

**BEFORE
THE CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

**PETITION FOR
APPROVAL OF TRANSMISSION TARIFF**

For

Transmission Assets of

***Project – “Implementation of Bus Sectionalizer at 400 kV level of 400/220 kV
Bikaner-II PS”***

Implemented by

POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED

For

TARIFF BLOCK: 2024-29

PETITION NO.....

**POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED
(FORMERLY KNOWN AS BIKANER-II BHIWADI TRANSCO LIMITED)**

REGISTERED OFFICE

**B-9, QUTAB INSTITUTIONAL AREA, KATWARIA SARAI,
NEW DELHI - 110 016**

ADDRESS FOR CORRESPONDENCE

**ED(TBCB), POWER GRID CORPORATION OF INDIA LIMITED
“SAUDAMINI”, PLOT NO.2, SECTOR -29, GURGAON 122 001 (HARYANA)**

**BEFORE
THE CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

PETITION NO.: .../TT/2026

IN THE MATTER OF: Petition for determination of Transmission tariff for 2024-29 tariff block for assets under “**Implementation of Bus Sectionalizer at 400 kV level of 400/220 kV Bikaner-II PS**” in Northern Region under Section 62 read with Section 79(1)(d) of the Electricity Act, 2003, Regulation 15(1)(a) and Regulation 23 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 read with Central Electricity Regulatory Commission (Terms and Condition of Tariff) Regulations, 2024.

POWERGRID Bikaner Transmission System Limited

Registered office: B-9, Qutab Institutional Area,

Katwaria Sarai, New Delhi-110 016

Address for Correspondence: ED (TBCB), “SAUDAMINI”,

Plot No.-2, Sector-29, Gurgaon-122 001 (Haryana)

.....PETITIONER

Uttar Pradesh Power Corporation Limited (UPPCL)

Import Export Payment Circle, 14th Floor,

Shakti Bhawan Extn. Building, 14 - Ashok Marg, Lucknow

And others

.....RESPONDENTS

Filed by

POWERGRID Bikaner Transmission System Limited

KANCHAN
KUMAR
CHOUDHARY
Digitally signed
by KANCHAN
KUMAR
CHOUDHARY
Date: 2026.04.22
17:18:00 +05'30'

Represented by

Project-in-Charge,

PLACE : Bikaner

DATED : 22.04.2026

POWERGRID Bikaner Transmission System Limited

BEFORE
THE CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

PETITION NO.: .../TT/2026

IN THE MATTER OF: Petition for determination of Transmission tariff for 2024-29 tariff block for assets under “**Implementation of Bus Sectionalizer at 400 kV level of 400/220 kV Bikaner-II PS**” in Northern Region under Section 62 read with Section 79(1)(d) of the Electricity Act, 2003, Regulation 15(1)(a) and Regulation 23 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 read with Central Electricity Regulatory Commission (Terms and Condition of Tariff) Regulations, 2024.

POWERGRID Bikaner Transmission System Limited

Registered office: B-9, Qutab Institutional Area,

Katwaria Sarai, New Delhi-110 016

Address for Correspondence: ED (TBCB), “SAUDAMINI”,

Plot No.-2, Sector-29, Gurgaon-122 001 (Haryana)

.....PETITIONER

Uttar Pradesh Power Corporation Limited (UPPCL)

Import Export Payment Circle, 14th Floor,

Shakti Bhawan Extn. Building, 14 - Ashok Marg, Lucknow

And others

.....RESPONDENTS

INDEX

Sl. No.	Description	Annexure No.	Page No.
1	Index	-	3-4
2	Letter for registration	-	5
3	Memo of Parties	-	6-9
4	Memo of appearance	-	10
5	Petition for determination of transmission tariff for 2024-29 tariff block	-	11-33
6	Supporting Affidavit	-	34
7	Power of Attorney	-	35-37
<u>ANNEXURES</u>			

Sl. No.	Description	Annexure No.	Page No.
8	Order dated 10.03.2025 & 27.03.2025 in Petition No. 487/TL/2024	Annexure-1	38-75
9	Extract of MoM of 5 th NRSC	Annexure-2	76-94
10	Copy of CTUIL OM dated 26.10.2023	Annexure-3	95-101
11	Investment Approval	Annexure-4	102
12	CEA Energization certificate, RLDC trial operation certificate, SPV Chairman certificate and DOCO letter	Annexure-5	103-112
13	SLD	Annexure-6	113
14	Excerpts of 28 th NCT MOM dated 06.05.2025	Annexure-7	114-117
15	Copy of Auditor's Certificate	Annexure-8	118-121
16	Statement of initial spares discharge	Annexure-9	122-123
17	Statement of cash IDC, NIDC, and Liabilities flow Statement	Annexure-10	132
18	Tariff Forms for 2024-29 block	Annexure-11	133-216
19	Checklist	-	217-218

Filed by

POWERGRID Bikaner Transmission System Limited

KANCHAN
KUMAR
CHOUDHARY
Digitally signed by
KANCHAN KUMAR
CHOUDHARY
Date: 2026.04.22
17:18:40 +05'30'

PLACE : Bikaner

Project-in-Charge,

DATED : 22.04.2026

POWERGRID Bikaner Transmission System Limited

**BEFORE
THE CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

PETITION NO.: .../TT/2026

IN THE MATTER OF: Petition for determination of Transmission tariff for 2024-29 tariff block for assets under “**Implementation of Bus Sectionalizer at 400 kV level of 400/220 kV Bikaner-II PS**” in Northern Region under Section 62 read with Section 79(1)(d) of the Electricity Act, 2003, Regulation 15(1)(a) and Regulation 23 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 read with Central Electricity Regulatory Commission (Terms and Condition of Tariff) Regulations, 2024.

POWERGRID Bikaner Transmission System Limited

.....PETITIONER

**Uttar Pradesh Power Corporation Limited (UPPCL)
And others**

.....RESPONDENT(S)

To,
The Secretary,
Central Electricity Regulatory Commission,
New Delhi-110001

Sir,

The present tariff Petition is being filed under Section 62 read with Section 79 (1) (d) of the Electricity Act, 2003 and under Regulation 15 (1) (a) & Regulation 23 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 read with Central Electricity Regulatory Commission (Terms and Condition of Tariff) Regulations, 2024 and the same may be pleased to be registered and taken on record by the Hon'ble Commission.

**Filed by
POWERGRID Bikaner Transmission System Limited**

KANCHAN
KUMAR
CHOUDHARY
Y

Digitally signed by
KANCHAN KUMAR
CHOUDHARY
Date: 2026.04.22
17:19:20 +05'30'

Represented by

PLACE : Bikaner

Project-in-Charge,

DATED : 22.04.2026

POWERGRID Bikaner Transmission System Limited

**BEFORE
THE CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

PETITION NO.: .../TT/2026

IN THE MATTER OF: Petition for determination of Transmission tariff for 2024-29 tariff block for assets under “**Implementation of Bus Sectionalizer at 400 kV level of 400/220 kV Bikaner-II PS**” in Northern Region under Section 62 read with Section 79(1)(d) of the Electricity Act, 2003, Regulation 15(1)(a) and Regulation 23 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 read with Central Electricity Regulatory Commission (Terms and Condition of Tariff) Regulations, 2024.

POWERGRID Bikaner Transmission System Limited

Registered office: B-9, Qutab Institutional Area,
Katwaria Sarai, New Delhi-110 016

Address for Correspondence: ED (TBCB), “SAUDAMINI”,
Plot No.-2, Sector-29, Gurgaon-122 001 (Haryana)

.....PETITIONER

Uttar Pradesh Power Corporation Limited (UPPCL)

Import Export Payment Circle, 14th Floor,
Shakti Bhawan Extn. Building, 14 - Ashok Marg, Lucknow

And others

.....RESPONDENTS

MEMO OF PARTIES

POWERGRID Bikaner Transmission System Limited

.....PETITIONER

VERSUS

1. UTTAR PRADESH POWER CORPORATION LTD.

.....RESPONDENT(S)

SHAKTI BHAWAN, 14, ASHOK MARG

LUCKNOW - 226 001

REPRESENTED BY ITS CHAIRMAN

2. AJMER VIDYUT VITRAN NIGAM LTD

CORPORATE OFFICE, VIDYUT BHAWAN,

PANCHSHEEL NAGAR, MAKARWALI ROAD
AJMER-305004 (RAJASTHAN)
REPRESENTED BY ITS MANAGING DIRECTOR

3. JAIPUR VIDYUT VITRAN NIGAM LTD
132 KV, GSS RVPNL SUB- STATION BUILDING,
CALIGIRI ROAD, MALVIYA NAGAR,
JAIPUR-302017 (RAJASTHAN)
REPRESENTED BY ITS MANAGING DIRECTOR

4. JODHPUR VIDYUT VITRAN NIGAM LTD
NEW POWERHOUSE, INDUSTRIAL AREA,
JODHPUR – 342 003 (RAJASTHAN)
REPRESENTED BY ITS MANAGING DIRECTOR

5. HIMACHAL PRADESH STATE ELECTRICITY BOARD LTD
VIDYUT BHAWAN,
KUMAR HOUSE COMPLEX BUILDING II
SHIMLA-171 004
REPRESENTED BY ITS CHAIRMAN

6. PUNJAB STATE POWER CORPORATION LIMITED
THE MALL, PSEB HEAD OFFICE,
PATIALA - 147 001
REPRESENTED BY ITS CHAIRMAN AND MANAGING DIRECTOR

7. HARYANA POWER PURCHASE CENTRE
SHAKTI BHAWAN, SECTOR-6
PANCHKULA (HARYANA) 134 109
REPRESENTED BY ITS S.E. / C & R-1

8. JAMMU AND KASHMIR POWER DEVELOPMENT CORPORATION LIMITED
220/66/33 KV GLADNI SS SLDC BUILDING
NARWAL, JAMMU
REPRESENTED BY ITS CHAIRMAN

9. BSES YAMUNA POWER Ltd,
B-BLOCK, SHAKTI KIRAN, BLDG.
(NEAR KARKADOOMA COURT),
KARKADOOMA 2ND FLOOR, NEW DELHI-110092
REPRESENTED BY ITS CEO
10. BSES RAJDHANI POWER Ltd,
BSES BHAWAN, NEHRU PLACE, NEW DELHI
REPRESENTED BY ITS CEO
11. TATA POWER DELHI DISTRIBUTION LTD.
33 KV SUBSTATION, BUILDING, HUDSON LANE,
KINGSWAY CAMP, NORTH DELHI - 110009
REPRESENTED BY ITS CEO
12. CHANDIGARH ELECTRICITY DEPARTMENT
UT-CHANDIGARH, DIV-11, OPPOSITE, TRANSPORT NAGAR,
INDUSTRIAL AREA PHASE - I, CHANDIGARH
REPRESENTED BY ITS CHIEF ENGINEER
13. UTTARAKHAND POWER CORPORATION LTD.
URJA BHAWAN, KANWALI ROAD, DEHRADUN.
REPRESENTED BY ITS MANAGING DIRECTOR
14. NORTH CENTRAL RAILWAY
ALLAHABAD.
REPRESENTED BY CE DISTRIBUTION ENGINEER
15. NEW DELHI MUNICIPAL COUNCIL
PALIKA KENDRA, SANSAD MARG,
NEW DELHI-110002
REPRESENTED BY CHAIRMAN

16. CENTRAL TRANSMISSION ULILITY OF INDIA LTD (CTUIL))

FIRST FLOOR, SAUDAMINI, PLOT NO-2,

NEAR IFFCO CHOWK METRO STATION

GURGAON-122001, HARYANA

REPRESENTED BY ITS COO

.... RESPONDENTS

Filed by

POWERGRID Bikaner Transmission System Limited

KANCHAN
KUMAR
CHOUDH
ARY

Digitally signed
by KANCHAN
KUMAR
CHOUDHARY
Date: 2026.04.22
17:19:53 +05'30'

Represented by

PLACE : Bikaner

DATED : 22.04.2026

Project-in-Charge,

POWERGRID Bikaner Transmission System Limited

BEFORE
THE CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

PETITION NO.: .../TT/2026

IN THE MATTER OF: Petition for determination of Transmission tariff for 2024-29 tariff block for assets under “**Implementation of Bus Sectionalizer at 400 kV level of 400/220 kV Bikaner-II PS**” in Northern Region under Section 62 read with Section 79(1)(d) of the Electricity Act, 2003, Regulation 15(1)(a) and Regulation 23 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 read with Central Electricity Regulatory Commission (Terms and Condition of Tariff) Regulations, 2024.

POWERGRID Bikaner Transmission System Limited
Versus
Uttar Pradesh Power Corporation Limited (UPPCL)
And others

.....PETITIONER

.....RESPONDENTS

MEMO OF APPEARANCE

POWERGRID Bikaner Transmission System Limited

..... PETITIONER

1. Shri Kanchan Kumar Choudhury, Project-in-charge, PBTSL

I, Kanchan Kumar Choudhury, the Petitioner named do hereby nominate to act, plead and appear on my behalf in the aforesaid matter.

IN WITNESS WHEREOF I have set and subscribed my hands to this writing on this 22nd day of April 2026

PETITIONER
POWERGRID Bikaner Transmission System Limited

KANCHAN
KUMAR
CHOUDHARY

Digitally signed by
KANCHAN KUMAR
CHOUDHARY
Date: 2026.04.22
17:20:23 +05'30'

(Kanchan Kumar Choudhury)
Project-in-Charge,
POWERGRID Bikaner Transmission System Limited

PLACE: Bikaner
DATED: 22.04.2026

BEFORE
THE CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

PETITION NO.: .../TT/2026

IN THE MATTER OF: Petition for determination of Transmission tariff for 2024-29 tariff block for assets under “**Implementation of Bus Sectionalizer at 400 kV level of 400/220 kV Bikaner-II PS**” in Northern Region under Section 62 read with Section 79(1)(d) of the Electricity Act, 2003, Regulation 15(1)(a) and Regulation 23 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 read with Central Electricity Regulatory Commission (Terms and Condition of Tariff) Regulations, 2024.

POWERGRID Bikaner Transmission System Limited

Registered office: B-9, Qutab Institutional Area,

Katwaria Sarai, New Delhi-110 016

Address for Correspondence: ED (TBCB), “SAUDAMINI”,

Plot No.-2, Sector-29, Gurgaon-122 001 (Haryana)

.....PETITIONER

Uttar Pradesh Power Corporation Limited (UPPCL)

Import Export Payment Circle, 14th Floor,

Shakti Bhawan Extn. Building, 14 - Ashok Marg, Lucknow

And others

.....RESPONDENTS

A. Executive Summary of the Petition:
--

(i) Brief Background of the Petitioner

1. The Petitioner herein, POWERGRID Bikaner Transmission System Limited (hereinafter referred to as “**PBTSL/ Petitioner**”) is a Government Company within the meaning of the Companies Act, 2013. The Petitioner (known erstwhile as Bikaner-II Bhiwadi Transco Ltd.) is a 100% wholly owned subsidiary of Power Grid Corporation of India Limited. PBTSL was granted a transmission licence by this Hon’ble Central Electricity Regulatory Commission (hereinafter referred to as “**Hon’ble Commission**”) vide its order dated 15.7.2021 in Petition No. 99/TL/2021 to establish the “Transmission System Strengthening Scheme for

Evacuation of Power from Solar Energy Zones in Rajasthan (8.1 GW) under Phase II-Part F” under TBCB mode on Build, Own, Operate, and Maintain (“BOOM”) basis.

Subsequently, various transmission schemes were assigned to the Petitioner by CTUIL/MOP progressively under Regulated tariff mechanism and the Petitioner approached Hon’ble Commission through Petition 137/TL/2022. Hon’ble Commission vide order dated 21.11.2022 in Petition No. 137/TL/2022 granted a separate transmission license to Petitioner to implement the transmission projects under RTM. Further, CTUIL/MOP assigned additional RTM schemes to the Petitioner and Petitioner approached Hon’ble Commission through Petition No. 181/TL/2023 for amendment of earlier RTM license granted vide Petition No. 137/TL/2022. Hon’ble Commission vide order dated 28.01.2024 in Petition No. 181/TL/2023 amended existing RTM transmission license of the Petitioner for inclusion of additional schemes under the scope of license. Further, few additional schemes have been progressively allocated to the Petitioner under RTM mode vide orders dated 10.03.2025 & 27.03.2025 in Petition No. 487/TL/2024 which inter-alia include the Subject Scheme **“Implementation of Bus Sectionalizer at 400 kV level of 400/220 kV Bikaner-II PS”**, CERC Orders dated 10.03.2025 & 27.03.2025 in Petition 487/TL/2024 are attached collectively as **Annexure-1**

PBTSL operates and functions within the regulatory control of Hon’ble Central Commission. Hence, the tariff for the transmission system in the present petition established by PBTSL is required to be determined by this Hon’ble Commission in accordance with the Tariff Regulations as notified by this Hon’ble Commission in exercise of its powers under Section 178 of the Electricity Act, 2003.

(ii) Brief background of the Respondent(s):

PBTSL has impleaded the distribution licensees and Government department of the respective states which are engaged in distribution of electricity in Northern Region of India. The respondents are also ‘Designated Inter State Transmission Customer’s (hereinafter referred to as ‘DICs’) of Northern Region in terms of the

Sharing Regulations, 2020. The Petitioner has also impleaded CTUIL as Respondent no. 16.

(iii) Background of Transmission Assets:

2. PBTSL is filing the present petition for determination of transmission tariff for 2024-29 tariff block for the following assets under subject transmission scheme, i.e., ***“Implementation of Bus Sectionalizer at 400 kV level of 400/220 kV Bikaner-II PS”***:

Asset No.	Asset Name	COD
1	400 kV Bus Sectionalizer Bay 428 of 400 kV Bus-1B (Bus-3) and 400 kV Bus-1 at 400/220 kV Bikaner-II PS	19.12.2025
2	400 kV Bus Sectionalizer Bay 429 of 400 kV Bus-2B (Bus-4) and 400 kV Bus-2 at 400/220 kV Bikaner-II PS	23.01.2026

(iv) Brief description of important events relevant to the instant Petition:

S.No	Event	Date
1.	Various Transmission Schemes for evacuation of Power from Solar Energy Zones (SEZs) in Rajasthan (8.1 GW) under Phase-II, which also include the Subject Scheme, were discussed and agreed in 5th Northern Region Standing Committee on Transmission (NRSCT)	5 th NRSCT – 13.09.2019;
2.	Instant transmission scheme was assigned to Petitioner by CTUIL under RTM mode	26.10.2023
3.	Investment Approval	28.02.2024
4.	Petition No. 487/TL/2024 filed by the Petitioner (PBTSL) for amendment of existing RTM transmission license required for instant transmission scheme	25.10.2024
5.	Final order issued by Hon’ble Commission in 487/TL/2024 amending RTM transmission license to PBTSL	27.03.2025

S.No	Event	Date
6.	SCOD	31.12.2024
7.	COD	19.12.2025 & 23.01.2026

(v) Summary of Claims:

3. PBTSL is seeking determination of transmission tariff for 2024-29 tariff block for aforesaid transmission asset based on capital cost comprising of capital cost incurred/Admitted upto Commercial Operation Date (“**COD**”) and projected additional capital expenditure in accordance with terms of Regulation 24 & 25 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024 (“**Tariff Regulations, 2024**”).

