner has submitted internal correspondence regarding the issue. No correspondence with external authorities such as HPPWD, Police or Local administration seeking resolution of the issue has been provided.
 - Strike by village locals due to which work had stalled. After the resolutions of issues raised in the strike, the work was resumed. No documentary proof for the dates has been submitted by the Petitioner against the same.
 - The local labour of sub-contractors stopped the work demanding revision of rates and fulfilment of demands. They threatened the staff due to which the work had to be stopped. Similar instances occurred during month of March 2018. It was only after redressal of grievances subsequent to several discussions between contractor & labour; the work could be started after 25.11.2016. No documentary proof has been submitted by the Petitioner for the same.
- 3.7.15 The Petitioner has also claimed inclement weather condition as a major reason for delay in construction of the Sub-station. The Petitioner has submitted diary maintained by Petitioner with the turnkey contractors along with newspaper clippings regarding weather related issues to assess the delay due to it.
- 3.7.16 The Petitioner has submitted that for the transportation of Power transformer, the Petitioner had to undertake civil work with Himachal Pradesh PWD (HPPWD) which took significant time. The work included strengthening and broadening of road along with increase in vertical clearance of the road. The Petitioner has submitted internal correspondence, letters sent to HPPWD, Minutes of Meeting and site photographs taken during trial of the upgraded road.
- 3.7.17 As per submission of the Petitioner, the construction time for 220/33 kV system was 30 months. Therefore, it is observed, there is a delay of 17 months in commissioning of the Sub-station. The timelines for award, scheduled commissioning date and actual CoD are indicated in the following table:

Table 19: Important dates for construction of Sub-station

Activity	Date
Award of Contract	20.09.2014
Effective date of Supply	10.07.2016
Effective date of Services	

Activity	Date
End date of Supply* (scheduled commissioning date)	Date of completion is 31.12.2018 for 220kV works.
End date of Services (scheduled commissioning date)	
COD Claimed	20.03.2020 (completion date for 220/33kV portion)
EI Certificate	20.05.2020

*30 months from effective date of Supply and services as per submission of Petitioner

3.7.18 The major reason of delay in completion of Transmission line was due to late handover of land for Tower Nos. 7 and 8 to M/s MJ Engineering. The forest land lease was to be transferred from M/s JSW to HPPTCL. The matter was pending with Asst. Inspector General of Forest since May 2014 and was finally resolved by April 2018. The Petitioner has submitted the internal correspondences, letters with M/s MJ Engineering and M/s JSW Energy.

3.7.19 The Petitioner has further submitted that additional Civil Work was introduced due to hard rock formation. Since the work was not under the original scope of work, an amendment was issued to the vendor and the work proceeded thereafter. The Petitioner has provided Minutes of Meeting held under MD, HPPTCL, correspondences with vendor including financial proposal by the vendor and its approval by HPPTCL. Based on the submissions of the Petitioner, it is observed that during excavation hard rock aspect was determined and its non-inclusion of the work in original LOA was informed by M/s MJ Engineering to HPPTCL on 05.07.2016. Subsequently, internal approval for the additional excavation works was sought on 21.07.2016 and a corrigendum was issued by HPPTCL on 18.08.2016. The Petitioner has claimed a delay of 45 days on account of work due to hard rock formation.

3.7.20 It was observed that Transmission Line was delayed due to change in Tower Type of Tower T-8. During the design stage, it was Petitioner who ascertained that tower T-8 needs to be a Multi Circuit Tower (MCT) type due to site conditions. In order to execute the change in construction of tower T-8 as a MCT, the Petitioner engaged M/s Apar industries to execute the work who was engaged by the Petitioner for construction of 220 kV D/C Bajoli Holi Transmission line, which was a separate project. Tower T-61 of 220kV D/C Bajoli Holi-Lahal line was also deleted due to introduction of MCT. The Petitioner has further submitted that there were no cost implications for the change in tower type.

3.7.21 The Petitioner has submitted internal correspondence, correspondence with M/s MJ Engineering, original LOA and Contract agreement with M/s Apar Industries in this regard to change in tower type elaborated above. The Petitioner has submitted no cost implicated for the change in tower type to MCT Petitioner has clarified that cost claimed towards COD for 220kV Lahal - Budhil line does not include payment made to M/s APAR for construction of MCT Tower.

3.7.22 The Petitioner has submitted the detailed timeline for the replacement of tower T-8 as follows:

Table 20: Timeline for delay due to replacement of tower T-8

Activity	Date
Hand-over of land	09.04.2018
Approval for providing MCT for 220kV Lahal-Budhil & Bajoli Holi-Lahal line	24.01.2019
Intimation to M/s APAR to implement the proposal	22.03.2019
Authorization to M/s APAR to dispatch the Stubs for MCT & Special Towers	02.07.2019
Dispatch Instructions for transportation of Tower Materials for MCT Towers	23.10.2019
Readiness of tower for stringing, sagging & laying of OPGW	May 2020
Completion of sagging work	June 2020

3.7.23 Another major reason for time overrun in the construction of the Transmission Line as mentioned by the Petitioner was due to the delay in land handover (ROW issue) for tower T-8 which was resolved after a significant time lag. It was observed, that the agreement for land was done on 27 August 2019 and 90 days was provided for handover of the land, post which, no supporting documents in respect of any efforts undertaken by the Petitioner with respect to land handover were submitted. Therefore, it cannot be established that the delay is entirely attributable to uncontrollable aspects.

