

**Multi Year Tariff Order
For
Himachal Pradesh Power Transmission
Corporation Limited (HPPTCL)
FY 2024-25 to FY 2028-29**



**Himachal Pradesh Electricity Regulatory
Commission
January 22, 2025**

BEFORE THE HIMACHAL PRADESH ELECTRICITY REGULATORY COMMISSION AT SHIMLA**PETITION NO: 30/2024
DECIDED ON: 22.01.2025****CORAM
Sh. DEVENDRA KUMAR SHARMA
Sh. YASHWANT SINGH CHOGLA
Sh. SHASHI KANT JOSHI**

IN THE MATTER OF:

Approval of the Five-Year Business Plan and MYT Petition for the Fifth Control Period from FY 2024-25 to FY 2028-29 under Sections 62, 64 and 86 of the Electricity Act, 2003.

AND

IN THE MATTER OF:

**Himachal Pradesh Power Transmission Corporation Limited (HPPTCL)
.....Petitioner****ORDER**

The Himachal Pradesh Power Transmission Corporation Limited (hereinafter called the 'HPPTCL' or 'Petitioner' or 'Applicant') has filed the present Petition with the Himachal Pradesh Electricity Regulatory Commission (hereinafter referred to as 'the Commission' or 'HPERC') for the approval of Five Year Business Plan and MYT Petition for the Fifth Control Period from FY 2024-25 to FY 2028-29 under the Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011, as amended from time to time and under Section 62, read with Section 86 of the Electricity Act, 2003 (hereinafter referred to as 'the Act'). The Petitioner took significant time in responding to the clarifications and queries raised by the Commission. On several occasions, the information provided was either incomplete or did not address the query of the Commission adequately. The clarifications were also sought verbally from the Petitioner. The Commission has heard the applicant, interveners, stakeholders and representatives of stakeholders. The Commission has also held formal interactions and Technical Validation Session with the officers of the HPPTCL and has considered the documents available on record.

After considering the Petition filed by the Applicant, the facts presented by the Applicant in its subsequent filings, the responses of the Applicant to the objections and documents available on record, the Commission, in exercise of powers vested in it under Section 86

of the Electricity Act, 2003 and HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2023 (hereinafter referred to as "MYT Tariff Regulation, 2023) passes the following Order for approval of Business Plan and MYT Petition for the Fifth Control Period FY 2024-25 to FY 2028-29 under the Multi Year Tariff (MYT) regime and approve the Aggregate Revenue Requirements for the Control Period duly taking into account the guidelines laid down in Section 61 of the Electricity Act, 2003, the National Electricity Policy, the National Tariff Policy, CERC Tariff Regulations, 2024 and HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2023. Details of prudence check and approach adopted by the Commission with regard to approval of the Five-Year Business Plan and MYT Petition for the Fifth Control Period from FY 2024-25 to FY 2028-29 are summarized in the detailed Order contained in Chapter 4 to 6 of this order.

The Commission, in exercise of the powers vested in it under Section 62 of the Act, orders that the approved Aggregate Revenue Requirement shall come into force w.e.f. 1st April, 2024. The arrears, if any, from the long term and medium-term customers for the months with effect from April, 2024 till the date of issuance of this Order shall be adjusted in equal installments in the invoices for next 3 months post issuance of this Order. Further, the approved short term transmission charges shall be applicable from 01st February 2025.

The Commission further directs the publication of the tariff in two leading newspapers, one in Hindi and the other in English, having wide circulation in the State within 7 days of the issue of the Tariff Order.

-Sd-

(SHASHI KANT JOSHI)

Member

-Sd-

(YASHWANT SINGH CHOGAL)

Member, Law

-Sd-

**(DEVENDRA KUMAR
SHARMA)**

Chairman

Shimla

Dated: 22nd January 2025

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1 INTRODUCTION

1.1 Himachal Pradesh Electricity Regulatory Commission

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

Functions of the Commission

- 1.1.2 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 shall 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 notification No. MPP-A-(1)-4/2006-Loose, dated 11thSeptember, 2008.
- 1.2.3 Through notification No. MPP-A-(1)-4/2006-Loose dated 3rd December, 2008 read with the GoHP's earlier notification dated 31stOctober, 2008, the HPPTCL was entrusted with the following work / business with immediate effect:
- a) All new works of construction of Sub-stations of 66 kV and above
 - b) All new works of laying/ construction of transmission lines of 66 kV and above
 - c) Formulation, updating, execution of Transmission Master Plan for the State for strengthening of Transmission network and evacuation of power including new works under schemes already submitted by the Himachal Pradesh State Electricity Board (HPSEB) under this plan to the Financial Institutions for funding and where loan agreements have not yet been signed

- d) All matters relating to planning and co-ordinations of the transmission related issues with CTU, CEA, Ministry of Power, State Government and HPSEBL
 - e) Planning and co-ordination with the IPPs/ CPSUs/ State PSUs/ Other Departments or organizations or agencies of the Central Government and State Government, HPSEBL and HPPCL with regard to all transmission related issues
- 1.2.4 HPPTCL was declared the State Transmission Utility (STU) by the GoHP vide order dated 10th June, 2010 and as a result thereof, the Commission has recognized the HPPTCL as a deemed "Transmission Licensee" as per the Commission's Order dated 31st July, 2010 in Petition No. 32 of 2010 filed by the HPPTCL under Sections 14 and 15 of the Act, for grant of Transmission Licensee in the State of Himachal Pradesh. Prior to FY11, the transmission tariff was being determined as a part of the tariff orders applicable to HPSEBL system.

1.3 Multi Year Tariff Framework

- 1.3.1 The Commission follows the principles of Multi Year Tariff (MYT) for determination of tariffs, in line with the provision of Section 61 of the Electricity Act, 2003.
- 1.3.2 The MYT framework is also designed to provide predictability and reduce regulatory risk. This can be achieved by approval of a detailed capital investment plan for the Petitioner, considering the expected network expansion and load growth during the Control Period. The longer time span enables the Petitioner to propose its investment plan with details on the possible sources of financing and the corresponding capitalization schedule for each investment.
- 1.3.3 The Commission had specified the terms and conditions for the determination of tariff in the year 2004, based on the principles as laid down under Section 61 of the Electricity Act, 2003.
- 1.3.4 Thereafter, the Commission had notified the HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011 which were further amended from time to time (hereinafter referred to as "HPERC Tariff Regulations, 2011") before the Commission notified the HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2023. (hereinafter referred to as "HPERC Tariff Regulations, 2023" or "MYT Regulations, 2023").
- 1.3.5 The Commission issued the first Multi-Year Tariff (MYT) Order for HPPTCL for the period FY 2011-12 to FY 2013-14 on 14th July, 2011 and thereafter for the second Control Period (FY 2014-15 to FY 2018-19) on 10th June, 2014. The Commission has also issued the Tariff Order on True Up for the FY 2014-15 to FY 2015-16 and Mid Term Review for Third Control Period FY 2016-17 to FY 2018-19. Further, on 29th June, 2019, the Commission has issued the MYT Order for the Fourth Control Period (FY 2019-20 to FY 2023-

24). Thereafter, on 28th December, 2022 the Commission has issued the Tariff Order on True-up Petition for MYT Control Period from FY 2014-15 to FY 2018-19 of Himachal Pradesh Power Transmission Corporation (HPPTCL) and on 05th June, 2024 the Commission has issued Tariff Order on True Up of FY 2019-20, FY 2020-21 & FY 2021-22 and Mid-Term Review for the FY 2022-23 and FY 2023-24 for HPPTC Ltd.

1.4 Interaction with the Petitioner

- 1.4.1 The Petitioner has filed the application/Petition for approval of Business Plan and MYT Petition for the Fifth Control Period FY 2024-25 to FY 2028-29, with the Commission on 15th January, 2024.
- 1.4.2 The Commission admitted the Petition submitted by the HPPTCL vide Interim Order dated 21st February, 2024. There have been a series of interactions between the HPPTCL and the Commission, both written and oral, wherein the Commission sought additional information/clarifications and justifications on various issues, critical for the analysis of the Petition.
- 1.4.3 Based on the detailed scrutiny of the Petition, further clarifications/information sought by the Commission from time to time and the following submissions made by the Petitioner have been taken on record:

Table 1: Communication with the Petitioner

Sl	Letter from Commission	Response from the Petitioner
1	No. HPERC –F(1)-73/2023-3943 dated 22.02.2024	Petition No. 30/2024 dated 06.04.2024
2	No. HPERC –F(1)-73/2023-240 dated 30.04.2024	Petition No. 30/2024 dated 23.07.2024
3	No. HPERC –F(1)-73/2023-1361 dated 05.08.2024	Petition No. 30/2024 dated 23.09.2024

- 1.4.1 Further Technical Validation Sessions (TVS) were held on March 1, 2024, and subsequently on October 14, 2024, at the Commission's office to thoroughly discuss the Petitioner's submissions, validate the submitted data, and seek additional clarifications. The discussions covered various aspects of the Business Plan, including the status of proposed schemes, upcoming generating stations, beneficiary details, and manpower recruitment etc.

1.5 Public Hearings

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

Table 2: List of Newspapers for publication of Stakeholders comments

Sl.	Name of News Paper	Date of Publication
1.	The Tribune (English)	24.02.2024
2.	Amar Ujala (Hindi)	24.02.2024

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

Table 3: List of Newspapers for Public Notice by Commission

Sl.	Name of News Paper	Date of Publication
1.	Hindustan Times (English)	28.02.2024
2.	Amar Ujala (Hindi)	28.02.2024

1.5.3 The stakeholders were requested to file their objections by 19th March, 2024. The HPPTCL was required to submit replies to the suggestions/objections to the Commission by 22nd March, 2024 with a copy to the objectors on which the objectors were required to submit rejoinder by 23rd March, 2024.

1.5.4 The Commission decided to conduct a public hearing and, therefore, issued a public notice informing the public about the scheduled date of public hearing as 28th March, 2024. All the parties, who had filed their objections/suggestions, were also informed about the date, time and venue for presenting their case during the public hearing.

1.5.5 The Commission has undertaken detailed scrutiny of the submissions made by the Petitioner and the various objections raised by stakeholders for the purpose of issuance of this Order. The major issues raised by the objectors in their written submissions have been summarized in Chapter Four of this Order.

2 SUMMARY OF BUSINESS PLAN FOR FIFTH CONTROL PERIOD

2.1 Introduction

- 2.1.1 The Petitioner has submitted that the primary objective of the Business Plan is to analyze and anticipate the future requirements in advance and plan for the capital investments and human resources required accordingly.
- 2.1.2 The Petitioner has submitted that the Business Plan for the Fifth Control Period (FY 2024-25 to FY 2028-29) has been bifurcated into Human Resource Plan, CAPEX Plan, Operational Performance, O&M plan, Depreciation, etc. as detailed in the sections below.

2.2 Current Infrastructure

- 2.2.1 As per Notification No. MPP-A (3)-1/2001-iv dated June 10, 2010 by the Government of Himachal Pradesh, transmission lines vested with the Petitioner are as follows:

Table 4: Existing Transmission Network

SI.	Name of Existing lines	Nature of Asset (ISTS /IaSTS)	Type of line AC/ HVDC	S/C or D/C	Line length (ckt-km)	Date of Commercial Operation
A	220 kV Lines					
1	220 kV D/C Bairasuil - Pong Line (LILO portion at Jassure)	IaSTS	AC	D/C	0.48	09-1985
2	220 kV S/C Jassure-Thein Line	ISTS	AC	S/C	25.60	03-2001
3	220 kV Dehar-Kangoo Line (S/C ckt. Line on D/C tower)	IaSTS	AC	S/C	4.177	06-1999
4	220 kV D/C Panchkula-Kunihar Line	ISTS	AC	D/C	93.44	05-1989
5	220 kV D/C Khodri-Majri Line	ISTS	AC	D/C	70.04	09-1989
6	220 kV D/C Nalagarh (PGCIL)-Nalagarh Line	IaSTS	AC	D/C	7.00	07-2010
B	132 kV Lines					
7	132 kV S/C Giri-Kulhal Line	IaSTS	AC	S/C	17.40	04-1978
8	132 kV D/C Giri-Abdullapur Line	IaSTS	AC	D/C	16.22	08-1982
9	132 kV S/C Kangra Tap Line	IaSTS	AC	S/C	0.14	02-1979
10	132 kV S/C Dehar-Kangoo	IaSTS	AC	S/C	3.18	12-1998

SI.	Name of Existing lines	Nature of Asset (ISTS /IaSTS)	Type of line AC/ HVDC	S/C or D/C	Line length (ckt-km)	Date of Commercial Operation
	Line					
11	132 kV D/C Shanan-Bassi Line	IaSTS	AC	D/C	10.00	03-1970
C	66 kV Lines					
12	66 kV Shanan-Bijni Line	IaSTS	AC	S/C	35.00	10-1969
13	66 kV Pinjore-Parwanoo Line	IaSTS	AC	S/C	8.23	04-1956
14	66 kV Pong-Sansarpur Terrace Line	IaSTS	AC	S/C	6.30	10-1990
15	66 kV Bhakra-Goalthai-Rakkar Line	IaSTS	AC	S/C	16.72	12-1985

2.2.2 In addition to the above, list of the other Transmission lines/Sub-stations commissioned by the Petitioner after coming into existence has been conveyed as under: -

Table 5: List of Commissioned Transmission lines

SI.	Name of Lines	Type of line AC/ HVDC	S/C or D/C	Line length (ckt. km)	Date of Commercial Operation
A	400 kV Lines				
1	400 kV LILO of Panchkula-Nathpa Jhakri Transmission Line at Gumma	AC	D/C	5.7	02.11.2020
2	400 kV D/C Transmission Line Lahal- Chamera from 400/220/33 kV Sub-station Lahal to 400/220kV Sub-station at Rajera (PGCIL)	AC	D/C	70	11.01.2023
B	220kV Lines				
3	220 kV D/C Kashang-Bhaba Transmission Line	AC	D/C	76	01.06.2016
4	220 kV D/C LILO line Phozal – Patlikuhai	AC	D/C	20	05.06.2016
5	220 kV S/C line Karian -Chamera (PGCIL) on D/C Towers	AC	D/C	6	12.05.2018
6	220 kV D/C Transmission Line Charor -Banala	AC	D/C	36	24.07.2019
7	220 kV S/C Lahal -Budhil on D/C Towers	AC	S/C	1.9	27.07.2020
8	220 kV D/C Transmission Line Hatkoti – Gumma	AC	D/C	52.4	02.11.2020
9	220 kV D/C Transmission line Snail -Hatkoti	AC	D/C	26.3	02.11.2020
10	220 kV D/C Transmission Line Bajoli Holi -Lahal	AC	D/C	36.68	19.11.2021
11	220 kV D/C Transmission Line Dehan -Hamirpur	AC	D/C	115.878	04.08.2022
12	220 kV D/C Transmission Line Sunda -Hatkoti	AC	D/C	50.6	03.08.2022
13	LILO of 220kV Panchkula- Kunihar Ckt-2 at Baddi	AC	D/C	0.5	23.06.2023
C	132kV Lines				
14	132 kV S/C LILO of Dehra-Kangra line at Chambi	AC	D/C	30	06.08.2020
D	66 kV Lines				
15	66 kV Urni-Wangtoo Transmission Line	AC	D/C	26.8	20.05.2022
16	66 kV D/C Nirmand-Kotla Transmission Line	AC	D/C	46	04.03.2023

Table 6: List of Commissioned Sub-stations

SI.	Name of Sub-station	AIS/GIS	MVA	Date of Commercial Operation
A	400 kV Sub-stations			
1	400/220kV, 2×315MVA, Sub-station Wangtoo, Distt. Kinnaur	GIS	630	29.09.2019
2	400/220 kV, 2×315MVA, Sub-station Lahal, Distt. Chamba	GIS	630	11.01.2023
3	400/220 kV, 2×315MVA, Sub-station Gumma, Distt. Shimla	GIS	630	02.11.2020
B	220 kV Sub-stations			
4	220/33 kV, 80/100MVA, GIS Sub-station at Phojal, Distt. Kullu	GIS	100	05.06.2016
5	220/66/22kV Sub Station (220/66, 25/31.5MVA, 66/22kV, 25 MVA) at Bhoktoo with LILO of one circuit of 220 kV Kashang – Bhaba D/C Line, Distt. Kinnaur	GIS	56.5	23.03.2017
6	33/220 kV, 50/63 MVA, GIS Sub-station at Karian, Distt.Chamba	GIS	63	12.05.2018
7	220/66 kV, 2×80/100 MVA, Sub-station Wangtoo, Distt. Kinnaur	GIS	200	29.09.2019
8	220/33 kV, 50/63 MVA, GIS Lahal Sub-station, Distt. Chamba	GIS	63	20.03.2020
9	220/66 kV, 2×50/63 MVA Sub-station at Gumma, Distt. Shimla	GIS	126	22.05.2023
10	220 kV Switching Sub-station, Hatkoti, Distt. Shimla	GIS	-	01.02.2022
11	220/132 kV, 2×80/100 MVA, Sub-station at Dehan, Distt. Kangra	GIS	200	04.08.2022
12	220/132 kV, 2×80/100 MVA, Sub-station at Sunda, Distt. Shimla	GIS	200	02.08.2022
13	220/66 kV, 80/100 MVA, Additional Sub-station at Sunda, Distt. Shimla	GIS	100	03.08.2022
14	220/132 kV, 80/100 MVA, Sub-station Charor, Distt. Kullu	GIS	100	10.05.2023
15	220/33 kV, 80/100 MVA, Additional Transformer at 220/132 kV Sub-station Charor, Distt. Kullu	GIS	100	10.05.2023
C	132 kV Sub-stations			
16	33/132 kV, 25/31.5 MVA Sub-station Pandoh	GIS	31.5	24.08.2019
17	33/132 kV, 25/31.5 MVA Additional Transformer at Pandoh Sub-station, Distt. Mandi	GIS	31.5	08.10.2020
18	33/132 kV, 2×25/31.5 MVA, Sub-station at Chambi, Distt. Kangra	GIS	63	28.08.2019
D	66 kV Sub-station			
19	66 kV Switching Sub-station Urni, Distt. Kinnaur	GIS	-	20.05.2022
20	66/22 kV Sub-station, 25 MVA at Bagipul, Distt. Kullu	GIS	25	04.03.2023

2.2.3 The Petitioner has further submitted that in addition to above mentioned schemes, there are other schemes which are under various stages of implementation, as listed below:

- 132/33kV, 63MVA Sub-station at Barsaini
- 132/33kV, 63 MVA Dharampur Sub-station alongwith LILO of 132kV Bassi-Hamirpur Transmission line
- 33kV Palchan-Prini Transmission line
- 132kV Barsaini-Charor Transmission line

- LILO of 220kV D/C Bajoli Holi to Lahal Transmission line at 220/66kV Heiling Sub-station alongwith 220/66kV Heiling Sub-station.
- Construction of S/C LILO of 400kV Lahal to Rajera(Chamera Pooling Station) Transmission line of HPPTCL at Kutehr HEP(240MW)
- 220/132kV GIS Sub-station at Mazra
- 33 kV Switching Station Palchan, Kullu
- Supply, Installation, Testing and Commissioning of Joint Control Center at Kunihar, District Solan
- 132kV Multi Circuit Transmission line on 220kV Multi Circuit Towers with Zebra Conductor from 220/132kV Sub-station at Andheri to Tower No. 19 of 132kV Jamta-Kala Amb(HPSEBL) Transmission line and stringing & sagging of Panther Conductor on 2nd circuit of 132kV Jamta Kala Amb(HPSEBL) Transmission line on 132kV D/C Towers from T-1(Devani) to T-14(Kala Amb)
- Augmentation of existing 220/132kV Kangoo Sub-station and stringing of 2nd circuit of 220kV S/C line on D/C towers between Dehar (BBMB) and 132/220kV Kangoo Sub-station
- 220 kV D/C Transmission Line Mazra –Karian
- 220 kV MCT line Arandawala (PGCIL) - Andheri (HPPTCL)
- 132 kV LILO of Kurthala-Bathri at Mazra
- 132 kV D/C line Tangnu Romai – Sunda
- 132 kV S/C LILO of 132 kV D/C Bassi-Dehan line at 220 kV GIS Sub-station Dehan (Patti) (Kangra)
- 220/132 kV, 2×80/100 MVA, Sub-station, Kala-Amb, Distt. Sirmaur
- 220/33kV, 25/31.5 MVA Sub-Station Prini
- 132/33 kV Sub-station, 2×25/31.5 MVA, Kala-Amb, Distt. Sirmaur

2.2.4 Further, the Petitioner has submitted that 22 Nos. of Schemes have been envisaged under Swarna Jayanti Policy of GoHP. The status of the same are indicated in the Table below:

Table 7: Status of Schemes Proposed under Swarna Jayanti Policy

SI.	Project Name	Current Status of the Scheme
1.	Construction of 220/132 kV, 2x100 MVA Paonta Sahib Sub-station by D/C LILO of 220 kV Khodri - Mazri line.	11 Nos. schemes covered in the instant Petition
2.	Construction of 220 kV D/C line from (Tower No.61) of Jamta to Giri transmission line by dismantling of existing 132 kV S/C Jamta LILO Point (T.No.-61) to Giri Transmission line.	
3.	Construction of 132/33kV, 2×20 MVA Sub-station Charna alongwith LILO of 132 kV S/C Giri Gaura line.	
4.	Construction of 220/132 kV, 2X80/100 MVA Sub-Station nearby Una alongwith LILO of 132 kV S/C Pekhubela Solar to Tahliwal line with panther equivalent HTLS (CCC) conductor at proposed 220/132 kV Sub-station nearby Una.	
5.	Construction of 132 D/C Transmission line from Darkunda Switching Station to 220/132 kV Mazra Sub-station.	
6.	Construction of 132/33 kV, 2x31.5 MVA GIS Sub-station at Baijnath by LILO of 132 kV Dehan (Patti)-Bassi Transmission line.	

SI.	Project Name	Current Status of the Scheme	
7.	Construction of 132/33 kV, 2x31.5 MVA GIS Sub-station near Dharamshala alongwith 132 kV D/C line from Dehan (Patti) to Proposed Sub-station near Dharamshala.		
8.	Upgradation of existing 132kV S/C line from 132/33 kV Bathri Sub-station to 220/132 kV Jassore Sub-station to 132 kV D/C HTLS Transmission line and HTLS reconductoring of 132 kV D/C TL from Mazra to Bathri.		
9.	Providing 220/132 kV, 80/100 MVA Additional Transformer at 220/132kV 80/100 MVA GIS Charor Sub-station, Distt. Kullu.		
10.	Construction of 220 kV D/C twin zebra line from Nehrian to nearby Una.		
11.	Construction of 220/132 KV, 2 x 100 MVA GIS Sub-station at Tahliwal by D/C LILO of 220 kV Bhakhra Jamalpur line		
12.	220 kV Pooling Station at Sujampur.		Capex Approval already received
13.	S/C LILO of 400 kV D/C Lahal - Rajera line at Kutehar.		
14.	220 kV line from 400/220 kV Sub-station PGCIL at Kala Amb to Solan (Oachghat).		9 Nos. Schemes are yet to be submitted as separate Petition for capex approval after securing necessary funding
15.	220/132/ 33 kV Oachghat Sub-station.		
16.	66/33/11kV, 2x10MVA S/S at Kasauli.		
17.	66 kV D/C line from Mandhala to Kasauli and LILO of 66kV S/C Parwanoo-Totu line.		
18.	220 kV Switching station near Bhabanagar.		
19.	HTLS reconductoring of Bhaba to Kunihar line.		
20.	Additional Ckt. Stringing of 132 kV S/C line from Rakkar to Tahliwal		
21.	D/C LILO of 400 kV Reru to Kunihar line at 220 kV Upperla Nangal (By charging it on 220 kV) along with 220 kV bays.		
22.	220 kV Switching Station near Snail by D/C LILO of Snail Hatkoti line.		

2.3 Capital Investment Plan

2.3.1 The Petitioner has submitted a comprehensive capital investment plan for the Fifth Control Period to strengthen and expand the transmission network so as to meet the rising electricity demand and corresponding load growth in Himachal Pradesh. This increase in demand is driven by factors such as population growth, Economic growth, industrial development, and new initiatives from the State and Central Governments to expand electrification and promote renewable energy integration.

2.3.2 Regulation 7 of the (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011, with respect to CAPEX provides as under:

"(1) The Commission shall approve the system augmentation plan submitted by the transmission licensee, based on the load growth forecast during the control period. The same would be considered for computation of ARR, wherein the amount of electricity transmitted by the transmission system shall be projected considering the estimated growth plan of transmission customer and any plans of new transmission system, based on network expansion plans within the State.

(2) Capital investment plan submitted by the licensee shall also provide details of ongoing projects that will spill into the control period and new projects that

will commence during the control period but may extend beyond the control period.

(3) The capital investment plan shall be in conformity with the plans made by the CEA/CTU/STU. The investment plan shall be scheme-wise and each scheme shall include-

(a) purpose of investment (i.e. replacement of existing assets, meeting load growth, technical loss reduction, meeting reactive energy requirements, improvement in quality and reliability of supply, etc) ;

(b) Capital Structure;

(c) Capitalisation Schedule;

(d) Financing Plan;

(e) Cost-benefit analysis;

(f) Improvement in operational efficiency envisaged in the control period.

(4) The Commission shall review the actual capital expenditure incurred and capitalisation at the end of each year of the control period vis-à-vis the approved capital expenditure and capitalisation schedule. In the normal course, the Commission shall not revisit the approved capital investment plan (capital expenditure and capitalisation schedule) during the control period and adjustment to depreciation, interest on capital loan and return on equity for the actual capital expenditure incurred and capitalisation vis-à-vis approved capital investment plan (capital expenditure and capitalisation) shall be done at the end of control period.

(5) In case the capital expenditure is required for emergency work which has not been approved in the Capital Investment Plan, the licensee shall submit an application (containing all relevant information along with reasons justifying emergency nature of the proposed work seeking approval by the Commission.

The licensee shall take up the work prior to the approval of the Commission provided that the emergency nature of the scheme has been certified by its board of directors.”

2.3.3 Accordingly, in compliance to the above mentioned Regulations, the Petitioner has submitted a transmission system augmentation/ strengthening plan based on load growth forecasts and integrating renewable energy with the grid. The Commission had instructed the Petitioner to obtain prior approval for capital expenditure for Intra-state projects and to submit comprehensive details, including DPRs and cost-benefit analyses, for upcoming schemes. While the Petitioner had filed for the inclusion of new transmission elements in its CAPEX plan for the Fourth Control Period, the Commission had opined that major capital expenditure schemes should be presented through a formal Petition to facilitate stakeholder feedback so that holistic view is taken.

2.3.4 The Petitioner, through additional submissions on March 4, 2024, has requested for In-Principle approval of 15 number transmission schemes as part of the Business plan. The Petitioner clarified that these schemes have been

submitted separately due to emerging needs related to hydro project evacuation and requirement for improving system reliability.

2.3.5 The details of the 15 No of schemes submitted as part of the Business Plan falling under three distinct programs are mentioned below:

2.3.5.1 **Himachal Hydro Power and Renewable Power Development Programme (World Bank Funding):** This program aims to enhance Himachal Pradesh's existing transmission system, facilitating renewable energy utilization and evacuation to the Northern grid.

2.3.5.2 **Green Energy Corridor Phase II (Domestic Funding and Central Financial Assistance):** Launched by the GoI in FY 2015-16, the Intra state Transmission Project supports renewable energy development through financial assistance. The first phase is underway, and a combined DPR for Phase II has been prepared for Himachal Pradesh. The Government of Himachal Pradesh has permitted various companies to establish renewable power projects. The Commission defines the responsibilities of IPPs and the State Transmission Utility concerning power evacuation. Approval for GEC-II projects was granted to HPPTCL by CEA on 30.11.2018, with INR 489.49 Crore sanctioned by MNRE on 04.03.2022. The projects were reassessed to align with the power evacuation from proposed Renewable Energy Projects.

2.3.5.3 **Domestic Funding/Funding through Deposit Works:** The Hon'ble Prime Minister of India has laid the foundation stone for the Bulk Drug Pharma Park in Una, HP, on 13.10.2022, requiring a load of 120 MVA. The planned construction of a new Sub-station at Tahliwal is necessary to meet this demand, as the existing Sub-station's capacity is insufficient.

2.3.6 In summary, the Petitioner has proposed a total of 38 schemes in the MYT Petition for the Fifth Control Period. The Petitioner has accordingly projected capital expenditure during the Fifth Control Period as highlighted under:

Table 8: Proposed Capital Expenditure for the Fifth Control Period (Rs. Cr.)

SI.	Name of the Transmission Line & Associated Sub-stations	Cost Estimate	Completion Programme / Remarks	CY			Control Period		
				FY 24	FY 25	FY 26	FY 27	FY 28	FY 29
I.	400 kV Lines & Sub-stations								
1	Construction of S/C LILO of 400kV Lahal to Rajera(Chamera Pooling Station) Transmission line of HPPTCL at KutehrHEP(240MW) #	8.03	FY 2024-25		8.03				
TOTAL (II) (400kV)		8.03		0.00	8.03	0.00	0.00	0.00	0.00
II.	220 kV Lines & Sub-stations								

SI.	Name of the Transmission Line & Associated Sub-stations	Cost Estimate	Completion Programme / Remarks	CY			Control Period		
				FY 24	FY 25	FY 26	FY 27	FY 28	FY 29
1	220/132 kV, 2x100 MVA GIS Sub-station at Paonta Sahib by D/C LILO of Khodri - Mazri line	117.24	FY 2026-27		35.17	46.89	35.17		
2	220 kV D/C line from (Tower No. 61) at Jamta to Giri transmission line by dismantling of existing 132 kV S/C Jamta LILO Point (T.No.-61) to Giri Transmission line	52.34	FY 2025-26	15.70	20.94	15.70			
3	Construction of 220/132 kV, 2x80/100 MVA Sub-Station nearby Una alongwith LILO of 132 kV S/C Pekhabela Solar to Tahliwal line with panther equivalent HTLS (CCC) conductor at proposed 220/132 kV Sub-station nearby Una	88.22	FY 2025-26	26.46	35.29	26.46			
4	Construction of 220 kV D/C (Twin Zebra) line from 220/132 kV Nehrian Sub-station to proposed 220/132kV Sub-station nearby Una	97.94	FY 2025-26		39.18	58.77			
5	15 Construction of 220/132 kV,80/100 MVA Sub-Station Tahliwal by S/C LILO of 220 kV D/C Bhakra to Jamalpur line	31.66	FY 2024-25		31.66				
6	Construction of 220 kV Pooling Station Sujanpur by D/C LILO of 220 kV Dehan-Hamirpur Line	53.87	FY 2025-26		21.55	32.32			
7	LILO of 220kV D/C Bajoli Holi to Lahal Transmission line at 220/66kV Heiling Sub-station alongwith 220/66 kV, 2x80/100 MVA, Heiling Sub-station#	90.60	FY 2024-25		90.60				

SI.	Name of the Transmission Line & Associated Sub-stations	Cost Estimate	Completion Programme / Remarks	CY			Control Period		
				FY 24	FY 25	FY 26	FY 27	FY 28	FY 29
8	220/132 kV GIS Sub-station Mazra along with 132 kV LILO of Kurthala-Bathri at Mazra#	88.93	FY 2023-24	88.93					
9	220/132 kV, 2x80/100 MVA, Sub-station, Kala-Amb, Distt. Sirmaur along with 132/33 kV Sub-station, 2x25/31.5 MVA, Kala-Amb, Distt. Sirmaur#	66.47	FY 2023-24	66.47					
10	220/33kV, 25/31.5 MVA Sub-Station Prini#	6.51	FY 2023-24	6.51					
11	220/132 kV , 80/100 MVA Sub-station Charor alongwith Additional 80/100 MVA Transformer at Charor#	111.00	FY 2023-24	111.00					
12	220/66 kV, 2x63 MVA Addl. Transformer at Gumma Sub-station#	45.53	FY 2023-24	45.53					
13	220 kV D/C Transmission Line Mazra -Karian#	35.06	FY 2023-24	35.06					
14	Augmentation of existing 220/132kV Kangoo Sub-station and stringing of 2nd circuit of 220kV S/C line on D/C towers between Dehar (BBMB) and 132/220kV Kangoo Sub-station#	53.70	FY 2024-25		53.70				
15	220/132 kV Sub-station at Kala-Amb	111.92	FY 2023-24	111.92					
16	Construction of 220/33 kV, 2x50/63 MVA Majholi along with 220 kV Transmission line from Uperla Nangal to Majholi for Medical Devices Park (MDP) at Nalagarh\$								
TOTAL (II) (220 kV)		1050.99		507.59	328.08	180.15	35.17	0.00	0.00
III.	132 kV and below Lines &Sub-stations								

SI.	Name of the Transmission Line & Associated Sub-stations	Cost Estimate	Completion Programme / Remarks	CY			Control Period		
				FY 24	FY 25	FY 26	FY 27	FY 28	FY 29
1	132/33kV, 2x20 MVA new sub-station in Rajgarh area at Charna by LILO of 132 kV Giri-Gaura S/C transmission line. FY 2027-28	84.09	FY 2027-28			25.23	33.64	25.23	
2	Construction of 132 KV GIS Pooling Sub-station at Darkunda by LILO of 132 kV Kurthala to Bathri line	70.95	FY 2027-28			14.19	28.38	28.38	
3	Construction of 132 D/C Transmission line from Darkunda Switching Station to 220/132 kV Mazra Sub-station	41.49	FY 2027-28			8.30	16.60	16.60	
4	Upgradation of existing 132kV S/C line from 132/33 kV Bathri Sub-station to 220/132 kV Jassore Sub-station to 132 kV D/C HTLS Transmission line and HTLS reconductoring of 132 kV D/C TL from Mazra to Bathri	84.38	FY 2026-27		16.88	33.75	33.75		
5	Construction of 132/33 kV, 2x31.5 MVA GIS Sub-station at Baijnath by LILO of 132 kV Dehan (Patti)-Bassi Transmission line	87.42	FY 2027-28			17.48	34.97	34.97	
6	Construction of 132/33 kV, 2x31.5 MVA GIS Sub-station near Dharamshala Sub-station alongwith 132 kV D/C line from Dehan (Patti) to Proposed Sub-station near Dharamshala	121.66	FY 2027-28			24.33	48.66	48.66	
7	Construction of 132/33 kV,2x31.5 MVA Sub-station Ghumarwin alongwith S/C LILO of 132 kV D/C Hamirpur-Kangoo line	64.84	FY 2025-26		25.93	38.90			

SI.	Name of the Transmission Line & Associated Sub-stations	Cost Estimate	Completion Programme / Remarks	CY			Control Period		
				FY 24	FY 25	FY 26	FY 27	FY 28	FY 29
8	Construction of 132/33kV, 3×50/63MVA & 132/11kV, 25/31.5MVA Sub-station at Bulk Drug Park at Poilanbeet, Distt. Una alongwith 132kV D/C Transmission Line from proposed sub-station at Una to Bulk Drug Park Sub-station at Poilanbeet#*	79.17	FY 2025-26			79.17			
9	132/33kV,63MVA Sub-station at Barsaini#	71.00	FY 2024-25		71.00				
10	132/33kV,63 MVA Dharampur Sub-station alongwith LILO of 132kV Bassi-Hamirpur Transmission line#	46.34	FY 2024-25		46.34				
11	33kV Palchan-Prini Transmission line#	8.00	FY 2023-24	8.00					
12	132kV Barsaini-Charor Transmission line#	53.57	FY 2024-25		53.57				
13	33 kV Switching Station Palchan, Kullu#	14.11	FY 2024-25		14.11				
14	132kV Multi Circuit Transmission line on 220kV Multi Circuit Towers with Zebra Conductor from 220/132kV Sub-station at Andheri to Tower No. 19 of 132kV Jamta-Kala Amb(HPSEBL) Transmission line and stringing & sagging of Panther Conductor on 2nd circuit of 132kV Jamta Kala Amb(HPSEBL) Transmission line on 132kV D/C Towers from T-1(Devani) to T-14(Kala Amb)#	58.11	FY 2024-25		58.11				
15	Construction of LILO of 132kV S/C Dehan-Bassi line at 220/132kV Dehan-Sub-station at Patti of HPPTCL	5.94	FY 2023-24	5.94					
16	132 kV D/C TangnuRomai-Sunda	26.81	FY 2023-24	26.81					
TOTAL (III)(132kV)		917.88		40.75	285.94	241.35	196.00	153.84	0.00

SI.	Name of the Transmission Line & Associated Sub-stations	Cost Estimate	Completion Programme / Remarks	CY			Control Period		
				FY 24	FY 25	FY 26	FY 27	FY 28	FY 29
IV.	MISC. WORKS								
1	Providing 220/33 kV, 50/63 MVA Additional Transformer at 220/33kV 50/63 MVA GIS Karian Sub-station, Distt. Chamba	20.55	FY 2024-25	8.22	12.33				
2	Providing 220/132 kV, 80/100 MVA Additional Transformer at 220/132kV 80/100 MVA GIS Charor Sub-station, Distt. Kullu	43.05	FY 2024-25	17.22	25.83				
3	Providing 132/33 kV, 50/63 MVA Additional Transformer at 132/33kV AIS Kurthala Sub-station, Distt. Chamba	14.81	FY 2024-25	5.92	8.89				
4	Supply, Installation, Testing and Commissioning of Joint Control Center at Kunihar, District Solan	29.67	FY 2024-25		29.67				
5	Additional 220/132 kV, 200 MVA Transformer bank at Kala Amb Sub-station at Andheri \$								
TOTAL (IV) MISC. WORKS		108.08		31.36	47.05	0.00	0.00	0.00	0.00

Note:

* The expenses for Construction of 132/33kV, 3x50/63MVA & 132/11kV, 25/31.5MVA Sub-station at Bulk Drug Park at Poilanbeet, Distt. Una alongwith 132kV D/C Transmission Line from proposed sub-station at Una to Bulk Drug Park Sub-station at Poilanbeet is not considered for Tariff Determination as the complete scheme is proposed to be developed under Deposit Works.