4. The details of FR approved cost vis-à-vis claimed capital cost as on COD and additional capital expenditure during 2024-29 tariff block is as under:

(Rs. in Lakhs)

Asset No.	Apportioned Approved Cost as per FR	Expenditure Up to DOCO	Estimated expenditure during 2024-29 tariff block					Estimated completion Cost as on 31.03.2029
			2024-25	2025-26	2026-27	2027-28	2028-29	
1	410.95	257.66	0.00	28.43	77.32	12.89	12.89	389.19
2	410.95	281.59	0.00	21.87	66.40	10.93	10.93	391.72
	821.9	539.25*	0.0	50.3	143.72	23.82	23.82	780.91

***Including Notional IDC of Rs 3.43 lacs for Asset-1 & Rs 1.38 lacs for Asset-2.**

5. Details of Time- Overrun:

Asset No.	SCOD	COD	Delay in days
1	31.12.2024	19.12.2025	353
2	31.12.2024	23.01.2026	388

The time overrun in commissioning of above assets is due to the time taken in amendment of existing RTM transmission license to PBTSL under RTM mode and due to delay in timely delivery of equipment caused by bottlenecks in the existing supply chain mechanism.

6. Details of tariff claimed for 2024-29 tariff block are as under:

(Rs. in Lakhs)

Name of the asset	2024-25	2025-26	2026-27	2027-28	2028-29
Asset-1	0.00	21.00	82.81	89.56	91.79
Asset-2	0.00	14.42	85.57	92.21	94.29

7. It is prayed to Hon'ble Commission to reimburse expenditure of petition filing fee, license fee, newspaper publication expenses and RLDC fee & charges, etc.

B. Detailed Petition:

MOST RESPECTFULLY SHOWETH:

8. The Petitioner, herein, POWERGRID Bikaner Transmission System Limited (hereinafter referred to as “**PBTSL/ Petitioner**”) is a Government Company within the meaning of the Companies Act, 2013. The Petitioner (erstwhile Bikaner-II Bhiwadi Transco Ltd.) is a 100% wholly owned subsidiary of Power Grid Corporation of India Limited.
9. That the Hon'ble Commission have notified CERC (Terms and Conditions of Tariff) Regulations, 2024, vide notification dated 15.03.2024 applicable for a period of 5 years w.e.f. 01.04.2024.
10. That Petitioner is an Inter-State Transmission Licensee which has implemented "Transmission System Strengthening Scheme for Evacuation of Power from Solar Energy Zones in Rajasthan (8.1 GW) under Phase II-Part F" through Tariff Based Competitive Bidding (TBCB) process on the Build, Own, Operate and Maintain (BOOM) basis.
11. That subsequently, various transmission schemes were awarded to Petitioner under Regulated Tariff Mechanism (RTM) mode vide CTUIL OM. Accordingly, the Petitioner approached the Hon'ble Commission, vide petition 137/TL/2022, for grant of separate RTM Transmission license for implementation of additional scope of works awarded by CTUIL under RTM mode. The Hon'ble Commission vide its order dated 21.11.2022 in Petition No. 137/TL/2022 granted separate transmission license to the Petitioner for implementation of 3 nos. schemes under RTM mode.

Subsequently, 04 nos. additional transmission schemes, were assigned by CTUIL to Petitioner and accordingly, Petition no. 181/TL/2023 was filed by Petitioner for amendment of existing RTM license. Hon'ble Commission vide order dated 28.01.2024 in Petition No. 181/TL/2023 has amended existing RTM transmission license granted to the Petitioner for implementation of additional 4 nos. transmission schemes under RTM mode

Further, 02 nos. additional transmission scheme were assigned to the Petitioner by CTUIL and a separate transmission license was granted by Hon'ble Commission vide its orders dated 10.03.2025 & 27.03.2025 in Petition No. 487/TL/2024.

The following are the names of the Transmission schemes/projects for which RTM transmission license has been granted by Hon'ble Commission to the Petitioner:-

- (i) Implementation of 220 bays for RE generators and 400/220kV ICTs at Bikaner-II PS.
- (ii) Implementation of 1 no. of 400 kV line bay at 400/220 kV Bikaner-II PS for interconnection of 1000 MW Solar Project of SJVN Ltd.
- (iii) Implementation of 2 no. of 220 kV line bays at 400/220 kV Bikaner-II PS for interconnection of solar projects (ACME Solar Holdings Pvt. Ltd., Prerak Greentech Pvt. Ltd.).
- (iv) Implementation of 1 no. of 220 kV line bay at 400/220 kV Bikaner-II PS for interconnection of the solar project (NHPC Ltd.).
- (v) Implementation of 2 nos. of 220 kV line bays at 400/220 kV Bikaner-II PS for interconnection of RE power park of ALF Solar Amarsar Pvt. Ltd.
- (vi) Transmission system for evacuation of power from the Rajasthan REZ Ph-IV (Part-1) (Bikaner Complex) - Part-E.
- (vii) Augmentation of transformation capacity at 400/220 kV Bikaner-II PS by 400/220 kV, 1X500 MVA ICT (3rd).

(viii) Implementation of Bus Sectionalizer at 400kV level of 400/220kV Bikaner-II PS.

(ix) Augmentation of Transformation Capacity at 400/220 kV Bikaner-II PS in Rajasthan by 400/220 kV, 1X500 MVA ICT (9th).

12. That the present petition covers approval of transmission tariff for the following Assets:

Asset No	Asset Name	DOCO
1	400 kV Bus Sectionalizer Bay 428 of 400 kV Bus-1B (Bus-3) and 400 kV Bus-1 at 400/220 kV Bikaner-II PS	19.12.2025
2	400 kV Bus Sectionalizer Bay 429 of 400 kV Bus-2B (Bus-4) and 400 kV Bus-2 at 400/220 kV Bikaner-II PS	23.01.2026

Approval of the Scheme

13. That instant transmission scheme viz. **Implementation of Bus Sectionalizer at 400 kV level of 400/220 kV Bikaner-II PS** was assigned to the Petitioner by CTUIL vide its OM dated 26.10.2023 for implementation under RTM mode, which is enclosed as **Annexure-3**.

14. The investment approval and expenditure sanction to the subject transmission project was accorded by Board of Directors of POWERGRID Bikaner Transmission System Limited in its 34th meeting held on 28.02.2024 at an estimated cost of Rs 8.22 Crores for all assets of the instant project.

A copy of investment approval is attached hereto as **Annexure-4**.

SCOPE OF WORK:

15. The scope of work covered under the project "**Implementation of Bus Sectionalizer at 400 kV level of 400/220 kV Bikaner-II PS**" are as follows:

- One set of bus sectionalizer at 400 kV level of 400/220 kV Bikaner-II PS
- One no. of 400 kV tie bay (associated with 400/220 kV ICT-4)

The details of the petition filed under the instant Project is given as here under:

Asset	Asset Name	Remarks
1	400 kV Bus Sectionalizer Bay 428 of 400 kV Bus-1B (Bus-3) and 400 kV Bus-1 at 400/220 kV Bikaner-II PS	Entire project is covered under instant petition
2	400 kV Bus Sectionalizer Bay 429 of 400 kV Bus-2B (Bus-4) and 400 kV Bus-2 at 400/220 kV Bikaner-II PS	

A copy of CEA Energization certificate, RLDC trial operation certificate, SPV Chairman certificate and DOCO letter for the aforementioned assets are enclosed collectively as **Annexure-5**.

16. It is submitted that as per the Regulation 9 of the CERC (Terms and Conditions of Tariff) Regulations, 2024, the following condition has to be fulfilled while filing the Tariff petition for 2024-29 tariff block: -

Quote

“Provided that where the transmission system comprises various elements, the transmission licensee shall file an application for determination of tariff for a group of elements on incurring of expenditure of not less than 100 Crore or 70% of the cost envisaged in the Investment Approval, whichever is lower, as on the anticipated date of commercial operation”

Unquote

The entire scope of the subject project has been completed with the commissioning of instant asset is being filed in compliance with Regulation 9 of CERC Tariff Regulations, 2024.

17. Implementation Schedule

The SCOD vis-à-vis actual commissioning date of the asset claimed in the present petition are as follows:

Asset	Schedule COD	Actual COD	Delay w.r.t. SCOD
1	31.12.2024	19.12.2025	353
2	31.12.2024	23.01.2026	388

Reasons of Time Over-run

As can be seen from the table above, there is a delay of 353 & 388 days in commissioning of instant Asstes vis-à-vis SCOD of 31.12.2024. Following are the reasons which led to delay in commissioning of the subject Assets:

i. Delay in amendment of RTM transmission license

The time overrun in commissioning of above assets is due to the time taken in amendment of existing RTM license to PBTSL, which is beyond the control of PBTSL. As per the Transmission License Regulations, 2009 read with Section 15 of the Electricity Act, 2003, the timeline to grant transmission license is within 90 days from the date of filing of petition and accordingly, 90 days were factored in for the grant of transmission license in project implementation timeline.

The Petitioner filed the petition for RTM license on 25.10.2024, incorporating the subject project, and the transmission license was granted by Hon'ble Commission vide order dated 27.03.2025 in Petition No. 487/TL/2024, i.e., after **153 days** from the date of filing of petition. A detailed chronology of the events is shown below:

S. No.	Event	Date
1.	Petition No. 487/TL/2024 filed by the Petitioner for amendment of existing RTM transmission license	25.10.2024
2.	Hearing in the petition was held and Hon'ble Commission directed Petitioner & CTUIL to file certain information on affidavit	23.01.2025
3.	2 nd hearing in the petition was held and Hon'ble Commission directed Petitioner & CTUIL to file certain information on affidavit	11.02.2025
4.	1 st Order in 487/TL/2024	10.03.2025
5.	Subsequent hearing in the petition was held and Hon'ble Commission reserved the petition for final order	25.03.2025
6.	Final order issued by Hon'ble Commission amending RTM transmission license to PBTSL	27.03.2025

From the above, it can be seen that there was a total delay of 63 days in issuance of order from the date of filing Transmission License Petition. Hence, it is submitted that delay of **63 days** was beyond the control of the Petitioner and therefore, not attributable to the Petitioner. Thus, same may kindly be condoned.

ii. Delay in timely delivery of equipment

Further, time overrun is mainly attributable to delays in delivery of equipment caused due to impediments in existing supply chain mechanism. It is submitted that Petitioner, being a government enterprise, is bound to comply with several guidelines. Further, to achieve optimum and competitive price and to reduce the burden on beneficiaries, packaging of contracts for the Project procurement, i.e., grouping of equipment/goods/works/services into an optimum quantity is being strictly followed. Further, in the instant case, considering economy in procurement to obtain better competitive price, the subject scope of work being small in bid size, was clubbed with different projects coming up during that time in the process of achieving a better competitive price. Despite all these measures, delay in timely supply of items has been a serious issue under various contracts, mainly due to supply chain constraints, over booking of orders, delay in delivery, etc.

In fact, this issue of time overrun due to constraints in award of contracts and bottlenecks in the supply chain mechanism has been a recurring cause of concern for the Petitioner's parent company, POWERGRID, in similar RTM petitions allocated on nomination basis. This matter was taken up with CTUIL and subsequently discussed during the meeting of 28th National Committee on Transmission (NCT) held on 06.05.2025 (excerpts placed as **Annexure-7**), wherein the following was approved:-

3.9 ***Challenges being faced by POWERGRID in Awarding of Contracts for Projects allocated under RTM***

3.9.1 *Representative from POWERGRID highlighted certain challenges being faced by them in the tendering process for projects allocated by CTUIL in multiple compressed time frame. Despite multiple efforts, engagement from potential bidders remain limited due to the low financial value and geographically dispersed nature of these projects. POWERGRID has highlighted key challenges observed in awarding these contracts including AIS/GIS bay extension and transformer augmentation works are as follows:*

- *Low Bidder participation*

- *Compressed timeline in CTUIL OM*
- *High lead time for ICT/Reactor manufacturing*
- *Small work in staggered geographical location*
- *Variation in cost mentioned in CTUIL OM & estimated cost*
- *Extension of existing GIS substation*
- *Reconductoring packages*

- 3.9.2 *Representative from POWERGRID requested to increase the timelines of Transformer & Reactor Augmentation Works, GIS Extension Works, AIS Extension Works, Reconductoring Works, etc. to resolve these issues.*
- 3.9.3 *Representative of CTUIL stated that presently, the timelines considered for Bay extension works as 15 months, ICT augmentation works as 18 months and GIS extension works as 21 months.*
- 3.9.4 ***After deliberation, NCT decided to consider the following timelines for implementation of the projects under RTM:***
- (i) Bay extension works - 18 months,***
 - (ii) ICT augmentation works - 21 months and***
 - (iii) GIS extension works - 24 months.***

It is seen from above that NCT has acknowledged the veracity of this issue and thereby granted an extension of 3 months against the original timeline of 15 months against Bay extension works. Hence, it can be unequivocally stated that this persistent issue of delay is beyond the control of the Petitioner, and it therefore falls under Regulation 22(2) of Tariff Regulations, 2024. Hon'ble Commission may like to appreciate the fact that despite very poor response of vendors, the Petitioner through all its efforts could expedite the tendering works and place the award for the subject asset and the project could be completed with minimal delay.

Thus, factoring in the delay of **63 days** in the issuance of transmission license and factoring in additional 3 months (**90 days**) in accordance with 28th NCT Meeting dated 06.05.2025, as against Original Completion Schedule of approx. 14 months as per CTUIL OM & Investment Approval, the Assets 1 & 2 were commissioned with an effective adjusted delay of 200 days and 235 days respectively.

Thus, the adjusted delay period of 200 days & 235 days respectively may be considered under Regulation 22(2) of Tariff Regulations, 2024 and thereby may kindly be condoned by Hon'ble Commission.

Estimated Completion Cost:

18. The present Petition for determination of transmission tariff for 2024-29 tariff block for aforesaid transmission asset is being filed based on the capital cost comprising of capital cost incurred upto DOCO and additional capital expenditure during 2024-29 tariff block in accordance with terms of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024 (“**Tariff Regulations, 2024**”). That the capital cost upto proposed DOCO and Add cap projected to be incurred for 2024-29 is duly certified by the Auditor. Copy of Auditor Certificate for the assets in the instant petition are attached at **Annexure-8**.

(Rs. in lakhs)

Asset No.	Apportioned Approved Cost as per FR	Expenditure Up to DOCO	Estimated expenditure during 2024-29 tariff block					Estimated completion Cost as on 31.03.2029
			2024-25	2025-26	2026-27	2027-28	2028-29	
1	410.95	257.66	0.00	28.43	77.32	12.89	12.89	389.19
2	410.95	281.59	0.00	21.87	66.40	10.93	10.93	391.72
	821.9	539.25*	0.0	50.3	143.72	23.82	23.82	780.91

**Including Notional IDC of Rs 3.43 lacs for Asset-1 & Rs 1.38 lacs for Asset-2.*

The details of estimated completion cost vis-à-vis apportioned/FR cost for the Asset covered under instant petition is as follow:

(Rs. in lakhs)

Asset No.	Approved cost (FR) (a)	Estimated Completion Cost (b)	Variation FR (-decrease/+increase) (c= b-a)
1	410.95	389.19	-21.76
2	410.95	391.72	-19.23

The item-wise cost variation between FR approved cost and estimated completion cost have been given in Form-5.

Further, salient reasons of cost variation w.r.t. FR is given here as under:

Variation in IDC

Decrease in IDC is attributable to variation in the rate of interest considered in FR vs actuals, decrease in overall Capital cost w.r.t. FR, and deployment of funds based on actuals.

The actual IDC accrued up to DOCO has been considered in the Auditor's Certificate.

Cost variation in the Substation equipment including initial spares and civil works

It is submitted that through open competitive bidding process, lowest possible market prices for required product/services/as per detailed designing is obtained and contracts are awarded on the basis of lowest evaluated eligible bidder on overall basis. The best competitive bid prices against tenders may vary as compared to the cost estimate depending upon prevailing market conditions, design and site requirements, whereas the estimates are prepared by the petitioner as per well-defined procedures for cost estimate. The FR cost estimate is broad indicative cost worked out generally on the basis of average unit rates of recently awarded contracts as a general practice.

Further, regarding variation in cost of individual item in Substation packages, it is submitted that the packages under subject scope of works comprise of a large no. of items and the same are awarded through open competitive bidding. In the said bidding process, bids are received from multiple parties quoting different rates for various BOQ items under the said package. Further, the lowest bidder can be arrived at/ evaluated on overall basis only. Hence, item-wise unit prices in contracts and its variation over unit rate considered in FR estimates are beyond the control of the petitioner.

Cost variation in construction and pre-commissioning and overheads

As submitted in preceding para, the contracts in sub-station packages, which includes construction and pre-commissioning and overheads, are awarded on the basis of lowest evaluated eligible bidder on overall basis. The awarded packages may vary greatly vis-à-vis estimated prices considering the prevailing market conditions, which was the case in the instant asset. Further, clubbing of various packages also leads to huge variation in prices discovered through competent bidding mode compared to unit rates considered in FR estimates.

Considering the above, it is humbly prayed that full tariff may be allowed from DOCO based on estimated completion cost of the subject asset.

DETAILS OF THE INITIAL SPARES:

19. Regulation 23 (d) of the Tariff Regulations, 2024 regarding initial spares provides as under:

“23. Initial Spares: Initial spares shall be capitalised as a percentage of the Plant and Machinery cost, subject to following ceiling norms:

.....