3.7.24 Furthermore, the detailed timelines submitted for Transmission line by the Petitioner is illustrated below:

Table 21: Important dates for construction of Transmission Line

Activity	Date
Award of Contract	11.03.2015
Effective date of Supply	17.09.2015
Effective date of Services	05.04.2016
End date of Supply	16.09.2015
End date of Services	04.04.2017
COD Claimed	27.06.2020
EI Certificate	20.05.2020

3.7.25 However, based on reasons stated by the Petitioner, it was observed there were few force majeure or uncontrollable events such as inclement weather conditions and delay in transfer of forest lease land already acquired by M/s JSW Energy to HPPTCL. But, the delay due to changes in BoQ of Transmission Line, delay in amendment of contract, delay in acquisition of land (for tower T8), change of tower type to MCT (tower T-8) cannot be entirely attributable to uncontrollable factors and therefore the delay resulting from such factors could have been avoided.

3.7.26 Accordingly, based on reasons stated by the Petitioner, part of the delay could be considered under force majeure or delay not attributable to the Petitioner, however, it would be unreasonable to consider that each individual activity led to

the overall delay of almost 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).

3.7.27 The Commission hereby advise 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.

3.7.28 In view of revision in hard cost vis-à-vis the DPR as well as the difference in rate of interest considered with DPR, the Commission has computed a revised benchmark for the IDC. For assessing the benchmark IDC for Sub-Station, the Commission has assumed the disbursement of loan 30%, 40% and 30% during the first, second and final year of construction. In case of the Transmission line, the Commission has considered the disbursal of loan in the first year itself as the overall construction period was 12 months. The phasing of debt disbursement has been assumed in accordance with the disbursement observed in similar projects undertaken by Petitioner.

3.7.29 The benchmark IDC for Sub-Station and transmission line as computed is summarized as follows:

Table 22: Revised Benchmark IDC –Sub-station (INR Lakhs)

Particulars	Unit	Year I	Year II	Year III*	Total
Debt disbursement	%	30%	40%	30%	100%
Opening Debt (a)	INR Lakh		2,186.58	5,102.02	
Addition during the year (b)	INR Lakh	2,186.58	2,915.44	2,186.58	
Closing Debt (c)	INR Lakh	2,186.58	5,102.02	7,288.59	
Average Debt (d=(a+c)/2)	INR Lakh	1,093.29	3,644.30	3,097.65	
Interest rate (e)	%	10%	10%	10%	
Total IDC (f=d*e)	INR Lakh	109.33	364.43	309.77	783.52

*Considered for 6 months

Table 23: Revised Benchmark IDC – Transmission Line (INR Lakhs)

Particulars	Unit	Year I	Total
Debt disbursement	%	100%	100%
Opening Debt (a)	INR Lakh		
Addition during the year (b)	INR Lakh	508.78	
Closing Debt (c)	INR Lakh	508.78	
Average Debt (d=(a+c)/2)	INR Lakh	254.39	
Interest rate (e)	%	10%	
Total IDC (f=d*e)	INR Lakh	25.44	25.44

- 3.7.30 With respect to actual IDC incurred, the Petitioner was asked to submit an excel sheet for the working of IDC for each year based on the loans availed. After several reminders, the Petitioner submitted an 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. The Petitioner had claimed IDC computation upto 31.03.2021 while the Commission has restricted the loan drawl amount till the date of approved CoD.
- 3.7.31 In view of the inconsistencies and inability of the Petitioner to provide the correct details, the Commission has recomputed the IDC upto the approved date of COD i.e. 20.05.2020. It was observed that the loan drawl with respect to the Sub-station was common for 220/33 kV and 400/220 kV systems. Therefore, the Commission has considered a 70:30 ratio of the loan drawals based on the submission of the Petitioner with respect to loan allocated to 400/220 kV and 220/33 kV systems, respectively. In order to arrive at the IDC, the Commission has considered loan drawls upto the approved COD date.
- 3.7.32 Interest rate of 10% in line with the terms and conditions of the loan agreement with GoHP has been considered as submitted by the Petitioner.
- 3.7.33 The Commission has taken into consideration the loan withdrawal ledger of the Petitioner and divided the Loan drawl amount between 400/220 kV system and 220/33 kV system. Based on the dates of drawl, the interest till approved CoD was calculated. The loan drawl interest was compared with normative interest (without delay), and the IDC has been calculated and computed as under :

Table 24: Actual IDC upto COD considered by Commission (INR Lakhs)

Particular	Amount	Remarks
Sub-station		
IDC with no delay	783.52	As per Table 24
IDC with delay (upto 20.05.2020)	1,350.23	Based on loan drawl schedule and interest rate
Excess IDC	566.71	
Allowable IDC due to time delay	283.36	50% of Excess IDC
Approved IDC	1,066.88	
Transmission Line		
IDC with no delay	25.44	As per Table 25
IDC with delay (upto 6.08.2020)	78.31	Based on loan drawl schedule and interest rate
Excess IDC	52.87	
Allowable IDC due to time delay	26.44	50% of Excess IDC
Approved IDC	51.87	