\$ Expected COD and Capital Expenses are yet to be firmed up

Being ongoing schemes, phasing is not available. Hence, complete capex proposed to be incurred in the year of COD

2.4 Capital Structure

2.4.1 As per Regulation 37 (b) of the HPERC Tariff Regulations, 2011 as amended from time to time, the Petitioner has submitted the financing structure for the proposed capital schemes for the Fifth Control Period as follows:

Table 9: Proposed Capital Structure for the Fifth Control Period

SI.	Name of the Transmission Line & Associated Sub-stations	Cost Estimate	Completion Programme / Remarks	Funding Agency	Debt (%)	Equity (%)	Grant (%)
I.	400 kV Lines &Sub-stations						
1	Construction of S/C LILO of 400kV Lahal to Rajera(Chamera Pooling Station) Transmission line of HPPTCL at KutehrHEP(240MW)	8.03	FY 2024-25	Domestic Funding	90%	10%	Nil
TOTAL (II) (400kV)		8.03					
II.	220 kV Lines &Sub-stations						
1	220/132 kV, 2x100 MVA GIS Sub-station at Paonta Sahib by D/C LILO of Khodri - Mazri line	117.24	FY 2026-27	World Bank^	70%	30%	Nil
2	220 kV D/C line from (Tower No. 61) at Jamta to Giri transmission line by dismantling of existing 132 kV S/C Jamta LILO Point (T.No.-61) to Giri Transmission line	52.34	FY 2025-26	World Bank^	70%	30%	Nil
3	Construction of 220/132 kV, 2x80/100 MVA Sub-Station nearby Una alongwith LILO of 132 kV S/C Pekhubela Solar to Tahliwal line with panther equivalent HTLS (CCC) conductor at proposed 220/132 kV Sub-station nearby Una	88.22	FY 2025-26	World Bank^	70%	30%	Nil
4	Construction of 220 kV D/C (Twin Zebra) line from 220/132 kV Nehrian Sub-station to proposed 220/132kV Sub-station nearby Una	97.94	FY 2025-26	REC/PFC/IR EDA	47%	20%	33%
5	15 Construction of 220/132 kV,80/100 MVA Sub-Station Tahliwal by S/C LILO of 220 kV D/C Bhakra to Jamalpur line	31.66	FY 2024-25	Domestic Funding	90%	10%	Nil
6	Construction of 220 kV Pooling Station Sujanpur by D/C LILO of 220 kV Dehan-Hamirpur Line	53.87	FY 2025-26	Domestic Funding	90%	10%	Nil
7	LILO of 220kV D/C Bajoli Holi to Lahal Transmission line at 220/66kV Heiling Sub-station alongwith 220/66 kV, 2x80/100 MVA, Heiling Sub-station	90.60	FY 2024-25	KfW/ Domestic Funding	40%	40%	20%
8	220/132 kV GIS Sub-station Mazra along with 132 kV LILO of Kurthala-Bathri at Mazra	88.93	FY 2023-24	ADB	80%	20%	Nil
9	220/132 kV, 2x80/100 MVA, Sub-station, Kala-Amb, Distt. Sirmaur along with 132/33 kV Sub-station, 2x25/31.5 MVA, Kala-Amb, Distt. Sirmaur	66.47	FY 2023-24	Domestic Funding	90%	10%	Nil
10	220/33kV, 25/31.5 MVA Sub-Station Prini	6.51	FY 2023-24	Domestic Funding	90%	10%	Nil

SI.	Name of the Transmission Line & Associated Sub-stations	Cost Estimate	Completion Programme / Remarks	Funding Agency	Debt (%)	Equity (%)	Grant (%)
11	220/132 kV , 80/100 MVA Sub-station Charor alongwith Additional 80/100 MVA Transformer at Charor	111.00	FY 2023-24	Mixed#			
12	220/66 kV, 2x63 MVA Addl. Transformer at Gumma Sub-station	45.53	FY 2023-24	KfW/ Domestic Funding	40%	40%	20%
13	220 kV D/C Transmission Line Mazra -Karian	35.06	FY 2023-24	ADB	80%	20%	Nil
14	Augmentation of existing 220/132kV Kangoo Sub-station and stringing of 2nd circuit of 220kV S/C line on D/C towers between Dehar (BBMB) and 132/220kV Kangoo Sub-station	53.70	FY 2024-25	ADB	80%	20%	Nil
15	220/132 kV Sub-station at Kala-Amb	111.92	FY 2023-24	Domestic Funding	90%	10%	Nil
16	Construction of 220/33 kV, 2x50/63 MVA Majholi along with 220 kV Transmission line from Uperla Nangal to Majholi for Medical Devices Park (MDP) at Nalagarh\$						
TOTAL (II) (220 kV)		1050.99					
III.	132 kV and below Lines &Sub-stations						
1	132/33kV, 2x20 MVA new sub-station in Rajgarh area at Charna by LILO of 132 kV Giri-Gaura S/C transmission line.	84.09	FY 2027-28	World Bank^	70%	30%	Nil
2	Construction of 132 KV GIS Pooling Sub-station at Darkunda by LILO of 132 kV Kurthala to Bathri line	70.95	FY 2027-28	REC/PFC/IR EDA	47%	20%	33%
3	Construction of 132 D/C Transmission line from Darkunda Switching Station to 220/132 kV Mazra Sub-station	41.49	FY 2027-28	REC/PFC/IR EDA	47%	20%	33%
4	Upgradation of existing 132kV S/C line from 132/33 kV Bathri Sub-station to 220/132 kV Jassore Sub-station to 132 kV D/C HTLS Transmission line and HTLS reconductoring of 132 kV D/C TL from Mazra to Bathri	84.38	FY 2026-27	REC/PFC/IR EDA	47%	20%	33%
5	Construction of 132/33 kV, 2x31.5 MVA GIS Sub-station at Baijnath by LILO of 132 kV Dehan (Patti)-Bassi Transmission line	87.42	FY 2027-28	REC/PFC/IR EDA	47%	20%	33%
6	Construction of 132/33 kV, 2x31.5 MVA GIS Sub-station alongwith 132 kV D/C line from Dehan (Patti) to Proposed Sub-station near Dharamshala	121.66	FY 2027-28	REC/PFC/IR EDA	47%	20%	33%

SI.	Name of the Transmission Line & Associated Sub-stations	Cost Estimate	Completion Programme / Remarks	Funding Agency	Debt (%)	Equity (%)	Grant (%)
7	Construction of 132/33 kV, 2x31.5 MVA Sub-station Ghumarwin alongwith S/C LILO of 132 kV D/C Hamirpur-Kangoo line	64.84	FY 2025-26	Domestic Funding	90%	10%	Nil
8	Construction of 132/33kV, 3x50/63MVA & 132/11kV, 25/31.5MVA Sub-station at Bulk Drug Park at Poilanbeet, Distt. Una alongwith 132kV D/C Transmission Line from proposed sub-station at Una to Bulk Drug Park Sub-station at Poilanbeet*	79.17	FY 2025-26	Deposit Works			
9	132/33kV, 63MVA Sub-station at Barsaini	71.00	FY 2024-25	ADB	80%	20%	Nil
10	132/33kV, 63 MVA Dharampur Sub-station alongwith LILO of 132kV Bassi-Hamirpur Transmission line	46.34	FY 2024-25	Domestic Funding	90%	10%	Nil
11	33kV Palchan-Prini Transmission line	8.00	FY 2023-24	KfW/ Domestic Funding	40%	40%	20%
12	132kV Barsaini-Charor Transmission line	53.57	FY 2024-25	ADB	80%	20%	Nil
13	33 kV Switching Station Palchan, Kullu	14.11	FY 2024-25	KfW/ Domestic Funding	40%	40%	20%
14	132kV Multi Circuit Transmission line on 220kV Multi Circuit Towers with Zebra Conductor from 220/132kV Sub-station at Andheri to Tower No. 19 of 132kV Jamta-Kala Amb(HPSEBL) Transmission line and stringing & sagging of Panther Conductor on 2nd circuit of 132kV Jamta Kala Amb(HPSEBL) Transmission line on 132kV D/C Towers from T-1(Devani) to T-14(Kala Amb)	58.11	FY 2024-25	Domestic Funding	90%	10%	Nil
15	Construction of LILO of 132kV S/C Dehan-Bassi line at 220/132kV Dehan-Sub-station at Patti of HPPTCL	5.94	FY 2023-24	Domestic Funding	90%	10%	Nil
16	132 kV D/C TangnuRomaini-Sunda	26.81	FY 2023-24	KfW/ Domestic Funding	40%	40%	20%
TOTAL (III) (132kV)		917.88					
IV.	MISC. WORKS						
1	Providing 220/33 kV, 50/63 MVA Additional Transformer at 220/33kV 50/63 MVA GIS Karian Sub-station, Distt. Chamba	20.55	FY 2024-25	REC/PFC/IR EDA	47%	20%	33%
2	Providing 220/132 kV, 80/100 MVA Additional Transformer at 220/132kV 80/100 MVA GIS Charor Sub-station, Distt. Kullu	43.05	FY 2024-25	REC/PFC/IR EDA	47%	20%	33%

SI.	Name of the Transmission Line & Associated Sub-stations	Cost Estimate	Completion Programme / Remarks	Funding Agency	Debt (%)	Equity (%)	Grant (%)
3	Providing 132/33 kV, 50/63 MVA Additional Transformer at 132/33kV AIS Kurthala Sub-station, Distt. Chamba	14.81	FY 2024-25	REC/PFC/IR EDA	47%	20%	33%
4	Supply, Installation, Testing and Commissioning of Joint Control Center at Kuniyar, District Solan	29.67	FY 2024-25	ADB	80%	20%	Nil
5	Additional 220/132 kV, 200 MVA Transformer bank at Kala Amb Sub-station at Andheri \$						
TOTAL (III) MISC. WORKS		108.08					

Note:

* The expenses for Construction of 132/33kV, 3x50/63MVA & 132/11kV, 25/31.5MVA Sub-station at Bulk Drug Park at Poilanbeet, Distt. Una alongwith 132kV D/C Transmission Line from proposed sub-station at Una to Bulk Drug Park Sub-station at Poilanbeet) is not considered for Tariff Determination as the complete scheme is proposed to be developed under Deposit Works.

^ Funding from World Bank was initially provided at 80% debt and 20% equity. However, since the loan comes from GoI through GoHP, it comes as a mix of 90% grant and 10% loan to GoHP. The GoHP has conveyed that the grant portion shall be infused as equity in HPPTCL. Hence the effective Equity component exceeds 30%. Thus, normative debt:equity of 70:30 is considered for World Bank funded projects.

\$ Expected COD and Funding Agency are yet to be firmed up

Mixed Funding- ADB at 80:20 (equity: loan) and KfW at 40:20:40 (debt:equity:grant)

2.5 Performance Targets

Transmission Loss

2.5.1 With regard to the Transmission losses, the Petitioner has stated that the Commission in its Tariff Order dated June 29, 2019, had approved a 0.75% transmission loss target for the Fourth Control Period as the Petitioner lacked sufficient data on standalone transmission losses. The Commission had provisionally set this target to facilitate recovery of transmission losses from open access consumers while distribution licensee continued to bear these losses.

2.5.2 The Petitioner submitted that it has actively engaged with GoHP to expedite the transfer of transmission assets from HPSEBL to HPPTCL, essential for accurately measuring standalone transmission losses. Acknowledging the challenges and complexity of this transition, the Petitioner has sought permission to provide updates as needed. Given the growth in transmission assets, including additional Sub-stations, the Petitioner anticipates that transmission losses may exceed the approved 0.75% norm. Therefore, the Petitioner has proposed that this target be maintained for the Fifth Control Period (FY 2024-25 to FY 2028-29), with an option for review during the mid-term review, especially if studies indicate higher technical losses. Additionally, the Petitioner has also requested the Commission to instruct HPSLDC to

monitor monthly transmission losses, grid disturbances, peak demand, and frequency excursion data for the complete Intra-state transmission system.

Reliability

2.5.3 In compliance with the HPERC (Transmission Performance Standards), Regulations, 2023, notified on March 2, 2023, the Petitioner has submitted its performance data, including Transmission Element-wise Availability from April 2023 to October 2023 and overall Transmission System Availability for FY 2022-23. The Petitioner has submitted that the monthly SAIFI and SAIDI data from April 2023 to October 2023 cannot be provided at this time due to the joint ownership of the transmission system with HPSEBL and the continued control of certain assets by HPSEBL. However, the Petitioner has affirmed that it has consistently maintained high system availability and reliability, with performance levels exceeding the regulatory standards.

2.6 Human Resource Development Plan

2.6.1 In order to ensure effective functioning of the organization, the Petitioner has submitted that it has carried out a detailed analysis of the adequacy and efficiency of its present work force. Considering the dynamic nature of the power sector and construction & augmentation of several new projects in the form of lines and Sub-stations, the Petitioner has submitted that it has proposed Employee addition plan for the Fifth Control Period of FY 2024-25 to FY 2028-29 in order to achieve higher levels of efficiency.

2.6.2 The Petitioner claimed that currently it is grossly understaffed and considering the urgency in requirement of additional workforce to complete the projects within the predefined timelines, it has initiated efforts to enhance the capabilities of employees to develop competent, trained and multi-disciplinary human capital.

2.6.3 The Petitioner has mentioned that it is developing numerous Sub-stations and lines simultaneously. The existing work force of HPPTCL against the sanctioned post are as follows:

Table 10: Existing Employee Strength Submitted by the Petitioner

SI.	Particulars	FY 20		FY 21		FY 22		FY 23		FY 24	
		A	B	A	B	A	B	A	B	A	B
1	General Manager	2	2	1	2	2	2	2	2	2	2
2	Dy General Manager	6	10	9	10	7	10	9	10	8	10
3	Sr. Manager	18	32	18	32	21	32	23	32	31	31
4	Assistant Engineer	98	102	61	102	58	102	67	102	75	116
5	Others	179	344	246	344	222	344	220	345	294	369
6	Total	302	490	335	490	310	490	321	491	410	528

A: Actual Employee strength at the beginning of the year

B: Sanctioned Employee strength at the beginning of the year

2.6.4 The Petitioner has submitted that at the start of the Fourth Control Period, it had 302 employees, which increased by approximately 36% to 410 by its end, largely due to new transmission assets commissioned over the last two years. Despite this growth, the current workforce remains below the sanctioned

strength of 528, which is necessary to support the expanding infrastructure. To address this, the Petitioner has requested the recruitment of 118 employees through the Himachal Pradesh Public Service Commission and Subordinate Staff Service Commission. The Petitioner aims to fill all sanctioned positions in the upcoming Control Period to ensure reliable and efficient network maintenance is carried out in a time bound manner. The employee addition plan for the Fifth Control Period is accordingly submitted by the Petitioner as follows:

Table 11: Employee Addition Plan Proposed for the Fifth Control Period

Particulars	FY 25	FY 26	FY 27	FY 28	FY 29
Employee Strength	431	454	477	502	528

2.6.5 The Petitioner has further emphasized the need for continuous employee upskilling to support an efficient transmission system. Accordingly, regular training sessions focused on essential areas such as EHV Operation, Load Management, Network Planning, and Regulatory Affairs are proposed. The Training expenses for these training have been factored in by the Petitioner under A&G cost.

2.7 O&M Expenses

2.7.1 The Petitioner has submitted that it has computed the Operation and Maintenance Expense as per HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011 as amended from time to time. The O&M expenses consists of the employee expenses, Administrative & General (A&G) expenses and Repairs & Maintenance (R&M) expenses, which are elaborated in the following paras.

2.7.2 Employee Expenses

2.7.2.1 The Petitioner has submitted that its total employee expenses are categorized as follows:

1) Direct Asset Expenses – costs directly associated with specific assets, and

2) Corporate Expenses – costs for employees in the corporate office who manages both operational and ongoing projects.

2.7.2.2 The Petitioner has further stated that the Commission had previously approved only 25% of actual employee expenses as "STU and Intra-state employee expenses," with the remaining allocated to ongoing projects.

2.7.2.3 However, with SAP implementation, the Petitioner now tracks asset-wise expenses. For projecting expenses for the upcoming control period, actual audited employee costs from FY 2021-22 and FY 2022-23 have been used. The Petitioner has allocated 56% of corporate expenses to operational assets and 44% to CWIP, as approved by its BoD. Furthermore, corporate employee expenses were divided between Inter-state and Intra-state assets at a 25:75 ratio, reflecting an increase in Intra-state transmission assets from 12 assets (worth Rs. 19.52 Crore in FY 2015-16) to 48 assets valued at approximately Rs. 2,500 Crore by FY 2023-24. The detailed employee expenses for FY 2021-22 and FY 2022-23 are given below:

Table 12: Actual Employee Expense for FY 2021-22 and FY 2022-23 (Rs. Cr.)

Particulars	FY 22	FY 23
Employee Expenses for Intra-state Assets (A) – Direct Expenses	3.49	12.85
Employee Expenses – Corporate – Total (B) -Indirect Expenses	23.38	30.49
Employee Expenses- Corporate – 56% of (B) – Allocated to Under Operation Projects as per BoD and Audited Accounts on yearly basis (C)	13.33	17.07
Employee Expenses Allocated to Intra-state Assets- (75% of (C)) (D)	9.99	12.80
Total Employee Expenses (A+D)	13.48	25.65

2.7.2.4 Based on the above, the Petitioner has computed the Employee Expense for the Fifth Control Period considering the average increase in CPI of preceding 3 years before Base Year as 5.40%.The CPI inflation rate is calculated as per the following table:

Table 13: Computation of Consumer Price Index

Month	2019-20	2020-21	2021-22	2022-23
April	108.3	114.2	120.1	127.7
May	109.0	114.6	120.6	129.0
June	109.7	115.3	121.7	129.2
July	110.8	116.7	122.8	129.9
August	111.1	117.4	123.0	130.2
September	111.8	118.1	123.3	131.3
October	112.8	119.5	124.9	132.5
November	113.9	119.9	125.7	132.5
December	114.6	118.8	125.4	132.3
January	114.6	118.2	125.1	132.8
February	113.9	119.0	125.0	132.7
March	113.2	119.6	126.0	133.3
Average	112.0	117.6	123.6	131.1
Increase in CPI in preceding 3 years		5.02%	5.13%	6.05%
Average increase in CPI in preceding 3 years		5.40%		

2.7.2.5 The Petitioner has estimated the growth factors on the basis of the employee growth as under:

Table 14: Computed Growth Factor for the Fifth Control Period

Particulars	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29
Employee Strength	410	431	454	477	502	528
G_n		5.19%	5.19%	5.19%	5.19%	5.19%

2.7.2.6 Based on the above, the total employee cost projected by the Petitioner for the Fifth Control Period is tabulated below:

Table 15: Claimed Employee Expense for the Fifth Control Period (Rs. Cr.)

Particulars	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29
Employee Expense	26.88	29.81	33.05	36.64	40.62	45.04

2.7.3 Administrative and General Expenses

2.7.3.1 The Petitioner has submitted that the projected A&G expenses for the Fifth Control Period are based on audited A&G expenses for FY 2021-22 and FY 2022-23. Similar to employee expenses, the A&G expenses are split into;

- 1) Direct Asset Expenses – directly allocated to specific assets, and
- 2) Corporate A&G Expenses – covering both operational and ongoing projects. While direct expenses are charged to specific assets, corporate expenses require allocation.

2.7.3.2 The Petitioner has followed a similar approach as with employee expenses, allocating 56% of common expenses to operational projects, then 75% of those to the Intra-state transmission network. The A&G expenses for FY 2021-22 and FY 2022-23 for Intra-state Transmission Assets were used to project expenses for FY 2024-25 to FY 2028-29.

2.7.3.3 The actual A&G Expense for FY 2021-22 and FY 2022-23 for Intra-state Transmission Assets considered by the Petitioner for projecting A&G expenses for FY 2024-25 to FY 2028-29 are as follows:

Table 16: Actual A&G Expense Submitted for FY22 and FY23 (Rs. Cr.)

Particulars	FY 22	FY 23
A&G Expenses for Intra-state Assets	0.37	1.76
A&G Expenses for Petition Filing	2.40	3.31
A&G Expenses- Corporate (56% of Total Corporate expenses as per BoD and Audited Accounts)	4.31	4.21
A&G Expenses (75% of allocated Corporate expenses)	3.23	3.16
Total A&G Expenses (1+2+4)	6.00	8.23

2.7.3.4 The Petitioner has submitted that to keep pace with technological advancements, there is a need to upskill its workforce through training. Accordingly, the training cost for seven man-days per employee per year has been estimated at a nominal rate of ₹4,000 per person per day, based on the number of employees on payroll at the beginning of the year. With the growth in transmission infrastructure and its critical functions, it is essential for the organization to be well-prepared for efficient operation and maintenance. Consequently, the A&G expenses for the Fifth Control Period have been escalated by an average WPI increase of 7.90%, calculated over the three years preceding the base year. Based on the above, the A&G Expense for the Fifth Control Period has been computed considering the average increase in WPI of preceding 3 years before Base Year as 7.90%. Accordingly, the total A&G expense for the Fifth Control Period as proposed by the Petitioner is tabulated below:

Table 17: Claimed A&G Expense for the Fifth Control Period (Rs. Cr.)

SI.	Particulars	Control Period				
		FY 25	FY 26	FY 27	FY 28	FY 29
1	A&G Expenses for Intra-state Assets	2.04	2.21	2.38	2.57	2.77
2	A&G Expenses for Petition Filing	3.33	3.59	3.87	4.18	4.51
3	A&G Expenses- Corporate (56% of Total Corporate expenses as per BoD and Audited Accounts)	4.96	5.35	5.77	6.23	6.72
4	A&G Expenses (75% Allocated from Corporate at S.No.3)	3.72	4.01	4.33	4.67	5.04
5	Man-Power Training Costs	1.21	1.27	1.34	1.41	1.48
6	Total A&G Expenses	10.30	11.08	11.92	12.82	13.80

2.7.4 Repair and Maintenance Expenses

2.7.4.1 The Petitioner has submitted that the Commission had approved a k-factor of 1.50% in its MYT Order dated June 29, 2019, for the fourth Control Period (FY 2019-20 to FY 2023-24). Given the significant expansion of HPPTCL's transmission network and the limited R&M expenses incurred on new assets, relying on historical data for benchmarking the k-factor may not accurately reflect future R&M costs. The Petitioner has requested the Commission to maintain the k-factor at 1.50%, subject to truing up based on actual expenses.

2.7.4.2 The total R&M cost for the Fifth Control Period proposed by the Petitioner is tabulated below:

Table 18: Proposed R&M Expense for the Fifth Control Period (Rs. Cr.)

Particulars	FY25	FY26	FY27	FY28	FY29
GFA	2833.49	3339.44	3735.61	3984.94	4221.58
K factor	1.50%	1.50%	1.50%	1.50%	1.50%
R&M Expense	42.50	50.09	56.03	59.77	63.32

2.7.4.3 Accordingly, the total O&M expense proposed by the Petitioner for the Fifth Control Period is tabulated below:

Table 19: Proposed O&M Expense for the Fifth Control Period (Rs. Cr.)

O&M Expenses	FY 25	FY 26	FY 27	FY 28	FY 29
Employee Expenses	29.81	33.05	36.64	40.62	45.04
A&G Expenses	10.30	11.08	11.92	12.82	13.80
R&M Expenses	42.50	50.09	56.03	59.77	63.32
Total O&M Expenses	82.61	94.22	104.59	113.22	122.16

2.8 Depreciation

- 2.8.1 For working out depreciation for the FY 2024-25 to FY 2028-29, the Petitioner has considered the proposed Capital Expenditure Plan. The Petitioner has computed the depreciation in accordance with the HPERC Tariff Regulations, 2011, as amended from time to time.
- 2.8.2 The Petitioner has submitted that it has computed depreciation based on methodology provided in the Regulations separately for the recently commissioned projects and the transmission network inherited from HPSEBL.

2.9 Non-Tariff Income

- 2.9.1 The Petitioner has computed the Non-Tariff Income in accordance with the HPERC Tariff Regulations, 2011, as amended from time to time.
- 2.9.2 The Petitioner has submitted the Non-Tariff Income for the Fifth Control Period based on the actual non-tariff income for FY 2021-22 and FY 2022-23 as per accounts as tabulated below.

Table 20: Actual Non-Tariff Income for FY 2021-22 and FY 2022-23 (Rs. Cr.)

Particulars	FY 2021-22	FY 2022-23
Income from Transit Camp/Guest House	0.01	0.01
LD/ Penalties from Contractors & Suppliers	0.00	0.00
Interest on Bank Deposits	0.00	0.00
Sale of Scrap	0.22	0.03
Sale of Tender Forms/ Application Forms	0.02	0.03
Misc. Receipts	0.00	0.00
Excess Provision Written Off	0.02	0.00
Interest Income from Contractors & Suppliers	0.38	0.21
RTI Fee	0.00	0.00
Realized Gain Account	0.00	0.01
Industrial Training Fee Received from Apprentice	0.00	0.01
Interest on ADB Loan Imprest	0.00	0.00
Total	0.30	0.65

2.9.3 The Non-Tariff income proposed by the Petitioner for the Fifth Control Period is summarized below:

Table 21: Non-Tariff Income claimed for the Fifth Control Period (Rs. Cr.)

Particulars	FY 25	FY 26	FY 27	FY 28	FY 29
Income from Transit Camp/Guest House	0.01	0.01	0.01	0.01	0.01
LD/ Penalties from Contractors & Suppliers	0.00	0.00	0.00	0.00	0.00
Interest on Bank Deposits	0.00	0.00	0.00	0.00	0.00
Sale of Scrap	0.12	0.12	0.12	0.12	0.12
Sale of Tender Forms/ Application Forms	0.02	0.02	0.02	0.02	0.02
Misc. Receipts	0.00	0.00	0.00	0.00	0.00
Excess Provision Written Off	0.01	0.01	0.01	0.01	0.01
Interest Income from Contractors & Suppliers	0.30	0.30	0.30	0.30	0.30
RTI Fee	0.00	0.00	0.00	0.00	0.00
Realized Gain Account	0.00	0.00	0.00	0.00	0.00
Industrial Training Fee Received from Apprentice	0.00	0.00	0.00	0.00	0.00
Interest on ADB Loan Imperest	0.00	0.00	0.00	0.00	0.00
Total	0.47	0.47	0.47	0.47	0.47

2.10 Income from Other Business

2.10.1 The Petitioner has submitted that it is not involved in any other business as defined in the HPERC Tariff Regulations, 2011 as amended from time to time, and accordingly it has not proposed for any income from other Business.

3 SUMMARY OF MYT TARIFF PETITION FOR FIFTH CONTROL PERIOD

3.1 Introduction

3.1.1 This Chapter summarizes the highlights of the Petition filed by the Petitioner for determination of the Aggregate Revenue Requirement (ARR) for the Fifth MYT Control Period (FY 2024-25 to FY 2025-29).

3.1.2 The Petitioner has made projections for the Control Period as per the HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011, as amended from time to time. Accordingly, ARR for each year of the Control Period has been summarized into following elements as under:

- O&M Expenses;
 - (i) Employee cost;
 - (ii) Administrative and General Expenses (A&G);
 - (iii) Repairs and Maintenance expenses(R&M);
- Depreciation;
- Interest and Financing Charges;
- Return on Equity
- Interest on Working Capital;
- Non-Tariff Income

3.2 O&M Expenses

3.2.1 The Petitioner has computed Operation and Maintenance Expense as per HPERC Tariff Regulations, 2011, as amended from time to time. The methodology and approach adopted by the Petitioner have already been discussed in the previous Chapter in detail. Accordingly, the O&M expense proposed by the Petitioner for the Fifth MYT Control Period is tabulated below:

Table 22: Proposed O&M Expense for the Fifth Control Period (Rs. Cr.)

O&M Expenses	FY25	FY26	FY27	FY28	FY29
Employee Expenses for Intra-state Assets	15.79	17.51	19.41	21.52	23.86
Employee Expenses (75% Allocated from Corporate)	14.01	15.54	17.22	19.10	21.17
Total Employee Expenses	29.81	33.05	36.64	40.62	45.04
A&G Expenses for Intra-state Assets	2.04	2.21	2.38	2.57	2.77
A&G Expenses for Petition Filing	3.33	3.59	3.87	4.18	4.51
A&G Expenses (75% Allocated from Corporate)	3.72	4.01	4.33	4.67	5.04
Manpower Training Costs	1.21	1.27	1.34	1.41	1.48
Total A&G Expenses	10.30	11.08	11.92	12.82	13.80
R&M Expenses	42.50	50.09	56.03	59.77	63.32
Total O&M Expenses	82.61	94.22	104.59	113.22	122.16

3.3 Depreciation

3.3.1 The Petitioner has computed the depreciation in accordance with the Regulation, 23 of the HPERC Tariff Regulations, 2011 as amended from time to time. The depreciation for each year of the Control Period has been computed as per the depreciation rates prescribed in the HPERC Tariff Regulations, 2011 as below:

Table 23: Depreciation Proposed for the Fifth Control Period (Rs. Cr.)

Particulars	FY 25	FY 26	FY 27	FY 28	FY 29
Opening GFA (Less Grant)	3003.09	3470.53	3795.42	3969.19	4268.70
GFA Addition during the year (Less Grant)	467.44	324.89	173.77	299.51	0.00
Closing GFA	3470.53	3795.42	3969.19	4268.70	4268.70
Average GFA	3236.81	3632.97	3882.30	4118.95	4268.70
WAROD	4.67%	4.67%	4.67%	4.67%	4.49%
Depreciation	151.08	169.57	181.21	192.25	191.65
Depreciation of Assets Transferred from HPSEBL	0.25	0.25	0.25	0.25	0.25
Total Depreciation	151.33	169.82	181.46	192.50	191.90

3.4 Interest on Loan

3.4.1 For the computation of interest on long-term loans, the Petitioner has considered the opening loan balances for the following assets:

- **Old Assets Transferred from HPSEB:** Zero, as all loans have been paid off.
- **New Assets with Approved Tariff Orders:** Closing loan balance as of 31.03.2024 as per the latest Tariff Orders.
- **New Assets with Pending Tariff Orders:** Closing loan balance as of 31.03.2024 as claimed in the Petition.

- **New Assets without Filed Tariff Petitions:** Based on funding approved by the Board of Directors or as per the Detailed Project Report (DPR).
- 3.4.2 The Petitioner has submitted that, in line with the Regulations, interest on loans is computed using the actual weighted average interest applicable to the project. All outstanding loans are considered at an interest rate of 10%, consistent with the rate for State Government loans.
- 3.4.3 The Interest on Loan for each year of the Fifth Control Period proposed by the Petitioner is as below:

Table 24: Interest on Loan claimed during the Fifth Control Period (Rs. Crore)

Particulars	FY25	FY 26	FY 27	FY 28	FY 29
Opening Loan	1812.46	2035.95	2117.39	2057.66	2075.14
Loan Addition during the Year	374.81	251.26	121.73	209.98	0.00
Less: Repayment of Loans during the year	151.33	169.82	181.46	192.50	191.90
Closing Loan	2035.95	2117.39	2057.66	2075.14	1883.24
Average Loan	1924.20	2076.67	2087.53	2066.40	1979.19
Weighted average Rate of Interest on Loans	10.00%	10.00%	10.00%	10.00%	10.00%
Interest on Loan	192.42	207.67	208.75	206.64	197.92

3.5 Return on Equity

- 3.5.1 The Petitioner has computed the Return on Equity in accordance with the Regulation, 19 of the HPERC Tariff Regulations, 2011 as amended from time to time.
- 3.5.2 The Petitioner has considered prevalent Corporate Tax Rate of 34.94% and gross up allowable RoE of 15.50% to derive at the pretax RoE of 23.83% for the next control period. Considering the same, RoE has been claimed based on the above Regulation for the next control period.
- 3.5.3 The return on equity proposed by the Petitioner for the Fifth Control Period is summarized below:

Table 25: RoE claimed for the Fifth Control Period (Rs. Cr.)

Particulars	FY 25	FY 26	FY 27	FY28	FY 29
Opening Equity	684.36	776.99	850.61	902.66	992.19
Net Equity Addition during the year	92.63	73.63	52.05	89.53	0.00
Closing Equity	776.99	850.61	902.66	992.19	992.19
Average Equity	730.67	813.80	876.64	947.43	992.19
RoE (%) (Pre-tax)	23.83%	23.83%	23.83%	23.83%	23.83%
Return on Equity	174.09	193.89	208.86	225.73	236.40

3.6 Interest on Working Capital

- 3.6.1 The Petitioner has computed the Interest on Working Capital in accordance with the Regulations 21 and 22 of the HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2011, as amended from time to time.

3.6.2 The Petitioner has calculated the interest on working capital considering prevalent SBI MCLR as on 1.04.2023 plus 300 basis points and proposed an interest rate on working capital @ 11.50%.

3.6.3 The Interest on Working Capital for each year of the Fifth Control Period proposed by the Petitioner is as below:

Table 26: Interest on Working Capital claimed for the Fifth Control Period (Rs. Cr.)

Particulars	FY 25	FY 26	FY 27	FY 28	FY 29
O&M Expenses for 1 month	6.88	7.85	8.72	9.43	10.18
Maintenance Spares (at 15% monthly O&M Expenses)	0.53	0.63	0.70	0.75	0.79
Receivables for 2 months on projected Annual Transmission Charges	102.09	113.19	119.67	125.54	127.30
Total Working Capital	109.51	121.66	129.09	135.72	138.27
Interest Rate (SBI MCLR+300 BP)	11.50%	11.50%	11.50%	11.50%	11.50%
Interest on Working Capital	12.59	13.99	14.85	15.61	15.90

3.7 Non-Tariff Income

3.7.1 The Petitioner has computed the Non-Tariff Income (NTI) in accordance with the Regulation, 24 of the HPERC Tariff Regulations, 2011 as amended from time to time. The NTI proposed by the Petitioner for the Fifth Control Period is summarized below:

Table 27: Non-Tariff Income claimed for the Fifth Control Period (Rs. Cr.)

Particulars	FY 25	FY 26	FY 27	FY 28	FY 29
Income from Transit Camp/Guest House	0.01	0.01	0.01	0.01	0.01
LD/ Penalties from Contractors & Suppliers	0.00	0.00	0.00	0.00	0.00
Interest on Bank Deposits	0.00	0.00	0.00	0.00	0.00
Sale of Scrap	0.12	0.12	0.12	0.12	0.12
Sale of Tender Forms/ Application Forms	0.02	0.02	0.02	0.02	0.02
Misc. Receipts	0.00	0.00	0.00	0.00	0.00
Excess Provision Written Off	0.01	0.01	0.01	0.01	0.01
Interest Income from Contractors & Suppliers	0.30	0.30	0.30	0.30	0.30
RTI Fee	0.00	0.00	0.00	0.00	0.00
Realized Gain Account	0.00	0.00	0.00	0.00	0.00
Industrial Training Fee Received from Apprentice	0.00	0.00	0.00	0.00	0.00
Interest on ADB Loan Imperest	0.00	0.00	0.00	0.00	0.00
Total	0.47	0.47	0.47	0.47	0.47

3.8 Income from Other Business

3.8.1 The Petitioner has submitted that it is not involved in any other business as defined in the HPERC Tariff Regulations, 2011, as amended from time to time, and accordingly, has not proposed any income from other Business.

3.9 Aggregate Revenue Requirement

3.9.1 The Petitioner’s submission of ARR for the Fifth Control Period i.e., FY 2024-25 to FY 2028-29 has been summarized below:

Table 28: ARR claimed for the Fifth Control Period (Rs. Cr.)

Particulars	FY 25	FY 26	FY 27	FY 28	FY 29
O&M Expenses	82.61	94.22	104.59	113.22	122.16
<i>Employee Expenses</i>	<i>29.81</i>	<i>33.05</i>	<i>36.64</i>	<i>40.62</i>	<i>45.04</i>
<i>R&M Expenses</i>	<i>10.30</i>	<i>11.08</i>	<i>11.92</i>	<i>12.82</i>	<i>13.80</i>
<i>A&G Expenses</i>	<i>42.50</i>	<i>50.09</i>	<i>56.03</i>	<i>59.77</i>	<i>63.32</i>
Depreciation	151.33	169.82	181.46	192.50	191.90
Interest on Loan	192.42	207.67	208.75	206.64	197.92
Interest on Working Capital	12.59	13.99	14.85	15.61	15.90
Return on Equity	174.09	193.89	208.86	225.73	236.40
Total ARR	613.04	679.59	718.51	753.70	764.27
Less: Non-Tariff Income	0.47	0.47	0.47	0.47	0.47
Net ARR	612.56	679.11	718.04	753.23	763.80

3.9.1 The Petitioner has requested the Commission to approve the above expenses to be recovered by the HPPTCL in accordance with HPERC Tariff Regulations, 2011, read with its amendments.

4 OBJECTION FILED AND ISSUES RAISED BY STAKEHOLDERS DURING PUBLIC HEARING

- 4.1.1 In response to the public notice inviting objections / suggestions from stakeholders on the Petition filed by HPPTCL for the approval of Aggregate Revenue Requirement (ARR) for the Fifth Control Period from FY 2024-25 to FY 2028-29, few stakeholders i.e. Sh. K.S. Dhaulta, M/s Tidong Power Generation Private Limited and M/s Malana Power Company Limited have filed their suggestions/ objections in writing.
- 4.1.2 The public hearing was held on 28th February, 2024 at the Commission in Shimla. A presentation was made by the Petitioner on the salient features of the Petition. Subsequently, the representatives of the stakeholders presented their key points before the Commission during the public hearing.
- 4.1.3 The list of stakeholders who have submitted their objections/ suggestions on the Petition are as follows:

Table 29: List of Stakeholders

Sl.	Objector	Address
1.	Sh. K.S. Dhaulta, Consumers' representative	R/o A-62 Sector-2, Main Road, New Shimla
2.	M/s Malana Power Company Limited	Village Chowki Post office Jari District Kullu, Himachal Pradesh
3.	M/s Tidong Power Generation Private Limited	Grover Cottage, 2 nd Floor, Above HDFC Home Loans, Chotta Shimla , Kasumpti Road, Shimla, Himachal Pradesh, 171002

- 4.1.4 The issues raised by the stakeholders in their written submission and during the public hearing, along with replies given to the objections by the HPPTCL and views of the Commission are summarized in following paras:

Stakeholder's comments:

- 4.1.5 M/s Tidong Power Generation Private Limited ("TPGCL" for short) has submitted that HPPTCL's proposed methodology for pooling the transmission charges in its Business Plan would lead to significantly higher transmission charges for Long-Term Access (LTA) and Medium-Term Open Access (MTOA) customers. This approach contradicts the terms of the existing LTA agreements, including that of Tidong-I HEP, which specify that LTA customers are only responsible for the costs of the associated transmission system as detailed in the respective agreements.

- 4.1.6 Under Regulation 12(I) of the HPERC Tariff Regulations, 2011, "Tariff in respect of the transmission system may be determined for the whole of the transmission system or for the individual transmission line/sub-station." Given that the LTA Agreements outline element-wise charges, this should be adhered to in line with Regulation 12(I), as HPPTCL has done in previous years. HPPTCL cannot unilaterally change this approach, as contractual provisions cannot be modified through orders and may only be altered by law. Where the law permits tariff determination for individual transmission lines or Sub-stations, as specified in the LTA Agreements, this approach should remain unchanged and should not be altered at HPPTCL's discretion.
- 4.1.7 TPGCL, as part of the rejoinder, further refuted the claim that it misinterpreted tariff recovery provisions and opposed applying consolidated ARR determination under Regulation 12(2) of the HPERC Transmission Tariff Regulations, 2024, to the Kashang-Bhaba line. TPGCL argued that such an approach would unfairly burden the Tidong project with costs of the entire state transmission system, despite HPPTCL's acknowledgment that Tidong's connection to the STU is interim until the Jhangi pooling station is commissioned. Given the interim LTA status granted by the Hon'ble Commission in its Order dated 02.05.2022, TPGCL asserted that its transmission charges should be based on actual usage rather than a consolidated cost mechanism.

Petitioner's reply:

- 4.1.8 The Petitioner has submitted that the respondent has misinterpreted the tariff determination provisions, combining them with the recovery mechanism. Regulation 12(1) of the HPERC Tariff Regulations, 2011, allows HPPTCL to file separate petitions for the approval of capital cost and determination of ARR for specific assets, without addressing transmission charge recovery. Regulation 12(2) of the HPERC Tariff Regulations, 2023, clarifies that HPPTCL must file a consolidated Petition for the entire transmission system if all elements achieve commercial operation by April 1, 2024.
- 4.1.9 The LTA Agreement between TPGPL and HPPTCL stipulates that TPGPL will bear transmission charges as determined by the HPERC, based on the total transmission scheme and respective capacity. Additionally, pooling of transmission charges is a practice recognized by the Hon'ble CERC and other State Commissions for transmission charge and loss recovery. Thus, the Respondent's contention lacks merit and should be dismissed.