(d) Transmission system

(i) Transmission line - 1.00%

(ii) Transmission Sub-station

- Green Field- 4.00%

- Brown Field- 6.00%

(iii) Series Compensation devices and HVDC Station- 4.00%

(iv) Gas Insulated Sub-station (GIS)

- Green Field-5.00%

- Brown Field-7.00%

(v) Communication system - 3.50%

(vi) Static Synchronous Compensator - 6.00%

.....

Provided that:

(i) Plant and Machinery cost shall be considered as the original project cost excluding IDC, IEDC, Land Cost and Cost of Civil Works. The generating company and the transmission licensee, for the purpose of estimating Plant and Machinery Costs, shall submit the break-up of head-wise IDC and IEDC in its tariff application

.....

20. Considering the aforesaid Regulation, the initial spares claimed in the present petition is given below :-

(Rs. in Lakhs)

Assets	Particulars	Plan & Machinery cost (A)	Initial Spares Claimed (B)	Ceiling Limit (%) (C)	Initial Spares Worked out $D = [(A-B) * C / (100 - C)]$	Excess [B-D]
1	S/S (Brown Field)	365.08	19.18	6	22.08	-
2	S/S (Brown Field)	365.08	19.18	6	22.08	-

It is submitted that initial spares claimed in the instant petition is well within the norms allowed by this Hon'ble Commission. Therefore, it is prayed to allow the initial spares as claimed by the Petitioner.

It may be mentioned that in the Auditor Certificate, initial spares discharged upto DOCO are included in DOCO cost, whereas initial spares discharged after DOCO are included in the Add-Cap expenditure of the respective year.

Details of initial spares discharged is enclosed at **Annexure-8**.

DETAILS OF ADDITIONAL CAPITALIZATION

21. Additional Capitalisation

The details of underlying assumptions for additional capitalisation for the instant asset is summarized below:

The admissibility of additional capital expenditure (Add Cap) incurred after DOCO is to be dealt in accordance with the provisions of Regulation 24 of CERC (Terms and Conditions of Tariff) Regulations, 2024. The extract of Regulation 24 of the Tariff Regulations 2024 is reproduced as under:

24. Additional Capitalisation within the original scope and up to the cut-off date

(1) The additional capital expenditure in respect of a new project or an existing project incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check: (a) Payment made towards admitted liabilities for works executed up to the cut-off date;

(b) Works deferred for execution;

(c) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 23 of these regulations;

(d) Payment against the award of arbitration or for compliance with the directions or order of any statutory authority or order or decree of any court of law;

(e) Change in law or compliance with any existing law which is not provided for in the original scope of work;

(f) For uninterrupted and timely development of Hydro projects, expenditure incurred towards developing local infrastructure in the vicinity of the power plant not exceeding Rs. 10 lakh/MW shall be considered as part of capital cost and in case the same work is covered under budgetary support provided by Government of India, the funding of

such works shall be adjusted on receipt of such funds; Provided that such expenditure shall be allowed only if the expenditure is incurred through Indian Governmental Instrumentality; and

(g) Force Majeure events.

Provided that in case of any replacement of the assets, the additional capitalization shall be worked out after adjusting the gross fixed assets and cumulative depreciation of the assets replaced on account of de-capitalization.

22. Additional capitalization claims under Regulation:

Asset	DOCO date	Cut-off date
1	19.12.2025	31.03.2029
2	23.01.2026	31.03.2029

Add cap for 2024-29 block:

Asset	Add cap details (Rs. in Lakhs)				
	2024-25	2025-26	2026-27	2027-28	2028-29
1	-	28.43	77.32	12.89	12.89
	Applicable regulation				
	-	24(1)(a) & 24(1)(b)	24(1)(a) & 24(1)(b)	24(1)(a) & 24(1)(b)	24(1)(a) & 24(1)(b)
2	-	21.87	66.40	10.93	10.93
	Applicable regulation				
	-	24(1)(a) & 24(1)(b)	24(1)(a) & 24(1)(b)	24(1)(a) & 24(1)(b)	24(1)(a) & 24(1)(b)

23. The additional Capitalisation incurred/projected to be incurred in the contextual assets is mainly on account of Balance/Retention Payments or work deferred for execution upto cut-off date and hence, the same may be allowed by the Hon'ble Commission under Regulation 24(1)(a) and 24(1)(b) of Tariff Regulations, 2024.

TRANSMISSION TARIFF FOR 2024-29 BLOCK:

24. That as per Regulation 8(1) (i) & (ii), 14(5) and 15 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024, the tariff for transmission of electricity on Inter-State transmission system (ISTS) shall comprise transmission charges for recovery of annual fixed cost consisting of (a) Return on Equity, (b) Interest on Loan Capital, (c) Depreciation, (d) Interest on Working Capital and (e) Operation and maintenance expenses.
25. The tariff for block 2024-29 has been worked out as per Regulation 10 of the CERC (Terms and Conditions of Tariff) Regulations, 2024. In the present petition, the transmission tariff has been calculated considering actual Expenditure upto DOCO and Actual/estimated expenditure from DOCO to 31.03.2029.
26. Further, for the instant asset, details of accrual IDC as considered under add cap during the year of discharge is tabulated as follows :

Asset-1:

(Rs. in Lakhs)

S. No.	Expenditure	Sub-Station	I.T. Equipment	Total
1	As per Auditor Certificate (Upto DOCO)	214.13	42.75	256.88
2	Less : Accrual IDC not discharged upto DOCO	2.21	0.44	2.65
3	Add: Notional IDC	2.86	0.57	3.43
4	Expenditure upto DOCO (excluding Accrual IDC and including notional IDC)	214.78	42.88	257.66
5	Expenditure for FY 2025-26 (from DOCO upto 31.03.2026, As per auditor certificate)	25.04	0.74	25.78
6	Add: Accrual IDC to be discharged in FY 2025-26	2.21	0.44	2.65
7	Estimated Expenditure in FY 2025-26 (Including Accrual IDC)	27.25	1.18	28.43
8	Estimated Expenditure in FY 2026-27	75.11	2.21	77.32
9	Estimated Expenditure in FY 2027-28	12.52	0.37	12.89
10	Estimated Expenditure in FY 2028-29	12.52	0.37	12.89
11	Total Estimated Completion Cost	342.18	47.01	389.19

Asset-2:**(Rs. in Lakhs)**

S. No.	Expenditure	Sub-Station	I.T. Equipment	Total
1	As per Auditor Certificate (Upto DOCO)	237.81	43.2	281.01
2	Less: Accrual IDC to be discharged in 2026-27	0.68	0.12	0.80
3	Add: Notional IDC	1.17	0.21	1.38
4	<i>Expenditure upto DOCO (excluding Accrual IDC and including notional IDC)</i>	238.30	43.29	281.59
5	<i>Expenditure for FY 2025-26 (from DOCO upto 31.03.2026, As per auditor certificate)</i>	16.33	5.54	21.87
6	Estimated Expenditure in FY 2026-27	48.98	16.62	65.60
7	Add: Accrual IDC to be discharged in FY 2026-27	0.68	0.12	0.80
8	<i>Estimated Expenditure in FY 2026-27 (Including Accrual IDC)</i>	49.66	16.74	66.40
9	<i>Estimated Expenditure in FY 2027-28</i>	8.16	2.77	10.93
10	<i>Estimated Expenditure in FY 2028-29</i>	8.16	2.77	10.93
11	<i>Total Estimated Completion Cost</i>	320.61	71.11	391.72

- 27.** It is submitted that for the instant assets, Accrued IDC not discharged as on DOCO was not considered while calculating the tariff. The accrued IDC has been taken out of DOCO expenditure and added in the add cap, when it has been discharged in case of asset covered under the instant petition. The Hon'ble Commission is requested to kindly allow IDC on the basis of cash outflow. Further, the entire amount of IEDC for the subject Assets has been discharged as on DOCO.
- 28. Notional IDC:** It is submitted that the petitioner has claimed notional IDC of ₹3.43 Lakhs for Asset-1, and ₹1.38 Lakhs for Asset-2. The same has been claimed in accordance with the provisions of Regulation 19(2)(b) and regulation 21(1) of CERC Tariff Regulations, 2024. Statement of cash IDC, NIDC statement, and Liabilities flow Statement for both the Assets-1 & 2 are attached collectively as **Annexure-10**.
- 29.** In respect of IDC calculation, it is submitted that the IDC statement showing details of loans deployed along with the interest rates has been submitted along with the petition.

For the purpose of supporting documents for rate of interest, a compendium of floating rate of interest of various loans during the tariff period 2019-24 has been submitted along with the Truing up petition of POWERGRID works associated with transmission System Strengthening in WR associated with Khargone TPS with diary no. 716/2024, Petition No.: 829/TT/2025. These documents / details are also available on our website www.powergrid.in

30. The transmission tariff has been calculated based on audited cost and considering accrued IDC to be discharged thereafter. The tariff Formats for block 2024-29 have been furnished out as per Annexure-I, Part-III of the Tariff Regulations for period 2024-29 and the calculations for working out the tariff along with supporting documents are attached hereto as **Annexure-11**.

31. The annual transmission tariff for the tariff period 2024-29 is summarized as below:

(Rs. in Lakhs)

Asset	2024-25	2025-26	2026-27	2027-28	2028-29
Asset-1	0.00	21.00	82.81	89.56	91.79
Asset-2	0.00	14.42	85.57	92.21	94.29

32. It is submitted that the petitioner has opted to pay income tax under Section 115BAA of Income-tax Act, 1961. Nil Tax rate has been considered and therefore, ROE has been calculated @ 15% as per Regulation 31 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024. Any under-recovery or over-recovery of grossed up rate on ROE after truing up shall be recovered or refunded to beneficiaries or the long-term customers, as the case may be on year-to-year basis. It is further submitted that adjustment due to any additional tax demand including interest duly adjusted for any refund of tax including interest received from IT authorities shall be recoverable /adjustable during the tariff period 2024-29 on year-to-year basis on receipt of Income Tax assessment order.

33. Under CGST Act, 2017 implemented w.e.f. 01.07.2017, the Govt. of India has exempted the charges of transmission of electricity vide notification no. 12/2017 - Central Tax (Rate) dated 28.06.2017 at serial no. 25 under the heading 9969 "Transmission or distribution of electricity by an electric transmission or distribution utility" by giving applicable GST rate as NIL. Hence, the Transmission Charges as

indicated at Para 30 is exclusive of GST. Further, if GST is levied at any rate and at any point of time in future on Charges of Transmission of Electricity, the same shall be borne and additionally paid by the respondent(s) to the petitioner and the same shall be charged & billed separately by the petitioner. Further additional taxes, if any, are to be paid by the petitioner on account of demand from Govt. / Statutory authorities, the same may be allowed to be recovered from the beneficiaries.

- 34.** Approval was accorded by Board of Directors of PBTSL to borrow funds by way of an inter-corporate loan from POWERGRID. In the tariff calculation for 2024-29 period, Interest on Loans has been calculated on the basis of rate prevailing as on DOCO for inter-corporate loan. The change in Interest rate due to the floating rate of interest applicable, if any, for the project needs to be claimed / adjusted over the tariff block of 05 years directly from / with the beneficiaries.
- 35.** The transmission charges above is inclusive of O&M expenses derived for the subject asset based on the norms for O&M expenditure for Transmission System as specified under Regulation 36(3)(a) & 36(3)(d) of the tariff regulations for block 2024-29 but excludes security expenses, Insurance and capital spares as provided in the Regulation.
- 36.** That as per Regulation 36(3)(d) of CERC Tariff Regulations, 2024, the Security Expenses, Insurance and Capital Spares more than 10 Lakh for transmission system shall be allowed separately after prudence check.

Security Expenses:

In this regard, it is submitted that a separate petition shall be filed for recovery of security expenses from 01.04.2024 to 31.03.2029 and consequential Interest on Working Capital (IOWC) on the same under the Regulation 36 (3) (d) of Central Electricity Regulatory Commission (Terms and Condition of Tariff) Regulations, 2024.

Insurance:

In this regard, it is submitted that a separate petition shall be filed before Hon'ble Commission for claiming the overall Insurance Expenses and consequential Interest on Working Capital (IOWC) on the same considering actual Insurance Expense incurred by the Petitioner for the F/Y 2023-24 after escalating the same at 5.25% per

annum for arriving at the Estimated Insurance Expense for the year 2024-25, 2025-26, 2026-27, 2027-28 and 2028-29.

Capital Spares:

With regard to Capital Spares, as per Tariff Regulations, 2024, Capital spares consumed and consequential Interest on Working Capital (IOWC) on the same shall be claimed by the Petitioner as per actual through a separate petition.

Accordingly, these expenses are not claimed in the subject petition through the relevant Tariff Form and shall be claimed separately.

37. The application filing fee, expenses incurred on publication of notices in newspapers and License fee may be allowed to be recovered separately from the respondents in terms of Regulation 94(1) of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024. The fees and charges to be paid by the petitioner as ISTS licensee (deemed ISTS licensee) under CERC (Fees and Charges of RLDC and other matters) Regulations as amended from time to time shall also be recoverable from the DICs as provided under clause 94(3) of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024.
38. The Transmission Charges and other related Charges indicated as above, is exclusive of incentive, late payment surcharge, FERV, any statutory taxes, levies, duties, cess, filing fees, license fee, RLDC fees and charges or any other kind of imposition (s) and/ or other surcharges etc. whatsoever imposed / charged by any Government (Central/State) and / or any other local bodies/authorities/regulatory authorities in relation to transmission of electricity, environmental protection, and/or in respect of any of its installation associated with the Transmission System and the same shall be borne and additionally paid by the respondent(s) to the petitioner and the same shall be charged, billed separately by the petitioner on the respondents.

Sharing of Transmission Charges

39. Tariff for Transmission of Electricity (Annual Fixed Cost) for 2024-29 at para 30 shall be recovered on monthly basis in accordance with Regulation 78 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024 and shall be shared by the beneficiaries and long-term transmission customers as per Central

Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations, 2020 (Sharing Regulations, 2020) as amended from time to time.

40. In the circumstances mentioned above, it will be just and proper that the transmission tariff for the asset covered under this petition be allowed to be charged from the beneficiaries on the basis set out above. The Petitioner submits that the **Annexures-1 to 11** may please be treated as integral part of this petition.

PRAYER

It is respectfully prayed that the Hon'ble Commission may be pleased to -

- 1) Condone the delay in completion of subject assets on merit of the same being beyond the control of Petitioner.
- 2) Admit the capital cost claimed in the petition and approve the incurred/ projected additional capitalization during 2024-29.
- 3) Approve the transmission tariff for 2024-29 block for the assets covered under this petition.
- 4) Allow interim tariff in accordance with Regulation 10(3) of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024 for purpose of inclusion in the PoC charges.
- 5) Allow the Notional IDC claimed in accordance with the provisions of Regulation 19(2)(b) of CERC Tariff Regulations, 2024.
- 6) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff regulations 2024 for respective block.
- 7) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 94 (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024, and other expenditure (if any) in relation to the filing of petition.
- 8) Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the respondents in terms of Regulation 94(3) and 93(4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024.

- 9) Allow the petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2024-29 period, if any, from the respondents.
- 10) Allow the Initial spares as claimed in line with Para 20 above.
- 11) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at Para 36 above.
- 12) Allow the petitioner to claim the overall insurance expenses and consequential IOWC on that insurance expenses separately as mentioned at Para 36 above.
- 13) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall capital spares at the end of tariff block as per actual.
- 14) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is levied at any rate in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.

Pass such other relief as Hon'ble Commission deems fit and appropriate under the circumstances of the case and in the interest of justice.

Filed by
POWERGRID Bikaner Transmission System Limited
Represented by

KANCHAN
KUMAR
CHOUDHARY

Digitally signed by
KANCHAN KUMAR
CHOUDHARY
Date: 2026.04.22
17:21:15 +05'30'

PLACE: Bikaner
DATED: 22.04.2026

Project-in-Charge,
POWERGRID Bikaner Transmission System Limited

BEFORE
THE CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

PETITION NO.:

IN THE MATTER OF: Petition for determination of Transmission tariff for 2024-29 tariff block for assets under "**Implementation of Bus Sectionalizer at 400 kV level of 400/220 kV Bikaner-II PS**" in Northern Region under Section 62 read with Section 79(1)(d) of the Electricity Act, 2003, Regulation 15(1)(a) and Regulation 23 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 read with Central Electricity Regulatory Commission (Terms and Condition of Tariff) Regulations, 2024.

POWERGRID Bikaner Transmission System Limited

... PETITIONER

Versus

Uttar Pradesh Power Corporation Limited (UPPCL) & others

... RESPONDENTS

AFFIDAVIT VERIFYING THE PETITION

I, Kanchan Kumar Choudhury, S/o Shri R. K. Choudhary, working as Project-in-charge, POWERGRID Bikaner Transmission System Limited, having its registered Office at B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi-110016, presently at Gurgaon do hereby solemnly affirm and state as follows: -

1. I am the Project-in-charge, POWERGRID Bikaner Transmission System Limited, the representative of the Petitioner in the above matter, and am duly authorized to make this affidavit.
2. I submit that the accompanying Petition under Section 62 of the Electricity Act, 2003, has been filed by my authorised representative/nominated counsel under my instruction and the contents of the same are true and correct to the best of my knowledge and belief.
3. I submit that the contents of paras as mentioned in the Petition are true and correct based on my personal knowledge, belief and records maintained in the office and the contents of Paras of the Petition are believed to be true on the basis of the legal advice received.
4. The documents attached with the petition are legible copies and duly attested by me.


(DEPONENT)

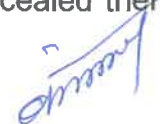
VERIFICATION

I, the deponent above named, do hereby verify the contents of the above affidavit are true to my knowledge and belief and no part of it is false and nothing material has been concealed there from.

Solemnly affirmed at Bikaner on this 22nd day of April '2026.