- 3.7.34 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 on CoD have been considered. The approved department charges are as below:

Table 25: Approved Departmental Charges (DC) (INR Lakh)

Particular	Claimed*	Approved
Departmental Charges for Sub-station	593.44	593.44
Departmental Charges for Transmission line	42.94	42.94
Total Departmental Charges	636.38	636.38

3.7.35 In line with the Hard Cost, IDC and Departmental Charges approved in the preceding sections, the approved project cost as on COD vis-à-vis the project cost claimed by the Petitioner towards Lahal Sub-Station and associated Transmission line is summarized in the following table:

Table 26: Approved Capital Cost (INR Lakh)

Cost Heads	Claimed	Approved
Sub-station		
Land Acquisition Cost	-	-
Preliminary works	90.41	90.33
Materials and Supplies	5,960.09	5,960.09
Erection and Civil Works	2,660.80	2,573.37
Interest During Construction (IDC)	1,643.45	1,071.46
Departmental Charges	593.44	593.44
Sub – Total	10,948.19	10,288.68
Transmission Line		
Land Acquisition Cost	7.31	7.31
Preliminary works	50.70	50.70
Materials and Supplies	280.85	278.03
Erection and Civil Works	304.37	273.27
Interest During Construction (IDC)	107.20	52.20
Departmental Charges	42.94	42.94
Sub - Total	793.37	704.45
Total Capital Cost	11,741.56	10,993.13

3.8 Project Funding

Petitioner Submissions

3.8.1 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 The loan has been sourced from ADB with a total loan drawn of INR 86.27 Cr. for the Sub-Station and INR 4.98 Cr. for the transmission line till 20.05.2023. Further, the equity infused in the project is Rs. 23.21 Cr. for the Sub-Station and Rs. 2.61 Cr. for the Transmission line.

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

Table 27: Project funding proposed by Petitioner

Particulars	Capital Cost – Petition (Rs. Cr.)	Debt: Equity Ratio	Additional Capitalisation (Rs. Cr.)	Total (Rs. Cr.)	Debt: Equity Ratio
Sub-station					
Debt	85.56	78.15%	0.07	85.63	78.14%
Equity	23.92	21.85%	0.03	23.95	21.86%
Project Cost	109.48	100%	0.10	109.58	100.00%
Transmission Line					
Debt	4.98	65.61%	0.93	5.91	71.38%
Equity	2.61	34.39%	(0.24)	2.37	28.62%
Project Cost	7.59	100.00%	0.69	8.28	100.00%

Commission's Analysis

3.8.4 Based on the DPR and loan agreement submitted by the Petitioner, it is observed that the Sub-Station and associated Transmission Line was conceptualised to be funded in debt to equity ratio of 80:20.

3.8.5 The claim of higher utilization of equity by the Petitioner remains unexplained and the HPPTCL has not been able to produce any specific documents in this regard. Also, it was observed that the Petitioner has been drawing additional loan post commissioning of the project. Therefore, the Commission finds it prudent to

continue with the original funding pattern for the Transmission Line and Sub-Station element.

3.8.6 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 M/s Shivalik Energy Pvt. Ltd. has infused consumer contribution of Rs. 96.56 Lakhs. The funding was for 1 no. of 33kV bay at Lahal Sub-station. Therefore, the Commission has considered consumer contribution as part of the current funding of the capital cost of the Sub-Station.

3.8.7 The approved project funding for the transmission line and Sub-Station is summarized as follows:

Table 28: Project Funding approved vis-à-vis claimed

Particulars	Claimed		Approved	
	Capital Cost as on COD (INR Lakh)	% of Funding	Capital Cost as on COD (INR Lakh)	% of Funding
Sub-Station				
Consumer Contribution			96.56	
Debt	8,556.00	78.15%	8,153.70	80.00%
Equity	2,392.00	21.85%	2,038.42	20.00%
Sub-Total (without Consumer Contribution)			10,192.12	100.00%
Sub-Total (with Consumer Contribution)	10,948.00	100.00%	10,177.62	100%
Transmission Line				
Consumer Contribution				
Debt	531.00	69.96%	563.56	80.00%
Equity	228.00	30.04%	140.89	20.00%
Sub-Total	759.00	100.00%	704.45	100.00%
Sub-Station + Transmission Line				
Consumer Contribution	-		96.56	
Debt	9,087.00	78%	8,717.26	80%
Equity	2,620.00	22%	2,179.31	20%
Total Cost	11,707.00	100%	10,896.57	100%

3.9 Additional Capitalisation

Petitioner Submissions

4.6.5 The Petitioner has proposed construction of stores and other civil works at 400/220/33 kV GIS Sub-station during the FY 2022-23 and FY 2023-24. Also, normative debt equity ratio of 70:30 has been considered for funding of

additional capital expenditure. Additional Capitalization schedule is shared as follows:

Table 29: Additional capitalization proposed for Sub-Station (INR Cr.)