Commission's View:

- 4.1.10 The Commission concurs partially with the views of the Petitioner and clarifies that individual assets were being considered in view of the limited network of the Petitioner and also the beneficiaries of the transmission system were easily identifiable. However, the transmission network of the Petitioner has now become sizeable and it is not possible to understand the flow of energy across each element. Further, in a meshed electrical

network, one cannot say with absolute conviction about the percentage usage of any transmission element, except for any dedicatedly used asset, by its beneficiaries. Moreover, the proposal of the Petitioner is as per the HPERC transmission tariff Regulations, 2023. Therefore, the Commission has approved consolidated ARR for the Intra-state assets as detailed in this Order. However, those transmission assets of the HPPTCL which are dedicatedly being utilized by a Generator for evacuating its power and/or form a part of an Inter-state transmission system have been given separate treatment. Further, in case, the Petitioner has entered into any agreement(s) with the beneficiaries wherein terms and conditions of the tariff has been agreed differently, which are not as per the HPERC Regulations, then the parties concerned may approach this Commission for adjudication in the matter separately.

Stakeholder's comments:

- 4.1.11 TPGPL has submitted that HPPTCL's proposal to pool transmission system assets for transmission charges would place an additional and onerous cost burden on open access customers, rather than reducing the transmission tariff. This approach, if accepted, would allow HPPTCL to impose tariffs higher than those initially agreed upon. Under HPPTCL's proposed methodology, even customers like TPGPL, who utilize only a small portion of the State Transmission Utility (STU) elements, would be subjected to a uniform transmission charge of Rs. 2.3 Lakhs/MW/month. This charge is excessive and lacks alignment with the actual extent of services provided, imposing a significant financial strain on industries and generators and potentially hindering the State's overall development.
- 4.1.12 TPGPL has further submitted that HPPTCL's proposal would lead to undue cross-subsidization, with open access consumers like TPGPL, who utilize a minimal part of the transmission system, bearing the costs of larger projects heavily reliant on the Intra-state transmission system. This cross-subsidization unfairly shifts transmission costs from other generators on to developers like TPGPL. HPPTCL appears to be acting in the interests of HPSEBL/HPPCL by passing part of their transmission costs on to other developers, thereby adopting a discriminatory stance.
- 4.1.13 Under the proposed pooled charge, TPGPL would pay nearly double its current LTA charge, amounting to approximately Rs. 15–17 Crores annually. TPGPL has requested that the Commission may direct HPPTCL to present a comparative schedule showing the increase or decrease in annual charges for each beneficiary if the proposed mechanism is implemented.
- 4.1.14 TPGCL, as part of the rejoinder, further clarified that the ARR for the 220 kV D/C Kashang-Bhaba transmission line should be apportioned between Tidong HEP (100 MW) and Kashang HEP (195 MW) on a pro-rata basis, as previously communicated to HPPTCL in its letter dated 24.07.2024. TPGCL also noted that the Petitioner accepted this position in the Minutes of Meeting dated 25.07.2024, wherein it was agreed, per Clause 33 of the

HPERC Tariff Regulations, 2011, and Clause 45 of the HPERC Regulations, 2023, that transmission charges are to be shared among users in proportion to their allotted or contracted capacities.

Petitioner's reply:

- 4.1.15 The Petitioner has submitted that the submissions made by the Respondent is contrary to its own cause as the approach suggested by the Petitioner will result in pancaking of transmission charges which may significantly increase the transmission charges applicable to the open access consumers. This will adversely affect the open access consumers as transmission charges for elements will keep on getting added one by one.
- 4.1.16 The Respondent's claim that it uses only a minor portion of the transmission network and should therefore pay reduced transmission charges to avoid cross-subsidization is misplaced. The State Transmission system operates as an interconnected network of transmission elements that forms a shared infrastructure, and thus, making a piecemeal approach impractical. Consequently, no consumer cross-subsidizes another, rendering the Respondent's argument baseless and subject to dismissal.
- 4.1.17 Furthermore, the Respondent's allegations of HPPTCL favoring HPSEBL/HPPCL are unfounded and objectionable, lacking any substantial evidence or factual basis. Notably, the Petitioner overlooks that it directly benefits from the 220kV D/C Kashang-Bhaba Transmission line and the 400/220/66kV Sub-station at Wangtoo (integrated through LILO of the 400kV Karcham Wangtoo-Abdullapur D/C line of PGCIL and the 220kV Kashang-Bhaba D/C line at Wangtoo) for the evacuation of its power, as detailed in the LTA dated 03.06.2022. It appears the Respondent has neglected to consider the associated charges for the 400/220/66kV Sub-station at Wangtoo in their submissions.
- 4.1.18 In light of the above, the Petitioner submitted that TPGPL's contentions lack merit and should be rejected.

Commission's View:

- 4.1.19 As discussed in 4.1.9 above as well, the transmission network of the Petitioner has seen substantial growth in the last Control Period and is likely to be added many more assets in this Control Period as well. It is a complex network that connects multiple generators and beneficiaries at various Sub-stations. Therefore, identifying the beneficiaries of each transmission element and accordingly fixing tariff for the same is very difficult and impractical. The Other States also have a common ARR for the transmission system and the transmission charges are applied uniformly to all the beneficiaries. Therefore, considering the increased transmission assets and multiple beneficiaries, it is appropriate to shift towards a common ARR with a recovery mechanism that could facilitate the same. However, any specified transmission assets which can be identified and considered for including as part of Inter-state transmission network and/or dedicatedly

being used by a beneficiary/ generator has been carefully excluded so that the other beneficiaries and the consumers are not burdened with the cost corresponding to these assets.

Stakeholder's comments:

- 4.1.20 TPGPL has submitted that the issue of transmission charges related to the provision of free power to the Government of Himachal Pradesh (GoHP) by generation developers require attention. Under the existing Implementation Agreements (IAs), generation developers are obligated to supply a portion of their generated power to the GoHP at no cost. However, while this power is provided free of charge, there are transmission costs associated with its delivery. Given that this free power functions as a form of royalty to the State, TPGPL contends that no transmission charges should be imposed for wheeling this power. Alternatively, any such charges should be borne by the beneficiary of this free power.
- 4.1.21 TPGPL notes that these transmission charges do not appear to have been adequately considered in the current Petition filed by HPPTCL.
- 4.1.22 TPGCL, as part of the rejoinder, refuted the claim that the terms of the Implementation Agreement between TPGCL and the Government of Himachal Pradesh (GoHP) are not applicable to the Petitioner. TPGCL argued that the Implementation Agreement dated 29.04.2004, the subsequent agreement dated 28.07.2006, and the LTA dated 03.06.2022 must be read together harmoniously to reflect the commercial understanding between the parties. The Petitioner has highlighted that while the LTA uses SCOD as a reference for levying transmission charges, it does not define SCOD, necessitating reliance on the Implementation Agreement. TPGCL emphasized that ignoring the state government's postponement of SCOD while the LTA assumes a non-existent SCOD creates an unworkable agreement and an incongruous position for the Petitioner.

Petitioner's reply:

- 4.1.23 The Petitioner has submitted that the obligations outlined in the Implementation Agreement between the generator and the Government of Himachal Pradesh (GoHP) do not apply to HPPTCL, as HPPTCL is not a party to this agreement. Since HPPTCL has signed an LTA with TPGPL dated 03.06.2022, the transmission charges applicable to the generator will be governed by the relevant HPERC Regulations, the Tariff Order issued by the Commission, and the contracted capacity specified in the LTA.

Commission's View:

- 4.1.24 All the users of the transmission system have to pay the transmission charges, be it any Generator or a Discom and/or any other beneficiary including the Government of HP. It is not possible for any power to flow in the transmission system without taking any open access. However, in case a Generator has agreed in its Implementation Agreement to provide GoHP

free power at any interconnection point free of cost then the Generator is liable to pay such transmission charges. Moreover, it is a matter between the GoHP and the corresponding hydro Generator which is beyond the scope of this Tariff Order. Also in its submissions, the stakeholder has highlighted various agreements it has inked with the GoHP and the Petitioner. These agreements have no relevance with the current Petition. TPGPL may separately file appropriate Petition for adjudication of any independently.

Stakeholder's comments:

- 4.1.25 TPGPL submitted that HPPTCL has set the LTA capacity of HPSEBL at 1372 MW per year for the entire MYT period without accounting for any increases. Furthermore, the Petition does not outline the calculations or basis for determining HPSEBL's LTA capacity.
- 4.1.26 In this context, it would be beneficial for HPPTCL to clarify the methodology and calculations that led to the figure 1372 MW. This clarification is especially important given that HPSEBL's peak demand is 1919 MW and is projected to grow annually by approximately 5%. Such factors raise concerns about the credibility of the information provided by HPPTCL. Accordingly, M/s Tidong has requested that the necessary details and justifications be provided to ensure transparency on this issue.

Petitioner's reply:

- 4.1.27 The Petitioner has submitted that the contracted capacity calculation for HPSEBL has already been submitted on Affidavit and has decided not to repeat it for brevity.

Commission's View:

- 4.1.28 The Commission agrees partially with the views of the Stakeholder regarding consideration of LTA capacity of HPSEBL as 1372 MW each year of the 5th control period. However, the LTA capacity of the HPSEBL cannot be fixed as 1372 MW for all the years of the Control Period as it is a dynamic process and will be liable to vary with time. The Petitioner is directed to undertake a detailed review of the contracted/allocated capacities of the beneficiaries including HPSEBL and ensure recovery of the ARR in line with the HPERC Tariff Regulations, 2023. The Commission has approved the ARR in this matter for the Intra-state transmission network and has approved recovery of the same in line with the HPERC Tariff Regulations, 2023.

Stakeholder's comments:

- 4.1.29 TPGPL has submitted that Punjab State Transmission Corporation Ltd (PSTCL) had earlier filed a MYT Petition on November 23, 2022, for the Control Period from FY 2023-26, proposing transmission charges of ₹1.21 Lakhs/MW/month. However, the Punjab State Electricity Regulatory Commission (PSERC), in its Order dated May 15, 2023, has approved

transmission charges of ₹1 Lakh/MW/month only for LTA and MTOA customers vide order dated 15.05.2023.

4.1.30 TPGCL, as part of the rejoinder has refuted the claim that there is no rationale to compare HPPTCL's transmission charges with those of PSTCL. TPGCL has highlighted that PSTCL determines transmission charges by pooling all assets into a single system, as proposed by HPPTCL in its Business Plan Petition. Similarly, PTCUL, in its MYT Petition No. 49 of 2023 for FY 2024-25, had transmission charges approved at ₹1.2 lakh/MW/month by the Hon'ble UERC.

Petitioner's reply:

4.1.31 The Petitioner has submitted in response to the assertions made by TPGPL that the TPGPL has selectively chosen to compare PSTCL's transmission charges with the proposed transmission charges without considering the methodology adopted by the State Regulator in determining the charges "on a per MW basis". While TPGPL has pointed out that the approved transmission charges for PSTCL are lower, it has overlooked a fundamental fact: the transmission charges for PSTCL are calculated for the entire transmission system as a whole, pooling all assets into a single pool, similar to what HPPTCL has proposed in its Business Plan Petition.

4.1.32 Furthermore, the Petitioner asserts that the Respondent has not provided any rationale for comparing the transmission charges of HPPTCL with those of PSTCL. There is no justification for comparing the charges of two different States that operate under vastly different topographical conditions and serve different beneficiaries. Therefore, the Petitioner submits that the arguments made by TPGPL lack any substantive rationale and should be rejected.

Commission's View:

4.1.33 It is worthwhile to mention that the transmission ARR is a function of various parameters including gross fixed assets, O&M expenses, etc. which varies across the States. Therefore, comparison of ARR or Transmission Charges across the States may not be relevant. The Commission has undertaken a detailed review of each of the transmission assets of the Petitioner and has accordingly approved the ARR in line with the Tariff regulations, 2023 under Chapter Six of this Order. The tariff has been approved to be recovered in line with the provisions of these Regulations only.

Stakeholder's comments:

4.1.34 At the 30th meeting of the Standing Committee on Power System Planning of Northern Region held on 19.12.2021, HPPTCL has stated that Tidong-I HEP (100 MW) was under construction as of December 2011, with a commissioning date projected for December 2014. However, due to delays in the Jangi Pooling Station, the power generated from Tidong-I will be temporarily evacuated using a LILO arrangement on the 220 kV D/C

Kashang-Bhaba line. Once the Jangi Pooling Station is operational, Tidong-I will connect through a dedicated 220 kV D/C line.

- 4.1.35 There have been disputes regarding the transmission line's ownership and usage. HPPTCL initially claimed that the Kashang-Bhaba line was dedicated solely to the Kashang HEP, a position challenged by TPGPL in Petition No. 12 of 2021. The Commission found that transmission charges should be paid by HPPCL for the line, affirming its primary function of evacuating Kashang HEP's power. Additionally, the LTA granted to Tidong-I HEP for 25 years was deemed flawed, and it was ruled that the LTA would remain valid only until the commissioning of Jangi Pooling Station.
- 4.1.36 Tidong-I is facing significant financial implications, with expenses of approximately ₹50 crores for constructing the S/C LILO of the Kashang-Wangtoo line. The proposed pooling of transmission charges at ₹2.3 lakhs/MW/month is considered excessively high and discriminatory, especially since the HEP's power is intended for the Inter-state system rather than the Intra-state transmission network. The commissioning of Kashang HEP units prior to Tidong-I further complicates the situation, highlighting the dependency on existing infrastructure.
- 4.1.37 TPGCL, as part of the rejoinder has further highlighted that the Commission, in its Order dated 02.05.2022 in Petition No. 12 of 2021 has explicitly stated that the evacuation arrangement for Tidong-I HEP is temporary until the commissioning of the Jangi Pooling Sub-station. Consequently, the open access arrangement is interim, with no assured evacuation for the entire 100 MW capacity as the associated system is shared with Kashang II and III.
- 4.1.38 TPGCL has referred to Regulation 3(zx) of the HPERC Tariff Regulations, 2023, read with Regulation 2(11) of the Connectivity Regulations, 2010, which defines long-term access as exceeding 12 years but not more than 25 years. However, in this case, the Commission has reduced the LTA period for TPGCL to align with the commissioning of the Jangi Pooling Sub-station. Given this special status, TPGCL has contended that the LTA and tariff regulations must not be applied strictly. It has cited Regulation 45(1) of the Tariff Regulations, 2023, which allows for transmission charges to account for factors like voltage, distance, and quantum of flow, urging the Commission to consider these aspects for Tidong HEP's transmission charges.

Petitioner's reply:

- 4.1.39 The Petitioner has submitted that claims of TPGPL lacks merit and violate HPERC Tariff Regulations, 2023. The Petitioner has emphasized that the transmission network is interconnected and consists of common infrastructure, making it incorrect to suggest that one party utilizes only a small portion of the network while others use substantial parts. The Petitioner also points out that Tidong HEP relies on the Wangtoo Pooling Station for power evacuation, further supporting the assertion that the entire transmission network is utilized for power transmission.

4.1.40 Additionally, the Petitioner has highlights contradictions in the Respondent's stance during the proceedings of Petition No. 12 of 2021. While the Respondent previously argued that the 220 kV D/C Kashang-Bhaba line is part of a common transmission system usable by Tidong-I, it has now claimed that this line is dedicated to Kashang HEP. Such contradictory statements are deemed unacceptable and warrant rejection by the Commission. The LTA agreement signed between Tidong HEP and HPPTCL reinforces the obligation of all long-term transmission customers, including TPGPL, to share and bear applicable transmission charges as determined by the HPERC, irrespective of actual commissioning dates.

Commission's View:

4.1.41 The points highlighted by the Stakeholder are more with respect to the applicability of LTA and connectivity issues with the transmission system, which are not a subject matter of this Order. The Stakeholder is free to approach the Commission with respect to such issues separately. However, some of the concerns regarding chargeability with respect to specific transmission line or system gets resolved based on the current approach followed in the system wherein a consolidated ARR for the Intra-state transmission system has been determined and the beneficiaries shall be charged with respect to their capacity utilization in accordance with the provisions of the HPERC Tariff regulations, 2023.

Stakeholder's comments:

4.1.42 Sh. K.S. Dhaulta, Consumers' Representative has submitted that the current Petition lacks the detailed information required by the Commission's Regulations, particularly in determining the capital cost and tariff for the Fifth Control Period from the CoD of FY 2024-25 to FY 2028-29. The Petition appears vague and contains insufficient details, failing to meet the standards set by HPERC Hydro Tariff Regulations.

Petitioner's reply:

4.1.43 The Petitioner has submitted that the Petition has been filed in accordance with the HPERC Tariff Regulations, 2011, and its subsequent amendments, in response to the claims made by the Respondent.

Commission's View:

4.1.44 The Commission has sought all relevant details and supporting documents required for prudence check of the Petitioner's proposal with regard to Business Plan and MYT Petition for the Fifth Control Period. Details of all documents referred and considered by the Commission for approving the various parameters for the Control Period have been mentioned at relevant paras of Chapter-5 & 6 of this Order.

Stakeholder's comments:

4.1.45 Sh. K.S. Dhaulta has submitted that the Petitioner is obligated to provide efficient transmission services within the State to the users of the transmission system as both a Transmission Licensee and the State Transmission Utility (STU) i.e. the Petitioner are responsible for planning and facilitating the transmission system while ensuring Grid security and supply quality in compliance with the Grid Code and the Electricity Act, 2003. As of December 31, 2023, HPPTCL's Intra-state network consists of 914.68 circuit kilometers of transmission lines and a capacity of 3350 MVA, with a target to expand to 1003.18 circuit kilometers and 3644 MVA by March 31, 2024. The Petitioner must provide the latest status of capacity and line enhancements in order to assess its efficiency and capability for capital cost approvals.

Petitioner's reply:

4.1.46 The Petitioner has submitted that the details regarding the existing line length (in circuit kilometers), transformation capacity, and the proposed augmentation in the State Transmission System during the Control Period from FY 2024-25 to FY 2028-29 have been provided in the current Petition under Chapter 2.

Commission's View:

4.1.47 The Commission acknowledges the concerns raised by Sh. K.S. Dhaulta regarding the Petitioner's obligations to provide efficient, reliable transmission services and to ensure Grid security and quality in line with the requirements of the Grid Code and the Electricity Act, 2003. The Petitioner, in its dual role as a Transmission Licensee and the State Transmission Utility (STU), is accountable for the effective planning, execution, and maintenance of the Intra-state transmission network. Recognizing the scale and criticality of these responsibilities, the Commission has carefully scrutinized the Petitioner's proposal for transmission network enhancements.

4.1.48 In its prudence check, the Commission has referred to specific documents and data points outlined in Chapters 5 and 6 of this Order, which include assessments of the Petitioner's progress on past projects, compliance with established transmission planning standards, and projected timelines for proposed augmentations. This rigorous evaluation aims to ensure that any capital cost approvals granted reflect the necessity and effectiveness of the proposed investments in enhancing the state's transmission network reliability and capacity, meeting both current and future demands.

Stakeholder's comments:

4.1.49 Sh. K.S. Dhaulta has submitted that the projected Annual Revenue Requirement (ARR) for FY 2023-24 is ₹85.61 crore, increasing to ₹122.16 crore by FY 2028-29, reflecting an approximate 10% annual increase in costs across various categories. The claimed O&M expenses, depreciation,

interest costs, and return on equity appear excessive and lack substantiation with factual and audited data. The projection of employee expenses for FY 2024-25 at ₹29.81 crore as compared to actual expenses of ₹13.48 crore in FY 2021-22 and ₹25.65 crore in FY 2022-23, represents a more than 90% increase, which is not based on realistic assumptions. In the previous Orders, the Commission had approved only 25% of actual employee expenses for STU and Intra-state employees. Additionally, the claimed R&M expenses of ₹10.30 crore for FY 2024-25 are significantly higher than the approved K-factor of 1.50% in the MYT Order dated June 29, 2019. Such claims should not be allowed without adequate justification.

Petitioner's reply:

4.1.50 The Petitioner has submitted that the increase in O&M Expenses is primarily due to the anticipated commissioning of additional transmission assets during the 5thControl Period from FY 2024-25 to FY 2028-29. This increase necessitates significant additional resources for the optimal operation and maintenance of the transmission system. Furthermore, the Petitioner notes that the Intra-State Transmission Assets substantially exceed the Inter-State Transmission Assets, prompting a change in the methodology for apportioning O&M Expenses. A detailed methodology is discussed under the O&M Expenses chapter of the Petition. The Petitioner has also requested the Commission to consider the reply submitted via Affidavit dated 26.03.2024 concerning the Deficiency Note dated 22.02.2024, as well as additional submissions made through the Affidavit dated 04.03.2024 regarding the Business Plan for FY 2024-25 to FY 2028-29.

Commission's View:

4.1.51 In the previous Orders, the Commission had approved O&M expenses considering the fact that not many transmission assets were commissioned, and the Petitioner was primarily operating the assets transferred under the transfer scheme from erstwhile HPSEB. However, with the new additions in the transmission system and issuance of corresponding tariff Orders, the Commission has decided to integrate the ARR with respect to the entire Intra-state transmission system and has approved the O&M expense as per the methodology detailed in Chapter 6 of this Order.

Stakeholder's comments:

4.1.52 Sh. K.S. Dhaulta has submitted that the Petitioner needs to address and justify previous observations and queries raised by the Commission. The projections must align with the cost criteria approved in the MYT order dated June 29, 2019, to enable effective determination of the ARR by the Commission.

Petitioner's reply:

4.1.53 The Petitioner has submitted that the contents are matters of record and do not necessitate any further response.

Commission's View:

4.1.54 The Commission has reviewed the submissions of the Petitioner and undertaken detailed scrutiny and analysis of each component of the ARR as detailed in Chapter 5 and 6 of this Order.

Stakeholder's comments:

4.1.55 Sh. K.S. Dhaulta has submitted that the Petitioner must provide justification for the variations in the basis for calculating proposed charges for the control period and the revised ARR. The Petition lacks details on transmission losses and transmission system availability for the claimed Control Period (FY 2024-25 to FY 2028-29) and the determination of ARR and tariff. There is no adequate justification supported by audited data for the proposed ARR of ₹612.56 crore for FY 2024-25, projected to increase to ₹763.80 crore by FY 2028-29, which is deemed unjustified and exceeds actual costs. The Commission should consider these observations when making a decision on the Petition.

Petitioner's reply:

4.1.56 In reply to the Respondent's statement regarding Transmission loss and Transmission System Availability, the Petitioner has submitted that it has made its submissions in the Petition and the details have not been reiterated for the sake of brevity. The Petitioner has requested the Commission to consider the submissions made in the Petition and the response to the deficiency note dated 22.02.2024.

Commission's View:

4.1.57 The Commission has gone through the submissions of the Petitioner and the objections raised by Sh. K.S. Dhaulta. Based on the submission and subsequent clarifications of the Petitioner, the Commission feels that the measures undertaken by the Petitioner has been limited and also the Petitioner has still not devised any concrete mechanism for determination of transmission losses in co-ordination with HPSEBL. As the existing Intra-state transmission infrastructure of the Petitioner has seen commissioning of new assets with proposed additions in the future as well, the Commission feels it adequate to approve the transmission losses of 0.50% during fifth Control Period. However, the Commission shall review the same during Mid term review. Further, the Petitioner is directed to undertake measures for segregation of transmission losses with the HPSEBL in respect to its network.

Stakeholder's comments:

4.1.58 Sh. K.S. Dhaulta has submitted that the Petitioner has not adequately justified the claims for Interest on Loan (IOL) and Return on Equity (ROE) related to old assets transferred from HPSEBL. The claimed IOL at 10% p.a. weighted average ROI does not align with HPERC Tariff Regulations, 2011, nor does the ROE consider the opening value of the relevant items. The Commission's Order dated December 28, 2022, approved zero amounts for IOL and ROE on HPSEBL assets transferred to the Petitioner. The Petitioner is required to present factual and accurate information regarding capital costs and tariff determination to facilitate approval by the Commission.

Petitioner's reply:

4.1.59 The Petitioner in response to the claims made by the Respondent concerning Interest on Loan and Return on Equity for the Assets transferred from HPSEBL has submitted that Interest on Loan is not claimed for any of the old assets transferred from HPSEBL which is consistent with the Commission's observations in the Order dated 28.12.2022 for the Control Period from FY 2019-20 to FY 2023-24. However, regarding the Return on Equity claim, the Petitioner asserts that it aligns with the justification provided in Petition No. 29 of 2024, which states that Rs. 30.79 Crore was transferred to Government Share. Additionally, these assets incur some costs as they are operational and utilized to meet the power supply requirements of Himachal Pradesh. Therefore, the Petitioner has claimed ROE on the assets transferred from HPSEBL to HPPTCL for FY 2024-25 to FY 2028-29 based on these justifications.

Commission's View:

4.1.60 The Commission has undertaken detailed scrutiny of each cost element while approving the expenses for the Fifth Control Period. All details and discussions in this regard is provided in Chapter-6 of the Order.

Stakeholder's comments:

4.1.61 M/s Malana Power Company Limited has submitted that under Section 3 of the Electricity Act 2003, the Central Government issued the "National Tariff Policy 2006," amended in 2016. This policy mandates that wheeling charges should follow the principles for Intra-state transmission charges, with added loss compensation for the relevant voltage level. It also directs SERCs to adopt a similar framework for Intra-state transmission within two years, considering factors such as voltage, distance, direction, and flow, aiming for voltage-wise wheeling charges.

4.1.62 The MPCL has emphasized that Sections 61 and 62(3) of the Electricity Act, 2003 require the Appropriate Commission to follow multi-year tariff principles and avoid undue preference among consumers, allowing differentiation based on factors like load factor, voltage, and consumption. To align with these provisions, the HPERC issued Tariff Regulations in 2011,

with further amendments, requiring separate tariffs for different voltage levels.

- 4.1.63 M/s Malana Power Company Limited objected to the current MYT Petition by HPPTCL, which proposes a single transmission charge across all 66 kV and above voltage level assets, arguing that this disregards voltage differentiation and the National Tariff Policy's intent. MPCL, as a generator connected at 132 kV, transmits power exclusively outside the State using the 220 kV level, without utilizing other voltage levels, due to an Implementation Agreement prohibiting in-state sales.

Petitioner's reply:

- 4.1.64 With regard to the Respondent's assertions, the Petitioner has submitted that Section 61 of the Electricity Act, 2003, treats the National Tariff Policy as a guiding document, not a mandatory requirement. Furthermore, the Petitioner pointed out that the National Tariff Policy specifies that implementing voltage-wise transmission charges at the Intrastate level should follow similar implementation at the interstate level. Since voltage-wise transmission charges have not yet been adopted at the interstate level, implementing them at the intrastate level would be premature. The Petitioner also noted that this concept remains in its early stages and has not been implemented by any State.
- 4.1.65 The Petitioner has reiterated that the proposed pooled mechanism is already prevalent and widely accepted across various States and does not introduce additional complexities associated with voltage-wise segregation. Therefore, the Respondent's statements lack rationale, are premature, and should be dismissed.

Commission's view:

- 4.1.66 The Commission partially agree with the views of the Petitioner. The tariff principles elaborated in the Tariff Policy are guiding one and not mandatory to be followed. However, the Commission is slowly and steadily moving in the direction of the tariff policy. The transmission system of the Petitioner has shown exponential growth in the recent past. In this new, complex and dynamic system, it is difficult to know and understand the flow of energy at different voltage levels. Also, there is no precedence in the country where segregated transmission charges or losses are notified by the Regulatory Commissions. Moreover, at the central level as well the voltage-wise framework for transmission charges is not implemented. Also, the HPERC Tariff Regulations, 2023 do not provide for segregated transmission charges and losses. Therefore, the issues highlighted by the Stakeholder cannot be addressed as part of this Order. However, the Commission is already following Multi Year Tariff principles for tariff determination as per the Tariff Regulations. Further, considering the increase in transmission network of the Petitioner and multiple beneficiaries of the transmission system, the Commission feels it appropriate to shift towards a common ARR and

recovery mechanism which could facilitate recovery of transmission charges in line with other States in the country.

Stakeholder's comments:

4.1.67 The MPCL has submitted that HPPTCL's network, with a capacity of 3,644 MVA, is only partially utilized (2,290 MW), causing current users to bear costs for unused transmission capacity. MCL has argued that burdening Independent Power Producers (IPPs) and hydro plants with these charges would hinder hydro development in Himachal Pradesh, which has significant untapped potential. MPCL has suggested that a compensatory mechanism for HPPTCL should be considered to avoid overburdening customers with underutilized assets and has referred to the National Tariff Policy, which aims to prevent non-optimal transmission investments while supporting planned development, recommending cost-sharing based on actual system utilization.

Petitioner's reply:

4.1.68 The Petitioner has submitted that the transformation capacity as of March 2024, cited by the respondent, represents the aggregate capacity at various voltage levels. Therefore, comparing this with LTOA/MTOA capacity lacks merit and rationale. Even based on the respondent's data, the LTOA/MTOA capacity of 2,290 MW constitutes about 70% of the total 3,280 MW, indicating that HPPTCL's system is optimally utilized, contrary to claims of overcapacity.

4.1.69 The Petitioner has further referred to the CEA Planning Criteria, 2023, which recommends that transmission planning in challenging terrains like Himachal Pradesh should consider long-term goals, including future load growth and power evacuation needs, as immediate 100% utilization may not be feasible. HPPTCL's total installed capacity of 1,003 circuit kilometers and 3,644 MVA also accounts for 'N-1' contingency, enhancing system reliability. Excluding this margin would further illustrate optimal utilization of the HPPTCL system.

Commission's view:

4.1.70 As highlighted by the Petitioner in its response, the planning for transmission system is undertaken considering the creation of N-1 contingency so that in case of any specific transmission asset outage, the supply of electricity is not restricted. Therefore, Commission concurs with the views of the Petitioner that the higher transmission capacities cannot be directly correlated with the LTOA capacity as this may hamper the flow of power. The Commission believes that all transmission planning is being undertaken in line with the CEA guidelines and the Petitioner has been taking approval of CEA at the planning stage, wherever required. However, the Commission has given separate treatment for a transmission system built by the Petitioner without having any beneficiary and/or not built for the electricity consumers of the State.

Stakeholder's comments:

4.1.71 The MPCL has submitted that in Table 36 of its Petition, the HPPTCL has provided the Transmission Tariff for the Control Period from FY 2024-25 to FY 2028-29, detailing the Aggregate Revenue Requirement (ARR) and total LTOA contracted capacity in MW. However, HPPTCL's approach is flawed, as the transmission tariff for Short-Term Open Access (STOA) has been calculated without factoring in the total energy flow within the State Transmission Utility (STU) system. Since STOA is granted based only on spare capacity, STOA charges should reflect the total energy flow across the system—a calculation that is currently missing.

Petitioner's reply:

4.1.72 The Petitioner has submitted that the Transmission Tariff is determined in accordance with the provisions of the HPERC Tariff Regulations, 2023. Additionally, Regulation 16 of the Himachal Pradesh Electricity Regulatory Commission (Short Term Open Access) Regulations, 2010, as amended from time to time, stipulates that short-term transmission charges shall align with long-term transmission charges. In light of the above, the statements made by the Respondent lack any rationale and contradict these provisions, rendering them liable to rejection.

Commission's view:

4.1.73 The Commission has approved the transmission charges for the short-term open access as discussed under Chapter Six of this Order in line with the provisions of the Regulation 16 of the Himachal Pradesh Electricity Regulatory Commission (Short Term Open Access) Regulations, 2010.

Stakeholder's comments:

4.1.74 The MPCL has submitted a comparison of the STU Transmission Tariff of HPPTCL with the ISTS Transmission Tariff for the months of January, February, March, and April 2024 which reveals that the ISTS Network comprises over 200,000 circuit kilometers and approximately 5.16 lakh MVA of transformation capacity, with a long-term open access (LTOA) of more than 110,000 MW, significantly larger than the STU Network. Despite this considerable difference in network size and capacity, the disparity in transmission charges between ISTS and STU remains minimal.

Petitioner's reply:

4.1.75 The Petitioner has submitted that the comparison of the assets between the ISTS network and those of the Petitioner is not a valid comparison. The ISTS network primarily consists of assets operating at voltage levels of 220 kV and higher. In contrast, the economies of scale favor the CTU network, indicating that the Inter-state transmission charges should be significantly lower than the proposed Intra-state Transmission Charges. The presence of lower Intra-state Transmission charges suggests that the transmission infrastructure being developed by the STU, in coordination with various stakeholders, is based on sound economic and commercial principles, as

well as the CEA Manual on Transmission Planning Criteria. Therefore, the statements made by the Respondent, which compare the asset sizes of the Petitioner's Transmission System and the Inter-state Transmission System along with their respective Transmission Charges, contradict their own assertions and are thus, liable to be rejected.

Commission's view:

4.1.76 The Commission concurs with the views of the Petitioner regarding non-comparability of the inter-state and Intra-state transmission networks with respect to the transmission charges. Also, considering the fact that most of the transmission network of the Petitioner has been commissioned in recent years, the transmission charges are bound to be higher as compared with other State transmission licensees, including that of ISTS, where a mix of old and new transmission network exist. However, the Commission after doing required prudence check and due diligence has reduced the ARR claim of the Petitioner significantly. The Commission also believes that all transmission planning is being undertaken in line with the CEA guidelines and the Petitioner has been taking approval of CEA at the planning stage, wherever required. Therefore, the observations raised by the Stakeholder is not appropriate and a comparison with respect to inter-state or other transmission licensee is inappropriate.

Stakeholder's comments:

4.1.77 The MPCL has submitted that given the significant increase in STU charges, the transmission of power from HP State to other States will also become more expensive, which is detrimental to the price competitiveness of hydro power.

Petitioner's reply:

4.1.78 The Petitioner submits that it is the Petitioner's responsibility to develop supporting transmission infrastructure to meet the growing demand within the State. Unlike generating stations, transmission assets cannot be designed to operate at full capacity from the outset; instead, they must ensure reliable evacuation by fulfilling the 'N-1' contingency criteria and maintaining power flow within safety limits. As a result, there may be an initial increase in Transmission charges. However, with the addition of new projects and beneficiaries, these charges are expected to decrease. This trend is also reflected in the Transmission Charges proposed by the Petitioner, which show a gradual increase until FY 2027-28, followed by a reduction starting in FY 2028-29, thereby supporting the Petitioner's claims. Therefore, the statements made by the Respondent lack merit and are thus, liable to be rejected.

Commission's view:

4.1.79 The transmission charges are a function of the various ARR parameters and based on the addition in transmission capacity, the transmission charges are bound to increase. However, it is observed that the Petitioner has access to multilateral funds and grants which assist in limiting the steep

increase in transmission charges. While the transmission capacity addition which is required for ensuring better and reliable supply may lead to increased transmission charges in near future but these charges would reduce once the loan repayment is complete. Further, per MW transmission charges is likely to reduce in near future with more hydro capacity coming into operation and also with the increase in demand within State.

Stakeholder's comments:

4.1.80 MPCL has submitted that post-unbundling, certain EHV transmission assets have been vested with HPSEBL. Consequently, the MPCL is liable to pay dual transmission charges to both HPSEBL and HPPTCL.

Petitioner's reply:

4.1.81 The Petitioner has submitted that it has no control over the situation. However, it is asserted that since the asset is being utilized by the Respondent, it is obligated to pay the appropriate charges for such usage.

4.1.82 In light of the above, the Petitioner has requested the Commission to consider this matter appropriately and judiciously.

Commission's view:

4.1.83 The Commission, in the previous tariff Orders also, has mentioned that proper segregation of assets and functions would help in eliminating the concerns of the stakeholders. Based on the directives of the Commission, the Petitioner has taken up the matter with the Government of Himachal Pradesh for proper resolution. The Commission further directs the Petitioner to undertake sincere efforts and pursue the matter for functional segregation of the entire transmission system of the State with the GoHP. However, the Commission cannot promise that the MPCL shall have to incur less transmission charges, what it has been paying at present, even if all the EHV assets of the State is transferred to the Petitioner by the GoHP, as these charges determined by the Commission comprise of the various parameters including cost of the system.

5 ANALYSIS ON BUSINESS PLAN AND CAPITAL INVESTMENT PLAN FOR FIFTH CONTROL PERIOD

5.1 Introduction

- 5.1.1 The HPPTCL has submitted the Petition for Business Plan for the Fifth Multi Year Tariff Control Period (FY 2024-25 to FY 2028-29) in line with Section 62 read with Section 86 of the Electricity Act, 2003 (Act No. 36 of 2003) and Regulations 37 and 38 of the Tariff Regulations, 2011 as amended from time to time.
- 5.1.2 Subsequently, the Commission has issued the new transmission Tariff Regulations i.e. Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2023 vide notification dated 14th March, 2024. The Commission has reviewed the Petition in accordance with the HPERC Tariff Regulations, 2023. As part of the first, second and third deficiency letters, the Petitioner was asked to provide additional information in compliance to the HPERC Tariff Regulations, 2023.
- 5.1.3 As per the Regulation 51 of HPERC Tariff Regulations, 2023, a transmission licensee has to file Business Plan along with the details as reproduced hereinunder:

"Beginning of the Control Period - Business Plan Filings. - In the base year, prior to the filing of multi-year ARR cum Tariff petition, the Transmission Licensee shall file a business plan approved by its board of directors. The business plan shall be for the entire control period and shall, inter-alia, contain –

(a) Capital Investment Plan: This should be commensurate with load growth and quality improvement proposed in the business plan. The investment plan should also include corresponding capitalisation schedule and financing plan; The Commission shall approve the system augmentation/ expansion plan submitted by the Transmission Licensee, based on the load growth forecast/ generation evacuation requirement during the control period. The capital investment plan shall be in conformity with the plans made by the CEA/ CTU/ STU/ distribution licensee.

(b) Capital Structure: The appropriate capital structure of each scheme proposed and cost of financing (interest on debt) and return on equity, terms of the existing loan agreements, etc;

(c) Operation and Maintenance (O&M) Expenses: This shall include the costs estimated for the base year, the actual expenses incurred in the previous two years and the projected values for each year of the control period based on the proposed norms for O&M cost, including indexation and other appropriate mechanism;

(d) Depreciation: Based on the useful life of the asset and capitalisation schedules for each year of the control period;

(e) Performance Targets: A set of targets proposed for controllable items such as, availability of transmission system, transformer failure rate, and any other parameters for quality of supply for each year of the control period for the purpose of incentive / penalties. The targets shall be consistent with the capital investment plan proposed by the Transmission Licensee;

(f) Proposals for Non-tariff: Income with item-wise description and details;

(g) Proposals in respect of income from Other Business;

(h) Other Information: This shall include any other details considered appropriate by the Transmission Licensee for consideration during determination of tariff.”

- 5.1.4 The Commission has reviewed the proposed Business Plan comprising of the capital expenditure plan, funding of capex schemes, capitalization plan, operational HR development plan and O&M plan for the Fifth Control Period. Technical Validation Sessions (TVS) were conducted on 1st March, 2024 and subsequently on 14th October, 2024, in the office of the Commission to discuss, in detail, the submissions of the Petitioner and validate the data submitted by the Petitioner and sought further clarifications regarding status of the proposed schemes, status of upcoming Generating Stations to be connected with the HPPTCL system, Beneficiary details, Manpower recruitment, etc. as part of the Petition.
- 5.1.5 The Commission’s approach on approval of the Business Plan for the Petitioner for the Fifth Control Period from FY 2024-25 to FY 2028-29 is detailed in paras below.

5.2 Transmission Infrastructure

- 5.2.1 During the unbundling of State power sector, 15 number of Transmission Lines were transferred to the HPPTCL which were previously held by the erstwhile HPSEB. However, the line bays, Sub-stations, C&R Panel, Metering arrangement and other transmission related infrastructure are still in possession of the HPSEBL.
- 5.2.2 The Petitioner has provided the details of existing Intra-state transmission infrastructure vested with the HPPTCL as per notification no. MPP-A (3)-1/2001-iv dated June 10, 2010 by the Government of Himachal Pradesh. In addition to the above, the transmission system of HPPTCL also contains

three Inter-state lines, the tariff of which is approved by the Hon'ble Central Electricity Regulatory Commission (CERC). The details of the existing Intra-state Transmission system of the Petitioner is tabulated below.