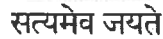
KANCHAN
KUMAR
CHOUDHARY
Y

Digitally signed by
KANCHAN KUMAR
CHOUDHARY
Date: 2026.04.22
17:21:45 +05'30'


(DEPONENT)

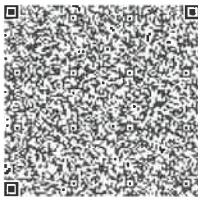


ATTESTED
22/04/2026
MAHENDER S. PUNIA
ADVOCATE & NOTARY
Distt. Gurugram (Haryana) India



Government of National Capital Territory of Delhi

Certificate No.	: IN-DL72227539188864W
Certificate Issued Date	: 10-Apr-2024 01:36 PM
Account Reference	: IMPACC (IV)/ dl732103/ DELHI/ DL-DLH
Unique Doc. Reference	: SUBIN-DL73210303242234956446W
Purchased by	: POWERGRID BIKANER TRANSMISSION SYSTEM LTD
Description of Document	: Article 48(c) Power of attorney - GPA
Property Description	: Not Applicable
Consideration Price (Rs.)	: 0 (Zero)
First Party	: POWERGRID BIKANER TRANSMISSION SYSTEM LTD
Second Party	: NA
Stamp Duty Paid By	: POWERGRID BIKANER TRANSMISSION SYSTEM LTD
Stamp Duty Amount(Rs.)	: 100 (One Hundred only)



Know all men by these presents, we **POWERGRID Bikaner Transmission System Limited** (hereinafter referred to as PBTSL which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators, and assigns) formerly known as **Bikaner-II Bhiwadi Transco Limited** having its Registered Office at B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi – 110 016 do hereby constitute, appoint and authorize Shri Kanchan Kumar Choudhary, Project In-charge of PBTSL residing at PWO C-5/603, Sector 43, Gurugram, Haryana – 122009 as our true and lawful attorney, to do in our name and our behalf, all of the acts or things hereinafter mentioned, that is to say:-

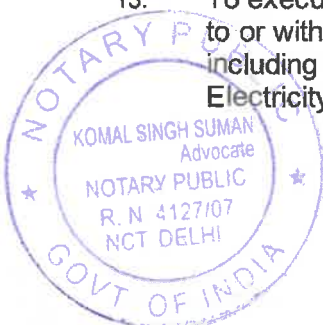
1. To constitute, and defend legal cases, sign and verify complaints, written statements, petitions and objections, memorandum of appeal, claims, affidavits, applications, re-

Yes

1. The authenticity of this Stamp certificate should be verified at 'www.shcilestamp.com' or using e-Stamp Mobile App of Stock Holding. Any discrepancy in the details on this Certificate and as available on the website / Mobile App renders it invalid.
2. The onus of checking the legitimacy is on the users of the certificate.
3. In case of any discrepancy please inform the Competent Authority.

applications and pleadings of all kinds and to file them in Central Electricity Regulatory Commission (CERC), State Electricity Regulatory Commissions (SERCs), Appellate Tribunal for Electricity (ATE), Civil, Criminal or Revenue courts, Arbitration, Labour Court, Industrial Tribunal, High Court and Supreme Court, whether having original or appellate jurisdiction and before Government or Local Authorities or Registration Authorities, Tax Authorities, Tribunals, etc.

2. To appear, before various Courts / Tribunals / CERC / SERCs / Appellate Tribunal for Electricity.
3. To appoint any Advocate, Vakil, Pleader, Solicitor or any other legal practitioner as Attorney to appear and conduct case proceedings on behalf of the company and to sign Vakalatnama.
4. To compromise, compound or withdraw cases from any Court / Tribunal / CERC / SERCs / Appellate Tribunal for Electricity.
5. To file petitions/applications or affidavits before the Supreme Court/ High Court/ CERC/ SERCs/ Appellate Tribunal for Electricity and to obtain the copies of documents, papers, records, etc.
6. To file and receive back documents, to deposit and withdraw money from Courts, Tribunal, Registrar's Office and other Government or Local Authorities and to issue valid receipts thereof.
7. To apply for and obtain refund of stamp duty or court fee, etc.
8. To issue notices and accept service of any summons, notices or orders issued by any Court / Tribunal / CERC / SERCs / Appellate Tribunal for Electricity on behalf of the Company.
9. To execute deeds, agreements, bonds and other documents and returns in connection with the affairs of the company and file them or cause to be filed for Registration, whenever necessary.
10. To issue Project Authority Certificate(s) in respect of contracts for Load Despatch & Communication Systems, Transmission Systems etc. and to lodge claims with the Railways, Transporters, Shipping Agents and Clearing Agents and to settle/compromise such claims.
11. To lodge claims with the Insurance companies, to settle/compromise such claims and on satisfactory settlement thereof, to issue letters of subrogation/power of attorney in favour of Insurance companies.
12. To execute, sign and file applications, undertakings, agreements etc. to or with the Central / State Government(s) / Body(ies) to obtain 'right of way' or any of other Right(s) / Privilege(s) etc.
13. To execute, sign and file applications, undertakings, agreements, bills, documents etc. to or with the Central / State Government(s) / Body(ies) and other authorities/ entities including Central Transmission Utility (CTU)/ GRID Controller of India Limited/ Central Electricity Authority (CEA)/ CERC with respect to Commissioning of the Project,



[Handwritten Signature]

realization of Transmission charges, to obtain 'right of way' or any of other Right(s) / Privilege(s) etc.

14. To execute Consultancy, Funding and other Agreements
15. To act as administrator for e-filing process with CERC and other Statutory authorities.
16. Generally, to do all lawful acts, necessary for the above-mentioned purposes.
17. To further delegate any of the aforesaid Powers except for SI Nos. 9, 10 & 13 to any of the officers/employees (not below the level of Manager) of Power Grid Corporation of India Limited as deemed fit subject to rules, policy etc. of PSITSL or law in force & overall supervision of Delegatee.

The Company hereby agrees to ratify and confirm all and whatsoever the said Attorney shall lawfully do execute or perform or cause to be done, executed or performed in exercise of the power or authority conferred under and by virtue of this Power of Attorney.

.....
Signed by the within named

POWERGRID Bikaner Transmission System Limited
through the hand of **Shri Subir Sen, Chairman (Part-time)**
Duly authorized by the Board to issue such Power of Attorney

Dated this 01st day of May, 2024

Accepted

.....
(Signature of Attorney)

Name: Shri Kanchan Kumar Choudhary

Designation: Project In-charge, POWERGRID Bikaner Transmission System Limited

Address: PWO C-5/603, Sector 43, Gurugram, Haryana – 122009

Attested

.....
(Signature of the Executant)

Name: Shri Subir Sen

Designation: Chairman (Part-time)

Address: B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi - 110 016

.....
Signature and Stamp of Notary of the place of execution

WITNESS



ATTESTED
.....
NOTARY PUBLIC, DELHI

- 1 MAY 2024

KANCHAN
KUMAR
CHOUDHARY
Digitally signed by
KANCHAN KUMAR
CHOUDHARY
Date: 2026.04.22
17:22:33 +05'30'

.....
[Mrs. Aditi Jain
Company Secretary]

.....
[Shri Rajil Srivastava
(Director)]

.....
[Smt. Sangeeta Saxena
(Director)]

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 487/TL/2024

Coram:

Shri Jishnu Barua, Chairperson

Shri Ramesh Babu V., Member

Shri Harish Dudani, Member

Date of order: 10th March, 2025

In the matter of:

Petition under Section 14 of the Electricity Act, 2003 read with Central Electricity Regulatory Commission (Procedure, Terms and Conditions for Grant of Transmission Licence and other related matters) Regulations, 2024 for amendment of the existing RTM Transmission Licence to POWERGRID Bikaner Transmission System Limited to include transmission project "Implementation of Bus Sectionalizer at 400 kV level of 400/220 kV Bikaner-II PS" and "Augmentation of Transformation Capacity at 400/220 kV Bikaner-II PS in Rajasthan by 400/220 kV, 1×500 MVA ICT (9th)".

And

In the matter of

**POWERGRID Bikaner Transmission System Limited,
(A 100% wholly owned subsidiary of Power Grid Corporation of India Limited),**

Registered office:

B-9, Qutab Institutional Area,
Katwaria Sarai, New Delhi-110016.

Address for correspondence:

C/o ED (TBCB),
Power Grid Corporation of India Limited, Saudamini,
Plot No.2, Sector -29, Gurgaon-122001.

...Petitioner

Vs.

- 1. Uttar Pradesh Power Corporation Limited,
Shakti Bhawan, 14, Ashok Marg,
Lucknow-226001, Uttar Pradesh.**

2. **Ajmer Vidyut Vitran Nigam Limited,**
Corporate office, Vidyut Bhawan,
Panchsheel Nagar, Makarwali road,
Ajmer-305004, Rajasthan.
3. **Jaipur Vidyut Vitran Nigam Limited,**
132 kV, GSS RVPNL Sub-station Building,
Caligiri Road, Malviya Nagar,
Jaipur-302017, Rajasthan.
4. **Jodhpur Vidyut Vitran Nigam Limited,**
New Power House, Industrial Area,
Jodhpur-342003, Rajasthan.
5. **Himachal Pradesh State Electricity Board Limited,**
Vidyut Bhawan, Kumar House Complex Building II,
Shimla-171004, Himachal Pradesh.
6. **Punjab State Power Corporation Limited,**
The Mall, PSEB head office,
Patiala-147001.
7. **Haryana Power Purchase Centre,**
Shakti Bhawan, Sector-6,
Panchkula-134109, Haryana.
8. **Jammu Kashmir Power Corporation Limited,**
220/66/33 kV Gladni SS SLDC buliding,
Narwal, Jammu.
9. **BSES Yamuna Power Limited,**
B-Block, Shakti Kiran, Bldg. (Near Karkardooma Courts),
Karkardoomam 2nd Floor, New Delhi-110092
10. **BSES Rajdhani Power Limited,**
BSES Bhawan,
Nehru Place, New Delhi-110019.
11. **Tata Power Delhi Distribution Limited,**
NDPL House, Hudson Lines,
Kingsway Camp, Delhi-110009.

12. **Chandigarh Administration,**
Sector-9, Chandigarh.
13. **Uttarakhand Power Corporation Limited,**
Urja Bhawan, Kanwali Road,
Dehradun, Uttarakhand.
14. **New Delhi Municipal Council,**
Palika Kendra, Sansad Marg,
New Delhi-110002.
15. **North Central Railway,**
Allahabad, Uttar Pradesh.
16. **Central Transmission Utility India Limited,**
Saudamini, Plot no.2, Sector -29,
Gurgaon-122001.
17. **Central Electricity Authority,**
Sewa Bhawan, R. K. Puram,
Sector-1, New Delhi - 110066.

...Respondents

Parties present:

Shri Amit Kumar Chachan, PBTSL
Shri Ranjeet S. Rajput, CTUIL
Shri Swapnil Verma, CTUIL

ORDER

The Petitioner, POWERGRID Bikaner Transmission System Limited (hereinafter referred to as 'Petitioner'), has filed the present Petition under Sections 14 and 15 of the Electricity Act, 2003 (hereinafter referred to as 'the Act') read with the provisions of the Central Electricity Regulatory Commission (Procedure, Terms and Conditions for Grant of Transmission License and other related matters) Regulations, 2024 for amendment of the existing RTM Transmission Licence to POWERGRID Bikaner Transmission System Limited to include the "Implementation of Bus Sectionalizer at 400 kV level of 400/220 kV

Bikaner-II PS” and “Augmentation of Transformation Capacity at 400/220 kV Bikaner-II PS in Rajasthan by 400/220 kV, 1*500 MV A ICT (9th)” (hereinafter referred to as the ‘transmission scheme/project’). The scope of the project for which the existing RTM transmission licence is being amended is as under:

“Implementation of Bus Sectionalizer at 400kV level of 400/220kV Bikaner-II PS”

Sl. No.	Scope of the Transmission Scheme	Item Description	Implementation timeframe
1.	- One set of bus sectionalizer at 400kV level of 400/220kV Bikaner-II PS - One no. of 400kV tie bay (associated with 400/220kV ICT-4)	400 kV Bus sectionalizer– 1 no. 400kV tie bay– 1 no.	Matching with implementation of 400/220kV ICTs (4 th to 7 th) i.e., Dec’24
Total Estimated Cost:			Rs 28 crores

Augmentation of Transformation Capacity at 400/220 kV Bikaner-II PS in Rajasthan by 400/220 kV, 1*500 MVA ICT (9th)

Sl. No.	Scope of the Transmission Scheme	Item Description	Implementation timeframe
1.	Augmentation of Transformation Capacity at 400/220 kV Bikaner-II PS in Rajasthan by 400/220 kV, 1*500 MVA ICT (9 th) along with associated transformer bays	500 MVA, 400/220 kV ICT– 1 no. 400kV ICT bay–1 no. 220 kV ICT bay- 1 no.	18 months from the date of issuance of OM by CTUIL i.e. 18.01.2026.
Total Estimated Cost:			Rs 54.60 crores

2. The Petitioner has made the following prayers:

“(a) Amend the existing RTM Transmission License, granted by this Hon’ble Commission vide order dated 21.11.2022 in Petition no 137/TL/2022 alongwith amendment dated 28.01.2024 in Petition 181/TL/2023 to incorporate the

*transmission projects “Implementation of Bus Sectionalizer at 400 kV level of 400/220 kV Bikaner-II PS” and “Augmentation of Transformation Capacity at 400/220 kV Bikaner-II PS in Rajasthan by 400/220 kV, 1*500 MVA ICT (9th)” assigned by CTUIL vide OM dated 26.10.2023 & 18.07.2024 respectively under Regulated Tariff Mechanism (RTM) mode.*

(b) Allow the Petitioner the liberty to approach the Commission with actual cost on completion of works for determination of transmission charges for the aforementioned additional scope in accordance with Section 61, 62 of the Electricity Act, 2003 and applicable Tariff Regulations as per 10 (2) of the Transmission License Regulations, 2024.

(c) Condone any inadvertent omissions/ shortcomings/ errors and permit the Petitioner to add/ modify/ alter this Petition and make further submissions as may be required at a future date.

(d) Pass such other order / orders, as may be deemed fit and proper in the facts & circumstances of the case.”

3. The Petitioner is an Inter-State transmission licensee and has implemented the “Transmission System Strengthening Scheme for Evacuation of Power from Solar Energy Zones in Rajasthan (8.1 GW) under Phase II-Part F” through the Tariff Based Competitive Bidding (hereinafter referred to as ‘TBCB Project’) mode. The Commission, vide its order dated 15.7.2021 in Petition No. 99/TL/2021, granted a transmission licence (TBCB Licence) to the Petitioner for the aforesaid TBCB Project. Subsequently, the Commission, vide its order dated 21.11.2022 in Petition No. 137/TL/2022, granted a separate transmission licence to the Petitioner Company to implement the following Transmission Projects under the Regulated Tariff Mechanism (hereinafter referred to as ‘RTM’). The RTM transmission projects assigned to the Petitioner are as under:

- “Implementation of 220 kV bays for RE generators and 400/220kV ICTs at Bikaner-II PS”: Applicant was nominated vide CTUIL OM dated 16.11.2021.
 - “Implementation of 1 no. of 400 kV line bay at 400/220 kV Bikaner-II PS for
-

interconnection of 1000 MW Solar Project of SJVN Ltd.”: Applicant was nominated vide CTUIL OM dated 26.04.2022.

- “Implementation of 2 no. of 220 kV line bays at 400/220 kV Bikaner-II PS for interconnection of solar projects (ACME Solar Holdings Pvt. Ltd., Prerak Greentech Pvt. Ltd.): Applicant was nominated vide CTUIL OM dated 25.08.2022.

4. Further, the above transmission licence was amended by the Commission, vide its order dated 28.1.2024 in Petition 181/TL/2023, to incorporate the following transmission scheme:

“4.1. Implementation of 1 no. of 220 kV line bay at 400/220 kV Bikaner-II PS for interconnection of solar project (M/s NHPC Ltd.): Applicant was nominated vide CTUIL OM dated 28.11.2022

Sl no	Scope of the Transmission Scheme	Capacity/km	Implementation timeframe
1	1 no. of 220 kV line bay at 400/220 kV Bikaner-II PS for interconnection of RE project (NHPC Ltd.)	220 kV line bay – 1 no. (refer note a)	15 months from the issue of OM by CTUIL, i.e. 27.02.2024
2	Implementation of 220 kV bus sectionalizer along with bus coupler and transfer bus coupler at 400/220kV Bikaner-II PS	220kV bus sectionalizer bay - 1 Set 220 kV bus coupler bay -1 No. 220 kV transfer bus coupler bay - 1 No. Bus works for future bays (4 nos. of line bays & 3 nos. of ICT bays)	

Note:

- a) At 220 kV Bikaner-II, future line bays in Section-C are proposed to be allocated to RE developers with bays in developer’s scope (no. 230-231) and ISTS scope (no. 26-227). Accordingly, 220 kV bus works may also be suitably taken up under the above scope.

4.2. Implementation of 2 no. of 220 kV line bays at 400/220 kV Bikaner-II PS for interconnection of RE power park of M/s ALF Solar Amarsar Pvt. Ltd.: Applicant was nominated vide CTUIL OM dated 17.01.2023

Sl. No.	Scope of the Transmission Scheme	Capacity/km	Implementation timeframe
1.	2 no. of 220 kV line bays at 400/220 kV Bikaner-II PS for interconnection of RE power park of M/s ALF Solar Amarsar Pvt. Ltd.	220 kV line bay – 2 nos.	30.06.2024

4.3. Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-1) (Bikaner Complex) - Part-E. Applicant was nominated vide CTUIL OM dated 16.02.2023

Sl. No.	Scope of the Transmission Scheme	Capacity/km	Implementation timeframe
1.	Augmentation with 5X500 MVA, 400/220 kV ICTs at Bikaner-II PS	400/220 kV, 500 MVA ICT – 5 nos. 400 kV ICT bays – 5 nos. 220 kV ICT bays - 5 nos.	4x500MVA, 400/220kV ICTs: 31.12.2024 1x500MVA, 400/220kV ICT: 31.1.2025

**** This inter-alia includes the cost of 02 other transmission assets being constructed by POWERGRID at Bikaner (PG) & Kotputli (PG) sub-stations.**

4.4. Augmentation of transformation capacity at 400/220 kV Bikaner-II PS by 400/220 kV, 1X500 MVA ICT (3rd). Applicant was nominated vide CTUIL OM dated 08.06.2023

Sl. No.	Scope of the Transmission Scheme	Capacity/km	Implementation timeframe
1.	Augmentation of transformation capacity at 400/220 kV Bikaner-II PS by 400/220 kV, 1X500 MVA ICT (3rd) along with associated transformer bays* *1 no. of 400kV (AIS) (including associated tie bay) and 1 no. of 220 kV (AIS) transformer bay	500 MVA, 400/220 kV ICT – 1 no. 400 kV ICT bay (including associated tie bay) – 1 no. 220 kV ICT bays - 1 no	18 months from the issue of OM by CTUIL, i.e. 7.12.2024

5. Further, in addition to the above-mentioned scope, the Central Transmission Utility of India Limited (CTUIL), vide Office Memorandum dated 26.10.2023 and 18.7.2024, has

assigned the Transmission Projects “Implementation of Bus Sectionalizer at 400kV level of 400/220kV Bikaner-II PS” and “Augmentation of Transformation Capacity at 400/220 kV Bikaner-II PS in Rajasthan by 400/220 kV, 1*500 MVA ICT (9th)” under RTM mode while referring to the Ministry of Power office order dated 28.10.2021.