Particulars	Capital Cost as on CoD	ACE during FY 2021-24			Total capital cost as on 31.03.2024
		FY 2019-20 after CoD	FY 2022-23	FY 2023-24	
Debt	85.56	0.00	0.035	0.035	85.63
Equity	23.92	0.00	0.015	0.015	23.95
Total	109.48	0.00	0.05	0.05	109.58

3.9.1 The Petitioner is proposing construction of retaining wall/breast walls for the three transmission lines viz. Asset 2, 220 kV D/C line from Bajoli Holi HEP to Lahal Pooling Station and 400 kV D/C transmission line from Lahal Pooling Station to Chamera II PGCIL Pooling Station at an amount of Rs. 0.50 Crore for each year. The Additional Capitalization schedule proposed is as follows:

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

Particulars	Capital Cost as on CoD	ACE during FY 2020-24				Total capital cost as on 31.03.2024
		FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	
Debt (70%)	4.98	0.69	-	0.12	0.12	5.91
Equity (30%)	2.61	-0.34*	-	0.05	0.05	2.37
Consumer Contribution	-	-	-	-	-	-
Total	7.59	0.35	-	0.17	0.17	8.28

*Negative equity is due to infusion of loan corresponding to unbilled works. Further, swapping of equity with loan has also contributed to negative equity.

Commission's Analysis

3.9.2 The Commission, in order to approve the additional capitalisation for each year sought relevant documents from the Petitioner in support of its claim. The Commission had also raised queries with respect to the escalation of cost after CoD of the Project. The Petitioner has submitted that payments are for Civil works undertaken post CoD in line with terms agreed earlier. Hence, the Commission has allowed the additional capitalization equivalent to the difference in cost between the CoD and Auditor's Certificate for 31.03.2021 for the Transmission Line.

3.9.3 Accordingly, the additional capitalisation provisionally approved for the Sub-station is nil and shall be considered during the True-up. Further, in case of Transmission Line Rs. 0.34 Cr. which has already been incurred by the Petitioner has been approved. The approved amount contains the payments for works already completed. However, additional capitalization claimed with respect to works to be undertaken in future during the balance control period has not been considered and shall be true-up subject to prudence check and adequate justification with respect to rationale for taking up the additional works.

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

Table 31: Funding of additional capitalisation approved by Commission

Particulars	Additional Capitalization (INR Lakh)	% of Funding
Sub-station		
Debt	-	
Equity	-	
Sub-Total	Nil	
Transmission Line		
Debt	27.14	80.00%
Equity	6.78	20.00%
Sub-Total	33.92	100.00%

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 submission 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 Sub-Station and transmission line and accordingly approved a 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 Transmission line and Lahal Sub-Station of HPPTCL 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. The methodology followed and approved values for each component of the ARR is detailed in the subsequent sections.

4.2 Depreciation

Petitioner Submissions

4.2.1 The Petitioner has submitted the depreciation for each year of the Control Period 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 Regulations, the depreciation for each year has been estimated as shown in the following table:

Table 32: Depreciation claimed by Petitioner (INR Cr.)

Particulars	Unit	FY 20	FY 21	FY22	FY23	FY24
Sub-Station						
Net Opening GFA	INR Cr	109.48	109.48	109.48	109.48	109.53
Addition	INR Cr	-	-	-	0.05	0.05
Grant portion	INR Cr	-	-	-	-	-
Freehold Land	INR Cr	-	-	-	-	-
Depreciable Value	INR Cr	109.48	109.48	109.48	109.53	109.58
Rate of Depreciation	%	4.84%	4.87%	4.87%	4.87%	4.87%
Depreciation	INR Cr	5.30	5.33	5.33	5.33	5.34
Transmission Line						
Net Opening GFA	INR Cr		7.59	7.93	7.93	8.10
Addition	INR Cr		0.35	-	0.17	0.17
Grant portion	INR Cr		-	-	-	-
Freehold Land	INR Cr		-	-	-	-
Depreciable Value	INR Cr		7.93	7.93	8.10	8.27
Rate of Depreciation	%		0.05	0.05	0.05	0.05
Depreciation	INR Cr		0.36	0.36	0.37	0.38
Line+Sub-Station						
Depreciation	INR Cr	5.30	5.69	5.69	5.70	5.71

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 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; hence the Commission has approved the depreciation as per the approved Capital Cost.

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

Table 33: Depreciation approved by Commission (INR Lakh)

Particulars	FY 21	FY22	FY23	FY24
Sub-Station				
Net Opening GFA	-	10,192.12	10,192.12	10,192.12
Addition	10,288.68	-	-	-
Grant Portion	96.56	-	-	-
Freehold Land	-	-	-	-
Depreciable Value	10,192.12	10,192.12	10,192.12	10,192.12
Rate of Depreciation (%)	4.87%	4.87%	4.87%	4.87%
Depreciation	428.36	496.36	496.36	496.36
Transmission Line				
Net Opening GFA	-	697.14	731.06	731.06
Addition	704.45	33.92	-	-
Freehold Land	-	-	-	-
Depreciable Value	7.31	-	-	-
Rate of Depreciation (%)	4.56%	4.54%	4.54%	4.55%
Depreciation	27.43	33.19	33.19	33.26
Total Depreciation	455.80	529.55	529.55	529.62

4.3 Interest on Loan

Petitioner Submissions

- 4.3.1 The Petitioner has submitted the interest on loan in accordance with the Regulation 20 of the HPERC (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 34: Interest on Loan claimed by Petitioner (INR Cr.)