Table 30: Details of existing Intra-state Transmission lines transferred from HPSEB

S. No.	Name of Existing lines	Type of line AC/ HVDC	S/C or D/C	Line length (ckt.-km)	Date of Commercial Operation
A	220 kV Lines				
1	220 kV D/C Bairasuil - Pong Line (LILO portion at Jassure)	AC	D/C	0.48	09-1985
2	220 kV Dehar-Kangoo Line (S/C ckt. Line on D/C tower)	AC	S/C	4.177	06-1999
3	220 kV D/C Nalagarh (PGCIL)-Nalagarh Line	AC	D/C	7.00	07-2010
B	132 kV Lines				
4	132 kV S/C Giri-Kulhal Line	AC	S/C	17.40	04-1978
5	132 kV D/C Giri-Abdullapur Line	AC	D/C	16.22	08-1982
6	132 kV S/C Kangra Tap Line	AC	S/C	0.14	02-1979
7	132 kV S/C Dehar-Kangoo Line	AC	S/C	3.18	12-1998
8	132 kV D/C Shanan-Bassi Line	AC	D/C	10.00	03-1970
C	66 kV Lines				
9	66 kV Shanan-Bijni Line	AC	S/C	35.00	10-1969
10	66 kV Pinjore-Parwanoo Line	AC	S/C	8.23	04-1956
11	66 kV Pong-Sansarpur Terrace Line	AC	S/C	6.30	10-1990
12	66 kV Bhakra-Goalthai-Rakkar Line	AC	S/C	16.72	12-1985

5.2.3 The Petitioner has also been mandated by the GoHP with construction of new transmission assets for evacuation of power from the HEPs to the load centers. As part of the Himachal Hydro Power and Renewable Power Development Programme, Green Energy Corridor Schemes as well as other domestic funded projects, the Petitioner undertook construction of several transmission assets including transmission lines and Sub-stations resulting in expansion of its transmission network. The details of the new transmission assets commissioned by HPPTCL post its inception are as below:

Table 31: New Transmissions Assets of HPPTCL

SI.	Name of Scheme	COD	Tariff Order issued/ Not issued
1	220 kV D/C Bajoli Holi HEPLahal Transmission line	19-11-2021	Issued
2	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	20-05-2020	Issued
3	400/220/66 kV GIS Pooling Sub Station Wangtoo (Sherpa Colony)	29-09-2019	Issued
4	220 kV D/C Charor-Banala Transmission line	10-01-2019	Issued
5	220 kV Snail-Hatkoti D/C Transmission Line	02-11-2020	Issued

SI.	Name of Scheme	COD	Tariff Order issued/ Not issued
6	400/220 kV System of 400/220/33 kV GIS Sub-station at Lahal (Asset-1) and 400 kV D/C Lahal - Chamera Transmission Line	11-01-2023	Issued
7	33/132kV GIS Sub-station at Chambi (Shahpur) alongwith 132 kV D/C Transmission Dehra-Kangra Transmission Line to GIS pooling Sub-station at Chambi	05-08-2020	Issued
8	33/132 kV, GIS Sub-Station at Pandoh along with LILO of one circuit of 132 kV D/C Kangoo-Bajaura Transmission line (Asset-1) and Additional 33/132 kV, 31.5 MVA Transformer with associated GIS at 33/132 kV at Pandoh (Asset-2)	24-08-2019 for Asset-1 08-10-2020 for Asset-2	Issued
9	220kV D/C Kashang Bhaba transmission line	01-06-2016	Issued
10	220/66kV Bhoktoo Pooling Sub-station	23-03-2017	Issued
11	220 kV LILO of Panchkula- Kunihar Transmission Line	23-06-2022	Issued
12	66kV GIS Switching Sub-station at Urni (Asset-1) and for the period from COD (20.05.2022) to FY 2023-24 for 66kV D/C Line from Urni Switching Station to Wangtoo Sub-station (Asset-2)	10-03-2023	Issued
13	33/220kV, 80/100 MVA GIS Sub-Station at Phojal along with 220kV D/C LILO Transmission Line	05-06-2016	Issued
14	33/220kV GIS Sub Station at Karian along with 220kV D/C Transmission line from Karian to Rajera for the period	12-05-2018	Issued
15.	220/132 kV, 2×80/100 MVA, Sub-station at Dehan, Distt. Kangra	04-08-2022	Not issued
16.	66 kV D/C Nirmand(Bagipul)-Kotla Transmission Line	04-03-2023	Not issued
17.	220 kV D/C Dehan -Hamirpur Transmission Line	04-08-2022	Not issued
18.	400/220 kV, 4×105MVA, Sub-station at Gumma, Distt. Shimla(ADB Tranche-I funded)	02-11-2020	Not issued
19.	Addl. 400/220kV, 315MVA Transformer Bank(3×105MVA) in the 400/220 kV, 4×105MVA, Sub-station at Gumma (KfW funded)	05-02-2021	Not issued
20.	Addl. 220/66kV, 2×50/63MVA Transformer in the yard of 400/220kV, 630MVA Gumma Sub-station at Gumma(Distt. Shimla) (ADB Tranche-III funded)	22-05-2023	Not issued
21.	66/22 kV, 25 MVA Sub-station at Bagipul, Distt. Kullu	04-03-2023	Not issued
22.	220kV D/C Hatkoti-Gumma Transmission line	02-11-2020	Not issued
23.	220kV GIS Switching Sub-station at Hatkoti in Distt. Shimla	01-02-2022	Not issued
24.	220 kV D/C Sunda -Hatkoti Transmission Line	03-08-2022	Not issued
25.	Addl. 66/220kV, 80/100MVA, Single Phase Transformer Bank with 1 No. Spare Transformer in the yard of 132/220kV GIS Sub-station at Sunda(Distt. Shimla)	03-08-2022	Not issued
26.	5 No. 220kV Bays of 132/220kV system of 132/220/66kV GIS Sub-station at Sunda	02-08-2022	Not issued
27.	220/132 kV , 80/100 MVA Sub-station Charoralongwith Additional 80/100 MVA Transformer at Charor	02-08-2022	Not issued

5.3 Transmission Losses

- 5.3.1 The Petitioner has requested the Commission to approve the transmission loss target of 0.75% for all years of the Control Period. However, no details with respect to the actual overall transmission loss during Fifth Control Period has been provided by the Petitioner.
- 5.3.2 In the MYT Order dated 29th November, 2018 of the Petitioner for the Fourth Control Period, the Commission had provisionally approved 0.75% transmission loss in the absence of any data submitted by the Petitioner with regard to the transmission losses. The approved losses were for the limited purpose of recovery of transmission losses from open access consumers while the distribution licensee had to continue to bear the losses under the current accounting system.
- 5.3.3 The Commission had directed the Petitioner to submit the Intra-state transmission loss calculations for its transmission assets over the last three years and to propose appropriate loss figures for each year of the Fifth Control Period. In response, the Petitioner has provided asset-wise transmission losses for its operational projects up to FY 2022-23. However, regarding overall transmission losses, the Petitioner has explained that these figures are not currently tracked by the HPPTCL. The Petitioner was further directed to submit a detailed plan, including a timeline, for installing metering at all interconnection points with HPSEBL. Accordingly, the Petitioner stated that all interface points have now been identified and, starting from FY 2024-25, the HPPTCL has begun manually collecting meter readings at these points to calculate transmission losses. The Petitioner also stated that the average transmission loss for HPPTCL's transmission system (excluding the 12 lines transferred from HPSEBL) is being calculated using the NLDC/NRLDC methodology for ISTS losses.
- 5.3.4 The Commission, with regard to segregation of transmission losses of the HPPTCL, in the Business Plan and MYT Order dated 15.03.2024 for Fifth Control Period of HPSEBL had directed HPSEBL as follows:
- "The accounting of T&D losses at the different voltage levels is very much essential so as to have target measures to reduce the losses. The segregation of the HPSEBL and STU transmission losses are very much essential for transparency and proper energy accounting. The metering of the older assets of the STU transferred from the erstwhile HPSEB is with the Petitioner only. Therefore, there should not be any issue with respect to the same. The directive is being continued. The Petitioner is directed to complete the study and segregate the losses for the HPPTCL within three months of issuance of this order positively."*
- 5.3.5 **Accordingly in view of the above direction of the Commission to the HPSEBL, the Petitioner is also hereby directed to renew and intensify efforts toward this functional segregation, which remains essential for addressing the needs of consumers across the State. Delays in implementing this segregation would not only add**

unnecessary complexities but also increase the operational challenges currently encountered by existing generators and open access consumers within Himachal Pradesh. The Commission directs the petitioner to undertake proper metering of interconnection points and submit the details of transmission losses along with the Mid-Term filing.

- 5.3.6 The Commission in the HPSEBL Business Plan and MYT Order for Fifth Control Period (FY25-29) dated 15.03.2024 has reviewed the submissions of the HPSEBL with regard to the transmission losses of the HPPTCL and had observed the following:

"8.4.8 In spite of the Commission directions, appropriate metering arrangement between the transmission and distribution interfaces is still to be undertaken. While the Commission had approved cost to HPPTCL for installation of energy meters to have a greater accuracy for energy balance, no measures have been taken in this regard. Further, no significant addition in intra-state transmission network is planned during the fourth Control Period. Therefore, the Commission has decided to continue with the T&D loss trajectory for the HPSEBL.

8.4.9 Also, the losses submitted by the HPPTCL with regard to transmission system seem to be much lower than that being proposed by the Petitioner. The Commission is aware of the new assets commissioned under the transmission system, however, disintegration of the T&D losses into transmission and distribution losses is not possible without proper metering and availability of information with respect to the losses in the two system. Therefore, the Petitioner is directed to work-out a specific plan along with the HPPTCL to ensure that details of losses in the system can be segregated into transmission and distribution losses and submit the details of the same along with next tariff petition.

.....

8.4.12 Since this is the start of a new Control Period comprising of five years, and keeping in mind the actual loss levels in previous years, the Commission is of the view that the T&D loss trajectory should be realistic, so that licensee is incentivized for better performance. Therefore, the Commission has taken a fair approach while fixation of the T&D trajectory for the 5th Control Period and has approved losses as per the past trajectory as well as past performance. Also, considering the submissions of the Petitioner with regard to additional losses on account of STU losses due to the growth in the transmission system, the Commission has taken a lenient view and has incorporated an additional loss of 0.50% towards transmission losses to be part of T&D loss targets for the 5th Control Period. However, the Petitioner should also undertake appropriate measures to ensure that proper metering is implemented between all transmission and distribution interface points and data with respect to the same is submitted to the Commission along with the next tariff filing. Further, the Petitioner is required to ensure that it meets the year-on-year loss targets approved by

the Commission in order to ensure sustainable tariff for the consumers in the State.

8.4.13 Moreover, The Commission is also of the view that various works which are planned under the RDSS scheme shall be completed during FY25 and FY26 and shall help the Petitioner in reducing its T&D loss in the subsequent years. Therefore, the Commission has retained the losses for FY25 and FY26 in line with the trajectory for FY24 and has included additional transmission loss of 0.50% in the overall T&D target. For subsequent years, the Commission has approved reduction of loss by 0.20% each year for FY27 and FY28 and 0.10% for FY29.”

- 5.3.7 As discussed above, the Commission has already taken a view and approved 0.50% additional transmission losses towards the HPPTCL/STU transmission system as part of the MYT Tariff Order for HPSEBL. Considering the circumstance that no direct comparison of the HPPTCL exists with other State transmission companies and in absence of any proper metering data for past years, the Commission provisionally approves the transmission losses of 0.50% for the Fifth control period.
- 5.3.8 The transmission losses of HPPTCL approved for Fifth Control Period are tabulated below. However, it is subject to review by the Commission during Mid Term Review or may be even earlier, based on the details furnished by the Petitioner and the HPSEBL in this regard.

Table 32: Approved Transmission losses for the Fifth Control Period

Name of Scheme	FY24	FY25	FY26	FY27	FY28
Proposed by the Petitioner	0.75%	0.75%	0.75%	0.75%	0.75%
Approved by the Commission	0.50%	0.50%	0.50%	0.50%	0.50%

5.4 Other Performance Parameters

- 5.4.1 Regulation 9 of the HPERC Tariff Regulations, 2023 outlines the requirements for establishing a specific trajectory for certain variables. The relevant excerpt of the said Regulations is reproduced below:

"Specific Trajectory for Certain Variables. - (1) *The Transmission Licensee in its business plan filings shall submit and propose the trajectory for the achievement of quality and reliability targets. The Transmission Licensee shall submit its performance on each parameter in the form and manner laid down by the Commission.*

(2) *The Commission shall monitor the following parameters during the control period: -*

(a) *Transmission system availability;*

(b) *Transmission losses;*

(c) *transformer failure, across various capacities which represents the number of transformer failures as a percentage of the total number of transformers in that specified capacity within the transmission system, over a specified period of time.*

(3) The Commission shall stipulate a trajectory for certain variables having regard to the past performance as also the performance of similarly situated licensees:

Provided that the variables for which a trajectory shall be stipulated, shall include but shall not be limited to Transmission losses, Transmission system availability, Transformer failure rate etc:

Provided further that this trajectory should provide for sharing of gains and losses with the customers on account of superior and inferior performance as against the targets prescribed. "

5.4.2 It is observed that of late the HPPTCL has commissioned many new transmission lines and Sub-stations, including the associated line bays. Accordingly, the Petitioner was requested vide first set of queries to submit and propose a trajectory for achieving quality and reliability targets in its Business Plan filings. HPPTCL was also requested to provide past years' data and propose trajectories for the Fifth Control with respect to the following indicators:

- (i) Transmission System Availability
- (ii) Transformer failure rate
- (iii) Reliability Indices

5.4.3 In response to the above query, the Petitioner has stated that it maintains its Transmission System with an availability greater than 98.5%, with SLDC-certified monthly availability and has, accordingly, proposed to sustain this availability for the Fifth Control Period. With respect to the Transformer Failure Rate, the Petitioner has submitted that for the Fourth Control Period the transformer failure rate was NIL and has proposed a rate of 1% for the Fifth Control Period. The HPPTCL also submitted that it shall comply with HPERC (Transmission Performance Standards) Regulations, 2023, regarding transformer restoration timelines. Regarding Reliability Indices, the Petitioner submitted that it does not maintain specific data but ensures system availability above 98.5%, which exceeds the NATAF norm of 98% and has requested the Commission to consider this availability as a reference and relax the requirement for maintaining Reliability Indices for the Fifth Control Period.

5.4.4 In the HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2023, the Commission has specified the following operational norms:

"Operational Norms.-Normative Annual Transmission System Availability Factor (NATAF).- (1) For recovery of Annual Fixed Charges, NATAF shall be as under:

(1) AC system: 98.00%; (2) HVDC bi-pole link 95.00% and HVDC back-to-back station: 95.00%: Provided that the normative annual transmission availability factor of the HVDC bi-pole links shall be 85% for first twelve months from the date of commercial operation.

(2) For Incentive, NATAF shall be as under:

(1) AC system: 98.50%; (2) HVDC bi-pole link and HVDC back-to-back Station: 97.50%: Provided that no Incentive shall be payable for availability

beyond 99.75%: Provided further that for AC and HVDC system, actual outage hours shall be considered for computation of availability upto two trippings per year. After two trippings in a year, for every tripping, additional 12 hours outage shall be considered in addition to the actual outage hours: Provided also that in case of outage of a transmission element affecting evacuation of power from a generating station, outage hours shall be multiplied by a factor of 2.

- 5.4.5 Accordingly, the Commission directs the Petitioner to continue maintaining the assets at higher efficiency and submit the quarterly status reports on Reliability indices including transmission system availability and transformer failure rate to the Commission. The Commission shall incentivize/disincentivize the Petitioner based upon its performance as per the provisions of the Regulations during true up for the related period.

5.5 Human Resource Development Plan

- 5.5.1 As part of its submission, the Petitioner has mentioned that it is developing numerous Sub-stations and transmission lines. Also, the Petitioner stated that there has been an exponential addition of the transmission assets over the past few years, which is further expected to increase in the future to meet the growing energy needs of the State and to tap into the vast reserves of Hydro Energy and Renewable Energy Capacity in the State of Himachal Pradesh. In view to operate and maintain these transmission projects, the HPPTCL has devised an Employee Addition Plan in line with the capitalization schedule of various schemes.
- 5.5.2 Based on the preliminary analysis of the submission, the Commission observed certain discrepancies in the projected number of employees and asked the Petitioner to clarify the same. In response to the query, the Petitioner has submitted the revised projected employee details for the Fifth Control Period as detailed below:

Table 33: Petitioner submission of Projected number of Regular employees

Particulars	FY2025	FY 2026	FY2027	FY2028	FY2029
Opening Employee	310	346	382	418	454
Addition	43	41	39	36	40
Retirement	07	05	03	0	03
Closing Employee	346	382	418	454	491

- 5.5.3 The Petitioner's submission indicates a total recruitment of 199 employees throughout the Fifth Control Period. During this period, 18 employees are anticipated to retire, resulting in a projected net increase of 181 employees.
- 5.5.4 Further, in relation to the projected addition of outsourced employees, the Petitioner has reported having a total of 164 outsourced employees by the end of FY 2023-24. However, the Petitioner did not provide any specific projections for the addition of outsourced staff in the future. The Petitioner stated that it is not feasible to project the number of outsourced employees in advance, as such positions will be filled based on actual operational needs as and when arise.

5.5.5 During the course of enquires raised by the Commission regarding addition of number of employees along with requisite supporting details, the Petitioner has submitted the following current status of the recruitment process:

Table 34: Status of recruitment process submitted by the Petitioner

Name of the post	No of requisitions	Sent to	
Company Secretary	1	Himachal Pradesh Public Service Commission	
Junior Officer (IT)	2		
Junior Office Assistant (IT)	9		
Junior Office Assistant (Accounts)	2		
Junior Engineer (Elect.)	4	The Special Cell, Directorate, of Labour, Employment & Training, New Himrus Building Circular Road, Himland, Shimla- 171001. <i>*Reserved for persons with Benchmark Disabilities</i>	
Junior Engineer (Civil)	1		
Junior Officer (IT)	1		
JOA (Accounts)	1		
JOA (IT)	1		
Electrician	2		
Fitter	2		
Assistant Engineer	13		GoHP
Executive Trainee (P&A)	1		Himachal Pradesh Public Service Commission
Junior Engineer (Elect)	37		
Junior Engineer (Elect)	1	Ex-Servicemen Cell, Hamirpur	
Junior Officer (IT)	1		
Fitter	1		
Electrician	1		
Total	81		

5.5.6 Based on the Petitioner's submissions, it is observed that, apart from the requisition copy for recruitment of Assistant Engineers and the Company Secretary, the Petitioner has not provided supporting documentation, preferably a requisition copy, regarding the progress or status of the recruitment process for the remaining projected roles. Additionally, while the Petitioner has submitted a revised projection showing an intended addition of 199 number of employees, but they have sent a formal requisition for only 81 number of employees to date, as per the details in the submissions. The Commission also notes that the Petitioner has not provided any supporting rationale or detailed justifications for the projected increase in staffing levels over the Fifth Control Period, which raises concerns about the basis for these additional personnel requirements. As per the Petitioner's submission, the manpower shall increase from the current 310 personnel to 491 numbers by the end of the control period which is an increase of roughly 58%. The Commission is of the view that the Petitioner is not required to go for recruitment of new employees at such a large scale. Instead, the Petitioner must outsource its non core activities to the external Agencies so that employee cost is minimized. Moreover, the Petitioner has established Joint Control and Operations Center (JCOC) recently which aims to centralize monitoring and control of transmission assets. This Centre would further reduce the manpower requirement of the Petitioner.

5.5.7 The Commission has provisionally approved an addition of 81 number of employees for the Fifth Control Period, based on the Petitioner’s requisitioned figures. This approval is subject to revision during the Mid-Term Review Order, where any updates or validated recruitment data will be considered. In the absence of detailed justification for the projected workforce expansion, the Commission has limited the approval to 81 numbers of employees at this stage, with the flexibility to incorporate future adjustments based on actual recruitment progress or updated projections. However, the Petitioner is directed to take prior approval of the Commission with justifications before going for any recruitment more than the numbers approved here in this order. Otherwise, the Commission shall be constrained to disallow any additional cost on this account.

5.5.8 Concerning the addition of outsourced employees for the Fifth Control Period, the Petitioner has not provided any specific projections. In line with this, the Commission has not factored in any addition in outsourced employees during this period. Instead, the actual workforce requirements will be reviewed and considered during the true-up process based on the actual data available at that time. However, the Commission directs the Petitioner to prepare proper plan with respect to hiring of outsource employees and submit the details along with justification for prior approval with regard to recruitment of outsourced employees during the Control Period.

Table 35: Approved Employee Strength by the Commission of Fifth Control Period

Particulars	2025	2026	2027	2028	2029
Regular/Contractual Employees					
Opening Employee	310	344	379	376	376
Addition	41	40	0	0	0
Retirement	7	5	3	0	3
Closing Employee	344	379	376	376	373
Outsourced Employees					
Opening Employee	164	164	164	164	164
Addition	0	0	0	0	0
Retirement	0	0	0	0	0
Closing Employee	164	164	164	164	164
Total No of Employees	508	543	540	540	537
YOY Growth	7.2%	6.9%	-0.6%	0.0%	-0.6%

5.6 Capital Investment Plan

5.6.1 The Petitioner has submitted a comprehensive capital investment plan for the Fifth Control Period to meet the rising electricity demand due to expected load growth in Himachal Pradesh. This demand increase is driven by factors such as population growth, economic progress, industrial development, and new initiatives from the State and Central Governments to expand electrification and promote renewable energy integration.

5.6.2 The Petitioner has accordingly projected a total of 38 number of schemes for capital expenditure during the Fifth Control Period as highlighted under:

Table 36: Proposed Capital Expenditure for FY 2024-25 to FY 2028-29 (Rs. Crore)

SI.	Name of the Transmission Line & Associated Sub-stations	Cost Estimate	Completion Program / Remarks	Control Period					
				FY 24	FY25	FY26	FY27	FY28	FY29
I. 400 kV Lines &Sub-stations									
1	Construction of S/C LILO of 400kV Lahal to Rajera(Chamera Pooling Station) Transmission line of HPPTCL at Kutehr HEP(240MW)#	8.03	FY 2024-25	-	8.03	-	-	-	-
TOTAL (II) (400kV)		8.03		0	8.03	0	0	0	0
II. 220 kV Lines &Sub-stations									
1	220/132 kV, 2x100 MVA GIS Sub-station at Paonta Sahib by D/C LILO of Khodri - Mazri line	117.24	FY 2026-27		35.17	46.89	35.17		
2	220 kV D/C line from (Tower No. 61) at Jamta to Giri transmission line by dismantling of existing 132 kV S/C Jamta LILO Point (T.No.-61) to Giri Transmission line	52.34	FY 2025-26	15.7	20.94	15.7			
3	Construction of 220/132 kV, 2x80/100 MVA Sub-Station nearby Una alongwith LILO of 132 kV S/C Pekhubela Solar to Tahliwal line with panther equivalent HTLS (CCC) conductor at proposed 220/132 kV Sub-station nearby Una	88.22	FY 2025-26	26.46	35.29	26.46			
4	Construction of 220 kV D/C (Twin Zebra) line from 220/132 kV Nehrian Sub-station to proposed 220/132kV Sub-station nearby Una	97.94	FY 2025-26		39.18	58.77			
5	15 Construction of 220/132 kV,80/100 MVA Sub-Station Tahliwal by S/C LILO of 220 kV D/C Bhakra to Jamalpur line	31.66	FY 2024-25		31.66				
6	Construction of 220 kV Pooling Station Sujampur by D/C LILO of 220 kV Dehan-Hamirpur Line	53.87	FY 2025-26		21.55	32.32			
7	LILO of 220kV D/C Bajoli Holi to Lahal Transmission line at 220/66kV Heiling Sub-station alongwith 220/66 kV, 2x80/100 MVA, Heiling Sub-station#	90.6	FY 2024-25		90.6				
8	220/132 kV GIS Sub-station Mazra along with 132 kV LILO of Kurthala-Bathri at Mazra#	88.93	FY 2023-24	88.93					

SI.	Name of the Transmission Line & Associated Sub-stations	Cost Estimate	Completi n Program / Remarks	Control Period					
				FY 24	FY25	FY26	FY27	FY28	FY29
9	220/132 kV, 2x80/100 MVA, Sub-station, Kala-Amb, Distt. Sirmaur along with 132/33 kV Sub-station, 2x25/31.5 MVA, Kala-Amb, Distt. Sirmaur#	66.47	FY 2023-24	66.47					
10	220/33kV, 25/31.5 MVA Sub-Station Prini#	6.51	FY 2023-24	6.51					
11	220/132 kV , 80/100 MVA Sub-station Charoralongwith Additional 80/100 MVA Transformer at Charor#	111	FY 2023-24	111					
12	220/66 kV, 2x63 MVA Addl. Transformer at Gumma Sub-station#	45.53	FY 2023-24	45.53					
13	220 kV D/C Transmission Line Mazra -Karian#	35.06	FY 2023-24	35.06					
14	Augmentation of existing 220/132kV Kangoo Sub-station and stringing of 2nd circuit of 220kV S/C line on D/C towers between Dehar (BBMB) and 132/220kV Kangoo Sub-station#	53.7	FY 2024-25		53.7				
15	220/132 kV Sub-station at Kala-Amb	111.92	FY 2023-24	111.92					
16	Construction of 220/33 kV, 2x50/63 MVA Majholi along with 220 kV Transmission line from Uperla Nangal to Majholi for Medical Devices Park (MDP) at Nalagarh\$								
TOTAL (II) (220 kV)		1050.99		507.59	328.08	180.15	35.17	0	0
III. 132 kV and below Lines &Sub-stations									
1	132/33kV, 2x20 MVA new sub-station in Rajgarh area at Charna by LILO of 132 kV Giri-Gaura S/C transmission line. FY 2027-28	84.09	FY 2027-28			25.23	33.64	25.23	
2	Construction of 132 KV GIS Pooling Sub-station at Darkunda by LILO of 132 kV Kurthala to Bathri line	70.95	FY 2027-28			14.19	28.38	28.38	
3	Construction of 132 D/C Transmission line from Darkunda Switching Station to 220/132 kV Mazra Sub-station	41.49	FY 2027-28			8.3	16.6	16.6	
4	Upgradation of existing 132kV S/C line from 132/33 kV Bathri Sub-station to 220/132 kV Jassore Sub-station to 132 kV D/C HTLS Transmission line and HTLS reconductoring of 132 kV D/C TL from Mazra to Bathri	84.38	FY 2026-27		16.88	33.75	33.75		

SI.	Name of the Transmission Line & Associated Sub-stations	Cost Estimate	Completion Program / Remarks	Control Period					
				FY 24	FY25	FY26	FY27	FY28	FY29
5	Construction of 132/33 kV, 2x31.5 MVA GIS Sub-station at Baijnath by LILO of 132 kV Dehan (Patti)-Bassi Transmission line	87.42	FY 2027-28			17.48	34.97	34.97	
6	Construction of 132/33 kV, 2x31.5 MVA GIS Sub-station near Dharamshala Sub-station alongwith 132 kV D/C line from Dehan (Patti) to Proposed Sub-station near Dharamshala	121.66	FY 2027-28			24.33	48.66	48.66	
7	Construction of 132/33 kV, 2x31.5 MVA Sub-station Ghumarwin alongwith S/C LILO of 132 kV D/C Hamirpur-Kangoo line	64.84	FY 2025-26		25.93	38.9			
8	Construction of 132/33kV, 3x50/63MVA & 132/11kV, 25/31.5MVA Sub-station at Bulk Drug Park at Poilanbeet, Distt. Una alongwith 132kV D/C Transmission Line from proposed sub-station at Una to Bulk Drug Park Sub-station at Poilanbeet#*	79.17	FY 2025-26			79.17			
9	132/33kV, 63MVA Sub-station at Barsaini#	71	FY 2024-25		71				
10	132/33kV, 63 MVA Dharampur Sub-station alongwith LILO of 132kV Bassi-Hamirpur Transmission line#	46.34	FY 2024-25		46.34				
11	33kV Palchan-Prini Transmission line#	8	FY 2023-24	8					
12	132kV Barsaini-Charor Transmission line#	53.57	FY 2024-25		53.57				
13	33 kV Switching Station Palchan, Kullu#	14.11	FY 2024-25		14.11				
14	132kV Multi Circuit Transmission line on 220kV Multi Circuit Towers with Zebra Conductor from 220/132kV Sub-station at Andheri to Tower No. 19 of 132kV Jamta-Kala Amb(HPSEBL) Transmission line and stringing & sagging of Panther Conductor on 2nd circuit of 132kV Jamta Kala Amb(HPSEBL) Transmission line on 132kV D/C Towers from T-1(Devani) to T-14(Kala Amb)#	58.11	FY 2024-25		58.11				
15	Construction of LILO of 132kV S/C Dehan-Bassi line at 220/132kV Dehan-Sub-station at Patti of HPPTCL	5.94	FY 2023-24	5.94					
16	132 kV D/C Tangnu Romai-Sunda	26.81	FY 2023-24	26.81					
TOTAL (III)(132kV)		917.88		40.75	285.94	241.35	196	153.84	0

SI.	Name of the Transmission Line & Associated Sub-stations	Cost Estimate	Completion Program / Remarks	Control Period					
				FY 24	FY25	FY26	FY27	FY28	FY29
IV.	MISC. WORKS								
1	Providing 220/33 kV, 50/63 MVA Additional Transformer at 220/33kV 50/63 MVA GIS Karian Sub-station, Distt. Chamba	20.55	FY 2024-25	8.22	12.33				
2	Providing 220/132 kV, 80/100 MVA Additional Transformer at 220/132kV 80/100 MVA GIS Charor Sub-station, Distt. Kullu	43.05	FY 2024-25	17.22	25.83				
3	Providing 132/33 kV, 50/63 MVA Additional Transformer at 132/33kV AIS Kurthala Sub-station, Distt. Chamba	14.81	FY 2024-25	5.92	8.89				
4	Supply, Installation, Testing and Commissioning of Joint Control Center at Kunihar, District Solan	29.67	FY 2024-25		29.67				
5	Additional 220/132 kV, 200 MVA Transformer bank at Kala Amb Sub-station at Andheri \$								
TOTAL (IV) MISC. WORKS		108.08		31.36	76.72	0	0	0	0

Note:

* The expenses for Construction of 132/33kV, 3x50/63MVA & 132/11kV, 25/31.5MVA Sub-station at Bulk Drug Park at Poilanbeet, Distt. Una alongwith 132kV D/C Transmission Line from proposed sub-station at Una to Bulk Drug Park Sub-station at Poilanbeet is not considered for Tariff Determination as the complete scheme is proposed to be developed under Deposit Works.

\$ Expected COD and Capital Expenses are yet to be firmed up

Being ongoing schemes, phasing is not available. Hence, complete capex proposed to be incurred in the year of COD

5.6.3 The provisions with regard to Capital Investment Plan are covered under Regulation 8 of the HPERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2023 which provides the following:

"Business Plan: - (1) The Transmission Licensee shall file a Business Plan along with MYT Petition, for the Control Period of financial years from 1st April, 2024 to 31st March, 2029 for approval of the Commission on or before 30th November of the year preceding the first year of the Control Period for a duration covering the entire Control Period along with the MYT Petition. The Business Plan for the Transmission Licenses shall be for the entire Control Period and shall, interalia, contain-

(a) Capital investment plan which should be commensurate with load growth and quality improvement alongwith its cost-benefit analysis. The investment plan should also include yearly phasing of capital expenditure alongwith the source of funding, financing plan and corresponding capitalisation schedule. ;

(b) The appropriate capital structure of each scheme proposed and cost of financing (interest on debt) and return on equity, terms of the existing loan agreements, etc;

(c) Transmission loss reduction trajectory for each year of the Control Period, including details of the measures proposed to be taken for achieving the target loss;

(2) The Capital Investment Plan covering the entire MYT Control Period will be submitted in the following two parts:

(a) Ongoing schemes/works of the previous MYT Control Period (i.e. works / schemes which are under construction or where full payments have not yet been made or where Supply/Work Orders have not been placed). All spillover works will be included in this;

(b) Schemes to be taken up in the order of priority giving the schedule over the full MYT Control Period. The likely date of completion should also be given. This will also include such schemes which were part of the Capital Investment Plan of the previous MYT Control Period but could not be started and which the Petitioner considers necessary to take up during the present Control Period.

(3) The capital investment plan shall be in conformity with the plans made by the CEA/CTU/STU/ Distribution Licensee(s). The investment plan shall be scheme-wise. The Petitioner shall submit the Detailed Project Reports (DPRs) for all the schemes as per Part a) and b) above which shall include:

(a) Purpose of investment (i.e. replacement of existing assets, meeting load growth, technical loss reduction, meeting reactive energy requirements, improvement in quality and reliability of supply, etc);

(b) Broad Technical Specifications of the proposed investment and supporting details;

(c) Capital Structure;

(d) Capitalization Schedule;

(e) Financing Plan, including identified sources of investment;

(f) Physical targets;

(g) Cost-benefit analysis;

(h) Prioritization of proposed Investments:

Provided that DPRs will not be necessary for schemes under Rs. 10 Crore for Transmission Business:

Provided further that the total capital expenditure on non-DPR schemes in any year should not exceed 20% of that for DPR schemes during that year:

Provided further that the Transmission Licensee shall also submit all details including DPRs and other approval documents, of Schemes funded through a Central or State Grant or through Consumer Contribution or through Deposit works and/or Loan convertible to grant on fulfillment of specified conditions, to the Commission prior to the initiating execution of such Schemes:

Provided further that Transmission Licensee shall be required to ensure that the procurement of the assets have been undertaken in a competitive and transparent manner. Further, the assets so capitalized as a part of the approved capital investment plan under these Regulations should necessarily be geo-tagged and properly recorded in Fixed Asset Register (FAR) for allowance of the capitalization of the same by the Commission:

Provided further that regarding the assets already capitalized as on 1st April, 2024, Transmission Licensee shall prepare and submit to the Commission a time-bound plan to undertake the geo-tagging in phased manner, preferably within the Control Period, along with the MYT Petition:

Provided further that Transmission Licensee must provide access of the details of geo- tagging to the Commission for online monitoring.

(4) *The Commission shall approve the capital investment plan submitted by the Transmission Licensee for the entire control period after doing prudence check. The same would be considered for computation of ARR, wherein the amount of electricity transmitted by the transmission system shall be projected considering the estimated growth plan of transmission customer and any plans of new transmission system, based on network expansion plans within the State.*

(5) *For each year of the control period, the Commission shall watch over the actual capital expenditure and capitalization vis-à-vis the approved capital expenditure and capitalization schedule. In the normal course, the Commission shall not revisit the approved capital investment plan (capital expenditure and the capitalization schedule) during the control period and adjustments to depreciation, interest on capital loan and return on equity on account of variations for the actual capital expenditure incurred and capitalization done vis-à-vis approved capital investment plan (capital expenditure and capitalization), shall be done during the mid-term performance review and at the time of end of control period true up.*

(6) *In case the capital expenditure is required for emergency work which has not been approved in the Capital Investment Plan, the licensee shall submit an application containing all relevant information along with reasons justifying emergency nature of the proposed work seeking investment approval by the Commission. The licensee shall take up the work prior to the approval of the Commission provided that the emergency nature of the scheme has been certified by its Board of Directors.*

(7) *Any licensee intending to establish, operate and maintain or augment capacity of a transmission system not been approved in the Capital Investment Plan, shall file an application/petition under affidavit to the Commission in accordance with HPERC (Conduct of Business) Regulations, 2005 as amended from time to time for approval of the project capital cost and financing plan before taking up a project. The application/ petition of transmission system for investment approval shall clearly provide the purpose of the project as follows:*

(a) The application/petition shall consist of information on system strengthening, load growth, etc. as may be relevant for particular licensee, its cost-benefit analysis and other details such as location of the project, site specific features, break up of capital cost, financial package, performance parameters, commissioning schedule, reference price level, estimated completion cost including foreign exchange component (if any), environment standards prescribed and to be achieved, etc.

Provided that where the Commission has given an approval to the estimated capital cost and financing plan, the same shall act as a guiding factor for applying prudence check on the actual capital expenditure while determining the ARR and Tariffs for a particular licensee.”

- 5.6.4 For the capital expenditure (Capex) plan for the Fifth Control Period, the Commission did scrutiny of all the 38 schemes proposed by the Petitioner. During this review, the Commission directed the Petitioner to submit Detailed Project Report (DPR) and supporting documentation for the transmission schemes outlined as per the provisions of the Regulations. In response, the

Petitioner has complied by submitting the required DPRs along with other relevant scheme documents. The Petitioner has proposed a total investment of ₹2,084.08 crores for the Fifth Control Period. This proposed Capex plan is segregated at various voltage levels as under:

- Rs 8.03 Crore has been earmarked for the development and enhancement of 400 kV lines and Sub-stations.
- Rs 1,050.99 Crore has been allocated for the construction and upgradation of 220 kV lines and Sub-stations.
- Rs 917.88 Crore has been assigned to the development of 132 kV and lower voltage levels, covering both transmission lines and Sub-stations.
- An additional Rs 108.08 Crore has been set aside for miscellaneous works, which encompass system improvements, technology integration, and other necessary upgrades.