6. The Petitioner has submitted that upon amendment of the existing RTM transmission licence, the Petitioner shall implement the aforementioned scheme under RTM mode. The estimated completion cost of the transmission scheme, as per CTUIL’s Office Memorandum (OMs) dated 26.10.2023 and 18.7.2024, is Rs. 28 crores and Rs. 54.60 crores respectively. After completion of the transmission scheme, the Petitioner shall approach the Commission for the determination of the transmission charges in accordance with the Tariff Regulations.

Hearing dated: 23.1.2025

7. During the course of the hearing, the representative of the Petitioner submitted that the present Petition had been filed seeking amendment of the existing RTM Transmission Licence granted to the Petitioner to include the (i) Implementation of Bus Sectionalizer at 400 kV level of 400/220 KV Bikaner-II PS, and (ii) Augmentation of Transformation Capacity at 400/200 kV, 1×500 MVA ICT (9th), as assigned by CTUIL under the RTM mode, vide OMs dated 26.10.2023 and 18.7.2024 respectively.

8. Vide Record of Proceedings for the hearing dated 23.1.2025, the Petitioner was directed to furnish the reasons for the delay in approaching for amendment of the

transmission licence as the transmission scheme, namely “Implementation of Bus Sectionalizer at 400 kV level of 400/220 kV Bikaner-II PS” as the same was allocated to the Petitioner vide CTUIL OM dated 26.10.2023, with the implementation time frame of December 2024 [i.e. Matching with the implementation of 400/220kV ICTS (4th to 7th)] and the said implementation timeline has already been elapsed.

9. In compliance with the Record of Proceedings dated 23.1.2025, the Petitioner, vide affidavit dated 5.2.2025, has submitted that the Petitioner is a transmission licensee that has implemented a transmission project under the TBCB route. The Commission granted a transmission licence for the same vide order dated 15.7.2021 in Petition No. 99/TL/2021. Subsequently, 10 nos. transmission schemes have been progressively assigned to the Petitioner by CTUIL/MoP under the RTM. Subsequently, the Petitioner filed Petition No. 137/TL/2022 on 11.4.2022 for the grant of a separate RTM transmission license for 01 no scheme assigned to it. During the proceedings of Petition No. 137/TL/2022, 02 nos additional transmission schemes were awarded by CTUIL vide OMs dated 26.4.2022 and 25.8.2022, necessitating amendments to the Petition. This led to multiple hearings, and ultimately, the Commission, vide order dated 21.11.2022, granted a separate transmission licence to the Petitioner for the implementation of 03 nos transmission schemes under RTM. Subsequent to the order in Petition No. 137/TL/2022, the Petitioner was assigned 03 no additional transmission projects under RTM. Accordingly, it approached the Commission through Petition No. 181/TL/2023 for the amendment of the earlier RTM licence granted in Petition No. 137/TL/2022. During the proceedings of Petition No. 181/TL/2023, an additional transmission scheme was also awarded to the Petitioner by

CTUIL vide OM dated 8.6.2023, and the Petition was amended to incorporate the same. The Commission, vide order in Petition No. 181/TL/2023, amended the transmission licence to include a total of 04 no transmission schemes under RTM. During the proceedings of Petition No. 181/TL/2023, the subject transmission project covered under the instant Petition was assigned to the Petitioner vide OM dated 26.10.2023. Had the Petitioner sought to include this project in Petition No. 181/TL/2023, a further amendment to the petition would have been required, leading to delay in the amendment of the transmission licence. Therefore, it was decided to file a separate petition for the subject transmission scheme after the issuance of the order in Petition No. 181/TL/2023.

10. The Petitioner has submitted that upon the issuance of the final order in Petition No. 181/TL/2023, the Petitioner inadvertently failed to file the petition promptly. However, upon realizing this, the instant Petition was filed on 29.10.2024 for a total of 02 no schemes. Additionally, one new scheme has been awarded to the Petitioner by CTUIL vide OM dated 20.01.2025, for which a separate petition shall be filed for amending the licence granted in Petition No. 137/TL/2022. Therefore, the delay in approaching the Commission for the amendment of the existing transmission licence to include the subject transmission scheme was purely inadvertent and unintentional.

11. We have considered the submissions of the Petitioner. According to the Petitioner, it will complete the transmission scheme by March 2025, and the delay in filing the instant amendment application does not impact the Petitioner's commitment to the timely execution of the instant transmission project. Accordingly, we direct the Petitioner to

implement the transmission scheme in letter and spirit.

12. Further, vide Record of Proceedings for the hearing dated 23.1.2025, CTUIL was directed to submit the following information on an affidavit:

- (i) The status of implementation of 400/220kV ICTs (4th to 7th) at Bikaner-II P; and
- (ii) The timeline for implementation of the transmission scheme "Implementation of Bus Sectionalizer at 400 kV level of 400/220 kV Bikaner-II PS", as per CTUIL OM dated 26.10.2023 is December 2024, which has already been lapsed. CTUIL to clarify whether CTUIL has revised the timelines for implementation of the subject transmission scheme.

13. In compliance with the Record of Proceedings dated 23.1.2025, CTUIL vide affidavit dated 10.2.2025 has submitted as under: -

- (i) With respect to the status of implementation of the 400/220kV ICTs (4th to 7th) at Bikaner-II P, the 500 MVA 400/220 kV ICTs (4th to 6th) at Bikaner-II are already charged, and 7th 500 MVA ICT has also been charged.

- (ii) CTUIL has not revised timelines for implementation of the subject transmission scheme, i.e., "Implementation of Bus Sectionalizer at 400 kV level of 400/220 kV Bikaner-II PS. In the 21st CMETS-NR meeting held on 31.07.2023, it was discussed that TSP, vide letter dated 27.06.2023 has informed that 400kV bus sectionalizer at Bikaner-II PS may be required after ICT-5 for taking up implementation of ICT-6th to 8th. It was also informed that in the absence of 400kV bus sectionalizer bays, integration of the existing 400kV section bus bar protection system & new bus bar protection system shall not be feasible. In view of the above, one set of sectionalizer

at 400kV level of 400/220kV Bikaner-II PS was agreed to be implemented under ISTS with an implementation timeframe as matching with the implementation of 400/220kV ICTs (4th to 7th), i.e., December 2024 and the expected commissioning of Sectionalizer at 400 kV level of 400/220 kV Bikaner-II PS is 28.2.2025.

Hearing dated: 11.2.2025

14. During the course of the hearing, the representative of the Petitioner submitted that the Petitioner has already filed the information called for vide Record of Proceedings for the hearing dated 23.1.2025. He further added that the delay in approaching the Commission for the amendment of the existing transmission licence to include the subject transmission scheme was purely inadvertent and unintentional. In response to the specific query of the Commission regarding the completion of the subject transmission scheme, the representative of the Petitioner submitted that the Petitioner had been actively working towards the execution of this scheme, ensuring minimal impact on project completion timelines. However, due to reasons beyond the control of the Petitioner, the subject scheme got delayed, and the same is expected to be commissioned by March 2025. On a further query by the Commission regarding the requirement of the present scheme since the timeline for implementation of the said transmission scheme has elapsed, the representative for the Petitioner submitted that in the absence of 400 kV bus sectionalizer bays, integration of the existing 400kV section bus bar protection system & new bus bar protection system shall not be feasible.

15. In addition, the representative of the CTUIL submitted that the implementation of

the present scheme is necessary, and for the same reasons, one set of sectionalizer at 400kV level of 400/220kV Bikaner-II PS was agreed to be implemented under ISTS with an implementation timeframe matching with the implementation of 400/220kV ICTs (4th to 7th), i.e., December 2024.

16. Vide Record of Proceeding dated 11.2.2025, the Petitioner and the CTUIL were directed to file their response on the requirement of the “Bus Sectionalizer at 400/220 kV Bikaner-II PS” at this stage, on an affidavit, within a week.

17. The Petitioner in compliance with the Record of Proceedings dated 11.2.2025, vide affidavit dated 5.3.2025, has submitted that the subject project along with 10 Nos. for 400/220 kV ICTs (ICT-1 to 10) with associated bays were provided as a future provision in the original project “Transmission System Strengthening Scheme for Evacuation of Power from Solar Energy Zones in Rajasthan (8.1 GW) under Phase-II Part-F”, implemented by the Petitioner under the TBCB mode and accordingly 400/220 kV Bikaner-II PS has been constructed with provision of 400 kV Bus Sectionalizer after ICT-5 meeting transmission planning criteria 2013 (N-1 criteria). Subject Project is required considering the following anticipated constraints /progressions due to non-availability/availability of the Bus--sectionalizer in commissioning the present/future elements at a later date.

(a) During sudden blackout conditions, the availability of the 400 kV Bus sectionalizer shall avoid a complete blackout of Bikaner-II station due to the availability of existing ICTs in other bus sections.

(b) Integration of the existing 400 kV bus bar protection system with the new bus bar protection scheme shall require a long shutdown of all the associated elements for the implementation of the 400 kV bus sectionalizer at a later date.

Therefore, considering the above operational/reliability /protection requirements, the bus sectionalizer at 400/220 kV Bikaner-II PS covered in the instant Petition shall be required.

18. It is noted that the CTUIL has not submitted the information called for vide RoP dated 11.2.2025 despite granting sufficient time. We express our strong displeasure at the conduct of the CTUIL for repeated non-compliance with our direction. We again direct the CTUIL to file the information called for vide ROP dated 11.2.2025 before the next date of the hearing.

Analysis and Decision

19. We have considered the submissions of the Petitioner and CTUIL. The Petitioner has filed the present Petition for amendment of the existing RTM transmission licence to include “Implementation of Bus Sectionalizer at 400 kV level of 400/220 kV Bikaner-II PS” and “Augmentation of Transformation Capacity at 400/220 kV Bikaner-II PS in Rajasthan by 400/220 kV, 1*500 MVA ICT (9th)” through the RTM mode.

20. The Ministry of Power, Government of India, vide its letter dated 28.10.2021, issued terms of reference to the NCT and, *inter alia*, directed that the NCT will approve the ISTS costing between Rs.100 crores and Rs.500 crores or such limit as prescribed by the Ministry of Power from time to time, along with their mode of implementation under

intimation to the Ministry of Power. The Ministry of Power further directed that ISTS costing less than or equal to Rs.100 crores, or such limit as prescribed by the Ministry of Power from time to time, will be approved by the Central Transmission Utility of India Limited (CTUIL) along with the mode of implementation under intimation to the NCT and the Ministry of Power, Government of India. The relevant portion of the said order dated 28.10.2021 is extracted as under:

*“2. Terms of Reference (ToR) of the NCT are as under: i. ******

VIII. The NCT shall recommend to Ministry of Power (MoP) for implementation of the ISTS for projects with cost more than Rs 500 crore, along with their mode of implementation i.e. Tariff Based Competitive Bidding (TBCB) / Regulated Tariff Mechanism (RTM), as per the existing Tariff Policy. However, the NCT shall approve the ISTS costing between Rs.100 crore to Rs.500 crore or such limit as prescribed by MoP from time to time, along with their mode of implementation under intimation to MoP. The ISTS costing less than or equal to Rs.100 crores, or such limit as prescribed by MoP from time to time, will be approved by the CTU along with their mode of implementation under intimation to the NCT and MoP. After approval of the ISTS by the NCT or the CTU (as the case may be), the TBCB project shall be allocated to Bid Process Coordinators through Gazette Notification, while the RTM project shall be allocated to CTU.”

21. Subsequently, a ‘Consultation Meeting for Evolving Transmission Schemes (CMETS) in Northern Region’, vide its Minutes of the 21st Meeting dated 31.7.2023 and 29th Meeting dated 17.5.2024, notified “Implementation of Bus Sectionalizer at 400 kV level of 400/220 kV Bikaner-II PS” and “Augmentation of Transformation Capacity at 400/220 kV Bikaner-II PS in Rajasthan by 400/220 kV, 1*500 MVA ICT (9th)” respectively on RTM mode to the Petitioner Company in line with the MoP Office order dated 28.10.2021 are as under:

- 21st Meeting dated 31.7.2023: -

“3. Requirement of one set of Bus Sectionalizer at 400kV level of 400/220kV

Bikaner-II PS

It was informed that Transmission system strengthening scheme for evacuation of power from solar energy zones in Rajasthan (8.1 GW) under Phase-II” was discussed in 4th meeting of NRSCT held on 25.07.2019 and recommended for implementation through TBCB in the 6th meeting of erstwhile NCT held on 30.09.2019. As part of above , Ph-II, Part F scheme was modified in 4th NCT meeting held on 20.01.20 and 28.01.20 (deletion of 400/220 kV ICTs at Bikaner-II PS from approved scope).

Subsequently 2 nos. of 500MVA ICTs (1st & 2nd) and 1 no. of 500 MVA ICT (3rd) at Bikaner-II PS was allocated in RTM to M/s POWERGRID Bikaner Transmission System Limited (PBTSL) for implementation vide CTU OM dated 16.11.21 and 08.06.23 respectively. Further, Augmentation by 400/220 kV, 5x500 MVA ICT (4th to 8th) at Bikaner-II PS was agreed for implementation as part of transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-1) (Bikaner Complex)-Part E and same was allocated to M/s PBTSL vide CTU OM dated 15.11.22 (based on NCT letter dated 15.11.22). As per above NCT letter, above ICTs were to be taken up for evacuation requirement beyond 2000 MW at 220 kV level of Bikaner-II PS, with implementation timeframe matching with schedule of RE generation or 18 months from date of allocation, whichever is later. Subsequently, CTU vide mail 13.06.23 informed to POWERGRID for take up implementation of 5x500 MVA ICTs (4th to 8th) at Bikaner-II PS with implementation schedule of Dec’24 (4th to 7th) and Jan’25 (8th) after meeting the requirement specified in NCT letter dated 15.11.22.

POWERGRID vide letter dated 27.06.23 informed that 400kV bus sectionalizer (bays 428 & 429) at Bikaner-II PS may be required after ICT-5 for taking up implementation of ICT-6th to 8th. It was also informed that in absence of 400kV bus sectionalizer bays, integration of existing 400kV section bus bar protection system & new bus bar protection system shall not be feasible. In view of the above, one set of sectionalizer at 400kV level of 400/220kV Bikaner-II PS is required.

Further, it was deliberated that tie one no. of 400kV tie bay (associated with 400/220kV ICT-4) shall also be required.

In view of above deliberations, following ISTS scheme was agreed: □ One set of bus sectionalizer at 400kV level of 400/220kV Bikaner-II PS □ One no. of 400kV tie bay (associated with 400/220kV ICT-4 as per approved SLD) Implementation Timeframe: Matching with implementation of 400/220kV ICTs (4th to 7th) i.e. Dec’24.”

- 29th Meeting dated 17.5.2024: -

“A1. Augmentation with 400/220 kV 1x500 MVA(9th) ICT at Bikaner-II to meet N-1 compliance

It was stated that 400/220 kV Bikaner-II PS is an existing RE pooling station with transformation capacity of 1000 MVA(2x500MVA). Further, 6 no. of 500 MVA 400/220kV, ICTs are under implementation with the schedule progressively from Jun'24 upto Jan'25. Therefore, considering above total transformation capacity at 400/220 kV Bikaner-II PS shall be 4000MVA (8x500MVA) by Jan'25. Considering the total connectivity of 3785 MW granted at 220 kV level at Bikaner-II PS, augmentation of 1x500 MVA, 400/220kV (9th) ICT at Bikaner-II PS shall be required to meet N-1 compliance.

Grid-India (NRLDC) enquired about bus splitting arrangement at 220kV level of Bikaner-II PS. CTUIL stated that there is bus sectionalizer arrangement (normally closed) as per present practise. Grid-India stated that in some of RE pooling stations there are 2 or 3 different 220kV sections with n-1 compliance (400/220kV ICT) in each section. CTU stated that in some pooling stations i.e. Fatehgarh-II PS, Bhadla-II PS where 220kV bus sections are geographically isolated (way apart from each other), accordingly there is no sectionalizer arrangement feasible in two sections and n-1 compliance of 400/220kV ICTs to be ensured in both the sections as per planning criteria. CTU also stated that different configuration of 220kV section arrangement i.e. 220kV isolated sections in two different directions or 220kV common bus with sectionalizer arrangement (normally closed) is only decided by the TSP based on GA and layout of substation. Based on above n-1 compliance (400/220kV ICT) requirement will be identified. At Bikaner-II PS there is common 220kV bus with bus sectionalizer arrangement which would be normally in closed position, therefore N-1 compliance is being considered on common 220kV bus. Grid-India stated that some common philosophy should be adopted for Grid operation.

No other comments were received on ICT augmentation scheme at Bikaner-II PS. In view of the above, following ICT augmentation scheme is agreed at Bikaner-II PS: -

- Augmentation with 400/220 kV, 1x500 MVA (9th) ICTs at Bikaner-II PS along with associated transformer bays”*

22. Based on the above, CTUIL, vide its Office Memorandums dated 26.10.2023 and 18.7.2024, approved “Implementation of Bus Sectionalizer at 400 kV level of 400/220 kV Bikaner-II PS” and “Augmentation of Transformation Capacity at 400/220 kV Bikaner-II PS in Rajasthan by 400/220 kV, 1*500 MVA ICT (9th)” respectively on RTM mode along with identifying the implementing agency and also addressing the same to the Ministry of Power, Government of India, and NCT. The relevant portion of the said Office

Memorandums dated 26.10.2023 and 18.7.2024 are extracted as under:

- **CTUIL O.M. dated 26.10.2023:**

“Sub: Inter-State Transmission Schemes (Costing up to Rs 100 Cr) to be taken up for implementation under Regulated Tariff Mechanism (RTM).