Particulars	Units	FY20	FY21	FY22	FY23	FY24
Sub-station						
Opening Balance	INR Cr	85.56	85.56	85.56	80.23	74.94
Addition	INR Cr	-	-	-	0.04	0.04
Repayment	INR Cr	5.30	5.33	5.33	5.33	5.33
Closing Balance	INR Cr	80.26	80.23	80.23	74.94	69.64
Rate of Interest	%	10.00%	10.00%	10.00%	10.00%	10.00%
Interest on Loan	INR Cr	8.29	8.29	8.29	7.76	7.23
Transmission Line						
Opening Balance	INR Cr	5.31	6.00	5.64	5.62	5.31
Addition	INR Cr	0.69	-	0.35	0.35	0.69
Repayment	INR Cr	0.35	0.36	0.37	0.40	0.35
Closing Balance	INR Cr	5.65	5.64	5.62	5.57	5.65
Rate of Interest	%	10.00%	10.00%	10.00%	10.00%	10.00%
Interest on Loan	INR Cr	0.55	0.58	0.56	0.56	0.55
Line + Sub-station						
Interest on Loan	INR Cr	8.29	8.84	8.87	8.32	7.79

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 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. 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 from FY 2020-21 onwards has considered the rate of 10% as applicable in accordance with the terms and conditions of the loan.
- 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. 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.
- 4.3.10 However, considering that the lending agency 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 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.
- 4.3.11 The following table provides the Interest on Loan approved by the Commission for each year:

Table 35: Interest on Loan approved by Commission (INR lakh)

Particulars	FY21	FY22	FY23	FY24
Sub-Station				
Opening Balance	-	7,725.33	7,228.98	6,732.62
Addition	8,153.70	-	-	-
Repayment	428.36	496.36	496.36	496.36
Closing Balance	7,725.33	7,228.98	6,732.62	6,236.27
Rate of Interest (%)	10.00	10.00	10.00	10.00

Particulars	FY21	FY22	FY23	FY24
Interest on Loan	685.19	747.72	698.08	650.22
Transmission Line				
Opening Balance	-	536.13	530.07	496.88
Addition	563.56	27.14	-	-
Repayment	27.43	33.19	33.19	33.26
Closing Balance	536.13	530.07	496.88	463.62
Rate of Interest (%)	10.00	10.00	10.00	10.00
Interest on Loan	47.45	53.31	51.35	48.16
Total Interest on Loan	732.64	801.03	749.43	698.38

*Note: Interest on Loan for FY 2020-21 is on pro-rata basis i.e. from 20.05.2020

4.4 Return on Equity

Petitioner Submissions

4.4.1 the Petitioner has considered the opening value of equity as on CoD as actual equity corresponding to 30% of the total Project cost.

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

Table 36: RoE claimed by Petitioner(INR Cr.)

Particulars	FY20	FY21	FY22	FY23	FY24
Sub-Station					
Opening Equity	23.92	23.92	23.92	23.92	23.94
Addition	-	-		0.02	0.02
Closing Equity	23.92	23.92	23.92	23.94	23.95
RoE (%)	15.50%	15.50%	15.50%	15.50%	15.50%
Return on Equity	3.71	3.71	3.71	3.71	3.71
Transmission Line					
Opening Equity		2.28	1.93	1.93	1.98
Addition		(0.35)		0.05	0.05
Closing Equity		1.93	1.93	1.98	2.03
RoE (%)		15.50%	15.50%	15.50%	15.50%
Return on Equity		0.32	0.30	0.31	0.31
Line + Sub-station					
Return on Equity	3.71	4.03	4.01	4.02	4.03

Commission's Analysis

4.4.3 Regulation 19 of the HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations 2011 stipulates the following:

"19. Return on Equity

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

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

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

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

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

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

4.4.4 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 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 37: RoE approved by Commission (INR Lakh)

Particulars	FY21	FY22	FY23	FY24
Sub-Station				
Opening Equity	-	2,038.42	2,038.42	2,038.42
Addition	2,038.42	-	-	-
Closing Equity	2,038.42	2,038.42	2,038.42	2,038.42
RoE (%)	15.50	15.50	15.50	15.50
Return on Equity	272.67	315.96	315.96	316.82
Transmission Line				
Opening Equity	-	140.89	147.67	147.67
Addition	140.89	6.78	-	-
Closing Equity	140.89	147.67	147.67	147.67
RoE (%)	15.50	15.50	15.50	15.50
Return on Equity	18.85	22.36	22.89	22.95
Return on Equity (Total)	291.52	338.32	338.85	339.77

Return on Equity pro-rated for 238 days for FY 2020-21 based on COD (i.e.20.05.2020)

4.5 O&M Expenses

Petitioner Submissions

4.5.1 The Petitioner submitted that as per HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations 2011, Operation and Maintenance Expense is computed considering the following methodology:

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

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

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

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

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

'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;

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

'WPI inflation' - 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&G_n' - 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&M_n' - Repair and Maintenance costs of the transmission licensee for the nth year;

'GFA_{n-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 38: O&M Expenses claimed by Petitioner (INR Lakhs)