5.6.5 The Commission has taken the following view with regard to these 38 numbers of schemes proposed by the Petitioner:

I. Himachal Hydro Power and Renewable Power Development Programme (to be funded by World Bank):

5.6.5.1 As per the Petitioner’s submission, the primary objective of this scheme is to augment the existing Transmission System of Himachal Pradesh, which will result in utilization of renewable energy and meet the load growth within the State. Under this scheme, the following key projects have been proposed by the Petitioner:

Table 37: Projects proposed under Himachal Hydro Power and Renewable Power Development Programme

Sl.	Name of the Scheme	Estimated cost (Rs Crore)	Completion Date
1.	220/132 kV, 2x80/100 MVA Sub-station at Paonta Sahib by D/C LILO of Khodri-Mazri line	117.24	FY 2026-27
2.	132/33, 2x16/20 MVA sub-station in Rajgarh area at Charna by LILO of 132 kV Giri - Gaura S/C Transmission line	84.09	FY 2027-28
3.	220 kV D/C line from Tower No.61 at Jamta to Giri by dismantling of existing 132 kV S/C Jamta LILO Point (T.No.61) to Giri Transmission line	52.34	FY 2025-26
4.	Construction of 220/132 kV, 2x80/100 MVA Sub-Station nearby Una alongwith LILO of 132 kV S/C Pekhubela Solar to Tahliwal line with panther equivalent HTLS (CCC) conductor at proposed 220/132 kV Sub-station nearby Una	88.22	FY 2025-26
	Total	341.89	

- 5.6.5.2 Further, the Petitioner has made the following submission with regard to the funding pattern of the scheme through World Bank:

Table 38: Proposed Funding pattern under World Bank

Name of the Scheme	Debt	Equity	Grant
World Bank	70%	30%	Nil

- 5.6.5.3 In the technical validation session, the Petitioner informed that the World Bank has extended a loan to HPPTCL, covering 80% of the total project cost. This World Bank loan is provided as an Externally Aided Loan (EAL) via the Government of India to the Government of Himachal Pradesh (GoHP). Given Himachal Pradesh's designation as a special category State, the loan is structured with preferential terms. Specifically, the Government of India has converted 90% of this loan into grant for the GoHP, with only 10% retained as a repayable loan. However, the petitioner has considered the funding pattern of 70 :30 as Debt and Equity for the purpose of assessing the funding pattern in case of schemes funded through World Bank.
- 5.6.5.4 The Commission is of the firm view that the GoHP cannot change the status of Grant into equity as the GoHP has received 90% of the Capital as grant from the GoI since Himachal Pradesh is a special category State. Therefore, for the purpose of assessing the funding pattern with respect to schemes funded by the World Bank, the Commission after reducing the amount of grant from the total approved capital cost, has considered debt:equity ratio as 70% debt and 30% equity for the balance amount in line with Regulation 31(2)(b) of the HPERC Tariff Regulations, 2023 which specify the following:
- "(b)the debt:equity ratio shall be considered in accordance with Regulation 32, after deducting the amount of financial support received;"*
- 5.6.5.5 Based on the said regulation, the Commission has evaluated 72% of the total funding as a grant (i.e., 90% of 80%).The remaining project cost has been structured as a typical financing mix, with 70% funded through debt and 30% through equity contributions.
- 5.6.5.6 *The Commission has conducted a review of each work under the scheme for the Fifth Control periodfor the above four Projectsas summarized below:*

Table 39: Schemes approved by the Commission under Himachal Hydro Power and Renewable Power Development Programme

SI.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
1	220/132 kV, 2x80/100 MVA Sub-station at Paonta Sahib by D/C LILO of Khodri-Mazri line	Rs. 117.24 Crore Debt: 19.60% Equity: 8.40% Grant: 72%	<ul style="list-style-type: none"> • DPR • BOD Approval 	Establishing a 220/132 kV Sub-station at Paonta Sahib to provide redundancy and ensure a stable power supply. Currently power is provided via a single 132 kV line from Giri Sub-station, leading to outages in case of line failures. Improves power reliability in Paonta Sahib, enhances system redundancy, allows additional power drawl, and reduces transmission losses by consuming power locally.	<ul style="list-style-type: none"> • The Commission observes that the proposed CAPEX scheme aims to address critical reliability issues in the Paonta Sahib area by establishing alternative power source to supplement the existing single-circuit line from the Giri Sub-station. • This additional source is expected to enhance supply reliability, minimize the risk of blackouts, and improve HPSEBL's capacity to meet growing power demands. Further, the installation of the 220/132 kV GIS Sub-station and the LILO of the Khodri-Mazri line can reduce transmission losses and ensure efficient energy distribution. • Primary Beneficiary of the project is HPSEBL. • The Commission observes that this scheme is expected to help in strengthening of Intra-state transmission network and help meet the future demand growth in the respective area. • Therefore, the Commission hereby accords approval for the implementation of this project. However, the Commission shall approve the cost of the scheme after doing required prudence check and due 	<ul style="list-style-type: none"> • The Commission has reviewed the progress status of the 220/132 kV GIS Sub-station at Paonta Sahib, specifically assessing the current project milestones in tendering, land acquisition, and physical progress. Based on the submission of the Petitioner, the tender specifications are still being finalized, and the Himachal Pradesh State Electricity Board Limited (HPSEBL) is yet to sign the Transmission Service Agreement (TSA), both of which are crucial to initiating the construction and procurement stages. Additionally, land acquisition is still in progress, and no physical work has commenced. <p>Considering these substantial pending activities and the necessary lead time for project completion, the Commission finds the Petitioner's proposed completion date of FY 2026-27 unfeasible. Instead, the Commission has decided to</p>

SI.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
					diligence, at the time of filing of the detailed tariff petition by the Petitioner.	adopt a more realistic target of FY 2028-29, ensuring sufficient time for addressing outstanding pre-construction tasks and allowing for any unforeseen delays that may arise.
2	132/33, 2x16/20 MVA sub-station in Rajgarh area at Charna by LILO of 132 kV Giri - Gaura S/C Transmission line	Rs. 84.09 Crore Debt: 19.60% Equity: 8.40% Grant: 72%	<ul style="list-style-type: none"> • DPR • BOD Approval 	Establishing a 132/33 kV Sub-station at Charna to improve power quality and reliability in the Rajgarh area, currently dependent on lengthy 33 kV feeders from Gaura Sub-station, leading to poor voltage and reliability issues. Enhances voltage profile, improves power reliability, and reduces dependency on long 33 kV feeders, providing relief to the Giri and Gaura Sub-stations.	<ul style="list-style-type: none"> • Regarding the proposed 132/33 kV, 2x16/20 MVA Sub-station at Charna, the Commission is aware of the poor power quality in the region. Consumers are facing low voltage problems for some time. • The project is expected to help in addressing voltage and reliability issues in the Rajgarh area caused by long 33 kV lines; the project is planned to ensure 24x7 quality power supply by establishing a closer and more robust power source. • Primary Beneficiary of the project is HPSEBL. • Based on the above scrutiny, the Commission observes that the above works under this scheme is expected to help in strengthening of Intra-state transmission network and help meet the future demand growth in the respective area. • Therefore, the Commission hereby 	<ul style="list-style-type: none"> • While the tender for the survey work of the LILO part has been awarded, the sub-station land acquisition is still in progress, and the detailed survey for the LILO remains incomplete. These are critical early-stage activities, and delays at this stage typically impact subsequent project phases, including detailed engineering, procurement, construction, and commissioning. <p>Given the current progress in land acquisition and surveying, the Commission feels that the Petitioner's anticipated completion of the work by FY 2027-28 is highly optimistic. Therefore, to set a more achievable and realistic timeline, the Commission has considered an adjusted</p>

SI.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
					accords approval for the implementation of this project. However, the Commission shall approve the cost of the scheme after doing required prudence check and due diligence, at the time of filing of the detailed tariff petition by the Petitioner.	completion date of FY 2029-30 to be more appropriate. This extended timeline accommodates potential delays and aims to ensure project milestones are met responsibly.
3	220 kV D/C line from Tower No.61 at Jamta to Giri by dismantling of existing 132 kV S/C Jamta LILO Point (T.No.61) to Giri Transmission line	Rs. 52.34 Crore Debt: 19.60% Equity: 8.40% Grant: 72%	<ul style="list-style-type: none"> • DPR • BOD Approval 	Establishment of a 220 kV double-circuit line to replace the existing 132 kV line from Jamta to Giri, addressing overloading issues by creating an alternate power source for the industrial area in Kala Amb and improving reliability. Enables reduced dependency on Uttarakhand, mitigates overloading on existing 132 kV network, and improves supply reliability for the Kala Amb industrial region.	<ul style="list-style-type: none"> • The Commission observes that proposed 220 kV D/C line from Jamta to Giri, replacing the 132 kV line, aims to improve power reliability and reduce dependence on Uttarakhand's overloaded transmission system. Currently, Kala Amb, Paonta Sahib, and District Sirmour rely heavily on Uttarakhand's 220 kV Khodri-Mazri line, necessitating power restrictions. • PGCIL has set up a 400/220 kV Sub-station at Kala Amb to receive Satluj basin hydro power. HPPTCL has also constructed a 220/132/33 kV Sub-station at Kala Amb, which will also supply power to HPSEBL's Johron Sub-station, allowing future expansion. • The Primary Beneficiary of the project is HPSEBL. • The Commission, vide order dated 09.10.2024, in suo moto petition no. 03 of 2024, has approved the proposal by HPPTCL to charge the existing 220 kV D/C Devni-Jamta line at 220 kV and 	<ul style="list-style-type: none"> • The Scheme proposed by the Petitioner has already been revised by the Commission vide Order dated 09.10.2024 in Suo-moto Petition No. 03 of 2024. In this Order, the Commission has approved to construct a new 220 kV Transmission Line from Jamta to Giri. Therefore, the scheme proposed herein by the Petitioner needs to be revised. The Petitioner has proposed the Scheme submitted in this Petition to be completed by FY 2025-26. However, the Commission, after detailed review, observes FY 2027-28 to be a more realistic date for the completion of the new Project.

SI.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
					<p>construct a new 220 kV D/C transmission line from Jamta to Giri, while retaining the 132 kV S/C Giri-Solan line. The Commission has directed the petitioner to execute the new transmission line and instructed HPSEBL to hand over the Jamta-Devni-Johron section to HPPTCL within one month.</p> <ul style="list-style-type: none"> • Accordingly, the project is expected to help in addressing dependency on Inter-state drawl from Uttarakhand, increase the state's internal power reliability, and facilitate capacity enhancement by utilizing the existing right-of-way with Multi Circuit Towers. • The Commission has already accorded approval for the implementation of this revised project as discussed above. However, the Commission shall approve the cost of the scheme after doing required prudence check and due diligence, at the time of filing of the detailed tariff petition by the Petitioner. 	

SI.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
4	Construction of 220/132 kV, 2x80/100 MVA Sub-Station nearby Una alongwith LILO of 132 kV S/C Pekhubela Solar to Tahliwal line with panther equivalent HTLS (CCC) conductor at proposed 220/132 kV Sub-station nearby Una	Rs. 88.22 Crore Debt: 19.60% Equity: 8.40% Grant: 72%	<ul style="list-style-type: none"> • DPR • BOD Approval 	<p>Providing additional power source to the Rakkar and Tahliwal Sub-stations and relieving loading on existing lines.</p> <p>Enables enhanced power reliability in the Una region, alleviates overloading on the 132 kV network, and provides a backup source of supply for the Tahliwal and Rakkar Sub-stations, supporting long-term load requirements.</p>	<ul style="list-style-type: none"> • The Commission observes that the entire domestic and industrial load at Una and Tahliwal region is being fed through 132/33 kV Rakkar and Tahliwal Sub-stations which are fed by a S/C 132 kV Transmission line emanating from Amb Sub-station of HPSEBL which has reached its maximum loading capacity. • Being a single feeding source, this also reduces the reliability of power in the region. The HPPTCL is also proposing this Sub-station to be connected to 220/132 kV Nehrian Sub-station and shall be connected to Tahliwal Sub-station by LILO of S/C 132 kV Pekhubela-Tahliwal line. • The proposed plan shall provide another source for supply in the region and not only increase system reliability but also provide for future load growth in the region. • Primary Beneficiary of the project is HPSEBL • Based on the above scrutiny, the Commission observes that the above works under this project is expected to help in addressing increasing load demands in Una and surrounding areas, provide backup in case of outages, and strengthen the transmission system to ensure uninterrupted power supply to 	<ul style="list-style-type: none"> • The Commission has reviewed the Petitioner's target submission of FY 2025-26 for COD of the 220/132 kV, 2x80/100 MVA sub-station near Una, including the LILO of the 132 kV Pekhubela Solar to Tahliwal line. With tenders still in progress and no physical work yet begun, this timeline has been considered overly optimistic. Given the project's early stage, the complexity of HTLS conductors, the Commission has set a more realistic completion date of FY 2027-28 to account for anticipated delays and to ensure a reliable project schedule after discussing the same with the Petitioner.

SI.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
					<p>industrial and residential consumers.</p> <ul style="list-style-type: none">• Therefore, the Commission hereby accords approval for the implementation of this project. However, the Commission shall approve the cost of the scheme after doing required prudence check and due diligence, at the time of filing of the detailed tariff petition by the Petitioner.	

II. Green Energy Corridor Phase II (to be funded under loan from Domestic Funding and grant in the form of Central Financial Assistance from MNRE, GoI):

5.6.5.7 The Petitioner has submitted that the primary objective of the scheme is to strengthen the existing transmission network in the State. To achieve this, the Petitioner has proposed the following transmission elements aimed at enhancing the State's transmission infrastructure:

Table 40: Projects proposed under Green Energy Corridor Phase II

SI.	Name of the Scheme	Estimated Cost (Rs Cr.)	Completion Date
1.	Construction of 132 KV GIS Pooling Sub-station at Darkunda by LILO of 132 kV Kurthala to Bathri line	70.95	FY 2027-28
2.	Construction of 132 D/C Transmission line from Darkunda Switching Station to 220/132 kV Mazra Sub-station	41.49	FY 2027-28
3.	Upgradation of existing 132kV S/C line from 132/33 kV Bathri Sub-station to 220/132 kV Jassore Sub-station to 132 kV D/C HTLS Transmission line and HTLS reconductoring of 132 kV D/C TL from Mazra to Bathri	84.38	FY 2026-27
4.	Construction of 132/33 kV, 2x31.5 MVA GIS Sub-station at Baijnath by LILO of 132 kV Dehan (Patti)-Bassi Transmission line	87.42	FY 2027-28
5.	Construction of 132/33 kV, 2x31.5 MVA GIS Sub-station near Dharamshala Sub-station alongwith 132 kV D/C line from Dehan (Patti) to Proposed Sub-station near Dharamshala	121.66	FY 2027-28
6.	Providing 220/33 kV, 50/63 MVA Additional Transformer at 220/33kV 50/63 MVA GIS Karian Sub-station, Distt. Chamba	20.55	FY 2024-25
7.	Providing 220/132 kV, 80/100 MVA Additional Transformer at 220/132kV 80/100 MVA GIS Charor Sub-station, Distt. Kullu	43.05	FY 2024-25
8.	Providing 132/33 kV, 50/63 MVA Additional Transformer at 132/33kV AIS Kurthala Sub-station, Distt. Chamba	14.81	FY 2024-25
9.	Construction of 220 kV D/C (Twin Zebra) line from 220/132 kV Nehrian Sub-station to proposed 220/132kV Sub-station nearby Una	97.94	FY 2025-26
	Total	582.25	

5.6.5.8 Further, the Petitioner has made the following submission with regard to the funding pattern:

Table 41: Proposed Funding pattern under Green Energy Corridor Scheme Phase-II

Name of the Scheme	Debt	Equity	Grant
Green Energy Corridor Scheme Phase-II	47%	20%	33%

- 5.6.5.9 The Petitioner shall receive grant to the tune of 33% of the total cost as Central Financial Assistance (CFA) from the Government of India under this Scheme. To cover the remaining project costs, the Petitioner has the option to avail debt financing from recognized financial institutions such as the Rural Electrification Corporation (REC) and the Power Finance Corporation (PFC). This arrangement enables the project to leverage external funding sources to meet its financial requirements effectively. For the remaining 67% of the funding that is not covered by the CFA, the Petitioner had initially considered the standard 70:30 ratio as debt equity for meeting the financing of the Scheme. However, during the Technical Validation Session, the Petitioner clarified that this remaining 67% of funding shall be in accordance with the lending norms of the financial institutions namely, REC and PFC, which prescribes for a ratio of 90% debt and 10% equity. Accordingly, the Commission has finalized distribution of the remaining 67% of the funding with 90:10 debt-equity ratio.
- 5.6.5.10 Upon review of the documents submitted by the Petitioner, the Commission examined the approval accorded by CEA for the GEC-II projects vide letter dated 30th November 2018. Thereafter, the Ministry of New and Renewable Energy (MNRE) has sanctioned project cost of Rs 489.49 Crore (excluding IDC) through letter dated 4th March 2022. This MNRE sanction has approved the implementation of GEC-II schemes across multiple States, with a project cost of INR 489.49 crore allocated specifically for projects in Himachal Pradesh.
- 5.6.5.11 Subsequently, the project requirements in the designated areas were reassessed and have been revised under the scheme considering the power evacuation from Renewable Energy (RE) Power Projects proposed in the areas. Accordingly, revised scheme documents were submitted to CEA which was subsequently approved by CEA vide letters dated 26.04.2023 and 06.07.2023.
- 5.6.5.12 The commission has undertaken a review of each of the work proposed by the Petitioner under the scheme as detailed below:

Table 42: Schemes approved by the Commission under Green Energy Corridor Scheme Phase-II

SI.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
1.	Construction of 132 kV GIS Pooling Sub-station at Darkunda by D/C LILO of 132 kV D/C Kurthala to Bathri line	Rs. 70.95 Crore Debt: 60.30% Equity: 6.70% Grant: 33.0%	<ul style="list-style-type: none"> • DPR • BOD Approval • CEA clearance <p>Project DPR was approved by the Board of Directors of HPPTCL in its 56th Meeting held on 23.08.2023</p> <p>The proposed transmission elements have been technically cleared by CEA alongwith the estimated cost for execution under Intra-state Transmission System Green Energy Corridor Scheme Phase-II (GEC-II)</p>	<p>The proposed Sub-station at Darkunda shall take care of the reliability & redundancy in the system and also improvement in the Voltage profile is envisaged. The project will provide long-term operational efficiency, reduce transmission losses, and ensure reliable power evacuation, offering significant economic benefits through improved system reliability and reduced energy losses.</p>	<ul style="list-style-type: none"> • The existing 132 kV Kurthala-Bathari line is currently overloaded, supporting only 95.8 MW, while upcoming HEPs totalling to 185.61 MW requires additional infrastructure. The establishment of the 132 kV Switching Station at Darkunda, along with the new D/C transmission line and the D/C LILO from Kurthala to Bathri, is expected to facilitate efficient power pooling and transmission, meeting the increasing load demand from both the existing and the upcoming HEPs. • The new infrastructure, including the Darkunda Switching Station and upgraded transmission lines, is expected to strengthen the transmission system in region by reducing the risk of overloading on existing lines and hence the improved transmission network shall minimize the transmission losses. Further, the system shall enable better power management and more efficient transfer of electricity and enhancing the system reliability. • Accordingly, the Commission hereby accords approval for the implementation of this project. However, the Commission shall approve the cost of the scheme after doing required prudence check and due diligence, at the time of filing of the detailed tariff petition by the Petitioner. 	<ul style="list-style-type: none"> • The Commission has considered revised COD of FY 2029-30 vis-a-vis the Petitioner's proposal of FY 2027-28. The date has been revised considering the ongoing detailed survey and the early stage of the land acquisition process. These critical steps are likely to take significant time before construction shall begin, warranting an extension of the timeline.

SI.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
2	Construction of 132 D/C Transmission line from 132kV Darkunda Switching Station to 220/132 kV Mazra Sub-station	Rs. 41.49 Crore Debt: 60.30% Equity: 6.70% Grant: 33.0%	<ul style="list-style-type: none"> • DPR • BOD Approval • CEA clearance <p>Project DPR was approved by the Board of Directors of HPPTCL in its 56th Meeting held on 23.08.2023</p> <p>The proposed transmission elements as technically cleared by CEA alongwith their estimated cost for execution under Intra-state Transmission System Green Energy Corridor Scheme Phase-II (GEC-II)</p>	<p>This Sub-station shall take care of reliability & redundancy in the system and also improvement in the Voltage profile is envisaged. The project will enhance operational efficiency, integrate more renewable energy, and improve voltage stability. The investment will result in long-term benefits, including better system reliability, reduced energy losses, and increased capacity for renewable energy integration, supporting sustainable growth in the region's power sector.</p>	<ul style="list-style-type: none"> • The Project is expected to provide long-term operational efficiency and system reliability and ensure N-1 compliant transmission network • The construction of the 132 kV D/C transmission line from Darkunda Switching Station to Mazra Sub-station, along with the conversion of key sections to D/C lines, is expected to address the current and future load requirements in the Tissa and Chanju valleys, supporting the region's growing hydroelectric power generation capacity. • By integrating HTLS reconductoring and adding a GIS pooling Sub-station at Darkunda, the project will ensure that the transmission system can accommodate the increased power generation from existing and upcoming HEPs, supporting both current and anticipated future power demand of the area efficiently. It will also lead to improved voltage stability, efficient energy transfer and reduce the transmission losses particularly by improving voltage profiles during the winter season and increasing renewable energy injection during the summer. • Therefore, the Commission hereby accords approval for the implementation of this project. However, the Commission shall approve the cost of the scheme after doing required prudence check and due diligence, at the time of filing of the 	<ul style="list-style-type: none"> • The survey work of the Project still being under tendering process and the Transmission Service Agreement (TSA) is yet to be signed with the beneficiaries. These factors indicate that the project is at a preliminary stage, and completion in FY 2027-28 proposed by the Petitioner appears unfeasible. Accordingly, the Commission has revised the COD of the Project to FY 2029-30.

SI.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
					detailed tariff petition by the Petitioner.	
3	Upgradation of existing 132kV S/C line from 132/33 kV Bathri Sub-station to 220/132 kV Jessore Sub-station to 132 kV D/C HTLS Transmission line and HTLS reconductoring of 132 kV D/C TL from Mazra to Bathri	Rs. 84.38 Crore Debt: 60.30% Equity: 6.70% Grant: 33.0%	<ul style="list-style-type: none"> DPR BOD Approval CEA clearance <p>Project DPR was approved by the Board of Directors of HPPTCL in its 56th Meeting held on 23.08.2023</p> <p>The proposed transmission elements as technically cleared by CEA alongwith their estimated cost for execution under Intra-state Transmission System Green Energy Corridor Scheme Phase-II (GEC-II)</p>	<p>To enhance power reliability for existing and future hydroelectric projects in the Tissa and Chanju valleys and improve integration with the state grid. The upgrades will result in a more robust and efficient transmission network capable of handling increased power generation from HEPs. The investment will enhance system reliability and operational efficiency and also reduce transmission losses, ensuring better integration of renewable energy into the state grid, thereby offering long-term economic and</p>	<ul style="list-style-type: none"> The upgrade of the 132 kV Bathri-Jessore line to a 132 kV D/C HTLS transmission line, along with reconstructing the Mazra-Bathri line, is expected to meet the increasing power reliability needs in the Tissa and Chanju valleys, ensuring sufficient capacity for both existing and upcoming hydroelectric power generation. The enhanced transmission network, including the upgraded Bathri-Jessore line and the new GIS Sub-station at Darkunda, will support growing power demand by improving power evacuation and enabling the efficient integration of additional renewable energy from the expanding hydropower projects in the region. Upgradation of critical transmission lines (Kurthala-Bathri and Bathri-Jessore) to double-circuit and HTLS standards, along with the reinforcement of the Mazra-Bathri line, will significantly strengthen the transmission system. This is expected to enhance system reliability, improve power flow capacity, and ensure the network can accommodate higher loads without risk of overloading. The HTLS reconductoring of the 132 kV D/C line from Mazra to Bathri and the upgraded Bathri-Jessore line will reduce transmission losses by improving voltage stability and increasing 	<ul style="list-style-type: none"> The original completion date of FY 2026-27 as submitted by the petitioner has been extended to FY 2029-30 due to delays in land handover and the absence of TSA with the beneficiaries. These unresolved issues are likely to impede timely progress in the project's implementation, necessitating a revised timeline.

SI.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
				environmental benefits.	<p>transmission efficiency.</p> <ul style="list-style-type: none"> • These enhancements are expected to optimize the flow of electricity, especially during peak demand, and reduce energy wastage. • Therefore, the Commission hereby accords approval for the implementation of this project. However, the Commission shall approve the cost of the scheme after doing required prudence check and due diligence, at the time of filing of the detailed tariff petition by the Petitioner. 	
4	Construction of 132/33 kV, 2×31.5 MVA GIS Sub-station at Baijnath by LILO of 132 kV S/C Dehan (Patti)-Bassi Transmission line	Rs. 87.42 Crore Debt: 60.30% Equity: 6.70% Grant: 33.0%	<ul style="list-style-type: none"> • DPR • BOD Approval <p>Project DPR was approved by the Board of Directors of HPPTCL in its 56th Meeting held on 23.08.2023</p>	<p>To enhance power quality issue and improve Voltage Profile for the Baijnath region, supporting growing demand, especially from tourism and upcoming Small Hydro Electric Projects (SHEPs). The implementation of scheme will reduce down the losses and address the power quality issues by strengthening the existing distribution network of HPSEBL</p>	<ul style="list-style-type: none"> • The Project is expected to address current power supply constraints, improve voltage stability, and support growing demand driven by tourism and upcoming Small Hydro Electric Projects. • The new GIS Sub-station at Baijnath will particularly help in addressing capacity constraints and enabling the evacuation of about 13 MW from upcoming SHEPs, while improving supply reliability. The LILO connection of the 132 kV Bassi-Dehan line and the new GIS Sub-station will strengthen the local transmission system, improve voltage stability, and ensure consistent power delivery to the Baijnath area, reducing the risk of outages. The GIS Sub-station and LILO connection will reduce transmission losses by improving voltage regulation and efficiency in the power distribution network, ensuring more reliable and 	<ul style="list-style-type: none"> • The Commission has revised the completion date of the Project from FY 2027-28 as submitted by the petitioner to FY 2029-30 as the project's location is yet to be finalized, and the TSA with the beneficiary has not been executed yet. These critical factors suggest that the project is still in its planning phase, making the timeline projected by the Petitioner for achieving the COD as unrealistic.

SI.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
				in the area. In addition, the scheme facilitates the evacuation of power of upcoming SHEPs of around 13 MW	<p>cost-effective power delivery.</p> <ul style="list-style-type: none"> Therefore, the Commission hereby accords approval for the implementation of this project. However, the Commission shall approve the cost of the scheme after doing required prudence check and due diligence, at the time of filing of the detailed tariff petition by the Petitioner. 	
5	Construction of 132/33 kV, 2x31.5 MVA GIS Sub-station near Dharamshala alongwith 132 kV D/C Transmission Line from Dehan (Patti) to Proposed Sub-station near Dharamshala	<p>Rs. 121.66 Crore</p> <p>Debt: 60.30%</p> <p>Equity: 6.70%</p> <p>Grant: 33.0%</p>	<ul style="list-style-type: none"> DPR BOD Approval <p>Project DPR was approved by the Board of Directors of HPPTCL in its 56th Meeting held on 23.08.2023</p>	<p>The implementation of scheme will reduce the losses and address the power quality issues by strengthening the existing distribution network of HPSEBL in the area. In addition, the scheme facilitates the evacuation of power of upcoming SHEPs of around 5 MW</p>	<p>cost-effective power delivery.</p> <ul style="list-style-type: none"> Therefore, the Commission hereby accords approval for the implementation of this project. However, the Commission shall approve the cost of the scheme after doing required prudence check and due diligence, at the time of filing of the detailed tariff petition by the Petitioner. 	<ul style="list-style-type: none"> The original completion timeline of FY 2027-28 as proposed by the petitioner has been extended to FY 2029-30 as the location of the proposed Sub-station is yet to be finalized, and the TSA with the beneficiary is yet to be executed. These early-stage challenges are expected to significantly delay the commencement of construction activities.

SI.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
6	Providing 220/33 kV, 50/63 MVA Additional Transformer at 220/33kV 50/63 MVA Karian Sub-station, Distt. Chamba	Rs. 20.55 Crore Debt: 60.30% Equity: 6.70% Grant: 33.0%	<ul style="list-style-type: none"> DPR BOD Approval <p>Project DPR was approved by the Board of Directors of HPPTCL in its 56th Meeting held on 23.08.2023</p>	<p>Facilitate the integration of an additional 22.9 MW of renewable energy generation. To address existing evacuation constraints, reduce transmission losses, and support the efficient transfer of power from hydroelectric projects (HEPs) in the region. The Scheme will ensure N-1 compliance of existing 220/33 kV Karian Sub-station of HPPTCL.</p>	<ul style="list-style-type: none"> The project is expected to address current evacuation constraints and support the integration of 22.9 MW of additional renewable energy generation. This upgrade will enhance the Sub-station's capacity to manage growing power demand, improve grid reliability, reduce transmission losses, and enable efficient power evacuation, supporting the region's transition to sustainable energy sources. At this stage, the Commission will not classify this asset as an Intra-state asset and nor include it in the projected ARR, as the Commission has previously classified the Karian sub-station to be an Inter-state asset in its order dated November 1, 2021 in Petition no 98/2020. Further, the Petitioner has filed a separate Petition with the HPERC seeking the inclusion of the Karian sub-station as an Intra-state asset, given that the Hon'ble CERC has not approved it as an Inter-state asset. Until this Petition is decided by the Commission, the status of the Karian sub-station state remains uncertain. Therefore, the Commission is of the view that the Petitioner may proceed with the work. However, the Petitioner must ensure that it executes the LTA agreement with the system beneficiaries. 	<ul style="list-style-type: none"> The Commission has not approved this Scheme as intra-state as a separate Petition in the matter is under adjudication with the Commission.

SI.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
7	Providing 220/132 kV, 80/100 MVA Additional Transformer at 220/132kV 80/100 MVA GIS Charor Sub-station, Distt. Kullu	Rs. 43.05 Crore Debt: 60.30% Equity: 6.70% Grant: 33.0%	<ul style="list-style-type: none"> • DPR • BOD Approval <p>Project DPR was approved by the Board of Directors of HPPTCL in its 56th Meeting held on 23.08.2023</p>	<p>. To address existing evacuation constraints, reduce transmission losses, and support the efficient transfer of power from hydro electric projects (HEPs) in the region.</p> <p>The Scheme will ensure N-1 compliance of existing 220/132 kV Charor Sub-station of HPPTCL.</p>	<ul style="list-style-type: none"> • The Project is expected to address current evacuation constraints and support the integration of additional renewable energy generation. This upgrade will enhance the Sub-station's capacity to handle growing power demand, improve grid reliability, reduce transmission losses, and ensure efficient evacuation of renewable energy, thus supporting the region's transition to sustainable energy sources. • At this stage, the Commission cannot classify this asset as an Intra-state and thereby, not include it in the projected ARR, as the status of the associated Charor-Banala transmission line is under adjudication with the HPERC in a separate Petition. • Until this Petition is decided, the status of the scheme shall remain uncertain and therefore, the Commission can not approve the Scheme at this stage as Intra-State. • The Commission is of the view that the Petitioner may proceed with the work. However, the Petitioner must ensure that it executes the LTA agreement with the system beneficiaries. 	<ul style="list-style-type: none"> • The Commission has not approved this Scheme as intra-state as a separate Petition in the matter is under adjudication with the Commission.
8	Providing 132/33 kV, 50/63 MVA Additional Transformer at	Rs. 14.81 Crore Debt: 60.30%	<ul style="list-style-type: none"> • DPR • BOD Approval <p>Project DPR was approved</p>	To address existing evacuation constraints, reduce transmission losses, and support	<ul style="list-style-type: none"> • The installation of the new 50/63 MVA transformer will support the integration of an additional 40 MW of renewable energy generation at the Kurthala Sub-station, addressing the growing power 	<ul style="list-style-type: none"> • The Petitioner has proposed the completion of the Project in FY 2024-25. However, the Commission, after analysing various aspects, has

SI.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
	132/33kV Kurthala Sub-station, Distt. Chamba	Equity: 6.70% Grant: 33.0%	by the Board of Directors of the HPPTCL in its 56th Meeting held on 23.08.2023	the efficient transfer of power from hydro electric projects (HEPs) in the region. The Scheme will ensure ensure N-1 compliance of existing 132/33 kV Kurthala Sub-station	demand and ensuring sufficient capacity for future expansion. The upgrade will enhance the efficiency of the transmission system by improving voltage regulation and reducing transmission losses. This will also strengthen the Kurthala Sub-station's transmission capacity, allowing it to handle higher loads and improving grid stability. • Therefore, the Commission hereby accords approval for the implementation of this project. However, the Commission shall approve the cost of the scheme after doing required prudence check and due diligence, at the time of filing of the detailed tariff petition by the Petitioner.	considered the likely COD of the Project by FY 2028-29. The Commission has arrived at this date after considering the fact that the TSA is yet to be executed and also there is nil physical progress till date. Further, the Petitioner, in the TVS, has indicated that this Project will take another 2-3 years for its commissioning.
9	Construction of 220 kV D/C (Twin Zebra) line from 220/132 kV Nehrian Sub-station to proposed 220/132 kV Sub-station near by Una	Rs. 97.94 Crore Debt: 60.30% Equity: 6.70% Grant: 33.0%	• DPR • BOD Approval Project DPR was approved by the Board of Directors of HPPTCL in its 56th Meeting held on 23.08.2023	The project will facilitate reliable evacuation of Green Energy and will strengthen the existing transmission network.	• This scheme will support the region's growing power demand, particularly from industrial and residential areas in Una, and facilitate the evacuation of renewable energy especially from large-scale solar projects. The construction of the new 220 kV D/C line and Sub-station will strengthen the transmission system in the Una region, improve network reliability, and reduce the risk of overloading the existing EHV infrastructure, ensuring efficient power distribution. The new high-capacity 220 kV D/C line will reduce transmission losses by improving system efficiency and enabling smoother power transfer, particularly from solar projects.	• The Commission has revised the completion date from FY 2025-26 as submitted by the petitioner to FY 2027-28 due to delays in tender finalization and land acquisition. This necessitated a realistic timeline adjustment to account for the anticipated delays after discussing the same with the Petitioner during TVS.

SI.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
					<ul style="list-style-type: none">Therefore, the Commission hereby accords approval for the implementation of this project. However, the Commission shall approve the cost of the scheme after doing required prudence check and due diligence, at the time of filing of the detailed tariff petition by the Petitioner.	

III. Funding through Deposit Works

5.6.5.13 As per the Petitioner’s submission, the Deposit Works primarily covers the following two schemes:

Table 43: Projects proposed under Deposit Works

SI.	Name of the Scheme	Estimated Cost (Rs Cr.)	Completion Date
1.	Construction of a 220/132 kV, 80/100 MVA Sub-station at Tahliwal through a S/C LILO of the 220 kV D/C Bhakra to Jamalpur line	31.66	FY 2024-25
2.	Construction of a 132/33 kV Sub-station with three 50/63 MVA transformers and a 132/11 kV Sub-station with a 25/31.5 MVA transformer at the Bulk Drug Park, along with a 132 kV D/C Transmission Line connecting the proposed Sub-station at Una to the Bulk Drug Park Sub-station at Polian Beet	79.17	FY 2025-26

5.6.5.14 With regard to the funding of the schemes through Deposit works, the Petitioner during the technical validation session has provided the following funding pattern:

Table 44: Proposed Funding pattern under Deposit Works

Name of the Scheme	Debt	Equity	Consumer Contribution
Construction of 132/33kV, 3×50/63MVA & 132/11kV, 25/31.5MVA Sub-station at Bulk Drug Park at Poilanbeet, Distt. Una alongwith 132kV D/C Transmission Line from proposed sub-station at Una to Bulk Drug Park Sub-station at Poilanbeet	0%	0%	100%
Construction of 220/132 kV,80/100 MVA Sub-Station Tahliwal by S/C LILO of 220 kV D/C Bhakra to Jamalpur line	45.00%	5.00%	50.00%

5.6.5.15 The Commission in the current MYT Petition accepts the funding pattern of the schemes provided by the Petitioner funded through Deposit subject to scrutiny at the time of truing up.

5.6.5.16 The Petitioner has submitted the required documentation, including the DPR, Board approval, and scheme details etc. The Commission has undertaken a review of each of the work proposed by the Petitioner under the scheme as detailed below:

Table 45: Schemes approved by the Commission under Deposit Works

SI.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
1	Construction of 220/132 kV,80/100 MVA Sub-Station Tahlawal by S/C LILO of 220 kV D/C Bhakra to Jamalpur line	Rs. 31.66 Crore Consumer Contribution: 50% Equity: 5% Debt:45%	<ul style="list-style-type: none"> • DPR • BOD Approval 	<p>To enhance the transmission network capacity and ensure reliable grid.</p> <p>The Scheme will cater to the load requirements of Bulk Drug Park in addition to be growing load demand in the area. As the scheme is for Intra-state Transmission system strengthening, the annual transmission charges for the same shall be borne by HPSEBL and all Intra-state Transmission system beneficiaries.</p>	<ul style="list-style-type: none"> • The proposed 220/132 kV, 80/100 MVA Sub-station at Tahlawal is designed to meet the immediate power needs of the Bulk Drug Pharma Park (120 MVA) and local load growth, including 40 MVA for the park and 10 MVA for general area expansion. This project will address the growing power demand in Una district, driven by the establishment of the Bulk Drug Pharma Park and increasing local consumption. • The Tahlawal Sub-station will enhance the overall strength of the regional transmission network, facilitating better power distribution and integration with the existing grid. • The new Sub-station, along with the LILO arrangement, will help minimize transmission losses by improving the efficiency of power evacuation and distribution. • Therefore, the Commission hereby accords approval for the implementation of this project. However, the Commission shall approve the cost of the scheme after doing required prudence check and due diligence, at the time of filing of the detailed tariff petition by the Petitioner. 	<ul style="list-style-type: none"> • The Petitioner proposed a completion year of FY 2024-25, which the Commission has revised to FY 2026-27. Despite the work being awarded and land acquisition progressing, the project's physical progress remains minimal. Given these delays and the complexity of construction activities yet to be undertaken, the Commission has adopted a more realistic timeline to ensure quality execution and avoid unrealistic expectations.

SI.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
2	Construction of 132/33 kV, 3x 50/63 MVA and 132/11 kV, 25/31.5 MVA Sub-station at Bulk Drug Park Polianbeet along with associated 132 kV line. (To provide 120 MVA Supply)	Rs. 79.17 Crore Consumer Contribution: 100%	<ul style="list-style-type: none"> • DPR • BOD Approval 	To enhance the transmission network capacity and ensure reliable grid. The Scheme will cater to the load requirements of Bulk Drug Park in addition to the growing load demand in the area. As the scheme is for Intra-state Transmission system strengthening, the annual transmission charges for the same shall be borne by HPSEBL and all Intra-state Transmission system beneficiaries.	<ul style="list-style-type: none"> • The project will cater to the 120 MVA load requirement of the Bulk Drug Pharma Park, including 40 MVA for the park and 10 MVA for local growth, ensuring reliable power supply. • The project will accommodate the growing power needs of the Bulk Drug Park and surrounding areas, enabling sustainable industrial development. • The 132/33kV Sub-station and 132kV D/C transmission line will enhance the local grid, improving power distribution efficiency and grid stability for industrial and residential consumers. • Therefore, the Commission hereby accords approval for the implementation of this project. However, the Commission shall approve the cost of the scheme after doing required prudence check and due diligence, at the time of filing of the detailed tariff petition by the Petitioner. 	<ul style="list-style-type: none"> • The Petitioner has proposed a completion year of FY 2025-26. However, the Commission has revised the same to FY 2026-27. With the tender process still underway and survey work for the transmission line in progress, the project is in its initial stages. The revised timeline accommodates potential delays in tender finalization, construction, and commissioning, reflecting a pragmatic approach by the Commission.