The undersigned is directed to inform that CTU has approved the implementation of the following ISTS costing less than or equal to Rs.100 Cr. In line with the MoP office order dated 28.10.2021 under Regulated Tariff Mechanism (RTM) mode by the implementing agencies as indicated in the table below:

Sl. No.	Name of Transmission Scheme	Implementing Agency
7.	Implementation of Bus Sectionalizer at 400kV level of 400/220kV Bikaner-II PS	POWERGRID Bikaner Transmission System Ltd. (a subsidiary of Power Grid Corporation of India Ltd.)

- **CTUIL O.M. dated 18.7.2024:**

“Sub: Inter-State Transmission Schemes (Costing up to Rs 100 Cr) to be taken up for implementation under Regulated Tariff Mechanism (RTM).

The undersigned is directed to inform that CTU has approved the implementation of the following ISTS costing less than or equal to Rs.100 Cr. In line with the MoP office order dated 28.10.2021 under Regulated Tariff Mechanism (RTM) mode by the implementing agencies as indicated in the table below:

Sl. No.	Name of Transmission Scheme	Implementing Agency
7.	Augmentation of Transformation Capacity at 400/220kV Bikaner-II PS in Rajasthan by 400/220kV, 1x500MVA ICT (9th)	POWERGRID Bikaner Transmission System Ltd. (a subsidiary of Power Grid Corporation of India Ltd.)

23. Section 14 of the Act provides that the Appropriate Commission may, on an application made under Section 15 of the Act, grant a licence to any person to transmit

electricity as a transmission licensee in any area as may be specified in the licence. The word “person” has been defined in Section 2(49) of the Act to include any company or body corporate or association or body of individuals, whether incorporated or not, or artificial judicial person. The Petitioner company has been incorporated under the Companies Act 2013 and is already a transmission licensee. The main objective of the Petitioner Company is as under:

“To plan, promote and develop an integrated and efficient power transmission system network in all its aspects including planning, investigation, research, design and engineering, preparation of preliminary, feasibility and definite project reports, construction, operation and maintenance of transmission lines, sub- stations, load dispatch stations and communication facilities and appurtenant works, coordination of integrated operation of state, regional and national grid system, execution of turn- key jobs for other utilities/organizations and wheeling of power in accordance with the policies, guidelines and objectives laid down by the Central Government from time to time”

24. Regulation 16 of the Transmission Licence Regulations provides for the procedure for the amendment of a transmission licence as under:

“(1) The Commission may on its own motion or on an application made by the licensee (other than deemed licensee) or otherwise make such alterations and amendments in the terms and conditions of licence, if the Commission is of the opinion that the public interest so requires inter-alia under the following categories:

(a) Where the Commission orders any alterations and amendments otherwise than on the application of the licensee, the Commission shall publish a notice in two such daily digital newspapers as it considers necessary with the following particulars, namely: -

- i. name and address of the licensee;*
- ii. alterations and modifications proposed to be made in the licence;*
- iii. grounds for such alterations and modifications; and*
- iv. statement inviting suggestions and objections, if any, on the proposal for consideration of the Commission within the time specified in the notice.*

(b) Where an existing licensee which has been granted a transmission licence pursuant to selection under the competitive bidding guidelines, and is subsequently selected through the process under the competitive bidding guidelines to implement

additional transmission element(s) under project mode, it shall be eligible to add such transmission element(s) to its existing licence, after making an application before the Commission in terms of this Regulation.

(c) Where an existing licensee which has been granted a transmission licence pursuant to being nominated by the Central Government or its authorized agency to implement transmission element(s) under regulated tariff mechanism, is further nominated to implement additional transmission element(s) under regulated tariff mechanism, it shall be eligible to add such transmission element(s) to its existing licence, by making an application before the Commission in terms of this Regulation.

(2) The procedure specified in Regulation 5 of these regulations (except clause 13) shall mutatis mutandis be applicable in case the licensee makes an application for any amendment to the licence.

(3) The Commission shall also upload Form-II submitted by the applicant on the website of the Commission, inviting suggestions and objections on the proposal for amendment of the licence.

(4) The Commission shall carry out such amendment to the licence as may be considered necessary after consideration of the suggestions and objections received.

(5) The licensee shall be required to maintain separate accounts for such additional elements in case of addition/modification of the licence.”

25. The Petitioner has filed the present Petition for the amendment of an existing RTM transmission licence granted vide order dated 21.11.2022 and amended again vide order dated 28.1.2024 for the “Implementation of 220 kV bays for RE generators and 400/220kV ICTs at Bikaner-II PS” , “Implementation of 1 no. of 400 kV line bay at 400/220 kV Bikaner-II PS for interconnection of 1000 MW Solar Project of SJVN Ltd.”, “Implementation of 2 no. of 220 kV line bays at 400/220 kV Bikaner-II PS for interconnection of solar projects (ACME Solar Holdings Pvt. Ltd., Prerak Greentech Pvt. Ltd.)”, “implementation of 1 no. of 220 kV line bay at 400/220 kV Bikaner-II PS for interconnection of solar project (NHPC Ltd.)”, “implementation of 2 nos. of 220 kV line bays at 400/220 kV Bikaner-II PS for interconnection of RE power park of ALF Solar

Amarsar Pvt. Ltd.”, “transmission system for evacuation of power from the Rajasthan REZ Ph IV (Part-1) (Bikaner Complex) Part-E” and “Augmentation of transformation capacity at 400/220 kV Bikaner-II PS by 400/220 kV, 1X500 MVA ICT (3rd)” through the RTM mode to incorporate “Implementation of Bus Sectionalizer at 400kV level of 400/220kV Bikaner-II PS” and “Augmentation of Transformation Capacity at 400/220 kV Bikaner-II PS in Rajasthan by 400/220 kV, 1*500 MVA ICT (9th)”, in accordance with the Transmission Licence Regulations.

26. The Petitioner has made the Application as per Form-I and paid a fee of Rs. one lakh as prescribed by the Central Government. As per the direction of the Commission, the Petitioner has served a copy of the Application on the beneficiaries of the transmission project.

27. The Petitioner has published the notices on the e-filing portal of the Commission and on its website in Form-II in English and Vernacular language. The Petitioner has also published the notice digitally in all editions of ‘Times of India’ and ‘RastraDoot’ (in English and Hindi, respectively) on 31.10.2024. In response, no objection has been received from the general public to the notices.

28. The Petitioner has served a copy of the application on CTUIL as required under Section 15(3) of the Act and read with Regulations 5 (9) of the 2024 Transmission Licence Regulations. CTUIL, vide its letter dated 7.11.2024, has recommended the amendment of the existing transmission licence to include the transmission project to the Petitioner. The

relevant portion of the said letter dated 7.11.2024 is extracted as under:

“This is with reference to petition having diary no. 811/2024 filed by M/s POWERGRID Bikaner Transmission System Ltd. (PBTSL) before Hon'ble Commission for amendment of existing transmission license to include transmission projects “Implementation of Bus Sectionalizer at 400 kV level of 400/220 kV Bikaner-II PS” and “Augmentation of Transformation Capacity at 400/220 kV Bikaner-II PS in Rajasthan by 400/220 kV, 1x500 MVA ICT (9th)”. In this regard, following is submitted:

A. Implementation of Bus Sectionalizer at 400 kV level of 400/220 kV Bikaner-II PS

- M/s PBTSL has implemented 400kV Bikaner-II PS as part of “Transmission system strengthening scheme for evacuation of power from solar energy zones in Rajasthan (8.1 GW) under phase II - Part F” as part of Rajasthan SEZ Ph-II Part- F. Additionally, based on requirements and to establish 220kV level at Bikaner-II PS, 8x500MVA, 400/220kV ICTs were also awarded to M/s PBTSL under various transmission projects. Subsequently, TSP vide letter dated 27.06.23 informed that 400kV bus sectionalizer at Bikaner-II PS may be required after ICT-5 for taking up implementation of ICT-6th to 8th. It was also informed that in absence of 400kV bus sectionalizer bays, integration of existing 400kV section bus bar protection system & new bus bar protection system shall not be feasible. In view of the above, one set of sectionalizer at 400kV level of 400/220kV Bikaner-II PS is required.
- Above matter was deliberated in 21st CMETS-NR meeting held on 31.07.2023, wherein in view of technical requirements as indicated by TSP, one set of bus sectionalizer at 400kV level of 400/220kV Bikaner-II PS was agreed. Further, one no. of 400kV tie bay (associated with 400/220kV ICT-4) was also agreed. Relevant extracts of 21st CMETS-NR meeting are attached at **Annexure-I**.
- As per Ministry of Power, Govt, of India vide office order dated 28/10/2021, responsibility for approval of ISTS transmission projects costing (up to Rs. 100 Cr.) along with their mode of implementation was entrusted to CTUIL. In line with above notification, “Implementation of Bus Sectionalizer at 400 kV level of 400/220 kV Bikaner-II PS” was awarded to M/s PBTSL vide CTU OM dated 26.10.2023 with a copy to MoP and NCT with following details:

Sl. No.	Scope of the Transmission Scheme	Capacity	Implementation timeframe
1.	• One set of bus sectionalizer at 400kV level of 400/220kV Bikaner- II PS • One no. of 400kV tie bay (associated with 400/220kV ICT- 4)	• 400 kV Bus sectionalizer- 1 no. • 400kV tie bay-1 no.	Matching with implementation of 400/220kV ICTs (4th to 7th) i.e., Dec'24

Copy of CTU OM dated 26.10.2023 is attached at **Annexure-II**.

B. Augmentation of Transformation Capacity at 400/220 kV Bikaner-II PS in Rajasthan by 400/220 kV, 1x500 MVA ICT (9th)

• In the 29th CMETS-NR, it was deliberated that 400/220 kV Bikaner-II PS is an existing RE pooling station with transformation capacity of 2x500MVA 400/220kV. Further, 6 nos. of 500 MVA 400/220kV, ICTs are under implementation with the schedule progressively from Jun'24 up to Jan'25. Therefore, considering the above, total transformation capacity at 400/220 kV Bikaner-II PS shall be 4000MVA (8x500MVA) by Jan'25. Considering the total connectivity of 3785 MW granted at 220 kV level at Bikaner-II PS, augmentation of 1x500 MVA, 400/220kV (9th) ICT at Bikaner-II PS shall be required to meet N-1 compliance. In view of the deliberations, augmentation with 400/220 kV, 1x500 MVA (9th) ICT at Bikaner-II PS along with associated transformer bays was agreed in 29th CMETS-NR meeting held on 17.05.2024. Relevant extracts of 29th CMETS-NR meeting are attached as **Annexure-III**.

• As per Ministry of Power, Govt. of India vide office order dated 28/10/2021, responsibility for approval of ISTS transmission projects costing (up to Rs. 100 Cr.) along with their mode of implementation was entrusted to CTUIL. In line with above notification, "Augmentation of Transformation Capacity at 400/220 kV Bikaner-II PS in Rajasthan by 400/220 kV, 1x500 MVA ICT (9th)" was awarded to M/s PBTSL vide CTU OM dated 18.07.2024 with a copy to MoP and NCT with following details:

Sl. No.	Scope of the Transmission Scheme	Capacity	Implementation timeframe
1.	Augmentation of Transformation Capacity at 400/220 kV Bikaner- II PS in Rajasthan by 400/220 kV, 1x500 MVA ICT (9th) along with associated transformer bays	• 500 MVA, 400/220 kV ICT- 1 no. • 400kV ICT bay- 1 no. • 220 kV ICT bay- 1 no.	18 months from the date of issuance of OM by CTUIL i.e. 18.01.2026.

Copy of CTU OM dated 18.07.2024 is attached at **Annexure-IV**.

• Earlier M/s PBTSL was granted ISTS Transmission License for implementation of "Transmission system strengthening scheme for evacuation of power from solar energy zones in Rajasthan (8.1 GW) under phase II - Part F" by Hon'ble Commission vide order dated 15.07.2021 in Petition No. 99/TL/2021. Subsequently, M/s PBTSL was also granted separate transmission license to implement the following Transmission Projects under Regulated Tariff Mechanism:

- > Implementation of 220 kV bays for RE generators and 400/220kV ICTs at Bikaner-II PS
- > Implementation of 1 no. of 400 kV line bay at 400/220 kV Bikaner-II PS for interconnection of 1000 MW Solar Project of SJVN Ltd.
- > Implementation of 2 no. of 220 kV line bays at 400/220 kV Bikaner-II PS for

interconnection of solar projects (ACME Solar Holdings Pvt. Ltd., Prerak Greentech Pvt. Ltd.)

• *The above Transmission License was also amended by Hon'ble Commission vide order dated 28.01.2024 in Petition 181/TL/2023 to incorporate the following additional transmission schemes:*

- > Implementation of 1 no. of 220 kV line bay at 400/220 kV Bikaner-II PS for interconnection of solar project (M/s NHPC Ltd.)*
- > Implementation of 2 no. of 220 kV line bays at 400/220 kV Bikaner-II PS for interconnection of RE power park of M/s ALF Solar Amarsar Pvt. Ltd.*
- > Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-1) (Bikaner Complex) - Part-E*
- > Augmentation of transformation capacity at 400/220 kV Bikaner-II PS by 400/220 kV, 1X500 MVA ICT (3rd)*

Keeping above in view and based on details furnished by M/s BTSL, CTU in line with Section 15(4) of the Electricity Act, 2003 and Regulation 16 (1) (c) CERC (Procedure, Terms and Conditions for grant of Transmission License and other related matters) Regulations, 2024, recommends amendment of existing transmission license, granted to M/s PBTSL, to include subject transmission project."

29. In the present case, the Petitioner is a transmission licensee, who is already implementing the project defined under its scope under the RTM mechanism. The present Petition is consequent to the office order 28.10.2021 notified by the Ministry of Power Government of India wherein CTUIL has been authorized to determine the mode of implementation of ISTS projects costing up to Rs. 100 crores. Pursuant to the direction of the Ministry of Power, CTUIL, vide its Office Memorandums dated 26.10.2023 and 18.7.2024 and recommendation letter dated 7.11.2024, has determined a list of Projects to be implemented through a Regulated Tariff Mechanism, which also includes the subject transmission system under the instant Petition.

30. Since the Petitioner is already an inter-State transmission licensee and has already been granted an RTM transmission licence to implement the transmission projects

under RTM mode and again has been identified as an agency to implement the project under the RTM, we hold that the Petitioner is eligible for the amendment of the existing RTM transmission licence. We, hereby, direct that a public notice under clause (a) of sub-section (5) of Section 15 of the Act be published to invite suggestions or objections to the amendment of the existing RTM transmission licence aforesaid. The objections or suggestions, if any, shall be filed by any person before the Commission by **21.3.2025**.

31. It is noted that regarding the approval of the Central Government to the transmission schemes under the Transmission System Planning Rules, 2021 for the Projects costing up to Rs. 100 crores approved by the NCT/CTUIL as per the Ministry's Order dated 28.10.2021, the CTUIL has again approached the Ministry of Power in this regard. However, no clarification has been received so far. CTUIL is directed to place on record the response received from the Ministry of Power as and when it is received.

32. The Petition shall be listed for hearing on **25.3.2025**.

Sd/-
(Harish Dudani)
Member

sd/-
(Ramesh Babu V.)
Member

sd/-
(Jishnu Barua)
Chairperson

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 487/TL/2024

Coram:

Shri Jishnu Barua, Chairperson

Shri Ramesh Babu V., Member

Shri Harish Dudani, Member

Shri Ravinder Singh Dhillon, Member

Date of order: 27th March, 2025

In the matter of:

Petition under Section 14 of the Electricity Act, 2003 read with Central Electricity Regulatory Commission (Procedure, Terms and Conditions for Grant of Transmission Licence and other related matters) Regulations, 2024 for amendment of the existing RTM Transmission Licence to POWERGRID Bikaner Transmission System Limited to include transmission project "Implementation of Bus Sectionalizer at 400 kV level of 400/220 kV Bikaner-II PS" and "Augmentation of Transformation Capacity at 400/220 kV Bikaner-II PS in Rajasthan by 400/220 kV, 1×500 MVA ICT (9th)".

And

In the matter of

**POWERGRID Bikaner Transmission System Limited,
(A 100% wholly owned subsidiary of Power Grid Corporation of India Limited),**

Registered office:

B-9, Qutab Institutional Area,
Katwaria Sarai, New Delhi-110016.

Address for correspondence:

C/o ED (TBCB),
Power Grid Corporation of India Limited, Saudamini,
Plot No.2, Sector -29, Gurgaon-122001.

...Petitioner

Vs.

- 1. Uttar Pradesh Power Corporation Limited,
Shakti Bhawan, 14, Ashok Marg,
Lucknow-226001, Uttar Pradesh.**

2. **Ajmer Vidyut Vitran Nigam Limited,**
Corporate office, Vidyut Bhawan, Panchsheel Nagar,
Makarwali road, Ajmer-305004, Rajasthan.
3. **Jaipur Vidyut Vitran Nigam Limited,**
132 kV, GSS RVPNL Sub-station Building,
Caligiri Road, Malviya Nagar,
Jaipur-302017, Rajasthan.
4. **Jodhpur Vidyut Vitran Nigam Limited,**
New Power House, Industrial Area,
Jodhpur-342003, Rajasthan.
5. **Himachal Pradesh State Electricity Board Limited,**
Vidyut Bhawan, Kumar House Complex Building II,
Shimla-171004, Himachal Pradesh.
6. **Punjab State Power Corporation Limited,**
The Mall, PSEB head office,
Patiala-147001.
7. **Haryana Power Purchase Centre,**
Shakti Bhawan, Sector-6,
Panchkula-134109, Haryana.
8. **Jammu Kashmir Power Corporation Limited,**
220/66/33 kV Gladni SS SLDC buliding,
Narwal, Jammu.
9. **BSES Yamuna Power Limited,**
B-Block, Shakti Kiran, Bldg. (Near Karkardooma Courts),
Karkardoomam 2nd Floor, New Delhi-110092
10. **BSES Rajdhani Power Limited,**
BSES Bhawan,
Nehru Place, New Delhi-110019.
11. **Tata Power Delhi Distribution Limited,**
NDPL House, Hudson Lines,
Kingsway Camp, Delhi-110009.
12. **Chandigarh Administration,**
Sector-9, Chandigarh.
13. **Uttarakhand Power Corporation Limited,**
Urja Bhawan, Kanwali Road,
Dehradun, Uttarakhand.