Particulars	Units	FY20	FY21	FY22	FY23	FY24
Sub-Station						
220 kV	Rs. Lakh/bay	22.51	23.30	24.12	24.96	25.84
33 kV (132 kV and below)	Rs. Lakh/bay	16.08	16.64	.23	17.83	18.46
220 kV bays	No.	4	4	4	4	4
33 kV bays	No.	4	4	4	4	4
O&M Expenses	Rs. Lakh	0.00*	159.76	165.40	171.16	177.20
Transmission Line						
220 kV line	Rs. Lakh/km		0.26	0.27	0.28	0.29
220 kV line	km		2.09	2.09	2.09	2.09
O&M Expenses	Rs. Lakh		0.00*	0.56	0.58	0.60
Line + Sub-station						
O&M Expenses	INR Cr	-	159.76	165.96	171.74	177.80

*The project has completed at the end of FY 2019-20 and therefore there were no O&M expenses incurred in that year

*The project has been completed in FY 2020-21, however no O&M expenses incurred in that year

Commission's Analysis

4.5.3 The Commission observes that the O&M expenses for the first year of operation for both the line and the Sub-Station are not considered by the Petitioner. This may be due to partial operations but may increase in the upcoming years due to expected increase in Employee, R&M and A&G expenses. 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 a realistic trend for O&M expenses for the upcoming years. In the absence of any accurate benchmark, the Commission has relied upon the normative O&M expenses prescribed in the CERC Tariff Regulations, 2019.

4.5.4 The Commission has determined the O&M expenses for Sub-Station and line separately. Based on the number of bays, voltage, circuit Km and conductor size the following norms have been considered as per the technical details of line and Sub-Station for computation of O&M expenses:

Table 39: Normative O&M Expenses – Transmission Line

Item	Unit	FY21	FY22	FY23	FY24
------	------	------	------	------	------

Item	Unit	FY21	FY22	FY23	FY24
Norm: Single Circuit (Single Conductor)	Rs. Lakh/km	0.26	0.27	0.28	0.29
220 kV Line	km	2.09	2.09	2.09	2.09
Total	Rs. Lakh	0.47	0.56	0.58	0.60

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, the same was not considered by the Petitioner. The Norms are based on CERC guidelines.

Table 40: Normative O&M Expenses – Sub-Station

Particular's	Unit	FY21	FY22	FY23	FY24
220 kV	Rs. Lakh/bay	23.30	24.12	24.96	25.84
33 kV (132 kV and Below)	Rs. Lakh/bay	16.64	17.23	17.83	18.46
220 kV Bays	Nos	4.00	4.00	4.00	4.00
33 kV Bays	Nos.	4.00	4.00	4.00	4.00
Total	Rs. Lakh	96.51	115.78	119.81	124.38

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

Table 41: O&M Expenses approved by Commission

Item	Unit	FY21	FY22	FY23	FY24
Sub-station					
No. of Days for the Year (Y)	Days	315	365	365	366
220 kV (A)	Rs. Lakh/bay	23.30	24.12	24.96	25.84
33 kV (132 kV and Below) (B)	Rs. Lakh/bay	16.64	17.23	17.83	18.46
220 kV Bays (C)	Nos	4.00	4.00	4.00	4.00
33 kV Bays (D)	Nos.	4.00	4.00	4.00	4.00
O&M Expenses [(A*C+B*D)*Y/365]*0.7	Rs. Lakh	96.51	115.78	119.81	124.38
Transmission					
Norm: Single Circuit (Single Conductor) (E)	Rs. Lakh/km	0.26	0.27	0.28	0.29
220 kV Line (F)	km	2.09	2.09	2.09	2.09
O&M Expenses (E*F)*Y/365	Rs. Lakh	0.47	0.56	0.58	0.60
Total O&M Expenses	INR Lakh	96.98	116.34	120.40	124.98

O&M Expenses pro-rated for 315 days for FY 2020-21 based on COD (i.e.20.05.2020)
Sub-Station expenses multiplied by 0.7 as per CERC norms as this is a GIS Sub-station

4.6 Interest on Working Capital

Petitioner Submissions

4.6.1 The Petitioner has computed interest on working capital as per Regulation 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 2020-21, FY 2021-22, FY 2022-23 plus 300 basis. In accordance with the above Regulations, the interest on working capital claimed is as shown below:

Table 42: Interest on Working Capital claimed by Petitioner (INR Lakh)

Particulars	Units	FY20	FY21	FY22	FY23	FY24
Sub-station						
1/12th of O&M Expense	INR Lakh	0.00	13.31	13.78	14.26	14.77
Receivables equivalent to 2 months average billing	INR Lakh	293.98	321.42	321.96	313.98	306.92
Maintenance Spares (15% of O&M Expense of 1 month)	INR Lakh	0.00	2.00	2.07	2.14	2.22
Less: Consumer Security Deposit	INR Lakh	0	0	0	0	0
Total Working Capital	%	293.98	336.73	337.81	330.39	323.11
Interest Rate on Working Capital (SBI MCLR + 300 basis point)	INR Lakh	11.55%	10.75%	10.0%	10.00%	10.00%
Interest on Working Capital		33.96	36.20	33.78	33.04	32.31
Transmission Line						
1/12th of O&M Expense	INR Lakh		0.00	0.05	0.05	0.05
Receivables equivalent to 2 months average billing	INR Lakh		20.83	21.14	20.77	20.61
Maintenance Spares (15% of O&M Expense of 1 month)	INR Lakh		0.00	0.01	0.01	0.01
Less: Consumer Security Deposit	INR Lakh		0	0	0	0
Total Working Capital			20.83	21.19	20.82	20.67
Interest Rate on Working Capital (SBI MCLR + 300 basis point)	%		10.75%	10.0%	10.00%	10.00%
Interest on Working Capital	INR Lakh		2.24	2.12	2.08	2.07
Line + Sub-station						
Interest on Working Capital	INR Lakh	33.96	38.44	35.90	35.12	34.38

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.