IV. Domestic Funding

5.6.5.17 Under Domestic Funding, the following key projects have been proposed by the Petitioner:

Table 46: Projects proposed under Domestic Funding

Sl.	Name of the Scheme	Estimated cost(Rs Crore)	Completion Year
1.	Construction of S/C LILO of 400kV Lahal to Rajera(Chamera Pooling Station) Transmission line of HPPTCL at Kutehr HEP(240MW)	8.03	FY 2024-25
2.	Construction of 220 kV Pooling Station Sujapur by D/C LILO of 220 kV Dehan-Hamirpur Line	53.87	FY 2025-26
3.	220/132 kV, 2×80/100 MVA, Sub-station, Kala-Amb, Distt. Sirmaur along with 132/33 kV Sub-station, 2×25/31.5 MVA, Kala-Amb, Distt. Sirmaur	66.47	FY 2023-24
4.	Construction of 33/220 kV, 31.5 MVA Sub-station in the Yard of Allain-Dhuangan HEP	6.51	FY 2023-24
5.	Construction of 220 / 132 / 33 kV Sub-station along with Interim arrangement at Village Andheri Kala Amb and 220 kV D/C line from 400/220 kV PGCIL Arainwala to Andheri in Kala Amb in Distt. Sirmour	111.92	FY 2023-24
6.	Construction of 132/33 kV, 2×31.5 MVA Sub-station Ghumarwin alongwith S/C LILO of 132 kV D/C Hamirpur-Kangoo line	64.84	FY 2025-26
7.	132/33kV, 63 MVA Dharampur Sub-station alongwith LILO of 132kV Bassi-Hamirpur Transmission line	46.34	FY 2024-25
8.	132kV Multi Circuit Transmission line on 220kV Multi Circuit Towers with Zebra Conductor from 220/132kV Sub-station at Andheri to Tower No. 19 of 132kV Jamta-Kala Amb(HPSEBL) Transmission line and stringing & sagging of Panther Conductor on 2nd circuit of 132kV Jamta Kala Amb(HPSEBL) Transmission line on 132kV D/C Towers from T-1(Devani) to T-14(Kala Amb)	58.11	FY 2024-25
9.	Construction of LILO of 132kV S/C Dehan-Bassi line at 220/132kV Dehan-Sub-station at Patti of HPPTCL	5.94	FY 2023-24
	Total	422.03	

5.6.5.18 Further, the Petitioner has made the following submission with regard to the funding pattern of these schemes:

Table 47: Proposed Funding pattern under Domestic Funding

Name of the Scheme	Debt	Equity	Grant
Domestic Funded Schemes	90%	10%	-

5.6.5.19 During the Technical Validation Session, the Petitioner informed that the domestic funded projects are proposed to be financed through Equity provided by the Government of Himachal Pradesh (GoHP) and loan raised from Rural Electrification Corporation Limited (REC). For the total project, the Petitioner stated that the equity component of 10% is proposed to be met through GoHP's equity and the loan component of 90% through REC funding. Accordingly, the Commission has accepted the Petitioner submission with regard to the funding pattern of the domestically funded schemes.

5.6.5.20 In relation to the aforementioned projects, the Commission has reviewed the project costs outlined in the respective Detailed Project Reports (DPR) and Board approval documents. Further the commission has undertaken a review of each of the work proposed by the Petitioner under the scheme as below:

Table 48: Schemes approved by the Commission under Domestic Funding

SI.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
1	Construction of S/C LILO of 400kV Lahal to Rajera(Chamera Pooling Station) Transmission line of HPPTCL at Kutehr HEP(240MW)	Rs. 8.03 Crore Debt: 90% Equity: 10%	• DPR • BOD Approval	The project would result in enhanced transmission capacity, enabling Kutehr HEP's power to connect more efficiently to the grid, reducing transmission bottlenecks, and increasing power availability within the region. Additionally, the LILO setup could improve system reliability by providing an alternative route for power flow, reducing dependency on single-line paths, and supporting future load growth, ultimately resulting in greater energy security and operational flexibility.	<ul style="list-style-type: none"> The Commission is of the view that the Petitioner may proceed with the work. However, the Petitioner must ensure that it executes the LTA agreement with the system beneficiaries. At this stage, the Commission does not classify this asset as an Intra-state asset nor include it in the projected ARR, as the Commission has previously determined the associated 220/33kV system of 400/220/33 kV Pooling Station at Lahal and 220 kV S/C Transmission Line sub-station to be an Inter-state asset in its order dated November 17, 2023 in Petition no. 28/2023. 	<ul style="list-style-type: none"> Not Applicable as the Commission has not approved the Scheme as Intra-state.
2	Construction of 220 kV Pooling Station Sujanpur by D/C LILO of 220 kV Dehan-Hamirpur Line	Rs. 53.87 Crore Debt: 90% Equity: 10%	• DPR • BOD Approval	The construction of the 220 kV Sujanpur Pooling Station will enable efficient power evacuation for Dhaulasidh HEP and upcoming future power projects, optimizing regional grid capacity and reducing transmission	The proposed scheme for constructing the 220 kV Pooling Station at Sujanpur via D/C LILO of the 220 kV Dehan-Hamirpur line is part of the power evacuation plan for SJVNL's 66 MW Dhaulasidh HEP on the Beas River in Hamirpur district. In the 3 rd Northern Region Power	<ul style="list-style-type: none"> Not Applicable as the Commission has not approved the Scheme as Intra-state.

SI.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
				losses, thus enhancing system reliability and energy access in the area.	<p>Committee (Transmission Planning) meeting on 19.02.2021, it was decided that HPPTCL would develop this 220 kV switching station at Sujanpur. SJVNL, in turn, will construct a 220 kV D/C transmission line from Dhaulasidh to Sujanpur with a single zebra configuration, including two 220 kV bays at Sujanpur. SJVNL will seek connectivity from HPPTCL, and accordingly, CTU will withdraw the previous connectivity at Hamirpur and update the Long-Term Access (LTA) for Dhaulasidh HEP. With an effective date of 30.06.2025 for connectivity, HPPTCL's Sujanpur station will also provide interconnection for future HEPs, such as Thana Plaun and Triveni Mahadev.</p> <ul style="list-style-type: none"> The Commission is of the view that the Petitioner may proceed with the work subject to further prudence check at the time of filing the detailed tariff Petition by the Petitioner. At this stage, the Commission does not classify this asset as an Intra-state asset nor 	

SI.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
					<p>include it in the projected ARR of the Fifth Control Period.</p> <ul style="list-style-type: none"> The Commission notes that this scheme will undergo a separate review process, pending the Petitioner's submission of an independent Petition specific to the project. 	
3	220/132 kV, 2×80/100 MVA, Sub-station, Kala-Amb, Distt. Sirmaur along with 132/33 kV Sub-station, 2×25/31.5 MVA, Kala-Amb, Distt. Sirmaur				<ul style="list-style-type: none"> Upon review, the Commission noted that the Petitioner has inadvertently included this scheme twice, resulting in a duplicate capital allocation of ₹66.47 crore. Consequently, the Commission disapproves the duplicate portion, thereby reducing the CAPEX by ₹66.47 crore. 	-
4	Construction of 33/220 kV, 31.5 MVA Sub-station in the Yard of Allain-Dhuanan HEP	Rs. 6.51 Crore Debt: 90% Equity: 10%	<ul style="list-style-type: none"> DPR BOD Approval 	This Sub-station will step up voltage from 33 kV to 220 kV, supporting efficient power evacuation from the HEP to the main grid. The on-site location minimizes transmission losses, reduces costs, and ensures reliable regional supply. Equipped with a	<ul style="list-style-type: none"> The project involves constructing a 33/220 kV, 31.5 MVA Sub-station within the Allain-Dhuanan Hydro Electric Project (HEP) yard to step up voltage from 33 kV to 220 kV for efficient power evacuation to the main grid. Its strategic on-site location reduces transmission losses, 	<ul style="list-style-type: none"> The Project has already been completed in FY 2023-24. The Commission has, accordingly, considered the same in this Tariff Order.

SI.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
				31.5 MVA transformer, it will help stabilize the local grid and meet demand effectively.	<p>lowers costs, and ensures reliable regional power supply.</p> <ul style="list-style-type: none"> The Sub-station, equipped with a 31.5 MVA transformer, will enhance grid stability and meet growing demand of the HPSEBL in the area. Therefore, the Commission hereby accords approval for the implementation of this project. However, the Commission shall approve the cost of the scheme after doing required prudence check and due diligence, at the time of filing of the detailed tariff petition by the Petitioner. 	
5	Construction of 220/132/33 kV Sub-station along with Interim arrangement at Village Andheri Kala Amb and 220 kV D/C line from 400/220 kV PGCIL Arainwala to	Rs. 111.1 Crore The petitioner has proposed a total cost of Rs 111.92 Crore whereas cost as per the DPR is Rs 111.10 Crore. Accordingly, the Commission	<ul style="list-style-type: none"> DPR BOD Approval 	The proposed 220/132/33 kV Sub-station and 220 kV D/C line will enhance supply reliability in Kala Amb area, meeting growing industrial and domestic demand while utilizing existing PGCIL infrastructure. This will reduce dependency on current supply sources, minimize outages, and optimize power delivery.	<ul style="list-style-type: none"> It is observed that the proposed system was identified by the HPSEBL to downstream the power from PGCIL EHV (400/220KV) Sub-station in village Andheri Kala Amb area. The system has also been intended to provide additional supply source to existing 132/33/11 kV Sub-station at Kala Amb. Based on the submissions, it is observed that the proposed 	<ul style="list-style-type: none"> The Petitioner suggested the completion year of FY 2023-24, but the Commission has revised the completion year to FY 2026-27. The revised timeline allows for the completion of the remaining construction activities by the Petitioner.

SI.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
	Andheri in Kala Amb in Distt. Sirmour of Himachal Pradesh	has considered Rs 111.10 Crore. Debt: 90% Equity: 10%		The investment will ensure stable operations and long-term savings by mitigating tariff charges and improving energy access in the region.	<p>Sub-station is expected to aid in meeting the increasing load requirement of the industrial areas. The beneficiary of the scheme is HPSEBL and shall form part of Intra-state transmission system.</p> <ul style="list-style-type: none"> Therefore, the Commission hereby accords approval for the implementation of this project. However, the Commission shall approve the cost of the scheme after doing required prudence check and due diligence, at the time of filing of the detailed tariff petition by the Petitioner. 	
6	Construction of 132/33 kV, 2x31.5 MVA Sub-station Ghumarwin alongwith S/C LILO of 132 kV D/C Hamirpur-Kangoo line	Rs. 64.8 Crore Debt: 90% Equity: 10%	<ul style="list-style-type: none"> DPR BOD Approval 	<p>The project involves the construction of a 132 kV Sub-station along with a single circuit LILO of the 132 kV D/C Hamirpur-Kangoo line, located in the Ghumarwin area of District Bilaspur, Himachal Pradesh. The proposed Sub-station will enhance power supply reliability and quality, reducing dependency on long 33 kV feeders and</p>	<ul style="list-style-type: none"> The Commission notes that the proposed project aims to address power reliability issues arising from reliance on long 33 kV feeders from the 132/33 kV Kangoo Sub-station. These feeders contribute to poor power quality, frequent load shedding, and overloading during peak seasons. The new Sub-station will provide a closer Extra 	<ul style="list-style-type: none"> The Petitioner has submitted the completion year of FY 2025-26, but the Commission has revised the same to FY 2027-28 due to the current status of the project. While land acquisition is in progress and FCA for the Sub-station site has been obtained, physical progress is still not there. The revised timeline provides more realistic expectations based on current project developments.

SI.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
				minimizing load shedding during peak demand.	<p>High Voltage (EHV) source, reducing transmission losses, enhancing the reliability of the Intra-state transmission network, and accommodating growing load demands in the area.</p> <ul style="list-style-type: none"> The project will significantly strengthen the region's power infrastructure. Therefore, the Commission hereby accords approval for the implementation of this project. However, the Commission shall approve the cost of the scheme after doing required prudence check and due diligence, at the time of filing of the detailed tariff petition by the Petitioner. 	
7	132/33kV,63 MVA Dharampur Sub-station alongwith LILO of 132kV Bassi-Hamirpur Transmission line	Rs. 46.34 Crore Debt: 90% Equity: 10%	<ul style="list-style-type: none"> DPR BOD Approval 	The project involves the construction of a 132/33 kV Sub-station at Dharampur (Bahri), featuring two 31.5 MVA transformers, to strengthen the power transmission and distribution network in the Northern Region of Himachal Pradesh. This	<ul style="list-style-type: none"> The existing 132/33 kV Bijni Sub-station is significantly overloaded, and the lengthy 33 kV distribution lines have resulted in low voltage levels and an unreliable power supply in the region. The proposed 132/33 kV Sub-station at Dharampur (Bahri) will address these challenges by providing an 	<ul style="list-style-type: none"> The Petitioner has proposed FY 2024-25 as the completion year of the Project. However, the Commission has revised the completion timeline to FY 2025-26. This decision considers the current progress, with only 65% physical work completed, and recognizes that while land acquisition is finalized, delays in ongoing work persist. The revised

SI.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
				Sub-station will be connected through a Line-In Line-Out (LILO) arrangement with the existing 132 kV Bassi-Hamirpur transmission line. The proposed project will enhance voltage levels, reduce power outages, and ensure reliable electricity supply by addressing over loading and low voltage issues at the existing 132/33 kV Bijni Sub-station and its long 33 kV feeders. This will result in operational efficiency, cater to future load growth, and provide long-term value that justifies the investment cost.	<p>alternate high-voltage supply source, reducing the dependency on the over burdened Bijni Sub-station.</p> <ul style="list-style-type: none"> It will enhance voltage regulation, minimize technical losses, and effectively cater to the region's growing load demands, ensuring uninterrupted power supply for critical operations such as those of the IPH department. The project is crucial for improving power supply reliability, meeting future demand, and supporting the region's economic and social development. Therefore, the Commission hereby accords approval for the implementation of this project. However, the Commission shall approve the cost of the scheme after doing required prudence check and due diligence, at the time of filing of the detailed tariff petition by the Petitioner. 	<p>timeline accounts for the present pace of execution and expected delays.</p>
8	132kV Multi Circuit Transmission	Rs. 58.11 Crore	<ul style="list-style-type: none"> DPR BOD Approval 	The construction of 220 kV multi-circuit towers should strengthen the	<ul style="list-style-type: none"> The proposed project addresses critical capacity constraints in the region's 	<ul style="list-style-type: none"> The Petitioner has proposed the completion of the Project in FY 2024-25. The Commission has

SI.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
	line on 220kV Multi Circuit Towers with Zebra Conductor from 220/132kV Sub-station at Andheri to Tower No. 19 of 132kV Jamta-Kala Amb(HPSEBL) Transmission line and stringing & sagging of Panther Conductor on 2nd circuit of 132kV Jamta Kala Amb(HPSEBL) Transmission line on 132kV D/C Towers from T-1(Devani) to T-14(Kala Amb)	Debt: 90% Equity: 10%		transmission line between the 220/132/33 kV Kala Amb (HPPTCL) Sub-station and Tower No. 19 of the Jamta-Kala Amb (Johron) line. The project also involves the stringing and sagging of Panther conductor on the second circuit of the 132 kV Jamta-Kala Amb line between towers T-1 (Devani) and T-14 (Johron). The primary objective of the Project is to alleviate the overload situation on the 220 kV D/C Khodri-Mazri line, which is a bottleneck in the region's power distribution network.	power distribution network. The overloaded 220 kV D/C Khodri-Mazri line will be relieved by introducing an additional 200 MVA power source at Kala Amb. The 132/33 kV Kala Amb (Johron) and Solan Sub-stations, currently at full capacity, will benefit from the 220/132 kV Kala Amb Sub-station, providing an alternate supply and increasing transformation capacity. The transmission line will improve connectivity between key Sub-stations, enhancing integration and network stability. Further, this line will significantly improve system reliability, reduce transmission losses, and enhance load management. Furthermore, the scheme will mitigate restrictions from NRLDC and Uttarakhand's Intra-state system, ensuring smoother power flow and enabling future load growth. • Therefore, the Commission hereby accords approval for the implementation of this	agreed with this timeline, as work has been awarded, 100% land acquisition and forest clearance have been completed, and physical progress stands at around 80%. The project is progressing as planned and is expected to be completed within the proposed timeframe.

SI.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
					project. However, the Commission shall approve the cost of the scheme after doing required prudence check and due diligence, at the time of filing of the detailed tariff petition by the Petitioner.	
9	Construction of LILO of 132kV S/C Dehan-Bassi line at 220/132kV Dehan-Sub-station at Patti of HPPTCL	Rs. 5.94 Crore Debt: 90% Equity: 10%	<ul style="list-style-type: none"> • DPR • BOD Approval	HPPTCL has constructed a 132/220 kV, 2x100 MVA GIS Sub-station at Dehan in Distt. Kangra, which will connect to the ISTS Grid at the PGCIL 400/220 kV Sub-station in Hamirpur via a D/C Twin Moose transmission line (under construction). This system will support power generation from small and medium hydroelectric plants along the Beas River in the Palampur, Sujampur, and Hamirpur areas. Additionally, HPSEBL operates a 132/33 kV, 2x31.5 MVA AIS Sub-station nearby, which currently evacuates power from various small HEPs. To improve inter connection between	<ul style="list-style-type: none"> • The above work is required for inter connection of 220/132 kV Dehan Sub-station of HPPTCL with 132 kV S/C Dehan Bassi line of HPSEBL. This will help in providing evacuation to Small Hydro Projects in Summer (Peak Generation time) and will act as drawl source during winters. This shall also provide alternate reliable source for injection and drawl to the Intra-state system. • The major beneficiaries of the system are HPSEBL and Small Hydro Projects in the area. • The project is expected to support regional power supply and foster economic growth by enhancing overall power reliability, benefiting 	<ul style="list-style-type: none"> • The Petitioner has informed that the Project has been completed in the FY 2023-24. The Commission has, accordingly, considered it in the determination of the ARR in this Tariff Order.

SI.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
				HPPTCL and HPSEBL systems, a LILO of the 132 kV S/C Dehan-Bassi line at the 220/132 kV Dehan Sub-station is required. This will enhance evacuation of power from small hydro projects during peak generation in summer and serve as a drawl source in winter, while also connecting the HPSEBL system to the ISTS grid at Hamirpur, improving power reliability for the Palampur area under contingency conditions.	<p>both industrial and residential sectors.</p> <ul style="list-style-type: none"> Therefore, the Commission hereby accords approval for the implementation of this project. However, the Commission shall approve the cost of the scheme after doing required prudence check and due diligence, at the time of filing of the detailed tariff petition by the Petitioner. 	

V. Asian Development Bank

5.6.5.21 The Petitioner has submitted that the Government of India extended ADB loan to the Government of Himachal Pradesh to implement Intra-state power system master plan, with HPPTCL designated as the implementing agency. Supported by ADB, the HPPTCL developed a master plan for expanding the State's transmission network, which received endorsement from the CEA. Under this scheme, the following key projects have been proposed by the Petitioner:

Table 49: Projects proposed under Asian Development Bank

SI.	Name of the Scheme	Estimated Cost (Rs Crore)	Completion Year
1.	Construction of 132/220 kV Pooling Sub-station at Mazra	88.93	FY 2023-24
2.	Construction of 220 kV D/C Transmission Line Mazra - Karian	35.06	FY 2023-24
3.	Augmentation of existing 220/132kV Kangoo Sub-station and stringing of 2nd circuit of 220kV S/C line on D/C towers between Dehar (BBMB) and 132/220kV Kangoo Sub-station	53.70	FY 2024-25
4.	Construction of 33/132 kV Pooling Sub-Station Barsaini	71	FY 2024-25
5.	Construction of 132 KV D/C Barsaini-Charor line	53.57	FY 2024-25
6.	Creation of a Joint Control at Kunihar and Operations Center for the transmission assets of HPPTCL/HPSEBL	29.67	FY 2024-25
	Total	331.93	

5.6.5.22 The Petitioner has made the following submissions with regarding to the funding pattern of the schemes through ADB:

Table 50: Proposed Funding pattern under ADB

Name of the Scheme	Debt	Equity	Grant
ADB	80%	20%	Nil

- 5.6.5.23 As per the terms and conditions of the loan, 75% of the total project cost is funded by the Asian Development Bank and the remaining 25% would be available as Equity. Subsequently, the GoHP has amended the terms and conditions of the financial assistance for extending it to the HPPTCL. While the entire multilateral funds were received by the State in the ratio of 90% grant and 10% loan from the Govt. of India but the same was extended by GoHP to the Petitioner as loan carrying interest rate of 10% per annum.
- 5.6.5.24 The Commission, in its previous Orders, had directed the Petitioner to re-negotiate with GoHP and align the terms and conditions of the Loan Agreements in line with the tripartite agreement among Govt. of HP, ADB and HPPTCL. In compliance, the Petitioner has provided a GoHP letter dated 04.03.2023 where the GoHP has conveyed approval for restructuring of the ADB loan as 80% of disbursed loan to be converted into interest free loan, 10% of disbursed loan to be kept as interest bearing loan @10% and remaining 10% of disbursed loan to be converted to equity. It is observed that as per the GoHP letter, while partial relief has been provided to the consumers but relaxation of interest on 80% of the loan amount, the entire terms and conditions have not been adopted.
- 5.6.5.25 The Commission has provisionally considered the capital availed from the GoHP under the ADB scheme as 90% grant and 10% debt. Further, after reducing such amount of grant from the total approved capital cost, the Commission has considered debt:equity ratio as 70% debt and 30% equity for the balance amount in line with Regulation 31(2)(b) of the HPERC Tariff Regulations, 2023 which specify the following:
- "(b) the debt:equity ratio shall be considered in accordance with Regulation 32, after deducting the amount of financial support received;"*
- 5.6.5.26 Based on this restructuring, the Commission has evaluated 67.5% of the total funding as a grant (i.e., 90% of 75%), with the balance classified in a 70:30 debt-equity structure.
- 5.6.5.27 Further the commission has undertaken a review of each of the work proposed by the Petitioner under the scheme as below:

Table 51: Schemes approved by the Commission under Asian Development Bank

SI.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
1	Construction of 132/220 kV Pooling Sub-station at Mazra	Rs. 88.93 Crore Grant: 67.50% Debt: 22.75% Equity: 9.75%	<ul style="list-style-type: none"> • DPR • BOD Approval 	<p>The project involves the construction of a 132/220 kV pooling Sub-station at Mazra to evacuate approximately 330 MW of power generated from various small and medium hydro power plants (HEPs) in the Ravi Basin. This Sub-station will connect to the 33/220 kV Karian GIS Sub-station and further to the 400/220 kV Chamera P.S. via 220 kV double-circuit (D/C) transmission line. The Sub-station will be equipped with two 220/132 kV three-phase transformers of 100 MVA each. To optimize land use and reduce civil costs in the hilly terrain of Himachal Pradesh, Gas Insulated Sub-station (GIS) technology will be used instead of conventional AIS. The system design ensures redundancy and reliability, minimizing outages and supporting long-term grid stability.</p>	<ul style="list-style-type: none"> • The Sub-station will evacuate power from HEPs like Chanju-1 (36 MW), Surgani Sundla (48 MW), Devi Kothi-I (30 MW), Chanju-III (42 MW), and other projects awarded to independent power producers (IPPs), totaling to 176 MW. The Tissa area in the Ravi Basin has a total generation potential of 422 MW, which will be realized by the 13th Plan period. Limited transmission corridors in the hilly terrain necessitate an integrated system to avoid constructing multiple circuits. • The proposed Sub-station will handle most of the evacuation needs, ensuring reliable power transfer and reducing dependency on existing HPSEBL infrastructure. Additionally, it addresses future growth by accommodating upcoming capacities in the region. The project will reduce transmission losses, strengthen the Intra-state transmission network, and support future demand growth, thereby enhancing grid stability and operational efficiency. • Therefore, the Commission hereby accords approval for the implementation of this project. 	<p>The Petitioner initially proposed FY 2023-24 as the completion year for the Project. However, the Commission has revised the completion timeline to FY 2024-25, allowing for a buffer to accommodate any unforeseen delays that may arise during the final stages of construction.</p>

SI.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
					However, the Commission shall approve the cost of the scheme after doing required prudence check and due diligence, at the time of filing of the detailed tariff petition by the Petitioner.	
2	Construction of 220 kV D/C Transmission Line Mazra - Karian	Rs. 35.06 Crore Grant: 67.50% Debt: 22.75% Equity: 9.75%	<ul style="list-style-type: none"> • DPR • BOD Approval 	The 220 kV Mazra-Karian Double Circuit (D/C) Line is being constructed as part of an integrated transmission system to facilitate power evacuation from hydro electric power projects (HEPs) in the Tissa area of the Ravi River Basin, ensuring operational viability and preventing generation capacity from being stranded. By integrating the 132/220 kV Mazra pooling Sub-station with the 33/220 kV Karian GIS Sub-station and the Chamera P.S., the project optimizes transmission infrastructure, reducing the need for multiple circuits and associated land acquisition costs in an ecologically sensitive area. Additionally, it enhances grid reliability, supports future scalability for Himurja's projects, and aligns with Himachal	<ul style="list-style-type: none"> • The 220 kV Mazra-Karian Line is crucial for evacuating power from HEPs in the Tissa area, ensuring no generation capacity is stranded, with 167 MW initially expected to be operational by 2017-18. • By consolidating transmission infrastructure and addressing corridor limitations, this ADB-financed project ensures financial and operational viability, significantly contributing to the state's renewable energy goals and socio-economic development. This system ensures power reliability, optimizes resource utilization. • Therefore, the Commission hereby accords approval for the implementation of this project. However, the Commission shall approve the cost of the scheme after doing required prudence check and due diligence, at the time of filing of the detailed tariff petition by the Petitioner. 	<ul style="list-style-type: none"> • The Petitioner had proposed the completion year of FY 2023-24 for the Project. The Commission has adopted a revised timeline based on the pace of work and to provide a buffer for any unforeseen delays that might occur during the final construction stages. Accordingly, the Commission has considered this Project for the ARR approved for FY 2024-25 onwards in this Tariff Order.

SI.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
				Pradesh's renewable energy targets, fostering economic growth and minimizing environmental impact.		
3	Augmentation of existing 220/132kV Kangoo Sub-station and stringing of 2nd circuit of 220kV S/C line on D/C towers between Dehar (BBMB) and 132/220kV Kangoo Sub-station	Rs. 53.7 Crore Grant: 67.50% Debt: 22.75% Equity: 9.75%	<ul style="list-style-type: none"> • DPR • BOD Approval 	The project involves the integrated operation of the 132 kV buses at the 220/132 kV Kangoo Sub-station, which currently operates in radial mode. Presently, the Sub-station draws approximately 140 MW from the 220 kV bus of Dehar Power House of BBMB, while additional power requirements are met from the 220/132 kV Hamirpur Sub-station, resulting in unnecessary transmission losses. The proposed integration will enable the Kangoo Sub-station to draw up to 240 MW directly from Dehar Power House, significantly enhancing reliability and operational efficiency. The scope of the project includes the augmentation of the 220/132 kV Kangoo Sub-station and the stringing of a second circuit on the existing 220 kV	<ul style="list-style-type: none"> • The current radial operation of 132 kV buses at Kangoo Sub-station limits its drawl capacity to 140 MW, leading to higher transmission losses and dependence on alternate Sub-stations. • Integrating the buses and augmenting the Kangoo Sub-station will enhance its operational reliability and increase its capacity to draw power directly from Dehar Power House, up to 240 MW, within the permissible limits of the 400/220 kV ICT at Dehar. • The project is vital for reducing unnecessary power losses, meeting future demand, and ensuring the stable operation of the state grid. • Therefore, the Commission hereby accords approval for the implementation of this project. However, the Commission shall approve the cost of the scheme after doing required prudence check and due diligence, at the time of filing of the detailed tariff 	<ul style="list-style-type: none"> • The Petitioner has proposed the COD of the Project in FY 2024-25. The Commission has extended the completion date to FY 2025-26 after doing detailed analysis.. The work has been awarded, 100% of the land acquisition is complete and forest clearance is not required.The physical progress, as conveyed by the Petitioner, is around 70%. The revised timeline considered by the Commission accounts for the substantial remaining works and to ensure that the project's completion aligns with the current pace of progress.

SI.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
				Kangoo-Dehar single-circuit line using double-circuit towers. The project also facilitates the consumption of power evacuated by the 132/33 kV, 2x31.5 MVA GIS Sub-station at Pandoh. The long-term benefits of increased reliability and efficiency far exceed the initial investment.	petition by the Petitioner.	
4	Construction of 33/132 kV Pooling Sub-Station Barsaini	Rs. 71 Crore Grant: 67.50% Debt: 22.75% Equity: 9.75%	<ul style="list-style-type: none"> • DPR • BOD Approval 	The Barsaini area in the Beas basin has an estimated power potential of 58 MW from various Small Hydro Projects (SHPs) awarded to IPPs by the HP Government. Due to limited corridor availability in the hilly terrain, HPPTCL plans to develop an Integrated Transmission System to pool and evacuate this power. The proposed system includes a 33/132 kV pooling Sub-station at Barsaini and a 132 kV D/C transmission line to the 132/220 kV Sub-station at Charor. This arrangement ensures reliable power evacuation with redundancy to handle outages effectively. The project will enhance the	<ul style="list-style-type: none"> • To evacuate approximately 58 MW of power from the Barsaini area, a 33/132 kV pooling Sub-station is proposed at Barsaini, linked to the 132/220 kV Charor Sub-station via a 132 kV D/C line. This pooling arrangement will streamline power evacuation by avoiding a mesh of transmission lines, utilizing a single corridor to cater to the capacity of Small HEPs in the valleys and future projects by Himurja. • The Commission notes that this scheme is primarily for the evacuation of power from HEPs outside the State. Also, the Commission, in its Order dated August 12, 2021, has classified the associated Asset i.e. Charor-Banala Transmission Line as Inter-state. However, the Hon'ble CERC in its Order dated 04.05.2023 has not 	<ul style="list-style-type: none"> • Not Applicable as the Commission has not approved the Capex of this Scheme under Fifth Control Period.

SI.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
				local economy by developing infrastructure, generating employment, and improving access to education and healthcare in this tribal region. Effective fund utilization will yield mutual benefits for HPPTCL and the community, fostering inclusive and sustainable development.	<p>considered the Charor- Banala Asset as Inter-State. Thereafter, this Commission vide Order dated 12.04.2024 had given direction to the Petitioner to recover the complete ARR from the direct beneficiary(ies) of the system which at the present is M/s Everest Power Pvt. Ltd. only. This decision of the Commission was challenged by M/s Everest Power Pvt. Ltd. in the Hon'ble Appellate Tribunal for Electricity. The Hon'ble APTEL in its judgement dated 27.08.2024 has remanded back the matter to the Commission to consider it afresh. Accordingly, this issue of mode of recovery of the transmission charges is under adjudication with the Commission. Therefore, till the disposal of the matter, the Commission will not classify this asset for the purpose of pooling mechanism and will also not include it in the projected ARR of the Fifth control period.</p> <ul style="list-style-type: none"> The Commission is of the view that the Petitioner may proceed with the work. However, the Petitioner must ensure that it executes the LTA/MTOA agreement with the system beneficiaries. Thereafter, the Commission will decide it separately in case a suitable 	

SI.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
					Petition is filed by the Petitioner specific to the Project at an appropriate time.	
5	Construction of 132 KV D/C Barsaini-Charor line	Rs. 53.57 Crore Grant: 67.50% Debt: 22.75% Equity: 9.75%	<ul style="list-style-type: none"> • DPR • BOD Approval 	The proposed 132 kV D/C Barsaini-Charor line will span approximately 37 km and will be constructed using self-supporting lattice-type steel towers. The line will be equipped with ACSR Panther conductors to ensure efficient power transmission. To evacuate 58 MW of power from Small Hydro Projects in the Upper Parvati Valley, the Petitioner has proposed an Integrated Transmission System, addressing limited corridor availability. The 132 kV Barsaini-Charor line shall terminate at the 220/132 kV Charor Sub-station. Power from the Lower Parvati Valley will be injected into this line via LILO of one circuit at Sarsadi. From Charor, power	<ul style="list-style-type: none"> • To enable evacuation of power in the Parvati Valley while optimizing corridor usage, a 132 kV D/C line is proposed. • This line will accommodate the power capacity of existing Small and Medium Hydro Projects in the valley, along with additional hydro capacity planned. • The Commission, in its Order dated August 12, 2021, has classified the associated Asset i.e. Charor-Banala Transmission Line as Inter-state. However, the Hon'ble CERC in its Order dated 04.05.2023 has not considered the Charor- Banala Asset as Inter-State. Thereafter, this Commission vide Order dated 12.04.2024 had given direction to the Petitioner to recover the complete ARR from the direct beneficiary(ies) of the system 	<ul style="list-style-type: none"> • Not Applicable as the Commission has not approved the Capex for this Scheme under Fifth Control Period.

SI.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
				will be transmitted to the 220/400 kV pooling Sub-station at Banala through the 220 kV Charor-Banala D/C line (twin MOOSE) as per the 30th Standing Committee on Northern Region Power System Planning (19.12.2012). This setup ensures reliability and redundancy for uninterrupted power evacuation.	<p>which at the present is M/s Everest Power Pvt. Ltd. only. This decision of the Commission was challenged by M/s Everest Power Pvt. Ltd. in the Hon'ble Appellate Tribunal for Electricity. The Hon'ble APTEL in its judgement dated 27.08.2024 has remanded back the matter to the Commission to consider it afresh. Accordingly, this issue of mode of recovery of the transmission charges is under adjudication with the Commission. Therefore, till the disposal of the matter, the Commission will not classify this asset for the purpose of pooling mechanism and will also not include it in the projected ARR of the Fifth control period.</p> <ul style="list-style-type: none"> The Commission is of the view that the Petitioner may proceed with the work. However, the Petitioner must ensure that it executes the LTA/MTOA agreement with the system beneficiaries. Thereafter, the Commission will decide it separately in case a suitable Petition is filed by the Petitioner specific to the Project at an appropriate time. 	
6	Creation of a Joint Control and Operations Center for the	Rs. 29.67 Crore	<ul style="list-style-type: none"> DPR BOD Approval 	The proposed Joint Control and Operations Center (JCOC) aims to centralize monitoring and control of	<ul style="list-style-type: none"> Continuous and effective monitoring of the transmission assets is crucial. Ineffective control may lead to frequent disruptions 	<ul style="list-style-type: none"> The Petitioner has proposed the COD of the Project in FY 2024-25. The Commission has accepted

SI.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
	transmission assets of HPPTCL/HPSEBL	Grant: 67.50% Debt: 22.75% Equity: 9.75%		transmission assets owned by HPPTCL and HPSEBL. This facility will be established at a strategically accessible location and interconnected with the State Load Dispatch Centre (SLDC). The JCOC will utilize advanced technologies, including Fiber Optic Terminal Equipment (FOTE), to ensure seamless integration of transmission assets with the SLDC and facilitate uninterrupted communication and control. The centralized setup will enhance operational efficiency, enable real-time fault detection, and support proactive grid management, ensuring the stability of the state grid, which is interconnected with the Northern and National grids. The project is estimated to cost ₹29.67 crore, encompassing the establishment of the control center, system integration, and associated hardware and software upgrades. The project is expected to deliver significant economic and operational benefits. By centralizing monitoring and	<p>and heightened risk of grid collapse, especially in the context of the state's connection to the larger Northern and National grids.</p> <ul style="list-style-type: none"> The JCOC will provide a robust mechanism to monitor grid conditions, swiftly address faults, and ensure compliance with grid codes. By minimizing disruptions, the project will contribute to the overall reliability of power supply across the region. The scheme aligns with the state's goal of modernizing its grid infrastructure and safeguarding the reliability of inter connected power systems. Based on the above scrutiny, the Commission observes that the scheme is expected to help in strengthening of Intra-state transmission network. Therefore, the Commission hereby accords approval for the implementation of this project. However, the Commission shall approve the cost of the scheme after doing required prudence check and due diligence, at the time of filing of the detailed tariff petition by the Petitioner. 	the same as it is in line with the current progress. With 100% land acquisition, no forest clearance required, and 90% physical progress, the project is close to completion. The Commission has maintained the original timeline, accounting for the minor tasks remaining to be completed.

Sl.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
				<p>control, the scheme will reduce system disruptions and fault response times, minimizing power outages and associated revenue losses. Enhanced grid stability will ensure reliable power supply to consumers and industries, fostering economic growth. The reduction in manpower requirements for on-site monitoring and maintenance will lower operational costs. Furthermore, effective monitoring and swift fault rectification will extend the lifespan of critical transmission assets, avoiding expensive repairs and replacements. The project's long-term benefits outweigh its initial investment, making it a cost-effective solution for improving transmission reliability.</p>		

VI. KfW funded projects

- 5.6.5.28 The Petitioner has submitted that under the Green Energy Corridor Scheme-I (GEC-1) initiated by the Government of India, a project to develop transmission infrastructure for evacuating power from small hydro electric projects (HEPs) across various river basins in the State was approved, with an estimated cost of ₹910 crore.
- 5.6.5.29 Based on the documents submitted, the Commission observes that the project is proposed to be funded through HPPTCL's Internal Resources (IR), grant from the National Clean Energy Fund (NCEF), and soft loan from KfW. The financing of the scheme proposed by the Petitioner has been in the ratio of 20:40:40. The equity component (20%) is planned to be financed through Internal Resources (IR), while the loan component (40%) is proposed to be sourced through the KfW and the grant component (40%) is to be funded by NCEF.
- 5.6.5.30 The KfW funding is classified as an externally aided project, which is similar to the other multilateral funding agencies like ADB etc as discussed above in this Order. The funds are made available through GoI, which are first routed to the GoHP and thereafter to the Petitioner. HP being a special category State, 90% of the funding is available as grant and the remaining 10% as loan to the State Government. However, the GoHP has extended the grant component also as loan to the Petitioner. The Commission is of the firm view that the GoHP can not change the funding pattern as sourced from GoI. Accordingly, for computing the funding of schemes financed through KfW, the Commission has considered the grant component to be 76% of the total project cost, comprising of 40% grant from NCEF and the remaining 36 % (90% of the 40%) of KfW funds. The treatment of the remaining 24% of the funding has been considered as per the regulatory guideline of a 70:30 debt-equity ratio, with 70% raised as debt and 30% contributed as equity.
- 5.6.5.31 Under the KfW scheme, the following key projects have been proposed by the Petitioner:

Table 52: Projects proposed under KfW Scheme

Sl.	Name of the Scheme	Estimated cost (Rs Crore)	Completion Year
1.	LILO of 220kV D/C Bajoli Holi to Lahal Transmission line at 220/66kV Heiling Sub-station alongwith 220/66 kV, 2x80/100 MVA, Heiling Sub-station	90.60	FY 2024-25
2.	Construction of 33 kV D/C line between Palchan switching station and 33/220 kV sub station in the yard of Allain Dhuangan HEP in Distt. Kullu	8.00	FY 2023-24
3.	Construction of 33 kV GIS switching station at Palchan in Distt. Kullu	14.11	FY 2024-25
4.	Construction of 132 kV D/C line from 22/132 kV Sub-station at Tangnu Romai	26.81	FY 2023-24

Sl.	Name of the Scheme	Estimated cost (Rs Crore)	Completion Year
	HEP to 132/220 kV Sub-station at Sunda		
5.	220/132 kV , 80/100 MVA Substation Charor alongwith Additional 80/100 MVA Transformer at Charor	111	FY 2023-24
6.	220/66 kV, 2×63 MVA Addl. Transformer at Gumma Substation	45.53	FY 2023-24

5.6.5.32 *The Commission has conducted detailed examination of the project report submitted by the Petitioner. The Commission observes that the Petitioner has provided details in the form of DPR, BOD approval, scheme document etc. The commission has undertaken a review of each of the work proposed by the Petitioner under the scheme as detailed below:*

Table 53: Schemes approved by the Commission under KfW

SI.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
1	LILO of 220kV D/C Bajoli Holi to Lahal Transmission line at 220/66kV Heiling Sub-station alongwith 220/66 kV, 2×80/100 MVA, Heiling Sub-station	Rs. 90.60 Crore Grant: 76% Debt: 16.80% Equity: 7.2%	<ul style="list-style-type: none"> DPR BOD Approval 	The project involves the construction of a Line In Line Out (LILO) of the 220 kV Double Circuit (D/C) Bajoli Holi to Lahal Transmission Line at the 220/66 kV Heiling Sub-station, along with the establishment of the Heiling Sub-station, which will be equipped with two 80/100 MVA transformers. The development of the 220/66 kV Heiling Sub-station is expected to yield substantial cost benefits for the energy transmission system. First, it ensures the efficient evacuation of power from the identified SHEPs, reducing potential bottlenecks and improving the overall efficiency of the transmission network. By connecting to the Lahal Sub-station, the infrastructure will streamline the flow of electricity to areas with higher demand, thereby reducing transmission losses and enhancing the stability of the grid. Furthermore, the integration of multiple SHEPs into the transmission system supports the State's renewable energy targets, contributing to a more sustainable energy mix.	<ul style="list-style-type: none"> The Commission is of the view that the Petitioner may proceed with the work. However, the Petitioner must ensure that it executes the LTA agreement with the system beneficiaries. At this stage, the Commission will not classify this asset as an Intra-state asset nor include it in the projected ARR, as the Commission has previously classified the associated 220 kV D/C Bajoli Holi-Lahal transmission line to be an Inter-state asset in its order dated November 17,2023 in Petition no. 27/2023. 	<ul style="list-style-type: none"> Not Applicable as the Commission has not approved the Capex in this Scheme under Fifth Control Period.
2	Construction of 33 kV D/C	Rs 8.00 Crore	<ul style="list-style-type: none"> DPR 	The proposed project involves the construction of a 33 kV double-	<ul style="list-style-type: none"> The project ensures the efficient evacuation of 57 MW of 	<ul style="list-style-type: none"> The Commission has considered the

SI.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
	line between Palchan switching station and 33/220 kV Sub-station in the yard of Allain Dhuangan HEP in Distt. Kullu	Grant: 76% Debt: 16.80% Equity: 7.2%	<ul style="list-style-type: none"> BOD Approval 	<p>circuit (D/C) transmission line between the Palchan switching station and the 33/220 kV Sub-station located within the yard of the Allain Dhuangan Hydro electric Plant (HEP) in District Kullu. From this Sub-station, the project will leverage an existing 220 kV double-circuit (D/C) transmission line that links the Allain Dhuangan HEP to the 400/220 kV Nalagarh Sub-station, operated by Power Grid Corporation of India. This infrastructure has the capacity to evacuate the full 57 MW of Small Hydel power from the Palchan Valley.</p>	<p>renewable energy from Small Hydel Projects in the Upper Beas Basin.</p> <ul style="list-style-type: none"> This infrastructure supports the state's renewable energy goals by enabling the full utilization of hydro power resources in the region, reducing reliance on non-renewable energy sources, and providing long-term economic and environmental benefits. Also, the HPSEBL is drawing power as per its requirement from the transmission system of the Petitioner. Based on the above scrutiny, the Commission observes that the scheme is helping in strengthening of Intra-state transmission network and the HPSEBL shall be able to meet the future demand growth in the respective area. Therefore, the Commission hereby accords approval for the implementation of this project. However, the Commission shall approve the cost of the scheme after doing required prudence check and due diligence, at the time of filing of the detailed 	Petitioner's proposed completion year of FY 2023-24.