14. **New Delhi Municipal Council,**
Palika Kendra, Sansad Marg,
New Delhi-110002.
15. **North Central Railway,**
Allahabad, Uttar Pradesh.
16. **Central Transmission Utility India Limited,**
Saudamini, Plot no.2, Sector -29,
Gurgaon-122001.
17. **Central Electricity Authority,**
Sewa Bhawan, R. K. Puram,
Sector-1, New Delhi - 110066.

...Respondents

Parties present:

Shri Prashant Kumar, PBTSL
Shri Ranjeet S. Rajput, CTUIL
Shri Swapnil Verma, CTUIL

ORDER

The Petitioner, POWERGRID Bikaner Transmission System Limited (hereinafter referred to as 'Petitioner'), has filed the present Petition under Sections 14 and 15 of the Electricity Act, 2003 (hereinafter referred to as 'the Act') read with the provisions of the Central Electricity Regulatory Commission (Procedure, Terms and Conditions for Grant of Transmission License and other related matters) Regulations, 2024 for amendment of the existing RTM Transmission Licence to POWERGRID Bikaner Transmission System Limited to include the "Implementation of Bus Sectionalizer at 400 kV level of 400/220 kV Bikaner-II PS" and "Augmentation of Transformation Capacity at 400/220 kV Bikaner-II PS in Rajasthan by 400/220 kV, 1*500 MV A ICT (9th)" (hereinafter referred to as the 'transmission scheme/project'). The scope of the project for which the existing RTM transmission licence is being amended is as under:

"Implementation of Bus Sectionalizer at 400kV level of 400/220kV Bikaner-II PS"

Sl. No.	Scope of the Transmission Scheme	Item Description	Implementation timeframe
1.	- One set of bus sectionalizer at 400kV level of 400/220kV Bikaner-II PS - One no. of 400kV tie bay (associated with 400/220kV ICT-4)	400 kV Bus sectionalizer– 1 no. 400kV tie bay– 1 no.	Matching with implementation of 400/220kV ICTs (4th to 7th) i.e., Dec'24
Total Estimated Cost:			Rs 28 crores

Augmentation of Transformation Capacity at 400/220 kV Bikaner-II PS in Rajasthan by 400/220 kV, 1*500 MVA ICT (9th)

Sl. No.	Scope of the Transmission Scheme	Item Description	Implementation timeframe
1.	Augmentation of Transformation Capacity at 400/220 kV Bikaner-II PS in Rajasthan by 400/220 kV, 1*500 MVA ICT (9th) along with associated transformer bays	500 MVA, 400/220 kV ICT– 1 no. 400kV ICT bay–1 no. 220 kV ICT bay- 1 no.	18 months from the date of issuance of OM by CTUIL i.e. 18.01.2026.
Total Estimated Cost:			Rs 54.60 crores

2. The Petitioner is an Inter-State transmission licensee and has implemented the “Transmission System Strengthening Scheme for Evacuation of Power from Solar Energy Zones in Rajasthan (8.1 GW) under Phase II-Part F” through the Tariff Based Competitive Bidding (hereinafter referred to as ‘TBCB Project’) mode. The Commission, vide its order dated 15.7.2021 in Petition No. 99/TL/2021, granted a transmission licence (TBCB Licence) to the Petitioner for the aforesaid BCB Project. Subsequently, the Commission, vide its order dated 21.11.2022 in Petition No. 137/TL/2022, granted a separate transmission licence to the Petitioner Company to implement the following Transmission Projects under the Regulated Tariff Mechanism (hereinafter referred to as ‘RTM’). The RTM transmission projects assigned to the Petitioner are as under:

- “Implementation of 220 kV bays for RE generators and 400/220kV ICTs at Bikaner-II PS”: Applicant was nominated vide CTUIL OM dated 16.11.2021.
- “Implementation of 1 no. of 400 kV line bay at 400/220 kV Bikaner-II PS for interconnection of 1000 MW Solar Project of SJVN Ltd.”: Applicant was nominated vide CTUIL OM dated 26.04.2022.
- “Implementation of 2 no. of 220 kV line bays at 400/220 kV Bikaner-II PS for interconnection of solar projects (ACME Solar Holdings Pvt. Ltd., Prerak Greentech Pvt. Ltd.)”: Applicant was nominated vide CTUIL OM dated 25.08.2022.

3. Further, the above transmission licence was amended by the Commission, vide its order dated 28.1.2024 in Petition 181/TL/2023, to incorporate the following transmission scheme:

“4.1. Implementation of 1 no. of 220 kV line bay at 400/220 kV Bikaner-II PS for interconnection of solar project (M/s NHPC Ltd.): Applicant was nominated vide CTUIL OM dated 28.11.2022

Sl no	Scope of the Transmission Scheme	Capacity/km	Implementation timeframe
1	1 no. of 220 kV line bay at 400/220 kV Bikaner-II PS for interconnection of RE project (NHPC Ltd.)	220 kV line bay – 1 no. (refer note a)	15 months from the issue of OM by CTUIL, i.e. 27.02.2024
2	Implementation of 220 kV bus sectionalizer along with bus coupler and transfer bus coupler at 400/220kV Bikaner-II PS	220kV bus sectionalizer bay - 1 Set 220 kV bus coupler bay -1 No. 220 kV transfer bus coupler bay - 1 No. Bus works for future bays (4 nos. of line bays & 3 nos. of ICT bays)	

Note:

- a) At 220 kV Bikaner-II, future line bays in Section-C are proposed to be allocated to RE developers with bays in developer’s scope (no. 230-231) and ISTS scope (no. 26-227). Accordingly, 220 kV bus works may also be suitably taken up under the above scope.

4.2. Implementation of 2 no. of 220 kV line bays at 400/220 kV Bikaner-II PS for interconnection of RE power park of M/s ALF Solar Amarsar Pvt. Ltd.: Applicant was nominated vide CTUIL OM dated 17.01.2023

Sl.No.	Scope of the Transmission Scheme	Capacity/km	Implementation timeframe
1.	2 no. of 220 kV line bays at 400/220 kV Bikaner-II PS for interconnection of RE power park of M/s ALF Solar Amarsar Pvt. Ltd.	220 kV line bay – 2 nos.	30.06.2024

4.3. Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-1) (Bikaner Complex) - Part-E. Applicant was nominated vide CTUIL OM dated 16.02.2023

Sl.No.	Scope of the Transmission Scheme	Capacity/km	Implementation timeframe
1.	Augmentation with 5X500 MVA, 400/220 kV ICTs at Bikaner-II PS	400/220 kV, 500 MVA ICT – 5 nos. 400 kV ICT bays – 5 nos. 220 kV ICT bays - 5 nos.	4x500MVA, 400/220kV ICTs: 31.12.2024 1x500MVA, 400/220kV ICT: 31.1.2025

** This inter-alia includes the cost of 02 other transmission assets being constructed by POWERGRID at Bikaner (PG) & Kotputli (PG) sub-stations.

4.4. Augmentation of transformation capacity at 400/220 kV Bikaner-II PS by 400/220 kV, 1X500 MVA ICT (3rd). Applicant was nominated vide CTUIL OM dated 08.06.2023

Sl.No.	Scope of the Transmission Scheme	Capacity/km	Implementation timeframe
1.	Augmentation of transformation capacity at 400/220 kV Bikaner-II PS by 400/220 kV, 1X500 MVA ICT (3rd) along with associated transformer bays* *1 no. of 400kV (AIS) (including associated tie bay) and 1 no. of 220 kV (AIS) transformer bay	500 MVA, 400/220 kV ICT – 1 no. 400 kV ICT bay (including associated tie bay) – 1 no. 220 kV ICT bays - 1 no	18 months from the issue of OM by CTUIL, i.e. 7.12.2024

4. Further, in addition to the above-mentioned scope, the Central Transmission Utility of India Limited (CTUIL), vide Office Memorandum dated 26.10.2023 and 18.7.2024, has

assigned the Transmission Projects “Implementation of Bus Sectionalizer at 400kV level of 400/220kV Bikaner-II PS” and “Augmentation of Transformation Capacity at 400/220 kV Bikaner-II PS in Rajasthan by 400/220 kV, 1*500 MVA ICT (9th)” under RTM mode while referring to the Ministry of Power office order dated 28.10.2021.

5. The Petitioner has submitted that upon amendment of the existing RTM transmission licence, the Petitioner shall implement the aforementioned scheme under RTM mode. The estimated completion cost of the transmission scheme, as per CTUIL's Office Memorandum (OMs) dated 26.10.2023 and 18.7.2024, is Rs. 28 crores and Rs. 54.60 crores, respectively. After completion of the transmission scheme, the Petitioner shall approach the Commission for the determination of the transmission charges in accordance with the Tariff Regulations.

6. The Commission, after considering the application of the Petitioner in light of the provisions of the Act and the Transmission Licence Regulations, vide its order dated 10.3.2025, prima facie proposed to amend the existing RTM transmission licence granted to the Petitioner to implement the transmission projects detailed in paragraph 1 of the order.

The relevant extract of the order dated 10.3.2025 is extracted as under:

18. It is noted that the CTUIL has not submitted the information called for vide RoP dated 11.2.2025 despite granting sufficient time. We express our strong displeasure at the conduct of the CTUIL for repeated non-compliance with our direction. We again direct the CTUIL to file the information called for vide ROP dated 11.2.2025 before the next date of the hearing.

“30. Since the Petitioner is already an inter-State transmission licensee and has already been granted an RTM transmission licence to implement the transmission projects under RTM mode and again has been identified as an agency to implement the project under the RTM, we hold that the Petitioner is eligible for the amendment of the existing RTM transmission licence. We, hereby, direct that a public notice under

*clause (a) of sub-section (5) of Section 15 of the Act be published to invite suggestions or objections to the amendment of the existing RTM transmission licence aforesaid. The objections or suggestions, if any, shall be filed by any person before the Commission by **21.3.2025.**”*

7. A public notice under sub-section (5) of Section 15 of the Act was published on 13.3.2025 in all editions of Times of India (English) and Hindustan (Hindi). No suggestions/objections have been received from members of the public in response to the public notice.

8. CTUIL, vide affidavit dated 7.3.2025, has submitted that during the 21st CMETS-NR meeting held on 31.07.2023, it was discussed that ‘TSP vide letter dated 27.06.2023 has informed that 400kV bus sectionalizer at Bikaner-II PS may be required after ICT-5 for taking up implementation of ICT-6th to 8th.’ It was also informed that in the absence of a 400kV bus sectionalizer, integration of the existing 400 kV section bus bar protection system & new bus bar protection system shall not be feasible. In view of the above, one set of sectionalizers at the 400kV level was agreed to be implemented under ISTS. The representative for the Petitioner during the hearing dated 11.02.2025 also submitted that in the absence of 400 kV bus sectionalizer bays, integration of the existing 400kV section bus bar protection system & new bus bar protection system shall not be feasible. To meet the above operational/protection requirements, a bus sectionalizer at 400/220kV Bikaner-II PS covered in the instant Petition shall be required.

9. We have considered the submissions of the CTUIL. As per the CTUIL, a 400kV bus sectionalizer at Bikaner-II PS is required after ICT-5 for taking up implementation of the ICT-6th to 8th and the same was discussed during the 21st CMETS-NR meeting held on 31.07.2023.

Hearing dated: 25.3.2025

10. During the course of the hearing, the representative of the Petitioner submitted that vide order dated 10.3.2025, the Commission has held that the Petitioner is eligible for the amendment of the existing RTM transmission licence and, consequently, directed to issue public notice under Section 15(5)(a) of the Electricity Act, 2003 inviting suggestion or objection to the amendment of a transmission licence of the Petitioner. However, in response thereof, no suggestion or objection has been received in response to the public notice.

11. We have noted the above submissions of the Petitioner and CTUIL and proceed to consider the application of the Petitioner for the amendment of the RTM transmission licence.

12. As regards the grant/amendment of a transmission licence, Clauses (13) and (14) of Regulation 5 of the Transmission Licence Regulations, 2024 provide as under:

“(13) The Commission may, after consideration of the further suggestions and objections, if any, received in response to the public notice in terms of Clause (12) of this Regulation, grant licence to the applicant in Form-III appended to these regulations or for reasons to be recorded in writing, reject the application.

(14) The Commission shall before granting licence or rejecting the application under the provisions of this Regulation provide an opportunity of hearing to the applicant, CTUIL, the concerned DICs, or the person who has filed suggestions and objections, or any other interested person.”

13. In our order dated 10.3.2025, we had proposed to amend the existing RTM transmission licence to the Petitioner company and directed for the issuance of public notice. In response to the public notice, no suggestions/ objections have been received. CTUIL,, vide its letter dated 7.11.2024, has recommended the amendment to the existing RTM

transmission licence of the Petitioner. Considering the submissions of the Petitioner and CTUIL, we direct that the existing RTM transmission licence granted to POWERGRID Bikaner Transmission System Limited be amended to establish the transmission scheme through the RTM route as per the details given in paragraph 1 above.

14. The grant/amendment of the transmission licence to the Petitioner (hereinafter referred to as “the licensee”) is subject to the fulfilment of the following conditions throughout the period of licence:

- (a) The transmission licence shall, unless revoked earlier, remain in force for a period of 25 years from the date of issue;
- (b) The transmission licensee shall comply with the provisions of the Transmission Licence Regulations or any subsequent enactment thereof during the period of subsistence of the licence;
- (c) The licensee may make an application, two years before the expiry of the initial licence period, for the grant of the transmission licence for another term in accordance with Regulation 9 (2) of the Transmission Licence Regulations, which shall be considered by the Commission in accordance with law;
- (d) The licensee shall not enter into any contract for or otherwise engage in the business of trading in electricity during the period of subsistence of the transmission licence;
- (e) The licensee shall have the liability to pay the license fee in accordance with the provisions of the Central Electricity Regulatory Commission (Payment of Fees)

Regulations, 2012, as amended from time to time or any subsequent enactment thereof. Delay in payment or non-payment of licence fee or a part thereof for a period exceeding sixty days shall be construed as a breach of the terms and conditions of the licence;

- (f) The licensee shall comply with the directions of the National Load Despatch Centre under Section 26 of the Act, or the Regional Load Despatch Centre under sub-section (3) of Section 28 or sub-section (1) of Section 29 of the Act, as may be issued from time to time for maintaining the availability of the transmission system;
- (g) The licensee shall remain bound by the provisions of the Central Electricity Regulatory Commission (Standard of Performance of inter-State transmission licensees) Regulations, 2012 or subsequent enactment thereof;
- (h) The licensee shall provide the non-discriminatory open access to its Transmission System for use by any other licensee, including a distribution licensee or an electricity trader, or generating company or any other person in accordance with the Act; the Central Electricity Regulatory Commission (Open Access in inter-State Transmission) Regulations, 2008; the Central Electricity Regulatory Commission (Connectivity and General Network Access to the inter-State Transmission System) Regulations, 2023; the Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2023, as amended from time to time or any subsequent re-enactments thereof;
- (i) The licensee shall not undertake any other business for optimum utilization of the

transmission system without prior intimation to the Commission and shall comply with the provisions of the Central Electricity Regulatory Commission (Sharing of Revenue Derived from Utilization of Transmission Assets for other business) Regulations, 2020;

(j) The licensee shall remain bound by provisions of the Central Electricity Regulatory Commission (Sharing of inter-State Transmission Charges and Losses) Regulations, 2020 as amended from time to time;

(k) The licensee shall remain bound by the provisions of the Act, the Rules and Regulations framed thereunder, in particular the 2024 Transmission Licence Regulations, the Grid Code, the Standards specified by the Central Electricity Authority, orders and directions of the Commission issued from time to time;

(l) The licensee shall ensure the execution of the Project as per the Technical Standards and Grid Standards of the CEA;

(m) The licensee shall submit all such report or information as may be required under 2024 Transmission Licence Regulations, Standard of Performance Regulations or any other regulation of the Commission or as per the directions of the Commission as may be issued from time to time;

(n) The licensee shall ensure that the EPC contract for the execution of work under the scope of the project is awarded through a competitive bidding process.

15. CTUIL and the Central Electricity Authority shall monitor the execution of the Project

and bring to the Commission's notice any lapse on the part of the licensee in meeting the schedule for further appropriate action in accordance with the provisions of the Act and the Transmission Licence Regulations.

16. It is noted that the CTUIL, vide its letter dated 10.1.2025, has requested the Ministry of Power to clarify the requirement of approval of the Central Government to transmission schemes under the Transmission System Planning Rules, 2021 for Projects costing up to Rs. 100 crores approved by CTUIL as per the Ministry's Order dated 28.10.2021. However, no clarification has been received so far. CTUIL is directed to place on record the response received from the Ministry of Power as and when it is received. Meanwhile, we grant the transmission licence to the Petitioner Company so that the construction work of the transmission line may not be delayed.

17. An extract of a copy of this order shall be sent to the Central Government in the Ministry of Power and the Central Electricity Authority in terms of sub-section (7) of Section 15 of the Electricity Act, 2003, for their information and record.

18. Petition No. 487/TL/2024 is allowed in terms of the above.

Sd/-
(Ravinder Singh Dhillon)
Member

sd/-
(Harish Dudani)
Member

sd/-
(Ramesh Babu V.)
Member

sd/-
(Jishnu Barua)
Chairperson

**KANCHAN
KUMAR
CHOUDHARY**
Digitally signed
by KANCHAN
KUMAR
CHOUDHARY
Date: 2026.04.22
17:23:12 +05'30'

I/6925/2019

Annexure-2



भारत सरकार

Government of India

विद्युत मंत्रालय

Ministry of Power

केन्द्रीय विद्युत प्राधिकरण

Central Electricity Authority

विद्युत प्रणाली योजना एवं मूल्यांकन - I प्रभाग

Power System Planning & Appraisal - I Division

To

-As per list enclosed-

Subject: 5th meeting of Northern Region Standing Committee on Transmission (NRSCT) – Minutes of Meeting

Sir/ Madam,

The 5th meeting of Northern Region Standing Committee on Transmission was held on 13th September, 2019 at Katwaria Sarai, New Delhi. Minutes of the meeting are available on CEA website: www.cea.nic.in (path to access – Home Page – Wing - Power System-PSPA-I-Standing Committee on Power System Planning- Northern Region).