4.6.4 The relevant clauses of the Regulation 21 and 22 are reproduced as follows:

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

(a) O&M expenses for 1 month;

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

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

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

4.6.5 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 2019-20 and FY 2020-21. From FY 2021-22 onwards SBI MCLR as on 1st April, 2021 plus 300 basis points has been considered. For FY 2018-19 SBI Base Rate as on 1st April, 2018 plus 350 points has been considered in accordance with the HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations 2011 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. The computation for approved working capital requirement and interest on working capital is shown in the table as follows:

Table 43: Interest on Working Capital approved by Commission (INR Lakh)

Particulars	FY21	FY22	FY23	FY24
Sub-Station				
O&M expenses for 1 month	8.04	9.65	9.98	10.36
Maintenance spares @ 15% of O&M Expenses for one month	1.21	1.45	1.50	1.55
Receivable for 2 months	251.65	284.22	276.55	270.03
Total Working capital	260.89	295.32	288.03	281.95
Interest rate	10.40	10.00	10.10	11.50

Particulars	FY21	FY22	FY23	FY24
Interest on Working Capital	27.13	29.53	29.09	32.42
Transmission Line				
O&M expenses for 1 month	0.04	0.05	0.05	0.05
Maintenance spares @ 15% of O&M Expenses for one month	0.01	0.01	0.01	0.01
Receivable for 2 months	15.98	18.55	18.31	17.84
Total Working capital	16.02	18.60	18.37	17.90
Interest rate	10.40	10.00	10.10	11.50
Interest on Working Capital	1.67	1.86	1.86	2.06
Total Interest on Working Capital	28.80	31.39	30.95	34.48

Interest on Working Capital pro-rated for 315 days for FY 2020-21 based on COD (i.e.20.05.2020)

4.7 Aggregate Revenue Requirement

Petitioner Submissions

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

Table 44: Summary of ARR claimed by Petitioner (INR Lakh)

Particulars	Units	FY20	FY21	FY22	FY23	FY24
Sub-Station						
O&M Expenses	INR Lakh	0.00	159.76	165.40	171.16	177.20
Interest on Loan	INR Lakh	829.10	828.96	828.96	775.85	722.90
Interest on Working Capital	INR Lakh	33.96	36.20	33.78	33.04	32.31
Depreciation	INR Lakh	530.06	532.82	532.82	532.95	533.20
Return on Equity	INR Lakh	370.78	370.78	370.78	370.90	371.14
Sub Total	INR Lakh	1763.90	1928.52	1931.74	1883.90	1836.75
Pro-rata for Number of days in operation	INR Lakh	57.83	1928.52	1931.74	1883.90	1836.75
Transmission Line						
O&M Expenses	INR Lakh		0.00	0.56	0.58	0.60
Interest on Loan	INR Lakh		54.80	58.24	55.20	52.68
Interest on Working Capital	INR Lakh		2.24	2.12	2.08	2.07
Depreciation	INR Lakh		35.37	35.98	36.42	37.24
Return on Equity	INR Lakh		32.60	29.92	30.30	31.08
Sub Total	INR Lakh		125.01	126.82	124.59	123.68
Pro-rata for Number of days in operation	INR Lakh		95.21	126.82	124.59	123.68
Line + Sub-station						

Particulars	Units	FY20	FY21	FY22	FY23	FY24
ARR	INR Lakh	57.83	2,023.73	2,058.56	2,008.49	1,960.43

Commission's Analysis

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

Table 45: Summary of ARR approved by Commission (INR Lakh)

Particulars	Units	FY21	FY22	FY23	FY24
Sub-Station					
Depreciation	INR Lakh	428.36	496.36	496.36	496.36
Interest on Loan	INR Lakh	685.19	747.72	698.08	650.22
Interest on Working Capital	INR Lakh	27.13	29.53	29.09	32.42
Return on Equity	INR Lakh	272.67	315.96	315.96	316.82
O&M Expenses	INR Lakh	96.51	115.78	119.81	124.38
ARR	INR Lakh	1,509.87	1,705.34	1,659.30	1,620.20
Transmission Line					
Depreciation	INR Lakh	27.43	33.19	33.19	33.26
Interest on Loan	INR Lakh	47.45	53.31	51.35	48.16
Interest on Working Capital	INR Lakh	1.67	1.86	1.86	2.06
Return on Equity	INR Lakh	18.85	22.36	22.89	22.95
O&M Expenses	INR Lakh	0.47	0.56	0.58	0.60
ARR	INR Lakh	95.87	111.29	109.87	107.03
Total ARR	INR Lakh	1,605.74	1,816.63	1,769.16	1,727.24

4.8 Carrying Cost

Petitioner Submissions

- 4.8.1 The Petitioner has sought approval to charge carrying cost due to delayed tariff recovery for 220/33 KV portion of 400/220/33KV Pooling station at Lahal along with 220KV single circuit line from Lahal pooling station to Budhil HEP.
- 4.8.2 The Petitioner has further submitted that as per regulation 10-A HPERC (Terms and Conditions for Determination of Transmission Tariff) (Second Amendment) Regulations, 2018 the Commission has allowed carrying cost at the rate of one-year average MCLR + 300 basis points to be considered as carrying cost for delayed and differential recoveries.
- 4.8.3 The Petitioner has claimed that, due to delayed recoveries, it is facing financial hardship. The Petitioner is under strain in arranging working capital for ensuring smooth operations.