SI.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
					tariff petition by the Petitioner.	
3	Construction of 33 kV GIS switching station at Palchan in Distt. Kullu	Rs. 14.11 Crore Grant: 76% Debt: 16.80% Equity: 7.2%	<ul style="list-style-type: none"> DPR BOD Approval 	<p>The proposed work includes constructing a 33 kV switching station at Palchan to pool power from all Independent Power Producers (IPPs) operating in the region at the 33 kV level. The project provides a cost-effective and reliable solution for evacuating 57 MW of renewable energy from Small Hydel Projects in the Upper Beas Basin. By pooling power at the Palchan switching station, the scheme minimizes redundancy and optimizes transmission resources.</p>	<ul style="list-style-type: none"> This infrastructure is essential for meeting regional renewable energy targets, reducing transmission losses, and ensuring reliable power evacuation to the grid. The scheme strengthens the Intra-state transmission network and supports the sustainable utilization of Small Hydel resources in the Palchan Valley, aligning with the broader goals of grid modernization and renewable energy integration. Therefore, the Commission hereby accords approval for the implementation of this project. However, the Commission shall approve the cost of the scheme after doing required prudence check and due diligence, at the time of filing of the detailed tariff petition by the Petitioner. 	<ul style="list-style-type: none"> The Commission retained the Petitioner's submission of completion year of FY 2024-25. Given that work has already been awarded and both land acquisition and forest clearance are 100% complete, there are no apparent obstacles to meeting the proposed timeline.
4	Construction of 132 kV D/C line from 22/132 kV Sub-station at Tangnu Romai HEP	Rs. 26.81 Crore Grant: 76% Debt: 16.80%	<ul style="list-style-type: none"> DPR BOD Approval 	<p>The proposed 132 kV D/C line, approximately 12 kilometers in length, is designed to evacuate 46 MW of electricity generated by Small Hydro electric Plants (HEPs) The project, with an estimated cost of ₹26.81 crore, is expected to provide substantial economic and</p>	<ul style="list-style-type: none"> The beneficiary of the Scheme is not known. The Commission, therefore, decides that this work will undergo a separate review process, pending the Petitioner's submission of an independent Petition specific to the project. Consequently, this project is 	<ul style="list-style-type: none"> Not Applicable as the Commission has not approved the Capex of the Scheme under Fifth Control Period.

SI.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
	to 132/220 kV Sub-station at Sunda	Equity: 7.2%		operational benefits. By enabling the evacuation of 46 MW of hydro power, the line will reduce curtailment risks and optimize generation potential from Small HEPs. This will contribute to meeting renewable energy targets while generating additional revenue for the developers. Moreover, it will strengthen the transmission network in the region, enhancing power availability for end-users and reducing dependency on conventional power sources.	excluded from the current CAPEX approval for the Fifth Control Period.	
5.	220/132 kV, 80/100 MVA Substation Charor alongwith Additional 80/100 MVA Transformer at Charor	Rs. 111 Crore Grant: 76% Debt: 16.80% Equity: 7.2%	<ul style="list-style-type: none"> • DPR • BOD Approval 	The 220/132 kV, 80/100 MVA Substation at Charor and the installation of an additional 80/100 MVA transformer at the same location aim to enhance the transmission and transformation capacity in the region. This project involves constructing a modern sub-station equipped with advanced infrastructure and technology to ensure reliable and efficient power supply. The addition of a second transformer at the same location ensures redundancy and caters to future load growth.	<ul style="list-style-type: none"> • The status of this Scheme proposed with regard to Inter or Intra State is not clear. The Petitioner has already filed a separate Petition for determination of the tariff for the Charor Sub-station. The Commission shall take a view on this Petition separately while deciding this Petition. • The Commission, therefore, decides that this work will undergo a separate review process, pending the Petitioner's Petition specific to the project. • Consequently, this project is excluded from the current CAPEX approval for the Fifth Control Period. 	<ul style="list-style-type: none"> • Not Applicable as the Commission has not approved the Capex under Fifth Control Period.

SI.	Name of project	Capital cost & Funding	Supporting document	Description and Key Benefits	Commissions Observation	Status of the Scheme and likely COD as reviewed by the Commission
6.	220/66 kV, 2×63 MVA Addl. Transformer at Gumma Sub station	Rs. 45.53 Crore Grant: 76% Debt: 16.80% Equity: 7.2%	<ul style="list-style-type: none"> • DPR • BOD Approval 	The installation of 2×63 MVA additional 220/66 kV transformers at the Gumma Sub station is a critical upgrade aimed at enhancing the transformation capacity and operational reliability of the power network in the region. The project involves augmenting the existing sub station infrastructure with two high-capacity transformers to meet growing electricity demand and improve supply stability.	<ul style="list-style-type: none"> • The status of this Scheme proposed with regard to Inter or Intra is not clear. The Petitioner has already filed a separate Petition for determination of the tariff for the Gumma Sub-station. The Commission shall take a view in the matter while deciding this Petition. • The Commission, therefore, decides that this work will undergo a separate review process, pending the Petitioner's Petition specific to the project. • Therefore, this project is excluded from the current CAPEX approval for the Fifth Control Period. 	<ul style="list-style-type: none"> • Not Applicable as the Commission has not approved the Capex under Fifth Control Period.

5.6.5.33 Schemes proposed but not considered by the Petitioner in the ARR of Fifth Control Period: Out of the 38 schemes proposed by the Petitioner for the Fifth Control Period, the Petitioner has not provided corresponding detailed estimates for CAPEX or capitalization for the below mentioned works. The Petitioner has indicated that the expected Commercial Operation Date (COD) and the funding agencies for these works are still to be finalized. As a result, the necessary financial details for inclusion of the same in the tariff computation are currently unavailable. Accordingly, the Commission has decided not to consider these two works for CAPEX and capitalization approval in this Tariff Order.

- a) Construction of 220/33 kV, 2x50/63 MVA Majholi along with 220 kV Transmission line from Uperla Nangal to Majholi for Medical Devices Park (MDP) at Nalagarh
- b) Additional 220/132 kV, 200 MVA Transformer bank at Kala Amb Sub-station at Andheri

5.6.5.34 Accordingly, based on the above scrutiny, the Commission accords an approval of Rs 1,493.68 Crore for the Schemes/works as indicated below:

Table 54: Approved cost of Schemes for the Fifth Control Period (Rs Crores)

SI.	Name of the Transmission Line & Associated Sub-stations	Cost Proposed	Cost Approved
I.	400 kV Lines &Sub-stations		
1	Construction of S/C LILO of 400kV Lahal to Rajera(Chamera Pooling Station) Transmission line of HPPTCL at Kutehr HEP(240MW)	8.03	-
TOTAL (II) (400kV)		8.03	-
II.	220 kV Lines &Sub-stations		
1	220/132 kV, 2x100 MVA GIS Sub-station at Paonta Sahib by D/C LILO of Khodri - Mazri line	117.24	117.24
2	220 kV D/C line from (Tower No. 61) at Jamta to Giri transmission line by dismantling of existing 132 kV S/C Jamta LILO Point (T.No.-61) to Giri Transmission line	52.34	52.34
3	Construction of 220/132 kV, 2x80/100 MVA Sub-Station nearby Una alongwith LILO of 132 kV S/C Pekhubela Solar to Tahliwal line with panther equivalent HTLS (CCC) conductor at proposed 220/132 kV Sub-station nearby Una	88.22	88.22
4	Construction of 220 kV D/C (Twin Zebra) line from 220/132 kV Nehrian Sub-station to proposed 220/132kV Sub-station nearby Una	97.94	97.94
5	15 Construction of 220/132 kV,80/100 MVA Sub-Station Tahliwal by S/C LILO of 220 kV D/C Bhakra to Jamalpur line	31.66	31.66
6	Construction of 220 kV Pooling Station Sujampur by D/C LILO of 220 kV Dehan-Hamirpur Line	53.87	-
7	LILO of 220kV D/C Bajoli Holi to Lahal Transmission line at 220/66kV Heiling Sub-station alongwith 220/66 kV, 2x80/100 MVA, Heiling Sub-station	90.6	-

SI.	Name of the Transmission Line & Associated Sub-stations	Cost Proposed	Cost Approved
8	220/132 kV GIS Sub-station Mazra along with 132 kV LILO of Kurthala-Bathri at Mazra	88.93	88.93
9	220/132 kV, 2×80/100 MVA, Sub-station, Kala-Amb, Distt. Sirmaur along with 132/33 kV Sub-station, 2×25/31.5 MVA, Kala-Amb, Distt. Sirmaur	66.47	-
10	220/33kV, 25/31.5 MVA Sub-Station Prini	6.51	6.51
11	220/132 kV , 80/100 MVA Substation Charor alongwith Additional 80/100 MVA Transformer at Charor	111	-
12	220/66 kV, 2×63 MVA Adtl. Transformer at Gumma Substation	45.53	-
13	220 kV D/C Transmission Line Mazra -Karian	35.06	35.06
14	Augmentation of existing 220/132kV Kangoo Sub-station and stringing of 2nd circuit of 220kV S/C line on D/C towers between Dehar (BBMB) and 132/220kV Kangoo Sub-station	53.7	53.7
15	220/132 kV Sub-station at Kala-Amb	111.92	111.1
16	Construction of 220/33 kV, 2×50/63 MVA Majholi along with 220 kV Transmission line from Uperla Nangal to Majholi for Medical Devices Park (MDP) at Nalagarh	-	
TOTAL (II) (220 kV)		1050.99	682.70
III.	132 kV and below Lines &Sub-stations		
1	132/33kV, 2x20 MVA new sub-station in Rajgarh area at Charna by LILO of 132 kV Giri-Gaura S/C transmission line	84.09	84.09
2	Construction of 132 KV GIS Pooling Substation at Darkunda by LILO of 132 kV Kurthala to Bathri line	70.95	70.95
3	Construction of 132 D/C Transmission line from Darkunda Switching Station to 220/132 kV Mazra Substation	41.49	41.49
4	Upgradation of existing 132kV S/C line from 132/33 kV Bathri Substation to 220/132 kV Jassore Sub station to 132 kV D/C HTLS Transmission line and HTLS reconductoring of 132 kV D/C TL from Mazra to Bathri	84.38	84.38
5	Construction of 132/33 kV, 2×31.5 MVA GIS Substation at Baijnath by LILO of 132 kV Dehan (Patti)-Bassi Transmission line	87.42	87.42
6	Construction of 132/33 kV, 2×31.5 MVA GIS Substation near Dharamshala Sub station alongwith 132 kV D/C line from Dehan (Patti) to Proposed sub station near Dharamshala	121.66	121.66
7	Construction of 132/33 kV,2x31.5 MVA Sub-station Ghumarwin alongwith S/C LILO of 132 kV D/C Hamirpur-Kangoo line	64.84	64.84
8	Construction of 132/33kV, 3×50/63MVA & 132/11kV, 25/31.5MVA Substation at Bulk Drug Park at Poilanbeet, Distt. Una alongwith 132kV D/C Transmission Line from proposed sub-station at Una to Bulk Drug Park Substation at Poilanbeet	79.17	79.17
9	Construction of 33/132 kV Pooling Sub-Station Barsaini	71	-
10	132/33kV,63 MVA Dharampur Substation alongwith LILO of 132kV Bassi-Hamirpur Transmission line	46.34	46.34
11	Construction of 33 kV D/C line between Palchan switching station and 33/220 kV sub station in the yard of Allain Dhuangan HEP in Distt. Kullu	8	8
12	Construction of 132 KV D/C Barsaini-Charor line	53.57	-
13	Construction of 33 kV GIS switching station at Palchan in Distt.	14.11	14.11

SI.	Name of the Transmission Line & Associated Sub-stations	Cost Proposed	Cost Approved
	Kullu		
14	132kV Multi Circuit Transmission line on 220kV Multi Circuit Towers with Zebra Conductor from 220/132kV Substation at Andheri to Tower No. 19 of 132kV Jamta-Kala Amb(HPSEBL) Transmission line and stringing & sagging of Panther Conductor on 2nd circuit of 132kV Jamta Kala Amb(HPSEBL) Transmission line on 132kV D/C Towers from T-1(Devani) to T-14(Kala Amb)	58.11	58.11
15	Construction of LILO of 132kV S/C Dehan-Bassi line at 220/132kV Dehan-Sub station at Patti of HPPTCL	5.94	5.94
16	Construction of 132 kV D/C line from 22/132 kV sub station at Tangnu Romai HEP to 132/220 kV sub station at Sunda	26.81	-
TOTAL (III)(132kV)		917.88	766.5
IV.	MISC. WORKS		
1	Providing 220/33 kV, 50/63 MVA Additional Transformer at 220/33kV 50/63 MVA GIS Karian Sub-station, Distt. Chamba	20.55	-
2	Providing 220/132 kV, 80/100 MVA Additional Transformer at 220/132kV 80/100 MVA GIS Charor Sub-station, Distt. Kullu	43.05	-
3	Providing 132/33 kV, 50/63 MVA Additional Transformer at 132/33kV AIS Kurthala Sub-station, Distt. Chamba	14.81	14.81
4	Supply,Installation, Testing and Commissioning of Joint Control Center at Kunihar, District Solan	29.67	29.67
5	Additional 220/132 kV, 200 MVA Transformer bank at Kala Amb Substation at Andheri	-	-
TOTAL (IV) MISC. WORKS		108.08	44.48
Grand Total		2084.98	1493.68

5.6.5.35 Based on the above, the year wise approved capital expenditure for the Fifth control period is detailed below:

Table 55: Approved Year wise Capital Expenditure for the Fifth Control Period (Rs. Cr.)

SI.	Name of the Transmission Line & Associated Sub-stations	FY 24	Control Period					FY 30	Total Cost
			FY 25	FY 26	FY 27	FY 28	FY 29		
I. 220 kV Lines & Sub-stations									
1	220/132 kV, 2x100 MVA GIS Sub-station at Paonta Sahib by D/C LILO of Khodri - Mazri line	-	-	-	35.17	46.89	35.17		117.23
2	220 kV D/C line from (Tower No. 61) at Jamta to Giri transmission line by dismantling of existing 132 kV S/C Jamta LILO Point (T.No.- 61) to Giri Transmission line	-	-	15.70	20.94	15.70	-		52.34
3	Construction of 220/132 kV, 2x80/100 MVA Sub-Station nearby Una alongwith LILO of 132 kV S/C Pekhubela Solar to Tahliwal line with panther equivalent HTLS (CCC) conductor at proposed 220/132 kV Sub-station nearby Una	-	-	26.46	35.29	26.46	-		88.21
4	Construction of 220 kV D/C (Twin Zebra) line from 220/132 kV Nehrian Sub-station to proposed 220/132kV Sub-station nearby Una	-	-	-	39.18	58.77	-		97.95

SI.	Name of the Transmission Line & Associated Sub-stations	FY 24	Control Period					FY 30	Total Cost
			FY 25	FY 26	FY 27	FY 28	FY 29		
5	15 Construction of 220/132 kV,80/100 MVA Sub-Station Tahliwal by S/C LILO of 220 kV D/C Bhakra to Jamalpur line		-	-	31.66	-	-		31.66
6	220/132 kV GIS Sub-station Mazra along with 132 kV LILO of Kurthala-Bathri at Mazra		88.93	-	-	-	-		88.93
7	220/33kV, 25/31.5 MVA Sub-Station Prini	6.51							6.51
8	220 kV D/C Transmission Line Mazra -Karian		35.06	-	-	-	-		35.06
9	Augmentation of existing 220/132kV Kangoo Sub-station and stringing of 2nd circuit of 220kV S/C line on D/C towers between Dehar (BBMB) and 132/220kV Kangoo Sub-station		-	53.70	-	-	-		53.7
10	220/132 kV Sub-station at Kala-Amb		-	-	111.10	-	-		111.10
TOTAL (II) (220 kV)		6.51	123.99	95.86	273.34	147.82	35.17		682.69
II. 132 kV and below Lines & Sub-stations									
1	132/33kV, 2x20 MVA new sub-station in Rajgarh area at Charna by LILO of 132 kV Giri-Gaura S/C transmission line. FY 2027-28		-	-	-	25.23	33.64	25.23	84.10
2	Construction of 132 KV GIS Pooling Sub-station at Darkunda by LILO of 132 kV Kurthala to Bathri line		-	-	-	14.19	28.38	28.38	70.95
3	Construction of 132 D/C Transmission line from Darkunda Switching Station to 220/132 kV Mazra Sub-station		-	-	-	8.30	16.60	16.6	41.50
4	Upgradation of existing 132kV S/C line from 132/33 kV Bathri Sub-station to 220/132 kV Jassore Sub-station to 132 kV D/C HTLS Transmission line and HTLS reconductoring of 132 kV D/C TL from Mazra to Bathri		-	-	-	16.88	33.75	33.75	84.38
5	Construction of 132/33 kV, 2x31.5 MVA GIS Sub-station at Baijnath by LILO of 132 kV Dehan (Patti)-Bassi Transmission line		-	-	-	17.48	34.97	34.97	87.42
6	Construction of 132/33 kV, 2x31.5 MVA GIS Sub-station near Dharamshala Sub-station alongwith 132 kV D/C line from Dehan (Patti) to Proposed Sub-station near Dharamshala		-	-	-	24.33	48.66	48.66	121.65
7	Construction of 132/33 kV,2x31.5 MVA Sub-station Ghumarwin alongwith S/C LILO of 132 kV D/C Hamirpur-		-	-	25.93	38.90	-		64.83

SI.	Name of the Transmission Line & Associated Sub-stations	FY 24	Control Period					FY 30	Total Cost
			FY 25	FY 26	FY 27	FY 28	FY 29		
	Kangoo line								
8	Construction of 132/33kV, 3×50/63MVA & 132/11kV, 25/31.5MVA Sub-station at Bulk Drug Park at Poilanbeet, Distt. Una alongwith 132kV D/C Transmission Line from proposed sub-station at Una to Bulk Drug Park Sub-station at Poilanbeet		-	-	79.17	-	-		79.17
9	132/33kV,63 MVA Dharampur Sub-station alongwith LILO of 132kV Bassi-Hamirpur Transmission line		-	46.34	-	-	-		46.34
10	Construction of 33 kV D/C line between Palchan switching station and 33/220 kV sub station in the yard of Allain Dhuangan HEP in Distt. Kullu	8.00							8.00
11	33 kV Switching Station Palchan, Kullu		14.11	-	-	-	-		14.11
12	132kV Multi Circuit Transmission line on 220kV Multi Circuit Towers with Zebra Conductor from 220/132kV Sub-station at Andheri to Tower No. 19 of 132kV Jamta-Kala Amb(HPSEBL) Transmission line and stringing & sagging of Panther Conductor on 2nd circuit of 132kV Jamta Kala Amb(HPSEBL) Transmission line on 132kV D/C Towers from T-1(Devani) to T-14(Kala Amb)		58.11	-	-	-	-		58.11
13	Construction of LILO of 132kV S/C Dehan-Bassi line at 220/132kV Dehan-Substation at Patti of HPPTCL	5.94	-	-	-	-	-		5.94-
TOTAL (III)(132kV)		13.94	72.22	46.34	105.10	145.31	196.00	187.59	766.50
IV.	MISC. WORKS								
1.	Providing 132/33 kV, 50/63 MVA Additional Transformer at 132/33kV AIS Kurthala Sub-station, Distt. Chamba		-	-	-	5.92	8.89		14.81
2.	Creation of a Joint Control and Operations Center for the transmission assets of HPPTCL/HPSEBL		29.67	-	-	-	-		29.67
TOTAL (IV) MISC. WORKS			29.67	0	0	5.92	8.89		44.48
Grand Total			225.88	142.2	378.44	299.05	240.06	187.59	1493.67

5.7 Capitalization

5.7.1 Based on the comprehensive review as detailed under Chapter 5.6 above, the capitalization approved by the Commission for the Fifth Control Period is detailed below:

Table 56: Approved Year wise Capitalization for Fifth Control Period (Rs. Cr.)

SI.	Name of the Transmission Line & Associated Sub-stations	FY 24	Control Period					FY 30
			FY 25	FY 26	FY 27	FY 28	FY 29	
I.	220 kV Lines & Sub-stations							
1	220/132 kV, 2x100 MVA GIS Sub-station at Paonta Sahib by D/C LILO of Khodri - Mazri line		-	-	-	-	117.23	
2	220 kV D/C line from (Tower No. 61) at Jamta to Giri transmission line by dismantling of existing 132 kV S/C Jamta LILO Point (T.No.-61) to Giri Transmission line		-	-	-	52.34	-	
3	Construction of 220/132 kV, 2x80/100 MVA Sub-Station nearby Una alongwith LILO of 132 kV S/C Pekhubela Solar to Tahliwal line with panther equivalent HTLS (CCC) conductor at proposed 220/132 kV Sub-station nearby Una		-	-	-	88.21	-	
4	Construction of 220 kV D/C (Twin Zebra) line from 220/132 kV Nehrian Sub-station to proposed 220/132kV Sub-station nearby Una		-	-	-	97.95	-	
5	Construction of 220/132 kV,80/100 MVA Sub-Station Tahliwal by S/C LILO of 220 kV D/C Bhakra to Jamalpur line		-	-	31.66	-	-	
6	220/132 kV GIS Sub-station Mazra along with 132 kV LILO of Kurthala-Bathri at Mazra		88.93	-	-	-	-	
7	220/33kV, 25/31.5 MVA Sub-Station Prini	6.51						
8	220 kV D/C Transmission Line Mazra - Karian		35.06	-	-	-	-	
9	Augmentation of existing 220/132kV Kangoo Sub-station and stringing of 2nd circuit of 220kV S/C line on D/C towers between Dehar (BBMB) and 132/220kV Kangoo Sub-station		-	53.70	-	-	-	
10	220/132 kV Sub-station at Kala-Amb		-	-	111.1	-	-	
TOTAL (II) (220 kV)		6.51	123.99	53.7	142.76	238.5	117.23	0
III	132 kV and below Lines & Sub-stations							
1	132/33kV, 2x20 MVA new sub-station in Rajgarh area at Charna by LILO of 132 kV Giri-Gaura S/C transmission line. FY 2027-28							84.10
2	Construction of 132 KV GIS Pooling Sub station at Darkunda by LILO of 132 kV Kurthala to Bathri line							70.95
3	Construction of 132 D/C Transmission line from Darkunda Switching Station to 220/132 kV Mazra Substation							41.50
4	Upgradation of existing 132kV S/C line from 132/33 kV Bathri Sub station to 220/132 kV Jassore Substation to 132 kV D/C HTLS Transmission line and HTLS reconductoring of 132 kV D/C TL from Mazra to Bathri							84.38

SI.	Name of the Transmission Line & Associated Sub-stations	FY 24	Control Period					FY 30
			FY 25	FY 26	FY 27	FY 28	FY 29	
5	Construction of 132/33 kV, 2x31.5 MVA GIS Sub station at Baijnath by LILO of 132 kV Dehan (Patti)-Bassi Transmission line							87.42
6	Construction of 132/33 kV, 2x31.5 MVA GIS Substation near Dharamshala Sub station alongwith 132 kV D/C line from Dehan (Patti) to Proposed sub station near Dharamshala							121.65
7	Construction of 132/33 kV,2x31.5 MVA Sub-station Ghumarwinalongwith S/C LILO of 132 kV D/C Hamirpur-Kangoo line		-	-	-	64.83	-	
8	Construction of 132/33kV, 3x50/63MVA & 132/11kV, 25/31.5MVA Sub-station at Bulk Drug Park at Poilanbeet, Distt. Una alongwith 132kV D/C Transmission Line from proposed sub-station at Una to Bulk Drug Park Sub-station at Poilanbeet		-	-	79.17	-	-	
9	132/33kV,63 MVA Dharampur Sub-station alongwith LILO of 132kV Bassi-Hamirpur Transmission line		-	46.34	-	-	-	
10	Construction of 33 kV D/C line between Palchan switching station and 33/220 kV sub station in the yard of Allain Dhuangan HEP in Distt. Kullu	8.00						
11	33 kV Switching Station Palchan, Kullu		14.11	-	-	-	-	
12	132kV Multi Circuit Transmission line on 220kV Multi Circuit Towers with Zebra Conductor from 220/132kV Sub-station at Andheri to Tower No. 19 of 132kV Jamta-Kala Amb(HPSEBL) Transmission line and stringing & sagging of Panther Conductor on 2nd circuit of 132kV Jamta Kala Amb(HPSEBL) Transmission line on 132kV D/C Towers from T-1(Devani) to T-14(Kala Amb)		58.11	-	-	-	-	
13	Construction of LILO of 132kV S/C Dehan-Bassi line at 220/132kV Dehan-Sub station at Patti of HPPTCL	5.94						
TOTAL (III)(132kV)		13.94	72.22	46.34	79.17	64.83	0	490
IV.	MISC. WORKS							
1	Providing 132/33 kV, 50/63 MVA Additional Transformer at 132/33kV AIS Kurthala Sub-station, Distt. Chamba		-	-	-	-	14.81	
2	Supply,Installation, Testing and Commissioning of Joint Control Center at Kunihar, District Solan		29.67	-	-	-	-	
TOTAL (IV) MISC. WORKS			29.67	-	-	-	14.81	
Grand Total		20.45	225.88	100.04	221.93	303.33	132.04	490

5.8 Funding pattern

5.8.1 Based on the comprehensive review as detailed under Chapter 5.6 above, the source of funding approved by the Commission for the Fifth Control Period is detailed below:

Table 57: Approved Scheme-wise Debt for the Fifth Control Period (Rs. Cr.)

Name of Scheme	FY25	FY26	FY27	FY28	FY29
Domestic Funded	52.30	41.71	114.24	58.35	0.00
WB (World Bank)	0.00	0.00	0.00	27.55	22.98
KfW	2.37	0.00	0.00	0.00	0.00
Green Energy Corridor Phase II	0.00	0.00	0.00	59.06	8.93
ADB (Asian Development Bank)	34.96	12.22	0.00	0.00	0.00
Total	89.63	53.92	114.24	144.96	31.91

Table 58: Approved Scheme-wise Equity for the Fifth Control Period (Rs. Cr.)

Name of Scheme	FY25	FY26	FY27	FY28	FY29
Domestic Funded	5.81	4.63	12.69	6.48	0.00
WB (World Bank)	0.00	0.00	0.00	11.81	9.85
KfW	1.02	0.00	0.00	0.00	0.00
Green Energy Corridor Phase II	0.00	0.00	0.00	6.56	0.99
ADB (Asian Development Bank)	14.98	5.24	0.00	0.00	0.00
Total	21.81	9.87	12.69	24.85	10.84

Table 59: Approved Scheme-wise Grant for the Fifth Control Period (Rs. Cr.)

Name of Scheme	FY25	FY26	FY27	FY28	FY29
Domestic Funded	0.00	0.00	95.00	0.00	0.00
WB (World Bank)	0.00	0.00	0.00	101.20	84.41
KfW	10.72	0.00	0.00	0.00	0.00
Green Energy Corridor Phase II	0.00	0.00	0.00	32.32	4.89
ADB (Asian Development Bank)	103.72	36.25	0.00	0.00	0.00
Total	114.44	36.25	95.00	133.52	89.29

6 ANALYSIS ON MYT TARIFF PETITION FOR FIFTH CONTROL PERIOD

6.1 Introduction

6.1.1 The HPPTCL has submitted projection of ARR for the Fifth Control Period from FY 2024-25 to 2028-29 in accordance with the provisions of HPERC Tariff Regulations, 2011 as amended from time to time based on past trends, regulatory norms, and activities planned and proposed to be undertaken during the Fifth Control Period.

6.1.2 The Commission has examined the MYT Petition for the Fifth Control Period and subsequent submissions made by the Petitioner in response to the deficiency letters for the purpose of approving the elements of ARR for the Control Period FY 2024-25 to FY 2028-29. The Commission has considered the provisions of HPERC Tariff Regulations, 2023, Audited Annual Accounts for past years and approved capital expenditure, capitalization and funding plan for the Fifth Control Period as part of the Business Plan for the purpose of ARR projections for each year of the Fifth Control Period.

6.1.3 In this chapter, the Commission has detailed the methodology for computing each component of the ARR for HPPTCL including O&M expenses, interest and finance charges, depreciation, return on equity, working capital requirement, etc. for approving the total ARR for each year of the Fifth Control Period i.e. FY 2024-25 to FY 2028-29. The methodology followed and approved values for each parameter of the ARR is detailed in subsequent sections.

6.2 Approved Capitalization and Means of Finance for the Fifth Control Period

6.2.1 The Commission, in the Business Plan for the Fifth Control Period from FY 2024-25 to 2028-29, as discussed in Chapter 5 of the Order, has approved the following capitalization:

Table 60: Approved Capitalization for Fifth Control Period(Rs. Cr.)

S.No	Particulars	FY25	FY26	FY27	FY28	FY29
1.	400 kV Lines & Sub-stations	0	0	0	0	0
2.	220 kV Lines & Sub-stations	123.99	53.7	142.76	238.5	117.23
3.	132 kV and below Lines & Sub-stations	72.22	46.34	79.17	64.83	0

S.No	Particulars	FY25	FY26	FY27	FY28	FY29
4.	Miscellaneous works	29.67	0	0	0	14.81
	Total	225.88	100.04	221.93	303.33	132.04

6.2.2 Further, the Commission has approved the following financing plan as detailed in Chapter 5 above for the Fifth Control Period:

Table 61: Approved Funding of Capitalization for the Fifth Control Period (Rs. Cr.)

Sl.	Funding	FY 25	FY 26	FY 27	FY 28	FY 29
1.	Debt	89.63	53.92	114.24	144.96	31.91
2.	Equity	21.81	9.87	12.69	24.85	10.84
3.	Grant	114.44	36.25	95.00	133.52	89.29
	Total	225.88	100.04	221.93	303.33	132.04

6.2.3 The above approved capitalization and funding plan has been considered for computation of ARR components like depreciation, return on equity, interest expense, etc. as detailed in respective sections below.

6.3 O&M Expenses

6.3.1 As per Regulation 34 (4) of HPERC Tariff Regulations 2023, the O&M expenses for the nth year of the Control Period has been approved based on the formula given below:-

$$"O\&M_n = R\&M_n + EMP_n + A\&G_n:$$

Where -

O&M_n = Operation and Maintenance expense for the nth year;

EMP_n = Employee Costs for the nth year;

A&G_n = Administrative and General Costs for the nth year

R&M_n = Repair and Maintenance Costs for the nth year

6.3.2 For the purpose of escalating the O&M expenses, the Commission has considered the escalation rates as per the HPERC Tariff Regulations, 2023. The Commission has calculated the Consumer Price Index (CPI inflation) and Wholesale Price Index (WPI inflation) based on the average increase for the preceding three years.

6.3.3 The summary of the escalations approved by the Commission for the Fifth Control considered is provided in table below:

Table 62: Approved CPI Inflation for the Fifth Control period

CPI Inflation	FY 2021	FY 2022	FY 2023	FY 2024
Apr	329.00	345.89	367.78	386.50
May	330.00	347.33	371.52	387.94
Jun	332.00	350.50	372.10	392.83
Jul	336.00	353.66	374.11	402.34
Aug	338.00	354.24	374.98	400.90
Sep	340.13	355.10	378.14	396.00
Oct	344.16	359.71	381.60	398.59
Nov	345.31	362.02	381.60	400.61
Dec	342.14	361.15	381.02	399.74

CPI Inflation	FY 2021	FY 2022	FY 2023	FY 2024
Jan	340.42	360.29	382.46	400.03
Feb	342.72	360.00	382.18	400.90
Mar	344.45	362.88	383.90	400.03
Avg	338.69	356.06	377.62	397.20
YOY increase		5.13%	6.05%	5.19%
Average increase				5.46%

Table 63: Approved WPI Inflation for the Fifth Control period

WPI Inflation	FY 2021	FY 2022	FY 2023	FY 2024
Apr	119.20	132.00	152.30	151.10
May	117.50	132.90	155.00	149.40
Jun	119.30	133.70	155.40	148.90
Jul	121.00	135.00	154.00	152.10
Aug	122.00	136.20	153.20	152.50
Sep	122.90	137.40	151.90	151.80
Oct	123.60	140.70	152.90	152.50
Nov	125.10	143.70	152.50	153.10
Dec	125.40	143.30	150.50	151.80
Jan	126.50	143.80	150.70	151.20
Feb	128.10	145.30	150.90	151.20
Mar	129.90	148.90	151.00	151.40
Average WPI	123.38	139.41	152.53	151.42
YOY increase		13.00%	9.41%	-0.73%
Average increase				7.23%

- 6.3.4 For purpose of approving the O&M expenses for the Fifth Control Period, the claim of the Petitioner has been analyzed based on the O&M expenses of the past years, approved Business Plan and other factors considered appropriate by the Commission.
- 6.3.5 The methodology and assumptions considered for projection of each component of the O&M expenses i.e., employee cost, R&M expense and A&G expense is further discussed below:

A) Employee Expense

- 6.3.6 The Petitioner has proposed Employee expenses as sum of:
- Direct expenses – Asset wise employee expenses: cost of employees directly allocated to any specific asset
 - Indirect expenses – Corporate expenses: cost of employees working at corporate office, with a portion allocated to operational projects

The petitioner has proposed that 56% of the corporate employee expenses are allocated to operational assets and claimed as employee expense, while the remaining 44% is assigned to Capital Work in Progress for capitalization later. This allocation method was approved by the Board of Directors and reflected in the audited accounts for the corresponding years.

Further, the Petitioner has divided the corporate employee expenses allocated to operational assets between Inter-state and Intra-state assets using a 25:75 ratio.

The petitioner has estimated these employee expense for FY2021-22 and FY2022-23 based on actual expenses incurred during the year and projected these for Fifth control period based on employee growth factor and CPI inflation. The workings for figures proposed by the Petitioner are provided in chapter 2 of this order.

6.3.7 The Commission observes that there has been a significant increase in the transmission infrastructure of the Petitioner with the commissioning of several Sub-stations and transmission lines. However, the Commission also believes that the Petitioner is not required to go for recruitment of new employees for maintaining the transmission assets. Instead, the Petitioner must outsource such activities to the expert Agencies so that the employee cost is minimized. Moreover, the Petitioner has established Joint Control and Operations Center (JCOC) which aims to centralize monitoring and control of transmission assets. This would further reduce the manpower requirement of the Petitioner. The Commission feels it appropriate to consider the total employee cost as per the audited accounts for the purpose of projections. However, any employee cost towards Inter-state assets shall be excluded from the total employee cost projections of the Petitioner.

6.3.8 The HPERC Tariff Regulations, 2023 prescribe the following formula for projection of employee cost:

"EMP_n = Employee Costs for the nth year;

$$EMP_n = (EMP_{n-1}) \times (1+G_n) \times (1+CPI_{inflation})$$

Where

EMP_{n-1} - Employee Costs for the (n-1)th year

G_n is a growth factor for the nth year and it can be greater than or less than zero based on the actual performance. Value of G_n shall be determined by the Commission in the MYT tariff order for meeting the additional manpower requirement based on Transmission Licensee's filings, benchmarking and any other factor that the Commission feels appropriate

CPI inflation - is the average increase in the Consumer Price Index (CPI) for immediately preceding three years"

6.3.9 The Commission sought details of employee cost for both regular and outsourced employees. However, the Petitioner was unable to provide necessary details. In its response, the Petitioner indicated that a bifurcation of costs between outsourced and regular employees for previous years is not available.

6.3.10 In absence of above details, the Commission has approved the employee cost for the Fifth Control Period by adopting the following approach:

- For computing the employee expense of Fifth control period, the Commission has considered the employee cost of FY 2023-24 as per the provisional annual accounts, as the base employee expense.

- The said base employee expense is then escalated based on the year-on-year growth of number of employees for the control period. As part of the previous Chapter, the Commission has approved the following year on year growth in number of employees:

Table 64: Approved Number of employees for the Fifth control period

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Regular/Contractual Employees					
Opening Employee	310	344	379	376	376
Addition	41	40	0	0	0
Retirement	7	5	3	0	3
Closing Employee	344	379	376	376	373
Outsourced employees					
Opening Employee	164	164	164	164	164
Addition	0	0	0	0	0
Retirement	0	0	0	0	0
Closing Employee	164	164	164	164	164
Total No of Employees	508	543	540	540	537
Year on Year growth	7.2%	6.9%	-0.6%	0.0%	-0.6%
Growth factor					2.53%

- After adjusting for the year-on-year growth, the employee cost is further escalated by factoring in inflation, using the Consumer Price Index (CPI) to arrive at the Gross Employee Cost.
- A provisional capitalization rate of 25% has been considered for the control period in view of inconsistent capitalization rates in the past years. However, this rate is subject to review during the truing-up process, when actual data and financial performance are scrutinized.
- Based on the above methodology, the computed Employee Cost for the Fifth Control period is detailed below:

Table 65: Approved Employee Expenses for Fifth Control Period (Rs. Cr.)

Baseline Gross Employee Cost	40.03					
Growth Factor	-	7.17%	6.89%	-0.55%	0.00%	-0.56%
CPI inflation	-	5.46%	5.46%	5.46%	5.46%	5.46%
Projected Gross Employee Expenses	-	45.24	50.99	53.48	56.40	59.14
Capitalization Rate	-	25%	25%	25%	25%	25%
Capitalization	-	11.31	12.75	13.37	14.10	14.79
Net Employee Cost	-	33.93	38.25	40.11	42.30	44.36

B) A&G Expenses

- 6.3.11 Similar to approach proposed by the Petitioner for Employee Expenses, the Petitioner had proposed the A&G expenses for Fifth Control Period by allocating 56% of common expenses to operational projects and further

designating 75% of these expenses to the Intra-state transmission network. Additionally, to ensure workforce upskilling in line with technological advancements, the HPPTCL plans to implement a training program costing ₹4,000/- per day for 7 man-days per employee annually, based on the number of employees at the beginning of the year. The workings for figures proposed by the Petitioner are provided in chapter 2 of this order.

6.3.12 The HPERC Tariff Regulations 2023 prescribes the following for projection of A&G cost:

"A&G_n = Administrative and General Costs for the nth year;

$$A\&G_n = (A\&G_{n-1}) \times (1 + WPI_{inflation}) + Provision$$

Where

A&G_{n-1} - Administrative and General Costs for the (n-1)th year;

Provision: Cost for initiatives or other one-time expenses as proposed by the Transmission Licensee and approved by the Commission after prudence check.

WPI inflation - is the average increase in the Wholesale Price Index (CPI) for immediately preceding three years;"

6.3.13 The Commission has approved the A&G cost for Fifth Control Period by adopting the following approach:

- A&G cost of FY 2023-24 as per the provisional annual accounts has been considered as the baseline expense, which is Rs 13.18 crores.
- The baseline A&G expense is then escalated by factoring in inflation, using the Wholesale Price Index (WPI) to arrive at the Gross A&G expense.
- A provisional capitalization rate of 25% has been applied. This capitalization rate is subject to review during the truing-up process, at the time when actual data and financial performance are reassessed.
- In addition, the Commission has also factored in manpower training costs in line with the submission of the Petitioner. The Petitioner, in their filing has proposed a training cost of Rs. 4000/- per person per day for 7 man-days per employee annually. In response to the Commission's query regarding the basis for this rate, HPPTCL clarified that the Rs. 4000/- per person per day is an estimated number. Accordingly, the Commission has adopted training cost of 7 man days per employee per year at the nominal rate of Rs. 4000/person/day of the number of employees on the payroll at the beginning of the year. This cost towards training is approved on provisional basis and shall be subject to true-up based on adequate supporting documents to be provided by the Petitioner at the time of truing-up.

6.3.14 Based on the above methodology, the computed A&G Cost for the Fifth Control period is detailed below:

Table 66: Approved A&G Expenses for the Fifth Control Period (Rs. Cr.)

Particulars	FY24 (Prov. Accounts)	FY25	FY26	FY27	FY28	FY29
Baseline Gross A&G Expense	13.18					
WPI inflation	-	7.23%	7.23%	7.23%	7.23%	7.23%
Gross A&G Expenses	-	14.13	15.15	16.25	17.42	18.68
Capitalization Rate	-	25%	25%	25%	25%	25%
Capitalization	-	3.53	3.79	4.06	4.36	4.67
Net A&G Expense	-	10.60	11.36	12.18	13.07	14.01
Manpower Training Cost (4000*7*Opening No. of employees)	-	0.87	0.96	1.06	1.05	1.05
Total A&G Cost	-	11.47	12.33	13.25	14.12	15.06

C) R&M Expense

6.3.15 The Petitioner has proposed the R&M expenses for the Fifth Control period as per the methodology provided in the Regulations. The Petitioner has considered the K factor of 1.50% which was approved by the Commission in its MYT Order dated June 29, 2019 (Petition No. 31 of 2019 for the fourth Control Period (FY 2019-20 to FY 2023-24).

6.3.16 The Petitioner has mentioned in the claim that the transmission network of HPPTCL has undergone significant expansion, resulting in a substantial increase in assets and proposed R&M expenses.

Further the Petitioner has stated that since many of these assets are new, there has been minimal expenditure on R&M expense during this period. The Petitioner proposed that using actual data from a period characterized by rapid asset growth may not serve as a reliable basis for benchmarking the K-factor for future R&M expenses and has requested the Commission to maintain the K-factor at 1.50%, with the understanding that it will be subject to truing up based on actual expenses incurred.

6.3.17 For the purpose of approving the R&M expense, the Commission has considered the formula provided in the HPERC Tariff Regulations, 2023 as given below.

$$R\&Mn' = K \times (GFAn-1) \times (1+WPI\ inflation)$$

Where,

'K' is a constant specified by the Commission in %. Value of K for each year of the Control Period shall be determined by the Commission in the MYT Tariff order based on Transmission Licensee's filing, benchmarking of repair and maintenance expenses, approved repair and maintenance expenses vis-a-vis GFA approved by the Commission in past and any other factor considered appropriate by the Commission;

WP Inflation - is the average increase in the Wholesale Price Index (CPI) for immediately preceding three years;

GFA_{n-1} - Gross Fixed Asset of the Transmission Licensee for the n-1th year;

6.3.18 The Commission does not find merit in the Petitioner’s proposal to maintain k factor at 1.50%. Since most of the assets are recently deployed, the R&M expenses may remain low in the coming years. The Commission has considered the K-factor for fifth control period as highest of last three financial years, as follows:

Table 67: Approved K Factor Expenses for the Fifth Control Period (Rs. Cr.)

Computation of K Factor	FY22	FY23	FY24
Opening GFA	1855.57	1997.16	2827.66
R&M Expenses	7.02	18.19	19.01
K Factor	0.38%	0.91%	0.67%
Highest of the three			0.91%

6.3.19 The K factor determined has been applied on the opening GFA for each year of the Fifth Control Period as approved in this Order.

6.3.20 The Commission has further considered a WPI inflation of 7.23% as average of last 3 years.

6.3.21 Based on the above approach, the total approved R&M expenses of HPPTCL for the Fifth Control Period is detailed below:

Table 68: Approved R&M Expenses for Fifth Control Period (Rs. Cr.)

Particulars	FY25	FY26	FY27	FY28	FY29
Opening GFA (approved)	569.33	795.21	895.25	1,117.18	1,420.51
K factor	0.91%	0.91%	0.91%	0.91%	0.91%
WPI inflation	7.23%	7.23%	7.23%	7.23%	7.23%
Total R&M Expenses	5.56	8.33	10.05	13.45	18.34

O&M Expenses

6.3.22 Based on the above calculations, the Commission has determined the total O&M expenses for both Inter-state and Intra-state transmission lines. In view of the several Inter-state assets, the tariff for which is recovered under the Inter-state transmission charges recovery, the Commission has provisionally assigned 20% of the total O&M expenses to Inter-state transmission lines. The remaining 80% of the expenses has been attributed to the Intra-state transmission system. This provisional allocation of 20% will be subject to review and adjustment during the mid-term review or the true-up process. Accordingly, the O&M expenses approved by the Commission for the Fifth Control Period from FY 2024-25 to FY 2028-29 is as shown in the table below:

Table 69: Approved O&M Expenses for the Fifth Control Period (Rs. Cr.)

Particulars	FY25	FY26	FY27	FY28	FY29
Employee Expenses	33.93	38.25	40.11	42.30	44.36
A&G expenses	11.47	12.33	13.25	14.12	15.06
R&M Expenses	5.56	8.33	10.05	13.45	18.34
Total O&M Expenses	50.96	58.90	63.41	69.87	77.76
Less: Inter-state O&M @20%	10.19	11.78	12.68	13.97	15.55
Total Intra-state O&M Expenses	40.76	47.12	50.73	55.89	62.21

6.4 Opening Gross Fixed Assets

6.4.1 The Petitioner has submitted the computation of GFA based on the opening GFA and capitalization for the control period as detailed in the Table below:

Table 70: Petitioner Submission of Opening Gross Fixed Asset Excluding Grant (Rs. Cr.)

Particulars	FY25	FY26	FY27	FY28	FY29
Opening GFA (Less Grants)	3003.09	3470.53	3795.42	3969.19	4268.70
Addition (Less Grant)	467.44	324.89	173.77	299.51	0.00
Closing GFA (Less Grant)	3470.53	3795.42	3969.19	4268.70	4268.70

6.4.2 For determining the Opening Gross Fixed Assets (GFA), the Commission has considered existing and proposed assets as part of Intra-state transmission network as detailed below:

A. Existing Assets: The existing assets consist of 15 transmission lines that were transferred to HPPTCL from the erstwhile HPSEB. Out of these 15 lines, 3 are Inter-state transmission lines. Accordingly, while calculating the Opening GFA, the Commission has excluded these 3 Inter-state lines. The gross value of the remaining 12 lines considered under Intra-state network has been detailed in the table below:

Table 71: Gross value of Existing Schemes (Rs. Cr.)

Name of Scheme	Gross Value
220 KV D/C Bairasuil pong Line (one ckt LILO at Jassure	0.66
220KV S/C line on D/C towers Dehar to Kangoo Line	0.69
220KV D/C Nalagarh (PGCIL) to Nalagarh Line	10.93
132KV Giri- Kulhal Line	1.71
132KV D/C Giri- Abdullapur Line	0.43
132 KV S/C Kangra -Tap	0.37
132KV S/C Dehar-Kangoo Line	0.42
132KVD/C Shanan- Bassi Line	2.19
66KV Shahan-BijniiLine	0.11
66KV Pinjore-Parwnoo Line	0.21
66KV Pong-Sansarpur Terrace line	0.56
66KV Bhakra-Goalthai-Rakkar Line	1.27
Total	19.54

In line with the previous Orders issued by the Commission, the entire value of these existing assets has been considered to be funded through debt, further which is completely repaid. Based on this assumption, the Opening Gross Fixed Assets, Loan, and Equity for the existing assets, as approved by the Commission, are summarized in the following table:

Table 72: Opening GFA, Loan, Equity and Grant approved by the Commission for Existing Assets (Rs Cr)

Particulars	GFA	Outstanding Loan	Equity	Grant
Opening as on 01 st Apr 2024	19.54	-	-	-

B. HPERC approved schemes: For schemes that have been approved, the Commission has considered the Closing GFA, Loan, Equity, and Grants as of March 31, 2024, in accordance with the capex orders of the respective transmission assets. The following assets have been considered as part of Intra-state transmission assets and details are presented in the table below:

Table 73: Details of HPERC approved schemes (Rs. Cr.)

SI.	Name of the scheme	Approved Capital Cost	Add Capex	Total Capital cost	Closing Debt as on 31.03.24	Closing Equity as on 31.03.24	Grant
1.	Snail-Hatkoti D/C Transmission Line	34.92	0.96	35.88	11.19	7.17	13.97
2.	33/132kV GIS Sub-station at Chambli (Shahpur) alongwith 132 kV D/C Transmission Dehra-Kangra Transmission Line to GIS pooling Sub-station at Chambli						
	Transmission Line	25.91	0.27	26.17	14.61	6.54	
	Sub-station	52.44	2.12	54.56	33.96	10.91	
3.	33/132 kV, GIS Sub-Station at Pandoh along with LILO of one circuit of 132 kV D/C Kangoo-Bajaura Transmission line (Asset-1) and Additional 33/132 kV, 31.5 MVA Transformer with associated GIS at 33/132 kV at Pandoh (Asset-2)						
4.	Asset-1	38.40	3.12	41.52	23.52	8.30	
5.	Asset-2	15.10	-	15.10	6.06	0.76	6.98
6.	KashangBhaba	71.89	-	71.89	26.28	20.91	
7.	220/66kV Bhoktoo Pooling Sub-station	34.62	19.59	54.21	17.52	7.45	16.93
8.	220 kV LILO of Panchkula- Kunihar Transmission Line	4.78	0.02	4.79	0.78	0.38	3.50
9.	66kV GIS Switching Sub-station at Urni (Asset-1) and for the period from COD (20.05.2022) to FY 2023-24 for 66kV D/C Line from Urni Switching Station to Wangtoo Sub-station (Asset-2)						
	Asset-1	33.23	0.13	33.36	5.78	2.65	2.88
	Asset-2	27.02	0.28	27.30	6.93	3.21	
10.	GIS Sub-Station at Phojal along with 220kV D/C LILO Transmission Line	83.41		83.41	36.91	8.24	1.00
11.	66/22 kV Substation Nirmand (Bagipul) (Asset-1) and 66 kV D/C Nirmand-Kotla Transmission Line(Asset-2)						
	Substation	40.09	0.78	40.88	7.84	3.60	28.87
	Transmission Line	39.45	0.82	40.28	9.03	4.09	26.63
	Total	501.26	28.09	529.34	200.41	84.21	100.76

The total closing debt for all HPERC-approved Intra-state transmission lines amounts to ₹200.14 crores. As of March 31, 2024, ₹119.75 crores of the total debt was funded through ADB. In line with the loan restructuring plan, the

GoHP vide letter dated 04.03.2023 has conveyed approval for restructuring of the ADB loan as 80% of disbursed loan to be converted into interest free loan, 10% of disbursed loan to be kept as interest bearing loan @10% and remaining 10% of disbursed loan to be converted to equity. It is observed that as per the GoHP letter, while partial relief has been provided to the consumers but relaxation of interest on 80% of the loan amount, the entire terms and conditions have not been adopted resulting in additional equity consideration towards the project. The Commission is of the considered view that the debt equity considered against each scheme during the funding stage should be retained and necessary conversion as per the special category status of the State should be continued.

Accordingly, the Commission has considered 90% of loans as grants and the remaining amount of multilateral funding has been considered for the purpose of calculating the opening loan balance as per the Regulations.

Based on this assessment, the Opening Gross Fixed Assets, Loan, and Equity for the HPERC-approved schemes, as approved by the Commission, are summarized in the table below:

Table 74: Opening GFA, Loan, Equity and Grant approved by the Commission for HPERC Approved schemes (Rs Cr)

Particulars	GFA	Loan	Equity	Grant
Opening as on 01 st Apr 2024	529.34	200.41	84.21	100.76
Less: 90% of ADB Funded Loans to be converted to Grant		107.97		
Net Loans eligible for Interest		92.44		

- C. **Schemes commissioned but not approved:** The Commission notes that the schemes commissioned but not approved will undergo a separate review process. At this stage, the Commission has not included such projects in the projected ARR of the Fifth control period.
- D. **Proposed Schemes:** Based on the capex, capitalization and funding pattern of proposed schemes discussed in Chapter 5 above, the approved GFA, Loan, Equity and Grant is detailed below:

Table 75: Opening GFA, Loan, Equity and Grant approved by the Commission for Proposed Schemes (Rs Cr)

Particulars	GFA	Loan	Equity	Grant
Opening as on 01 st Apr 2024	20.45	12.55	1.82	6.08

- 6.4.3 Based on the above calculation, the cumulative Opening GFA, Loan, Equity and Grant approved by the Commission for the Fifth Control Period is summarized below:

Table 76: Opening GFA, Loan, Equity and Grant approved by the Commission for the Fifth Control Period (Rs Cr)

Particulars	GFA	Loan	Equity	Grant
Existing Schemes	19.54			
Proposed Schemes	20.45	12.55	1.82	6.08
HPERC approved schemes	529.34	92.44	84.21	100.76
Opening as on 01st Apr 2024	569.33	104.99	86.03	106.84

6.5 Depreciation

6.5.1 The Commission has approved the depreciation in line with provisions of the Regulation 39 of the MYT Transmission Regulations 2023 which is as under:

(1) Depreciation shall be calculated for each year of the control period on the original cost of the fixed assets of the corresponding year.

(2) Depreciation shall not be allowed on assets funded by capital subsidies, consumer contributions or grants.

(3) The rate of depreciation for each of the components of the fixed assets based on the useful life of the assets shall be as given in Appendix – I:

Provided the salvage value of any category of assets defined at Appendix - I shall be 10% of the initial cost of the asset.

(4) The rate of depreciation should be based on Straight Line Method (SLM) over the useful life of the assets, after factoring the salvage value of the assets:

Provided that Land shall not be treated as a depreciable asset and its cost shall be excluded while computing 90% of the original cost of the asset

(5) The Transmission licensee having fixed asset records for the assets procured before 31st March, 2024 shall have one time option to adopt the new rates for the older assets, if opted by the Transmission Licensee:

Provided that, in case the Transmission Licensee does not have an asset record to assess the date of commissioning of assets as per the categorization provided in Appendix– I, the Commission shall allow the existing method of depreciation on the assets already commissioned till the issue of last tariff Order: Provided that record of the assets being commissioned by the Transmission Licensee during the ongoing FY subsequently shall be properly maintained by the Transmission Licensee and the computation of depreciation of such assets shall be in accordance with Sub-regulation (3) above.

(6) Depreciation shall be charged from the first year of operation of the asset:

Provided that in case the operation of the asset is for a part of the year, depreciation shall be charged on proportionate basis.

(7) A provision of replacement of assets shall be made in the capital investment plan

- 6.5.2 The Petitioner has claimed a Weighted Average Rate of Depreciation (WAROD) of 4.67% from FY 2024-25 to FY 2027-28 and 4.49% for FY 2028-29. The Commission sought clarification with respect to the high WAROD claimed by the Petitioner as compared with the WAROD calculated as per annual accounts for FY 2022-23 i.e.3.10%.
- 6.5.3 In reply, the Petitioner has explained that the WAROD of 4.67% for FY 2024-25 to FY 2027-28, and 4.49% for FY 2028-29, was calculated by considering two components: depreciation for assets with approved tariffs up to FY 2023-24, and depreciation for assets with tariff petitions pending before the Commission. These sums were divided by the average Gross Fixed Assets (GFA), including both the approved GFA and the closing GFA for assets with pending petitions as of FY 2023-24.
- 6.5.4 To determine the depreciation rate for the Fifth Control Period, the Commission conducted an analysis of the depreciation data from the four most recent financial years: FY 2020-21, FY 2021-22, FY 2022-23, and FY 2023-24 (based on provisional accounts). However, after careful review, the Commission has decided to base its assessment on the depreciation rates from FY 2020-21, FY 2021-22, and FY 2022-23. The figures for FY 2023-24 were not taken into account, as they were based on the provisional accounts and less reliable with regard to depreciation. The final depreciation rates used for the Fifth Control Period are outlined in the table below:

Table 77: Approved rate of Depreciation for the Fifth Control Period (Rs. Cr.)

Particulars	2020-21	2021-22	2022-23
Opening GFA	1,538.42	1,855.45	1,997.04
Addition	317.03	141.59	830.49
Closing GFA	1,855.45	1,997.04	2,827.53
Depreciation	75.09	76.40	106.89
WAROD	4.39%	3.94%	4.41%
Average Depreciation			4.25%

- 6.5.5 Based on the GFA approved for each year of the Fifth Control Period and weighted average depreciation rate determined above, the depreciation approved by the Commission for the Fifth Control Period is summarized below:

Table 78: Total Approved Depreciation for the Fifth Control Period (Rs. Cr.)

Particulars	FY 25	FY 26	FY 27	FY 28	FY 29
Opening GFA (Less Grant)	462.50	573.93	637.73	764.66	934.47
Existing Schemes	19.54	19.54	19.54	19.54	19.54
Proposed Schemes	14.37	125.81	189.60	316.53	486.34
HPERC approved schemes	428.58	428.58	428.58	428.58	428.58
GFA Addition during the year	111.44	63.79	126.93	169.81	42.75
Closing GFA	573.93	637.73	764.66	934.47	977.21
Average GFA	518.21	605.83	701.19	849.56	955.84

Particulars	FY 25	FY 26	FY 27	FY 28	FY 29
Depreciation Rate	4.25%	4.25%	4.25%	4.25%	4.25%
Depreciation	22.01	25.73	29.78	36.08	40.59

6.6 Interest on Loan

6.6.1 The Commission has considered the loan addition during each year of the Fifth Control Period in line with funding plan for capitalized assets approved as part of the Business Plan. Normative repayment equivalent to the depreciation for the respective year has been considered for computing the opening and closing loan balances.

6.6.2 The Commission has considered the weighted average rate of interest on loan for each year of the Control Period based on the actual loan portfolio during the year in line with the Regulation 37 of the HPERC MYT Transmission Regulations 2023 which reads as under :

(1) The Transmission Licensee shall provide detailed loan-wise, project-wise and utilization-wise details of all the pending loans. (2) If the equity actually deployed is more than 30 % of the capital cost, equity in excess of 30% shall be treated as normative loan:

Provided that where equity actually deployed is less than 30% of the capital cost, the actual loan shall be considered for determination of interest on loan.

(3) Actual loan or normative loan, if any, shall be referred as gross normative loan in this Regulation.

(4) The normative loan outstanding as of 1st April of 2024 shall be computed by deducting the cumulative repayment as approved by the Commission (basis as mentioned below) upto 31st March, 2023 from the gross normative loan.

(5) The repayment for the control period shall be deemed to be equal to the depreciation allowed for the year.

(6) Notwithstanding any moratorium period availed by the Transmission Licensee, the repayment of the loan shall be considered from the first year of the control period as per annual depreciation allowed.

(7) The rate of interest shall be the weighted average rate of interest calculated on the basis of actual loan portfolio at the beginning of each year of the control period, in accordance with terms and conditions of relevant loan agreements, or bonds or non-convertible debentures:

Provided that if no actual loan is outstanding but normative loan is still outstanding, the last available weighted average rate of interest shall be applicable: Provided further that the interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest: Provided also that exception shall be made for the existing 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.

(8) The Transmission Licensee shall make every effort to refinance the loan as long as it results in net benefit to the users.

Provided that the cost associated with such refinancing shall be eligible to be passed through in tariffs and the benefit on account of refinancing of loan and interest on loan shall be shared in the ratio of 50:50 between the Transmission Licensee and the users: Provided further that the Transmission Licensee shall submit the calculation of such benefit to the Commission for its approval.

6.6.3 To determine the interest rate for the Fifth Control Period, the Commission has analyzed the financing costs from the four most recent financial years—FY 2020-21, FY 2021-22, FY 2022-23, and FY 2023-24 (based on provisional accounts). However, upon thorough review, the Commission opted to base its assessment solely on the data of FY 2020-21 and FY 2021-22. In FY 2022-23, the finance cost recorded in the annual accounts was Rs 17.60 crores while the average loan was Rs. 1966.61 crores. Accordingly, the rate of interest is just 0.90%. The figures for FY 2022-23 and FY 2023-24 were excluded from the analysis, as they were deemed less reliable in accurately reflecting the applicable interest rates. The finalized interest rates for the Fifth Control Period is presented in the table below.:

Table 79: Approved rate of Interest for the Fifth Control Period (Rs. Cr.)

Particulars	2020-21	2021-22
Opening Loan	1145.80	1569.07
Closing Loan	1569.07	1830.05
Average Loan	1357.44	1699.56
Gross Finance Cost		
Finance cost	165.70	194.55
Interest on Loan		
Interest on Loan	12.21%	11.45%
Average rate on interest		11.83%

6.6.4 Accordingly, the interest on loan approved after considering capitalization of existing and new schemes for the Fifth Control Period is summarised in the table below:

Table 80: Approved Interest on Loan for Fifth Control Period (Rs. Cr.)

Particulars	FY 25	FY 26	FY 27	FY 28	FY 29
Opening Loan					
• Existing schemes	0				
• Proposed Scheme	12.55				
• HPERC approved	92.44				
Total Opening Loan	104.99	172.61	200.80	285.26	394.14
Loan Addition during the year	89.63	53.92	114.24	144.96	31.91
Less: Repayment during the year	22.01	25.73	29.78	36.08	40.59
Closing Loan	172.61	200.80	285.26	394.14	385.45
Average Loan	138.80	186.70	243.03	339.70	389.79
Rate of Interest on Loan	11.83%	11.83%	11.83%	11.83%	11.83%
Interest on Loan	16.42	22.08	28.74	40.18	46.10

6.7 Interest on Working Capital

6.7.1 Based on the approved O&M expenses and expected receivables, the Commission approves the working capital requirements and interest on working Capital for the Control Period in accordance with Regulation 38 of the HPERC MYT Transmission Regulations 2023. Provisions for computation of Interest on Working Capital is as below:

"(1) The working capital shall cover:

(i) Receivables equivalent to two months of annual fixed charges; (ii) Maintenance spares @ 15% of annual operation and maintenance expenses; and

(iii) Operation and maintenance expenses for one month.

(2) Rate of interest on working capital shall be on normative basis and shall be considered at the bank rate as on 1st April, 2024 or as on 1st April of the year during the tariff period 2024-29 in which the transmission system including system or element thereof, as the case may be, is declared under commercial operation, whichever is later:

Provided that in case of truing-up, the rate of interest on working capital shall be considered at bank rate as on 1st April of each of the financial year during the tariff period 2024-29.

(3) Interest on working capital shall be payable on normative basis notwithstanding that the Transmission Licensee has not taken loan for working capital from any outside agency."

6.7.2 According to the revised provision for computation of interest on working capital, the Commission has considered the rate of interest on working capital at the rate of 12 % based on SBI MCLR as on 1st April 2024 (i.e. 8.50%) plus 350 basis points for the Fifth Control Period. The computation for approved working capital requirement and interest on working capital is shown in the table below:

Table 81: Approved Interest on Working Capital for Fifth Control Period (Rs. Cr.)

Interest on Working Capital	2025	2026	2027	2028	2029
Receivables equivalent to two months of annual fixed charges	15.62	18.69	21.40	25.75	29.04
Maintenance spares @ 15% of annual operation and maintenance expenses	7.64	8.83	9.51	10.48	11.66
Operation and maintenance expenses for one month	4.25	4.91	5.28	5.82	6.48
Total Working Capital	27.51	32.44	36.19	42.05	47.18
Rate of Interest on Working Capital	12.00%	12.00%	12.00%	12.00%	12.00%
Interest on Working Capital	3.30	3.89	4.34	5.05	5.66

6.8 Return on Equity

6.8.1 Regulation 35 of the HPERC MYT Transmission Regulations, 2023 provides as under:

"(1) Return on equity shall be computed on 30% of the capital base or actual equity, whichever is lower:

Provided that assets funded by consumer contribution, capital subsidies/grants and corresponding depreciation shall not form part of the capital base. Actual equity infused in the Transmission Licensee as per book value shall be considered as perpetual and shall be used for computation in this Regulation: Provided, that accumulated depreciation, over and above debt repayment, shall be used to reduce the equity base for return on equity after debt repayment is over.

(2) The return on the equity invested in working capital shall be allowed from the date of start of commercial operation.

(3) Transmission Licensee shall be allowed 14% post-tax return on equity.

6.8.2 *Provided that return on equity in respect of additional capitalization after cut-off date beyond the original scope excluding additional capitalization due to Change in Law, shall be computed at the weighted average rate of interest on actual loan portfolio of the transmission system;.”*

6.8.3 Accordingly, the Commission has computed the Return on Equity in accordance with the approved Opening, Addition and Closing Equity as shown in Para 6.8 above.

6.8.4 The Commission has considered rate of return @14.00% for approval of RoE for the Fifth Control Period.

6.8.5 The return on equity approved by the Commission for the Fifth Control Period is summarised in the table below:

Table 82: Approved RoE for the Fifth Control Period (Rs. Cr.)

Particulars	2025	2026	2027	2028	2029
Opening Equity					
• Existing schemes	-				
• Proposed Scheme	1.82				
• HPERC approved schemes	84.21				
Total Opening Equity	86.03	107.84	117.71	130.40	155.26
Equity Addition during the year	21.81	9.87	12.69	24.85	10.84
Closing Equity	107.84	117.71	130.40	155.26	166.10
Average Equity	96.94	112.78	124.06	142.83	160.68
Rate of Return on Equity	14.00%	14.00%	14.00%	14.00%	14.00%
Return on Equity	13.57	15.79	17.37	20.00	22.49

6.9 Non-Tariff Income

6.9.1 The Commission has approved the Non-Tariff Income for the Fifth Control Period by adopting the following approach:

- For computing the Non-Tariff Income (NTI) of the Fifth control period, the Commission has considered the NTI of FY 2022-23 (Rs. 2.11 Cr.) as baseline. The NTI figure for FY 2023-24 (Rs. 6.03 Cr.) is not considered for baseline as it is significantly higher than historical trend and is not reliable for future projections.
- The baseline figure is then escalated at a nominal rate of 5% year on year to arrive the projected Non-Tariff Income.

6.9.2 Accordingly, the Non-Tariff Income approved by the Commission for the Fifth Control Period, subject to true-up later, is summarised in the table below:

Table 83: Approved Non-Tariff Income for the Fifth Control Period (Rs. Cr.)

Particular	FY23 (Baseline)	FY 25	FY 26	FY 27	FY 28	FY 29
Non-Tariff Income	2.11	2.33	2.44	2.56	2.69	2.83

6.10 Aggregate Revenue Requirement

6.10.1 Based on the discussions in the above Sections, the summary of the Aggregate Revenue Requirement (ARR) approved by the Commission for the Fifth Control Period is summarized in the table below:

Table 84: Approved ARR for the Fifth Control Period (Rs. Cr.)

Particulars	FY 25	FY 26	FY 27	FY 28	FY 29
O&M Cost					
Employee Cost	33.93	38.25	40.11	42.30	44.36
A&G Cost	11.47	12.33	13.25	14.12	15.06
R&M Cost	5.56	8.33	10.05	13.45	18.34
Less: Inter-state O&M	10.19	11.78	12.68	13.97	15.55
Total Intra-state O&M	40.76	47.12	50.73	55.89	62.21
Interest on Loan	16.42	22.08	28.74	40.18	46.10
Return on Equity	13.57	15.79	17.37	20.00	22.49
Depreciation	22.01	25.73	29.78	36.08	40.59
Interest on working Capital	3.30	3.89	4.34	5.05	5.66
Total Expenses	96.06	114.61	130.96	157.19	177.06
Less: Non-Tariff Income	2.33	2.44	2.56	2.69	2.83
Aggregate Revenue Requirement	93.73	112.17	128.39	154.50	174.23

6.10.2 The ARR approved by the Commission shall be recovered by HPPTCL based on the norms as specified in Regulation 45 of the Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2023 .

6.10.3 Further, the ARRs approved subsequently by the Commission in any of its future orders, for intra- state transmission asset(s) which has not been considered in this Order, shall also be recoverable along with this ARR, in the form of monthly transmission charges as per the norms defined in the prevailing HPERC Transmission Tariff Regulations as mentioned above.

6.11 Transmission Charges for Short Term Open Access (STOA) Consumers

6.11.1 For determining and approving the transmission charges for short-term open access customers, the Commission has considered the energy required for sales to the Consumers of the State as approved by the Commission in the MYT Order for Fifth Control Period (FY 25 – FY 29) of HPSEBL dated 15th March 2024. The transmission charges for the short-term

open access customers based on the approved ARR of HPPTCL for Fifth Control Period is tabulated below:

Table 85: Approved Transmission Charges for Short-term Open Access Consumers for Fifth Control Period (Rs. Cr.)

Particulars	FY 25	FY 26	FY 27	FY 28	FY 29
ARR (Rs. Crore)	93.73	112.17	128.39	154.50	174.23
Energy Sales in the state (MU)	11,947	12,520	13,121	13,752	14,414
Transmission Tariff for STOA consumers (Rs/unit)	0.08	0.09	0.10	0.11	0.12

6.11.2 Further, the Petitioner shall be entitled to recover additional STOA charges as worked out by the Commission in the future tariff order(s) for the intra-state transmission asset(s) which has not been considered in this Order.

7 DIRECTIVES

7.1 Functional segregation of transmission system

- 7.1.1 The Commission has consistently directed the Petitioner, HPPTCL, to engage with the Government of Himachal Pradesh (GoHP) to ensure functional segregation of the transmission system of HPPTCL. Despite these repeated directions, the measures undertaken by the Petitioner have been inadequate.
- 7.1.2 It is also observed that HPPTCL has not devised a concrete mechanism to determine transmission losses in coordination with HPSEBL, which remains a critical issue for the efficiency of the State's transmission system. Addressing this matter is essential to avoid operational inefficiencies and ensure compliance with the Commission's directions.
- 7.1.3 The Commission directs HPPTCL to intensify its efforts for the functional segregation of the transmission system, as further delays would lead to increased challenges for existing and upcoming generators along with open access consumers in the State. It is imperative that HPPTCL acts promptly in the interest of the State and its consumers.

7.2 Transmission Availability and Transformer Failure Rate

- 7.2.1 The Commission directs the Petitioner to regularly monitor and maintain the performance of its transmission assets to ensure efficient operations. In this regard, the Petitioner is required to submit quarterly status reports to the Commission, providing details on transmission system availability and the transformer failure rate. These reports will enable the Commission to assess the reliability and operational performance of the transmission network.
- 7.2.2 Additionally, the Petitioner is instructed to provide asset-wise details of system availability to the Commission within three months from the issuance of this Order.

7.3 Prior Approval from Commission on Capex

- 7.3.1 As per the Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2023, the Petitioner is required to seek prior approval from the Commission for any proposed capital expenditure (capex) schemes. The Commission, in its previous Orders, has consistently emphasized this requirement, particularly for intra-state transmission works. However, it has been observed that the Petitioner has proceeded with the implementation of certain works without

obtaining the requisite prior approvals, which constitutes a violation of the regulatory framework and the Commission's directives.

- 7.3.2 In response, the Petitioner has submitted that it now seeks approval for all new schemes being undertaken for execution as part of its submissions for the Business Plan and the Fifth MYT Petition.
- 7.3.3 The Commission reiterates that adherence to the approval process is crucial for maintaining accountability, transparency and regulatory oversight of capex schemes. The prior approval process ensures that investments are planned and executed in line with the regulatory framework and the interests of stakeholders. The Commission clarifies that in the absence of such approvals, the capitalization of the respective schemes will be disallowed during the truing-up process. The Petitioner is strongly advised to comply with these requirements, failing which financial disallowances may be enforced. It is imperative for the Petitioner to adhere to regulatory norms to align its practices with the principles of prudence and efficiency in the transmission sector.

7.4 Planning of Proposed Capex

- 7.4.1 The Petitioner's submission on capital expenditure reveals that for certain schemes, the entire capex has been accounted for in a single financial year. This raises concerns regarding the feasibility of completing such large-scale capital expenditure within a short time frame.
- 7.4.2 Furthermore, the Petitioner has not provided a comprehensive planning and analysis framework for the proposed evacuation system, particularly in light of the anticipated changes in the status of upcoming generators and expected beneficiaries. This lack of detailed planning raises concerns about the adequacy of the proposed system to meet the future needs of the power sector. The Commission stresses the importance of considering the evolving landscape of energy generation and consumption, ensuring that the evacuation system is designed to meet the future needs of both generators and consumers.
- 7.4.3 The Commission directs the Petitioner to undertake a thorough review of the status of beneficiaries for each of the proposed Intra-state transmission works. This review should include an assessment of the anticipated demand and ensure that the proposed infrastructure is aligned with the actual needs of the beneficiaries. The Petitioner is directed to adjust its planning processes to reflect the updated beneficiary status. Such a review is critical to ensure that investments are made in the most effective and impactful manner.
- 7.4.4 Additionally, the Petitioner is directed to analyze and realign the construction of the proposed transmission system based on updated demand estimations and the construction status of the upcoming generating stations. This will ensure that the transmission infrastructure is built in line with actual demand and capacity needs, thereby optimizing its utilization. The Commission underscores the importance of aligning the construction of transmission infrastructure with the evolving energy landscape, to ensure efficient and

effective use of resources while minimizing the risk of overbuilding or underutilization of the system.

7.5 Signing of LTOA/ MTOA and TSA

7.5.1 It has been noted that the Petitioner has not submitted signed LTOA/ MTOA and TSA for majority of the schemes. The Petitioner is therefore directed to accelerate the signing of TSA with beneficiaries without further delay and ensure that the prioritization of works, aligns with the expected commissioning dates of these beneficiaries. Additionally, the Petitioner is instructed to fast-track the execution of LTOA and MTOA agreements with the upcoming generators, ensuring these agreements are in line with their anticipated commissioning schedules.

7.6 Financing under ADB funded Schemes and other multilateral agencies

7.6.1 According to the Petitioner's submission, the funding through the ADB and other multilateral agencies were provided by the Government of India to the Government of HP in the form of 90% grant and 10% loan, which were then subsequently transferred to HPPTCL by the Government of Himachal Pradesh (GoHP) as an interest-bearing loan. While ADB, in collaboration with the Government of India (GoI) and GoHP, funded the projects, however, GoHP has altered the terms of the financial assistance before extending it to HPPTCL. Although the total multilateral funds were allocated to the State in the 90:10 ratio of grant to loan from the GoI, GoHP extended the entire funding as loan to the HPPTCL with an interest rate of 10% per annum.

7.6.2 In its previous Orders, the Commission had directed the Petitioner to renegotiate the terms of the loan with GoHP to align them with the tripartite agreement between the Government of Himachal Pradesh, ADB and HPPTCL. In response, the Petitioner submitted that GoHP, through a letter dated 04.03.2023, approved the restructuring of the ADB loan. As per this restructuring, 80% of the disbursed loan would be converted into an interest-free loan, 10% would remain as an interest-bearing loan at 10%, and the remaining 10% would be converted into equity. While the letter from GoHP provides some relief by converting the majority of the loan into an interest-free amount, but the complete terms and conditions, as outlined in the tripartite agreement, have not been fully implemented. This has led to additional equity requirements for the project. The Commission is of the view that the GoHP can not use the grant money given by the GoI to GoHP for earning any profit/ return on this capital. This grant has been given to the HP, being a special category State and the hardship being faced by the people of the State due to difficult terrain etc. The Commission believes that the debt-equity ratio established at the time of funding each scheme should be maintained, reflecting the special category status of the State.

7.7 Separate Accounting

- 7.7.1 The Commission observes that the Petitioner proposed to allocate a portion of the O&M expenses towards Intra-State projects in the absence of any formal bifurcation among the employees between Inter-State and Intra-State projects. The Commission feels that there is no reasonable basis or defined methodology for segregation of these expenses.
- 7.7.2 The Petitioner is directed to immediately implement prudent practices for separate recording of expenditure (specifically R&M and A&G expense) with respect to Intra-state and Inter-state transmission projects.
- 7.7.3 Also, detailed procedure and assumptions for allocations of common costs must be prepared by the Petitioner. The statement prepared in this regard must be certified by the Statutory Auditor. A detailed note and future steps to implement this directive, should be submitted to the Commission within three months of issuance of this Order.

7.8 Capacity Building of Employees

- 7.8.1 The Petitioner in its Petition has claimed cost towards regular training of employees under A&G. The Commission directs the Petitioner to prepare a comprehensive training assessment detailing the training type, objective, curriculum, duration, importance, participants, impact of each training, cost of training, etc. and submit the same to the Commission, within six months from the date of issuance of this Order.

7.9 Employees Addition

- 7.9.1 The Commission has noted that the Petitioner has proposed employee additions in the 5th control period. The Commission is of the firm opinion that with the technological intervention and with the commissioning of the Joint Control and Operations Centre for the transmission assets would further reduce the manpower requirement of the Petitioner in future. The Commission, therefore, directs the Petitioner to take prior approval of the Commission before going for any fresh recruitment. Otherwise, the Commission shall be constrained to disallow such costs.

7.10 Filing of True-up Petition and Mid-Term Review

- 7.10.1 The Commission directs the Petitioner to file the true-up Petition for FY 2020-21 to FY 2022-23 in accordance with the Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2023 along with the Mid-term Review Petition. The Petitioner is directed to submit all relevant documents, Audited

Accounts for respective years and tariff formats in support of the true-up claim for the respective years.

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

Shimla
Dated: 22nd January 2025