Commission's Analysis

4.8.4 The Commission observed that the tariff Petition was filed in September 2022, as against the Transmission Asset CoD of May 2020, which is a significant delay of over two years. The Petitioner has cited reasons such as complexity in bifurcation of cost, CoVID and other aspects which are of transient nature and should not have resulted in a delay of two years. Further, the Petitioner has also taken considerable time in responding to the various queries of the Commission resulting in further delays. It is also observed that even after taking such significant time for filing of the petition, the Petitioner has been unable to provide adequate bifurcation of costs between the 400/220 kV and 220/33kV of the Sub-station. Further, the beneficiaries of the Transmission system are also not clearly identified as discussed in previous sections. Therefore, the Commission feels inappropriate to allow any carrying cost as part of the Order.

4.9 Transmission Charges

Petitioner Submissions

4.9.1 The Petitioner has submitted that HPSEBL, Bajoli Holi HEP, Kutehr HEP and other HEP in the Bharmour area are the beneficiaries of the transmission scheme. The Petitioner has submitted that after determination of Transmission tariff by the Commission for the assets, Petitioner shall approach Hon'ble CERC for inclusion of the asset in the PoC mechanism as per CERC (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020.

Commission's Analysis

4.9.2 As per the DPR of the transmission asset for 220/22 kV system, power from HEPs in Bharmour Area of Ravi Basin with a capacity of 65 MW was envisaged to be evacuated. But, subsequently, the transmission pooling capacity was enhanced by inclusion of 400/220 kV system as well. The revised planning was for evacuation of power from a number of other power projects with a total capacity of around 611.11 MW. The capacities of these projects are in the range of 240 MW to 2.2 MW. As per the DPR, the envisaged capacity of the Sub-Station was to cater to the upcoming generation capacity in the region. The combined system with 400/220 kV Sub-Station shall be able to evacuate the total energy being generated in the area.

4.9.3 Subsequently, the Petitioner was asked to provide details of beneficiaries and status of signing of Transmission Service Agreement (TSA) with them. In response, the Petitioner has submitted that in addition to M/s GMR Bajoli Holi HEP and HPSEBL, the transmission agreement has been signed with other beneficiaries including plants such as Kutehar (240 MW) and several other small HEPs which are less than 25 MW. The Petitioner had also submitted that connection agreement and CON-5 are signed with various HEPs while agreements with remaining HEPs are yet to be signed.

4.9.4 However, in a subsequent query regarding whether the system is connected to inter-state transmission system and if the Petitioner has submitted an application to NRPC/CERC for the same, the Petitioner has clarified that the Lahal S/s has been directly connected to the Chamera Pooling Station of PGCIL with circuit breaker at Budhil end has been opened with CB closed at Lahal end so as to keep

said 220kv Lahal-Budhil transmission line energized. The Petitioner has further submitted that while majority of the power is flowing towards ISTS points, it has not submitted an application before NRPC/CERC for ISTS certification as work of certification of non-ISTS lines is withdrawn subsequent to notification of CERC (Sharing of ISTS Charges and Losses) Regulations, 2020 w.e.f. 01.11.2020 and has therefore requested the Commission to consider the asset as part of intra-state transmission system as the asset has been created by STU.

- 4.9.5 It is observed that the Petitioner has been modifying its response as it had mentioned in the main Petition that the transmission assets are inter-state and had later requested to consider the assets as intra-state without providing any justifiable reasons or supporting documents. In view of the underlying issues and considering that a number of large hydro power plants, which are not supplying power within the state of HP, are getting connected to the specified transmission assets (including the 400/220kV portion of the substation), the 220/33kV substation and 220kV transmission line cannot be considered completely as part of intra-state network. With the increased number of beneficiaries due to inclusion of 400/220kV additional portion of the sub-station, it is difficult to ascertain the actual status of the transmission assets covered in this Order. Therefore, the Commission is of the considered view that the Petitioner should approach appropriate agency/ CERC for inclusion of the transmission assets as part of inter-state network.
- 4.9.6 Prima facie the asset is observed to be catering to evacuation of power outside the State and since majority of energy flow through the system seems to be towards inter-state transmission system connection points, the Petitioner is directed to approach the appropriate authority for recovery of charges under POC/GNA mechanism. Also, the Petitioner is directed to enter into connection agreements/TSA/LTAs with the existing and upcoming beneficiaries of the transmission asset in a time bound manner.

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(SHASHI KANT JOSHI)
Member

**(YASHWANT SINGH
CHOGAL)**
Member

**(DEVENDRA KUMAR
SHARMA)**
Chairman

Shimla

Dated: 17.11.2023