Yours faithfully,

(Goutam Roy)
Chief Engineer

I/6925/2019

1.	Chairperson, CEA, Sewa Bhawan, RK Puram Sector-1, New Delhi-11006	2.	Member, Secretary, NRPC, 18-A Shajeed Jeet Singh Sansanwal Marg, Katwaria Sarai, New Delhi - 110016 (Fax-011-26865206)	3.	Director (Projects) PTCUL, Vidhyut Bhawan, Near ISBT -Crossing, Saharanpur Road, Majra, Dehradun-248002. Uttarakhand Fax-0135-2645744
4.	Director (Technical), Punjab State Transmission Corporation Ltd. (PSTCL) Head Office The Mall Patiala -147001 Fax-0175-2304017	5.	Member (Power) BBMB, Sectot-19 B Madhya Marg, Chandigarh-1 60019 (Fax-01 72-2549857)	6.	Director (Operation) Delhi Transco Ltd. Shakti Sadan, Kotla Marg, New Delhi-110002 (Fax-01123234640)
7.	Director (PP&D) RVPN, 3 rd Floor, Room no 330, Vidhyut Bhawan, Janpath, Jaipur-302005. Fax:-0141-2740794 ce.ppm@rvpn.co.in	8.	Director (Technical) HVPNL Shakti Bhawan, Sector-6 Panchkula-134109 Fax-0172-256060640	9.	Director (Technical) HPSEB Ltd. Vidut Bhawan, Shimla -171004 Fax-0177-2813554
10.	Managing Director, HPPTCL, Barowalias, Khalini Shimla-171002 Fax-0177-2623415	11.	Chief Engineer (Operation) Ministry of Power, UT Secretariat, Sector-9 D Chandigarh -161009 Fax-0172-2637880	12.	Development Commissioner (Power), Power Department, Grid Substation Complex, Janipur, Jammu, Fax: 191-2534284
13.	Director (Projects) POWERGRID Saudamini Plot no. 2, Sector - 29. Gurgaon-122 001 (Fax-0124-2571809)	14.	CEO, POSOCO B-9, Qutab Institutional Area, Katwaria Sarai New Delhi – 110010 (Fax:2682747)	15.	COO (CTU) POWERGRID, Saudamini, Plot no. 2, Sector -29, Gurgaon-122 001 (Fax-0124-2571809)
16.	Director (W &P) UPPTCL, Shakti Bhawan Extn,3 rd floor, 14, Ashok Marg, Lucknow - 226 001 (Fax:0522-2287822)				

I/6925/2019

Minutes of 5th Meeting of Northern Region Standing Committee on Transmission (NRSCT) held on 13.09.2019

List of participants is enclosed as Annexure –I.

1.0 Confirmation of the Minutes of the 4th meeting of Northern Region Standing Committee on Transmission held on 25.07.2019.

1.1 CEA stated that 4th meeting of Northern Region Standing Committee on Transmission (NRSCT) was held on 25.07.2019 and the minutes of the meeting were issued vide CEA letter no. CEA-PS-11-21(19)/2/2019-PSPA-I Division dated 9.8.2019.

1.2 CEA further stated that, POSOCO vide its letter NLDC/SO/NRSCT/RE/126 dated 27.8.2019 has forwarded their observations on the Agenda item no 3 of the minutes of the meeting, wherein POSOCO has made few suggestions in context of transmission planning studies of RE, which they indicated has not been incorporated in the minutes. The suggestions made by POSOCO are as under:

- a) *In the planning study case, thermal generation in some of the cheaper pit head plants like Talcher, Sipat, Rihand, Vindhyachal etc. is reduced significantly in the study case while keeping generation at load centre plants like Talwandi Saboo and Dadri TPS on the higher side. Merit order dispatch and PLF may be taken in consideration while reducing the thermal generation in the study cases so as to get a better idea of the probable inter –regional flows and fault levels in 2022 scenario.*
- b) *The LGBR taken in the study case is stated to be of 2022 monsoon daytime period but same is not matching with the typical monsoon period LGBR.
For e.g., high hydro generation is usually observed in the monsoon period but same is found to be very less in the study case. Further, HVDC APD-BNC-AGRA flow has been taken as 1,000 MW only while same is usually more than 2,000 MW in the high hydro season.*
- c) *Network behaviour under low RE and other generation scenarios needs to be studied and the results may be shared with all stakeholders.
POSOCO representative also stressed on the need to carry out studies on the all India snapshot with high RE generation in Northern, Western and Southern Region simultaneously (a likely scenario) in order to assess the need for strengthening in other parts of the network and minimize congestion and RE curtailment in future."*

1.3 CEA stated that the observations made by POSOCO were related to the studies carried out for transmission system for must run RE generations under Phase-II and as such no reduction in the RE generation have been considered.

1.4 CTU stated that under point 7.3 of the minutes, implementation of the 2 no of 400 kV bays(GIS) at 765/400 kV Varanasi (PGCIL-GIS) substation for Jaunpur-Varanasi (PGCIL) 400 kV D/c line under ISTS with the implementation schedule of January 2021 was agreed. However, the implementation of the GIS bays won't be feasible in the given time schedule. Therefore, CTU is exploring the option of hybrid bays. If feasible, CTU would implement hybrid bays which can be installed in open space that in turn would save the time required for extension of GIS building in case of GIS bays. Members agreed for the same.

1.5 RVPNL stated that following is mentioned under point no. 3.9 of the minutes:

I/6925/2019

“3.9 HVPNL suggested that even though the alternative involving VSC based HVDC system was costly, but has many advantages over AC systems for RE integration. Therefore, Govt of India may be approached for some financial support to the extent of cost difference between AC and DC option.” RVPNL further stated that not only HVPNL, but all the constituents were having the same opinion.

Accordingly, para no 3.9 is modified as below:

“3.9 All the constituents of NRSCT were of the view that even though the alternative involving VSC based HVDC system was costly, but has many advantages over AC systems for RE integration. Therefore, Govt of India may be approached for some financial support to the extent of cost difference between AC and DC option.”

- 1.6 Chief Engineer PSPA-1 stated that the present meeting has been convened to discuss the option of AC alternative over DC alternative as HVDC alternative is costly and also cannot be implemented within the timeframe of Phase II system i.e. March 2022, therefore, except the transmission system for SEZ in Rajasthan (8.1 GW under Phase II), all other items discussed and agreed in last Meeting can be approved.
- 1.7 The minutes of 4th meeting of NRSCT along with the modifications mentioned at 1.4 and 1.5 above were confirmed by the constituents.

2.0 Transmission System Strengthening for potential solar energy zones –Phase -II in Northern Region.

- 2.1 CEA stated that transmission system strengthening for solar potential of 8.1 GW (**Ramgarh/Kuchheri (1.9 GW), Bikaner (2.95 GW), Bhadla (1.05GW) & Fatehgarh (2.2GW)**) was discussed in the 4th meeting of NRSCT held on 25.7.2019, wherein two alternatives were proposed; Alternative 1: with EHVAC system, Alternative 2: with EHVAC and VSC based HVDC system, wherein most of the constituents agreed for alternative 2 as that steady state and dynamic reactive power support is required for the AC transmission system due to integration of large quantum of Renewable Energy and VSC based HVDC system can provide reactive power support just like STATCOM and may also take care of the dynamic reactive power support for renewable integration. Also, the uncertainty of adequate short circuit level due to intermittent & variable nature of Renewable Energy can also be addressed by VSC based HVDC in comparison to LCC based HVDC.

2.2 Based on the deliberations in the meeting, following Transmission schemes were agreed for Solar Energy Zones (SEZs) in Rajasthan (8.1 GW) under Phase-II

A. EHVAC Portion

- i) Establishment of 400/220kV, 4x500 MVA pooling station at suitable location near Ramgarh/Kuchheri in Distt Jaisalmer (Ramgarh-II PS)
- ii) Establishment of 400/220kV, 6x500MVA pooling station at suitable location near Bikaner (Bikaner-II PS) with suitable bus sectionalisation at 400 and 220 kV level.
- iii) Establishment of 765/400kV, 3x1500MVA substation at suitable location in Narela (near delhi)
- iv) Augmentation with 765/400kV, 2x1500MVA transformer (5th & 6th) at Fatehgarh-II PS.
- v) Augmentation with 400/220kV, 4x500MVA transformer at Fatehgarh-II PS with suitable bus sectionalisation at 400 and 220 kV level

I/6925/2019

- vi) Augmentation with 400/220kV, 3x500MVA transformer at Bhadla-II PS with suitable bus sectionalisation at 400 and 220 kV level.
 - vii) Augmentation with 765/400kV, 1x1500MVA (3rd) transformer at Bikaner(PG)
 - viii) Ramgarh-II PS –Fatehgarh-II PS 400 kV D/c Line (Twin HTLS^{\$})
 - ix) Ramgarh-II PS – Jaisalmer-II (RVPN) 400 kV D/c Line (Twin HTLS^{\$})
 - x) Fatehgarh-II PS – Bhadla-II PS 765kV D/c line (2nd)
 - xi) Bikaner-II PS – Khetri 400kV 2xD/c line (*Twin HTLS^{\$} line on M/c tower*)
 - xii) Khetri - Bhiwadi 400kV D/c line (Twin HTLS^{\$})**
 - xiii) Removal of LILO of one circuit of Bhadla-Bikaner(RVPN) 400kV D/c(Quad) line at Bikaner(PG). Extension of above LILO section from Bikaner(PG) upto Bikaner-II PS to form Bikaner-II PS – Bikaner (PG) 400kV D/c(Quad) line
 - xiv) Khetri - Narela 765kV D/c line
 - xv) LILO of 765kV Meerut – Bhiwani S/c line at Narela S/s
 - xvi) Removal of LILO of Bawana – Mandola 400kV D/c(Quad) line at Maharani Bagh/Gopalpur S/s. Extension of above LILO section from Maharani Bagh/Gopalpur upto Narela S/s so as to form Maharani Bagh – Narela 400kV D/c(Quad) and Maharani Bagh -Gopalpur-Narela 400kV D/c(Quad) lines.
 - xvii) LILO of both circuits of Bawana – Mandola 400kV D/c(Quad) line at Narela S/s
 - xviii) Power reversal on ± 500 kV, 2500MW Balia – Bhiwadi HVDC line upto 2000MW from Bhiwadi to Balia
 - xix) 220kV line bays for interconnection of solar projects at Bikaner-II PS (10 nos.), Ramgarh-II PS (7 nos), Fatehgarh-II PS (8 nos) & Bhadla-II PS (4 nos)
 - xx) 1x125 MVar (420kV), 2x240 MVar (765kV) Bus Reactor at Narela Substation
 - xxi) 2x125 MVar (420kV) Bus Reactor each at Bikaner-II & Ramgarh-II PS
 - xxii) 1x240 MVar Switchable line reactor for each circuit at each end of Fatehgarh-II – Bhadla-II 765kV D/c line (2nd)
 - xxiii) 1x80 MVar Switchable line reactor for each circuit at each end of Bikaner-II – Khetri 400kV 2xD/c line
 - xxiv) 1x240 MVar Switchable line reactor for each circuit at each end of Khetri – Narela 765kV D/c line
- ** Due to space constraints 400kV bays at Bhiwadi S/s to be implemented as GIS \$ with minimum capacity of 2200 MVA on each circuit at nominal voltage**

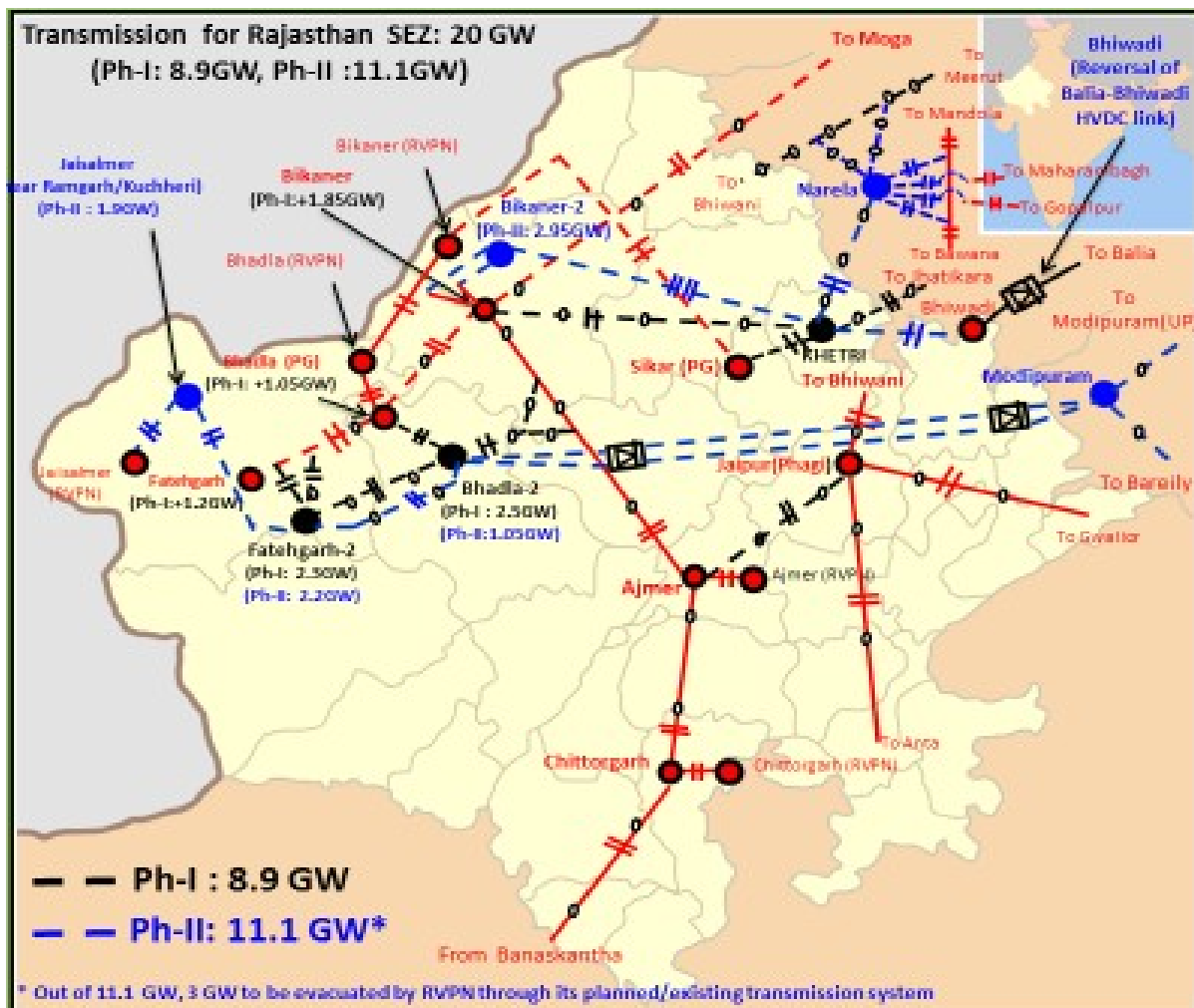
B. HVDC Portion

- 1) VSC based HVDC system between Bhadla-II PS and suitable location near Modipuram
 - i) ± 400 kV, 5000 MW HVDC terminal at Pooling point near Bhadla-II PS
 - ii) ± 400 kV, 5000 MW HVDC terminal at Pooling point in suitable location near Modipuram
 - iii) ± 400 kV HVDC line (Quad) between Bhadla-II PS and suitable location near Modipuram (on M/c tower)

AC interconnection at Pooling point in suitable location near Modipuram

- 2) 5x1500MVA transformer at suitable location (near modipuram)

I/6925/2019



- 2.3 CEA further stated that the detailed cost worked out for Alternative 2 (with EHVAC and VSC based HVDC system) were of the order of 17000 Crore. It was also observed that the Phase II system of Northern Region would be required in the time frame of 2021-22, as most of the generations are likely to be added in the same time frame, therefore, it would be difficult to implement VSC based HVDC transmission system in the desired timeframe.
- 2.4 SECI stated that more developers are coming in Rajasthan in comparison to other states, therefore, the transmission system would be required by Dec2021.
- 2.5 CEA stated that considering the high cost of the HVDC system and difficulty in implementation of the VSC based HVDC transmission system by 21-22, it was decided to review the transmission system agreed in the 4th NRSCT for evacuation of power from solar potential of 8.1 GW (Ramgarh/Kuchheri (1.9 GW), Bikaner (2.95 GW), Bhadla (1.05GW) & Fatehgarh (2.2GW)).
- 2.6 Load flow studies had been carried out and 3 different options were worked out with HVAC system. It has also been found that dynamic reactive power support would be required for such a huge RE additions in Northern Regions. Therefore, provision of STATCOM has also been considered in the various alternatives proposed for transmission system under Phase-II. Further, LILO of Bawana – Mandola 400kV D/c(Quad) at Narela 765/400kV S/s was part of the system agreed earlier in 4th NRSCT meeting. However, due to high fault levels in Delhi Ring, especially at Bawana & Narela the same has been removed. The 3 alternatives are :

I/6925/2019

Alternative -1 (Modipuram)

1. Establishment of 400/220kV, 4x500 MVA pooling station at suitable location near Ramgarh/Kuchheri in Distt Jaisalmer (Ramgarh-II PS) with 2x125 MVAR bus reactor.
2. Ramgarh-II PS –Fatehgarh-II PS 400 kV D/c Line (Twin HTLS).
3. Ramgarh-II PS – Jaisalmer-II (RVPN) 400 kV D/c Line (Twin HTLS)
4. Establishment of 400/220kV, 6x500MVA pooling station at suitable location near Bikaner (Bikaner-II PS) with 2x125 MVAR bus reactor
5. Bikaner-II PS – Khetri 400kV 2xD/c line (Twin HTLS line on M/c tower)
6. Removal of LILO of one circuit of Bhadla-Bikaner(RVPN) 400kV D/c(Quad) line at Bikaner(PG). Extension of above LILO section from Bikaner(PG) upto Bikaner-II PS to form Bikaner-II PS – Bikaner (PG) 400kV D/c(Quad) line)
7. 1x80 MVAR Switchable line reactor for each circuit at each end of Bikaner-II – Khetri 400kV 2xD/c line
8. Establishment of 765/400kV, 2x1500 MVA S/s at suitable location near Sikar (Sikar-II Substation) with 1x125 MVAR & 2x330 MVAR bus reactor at Sikar-II
9. Sikar-II – Modipuram 765kV D/c line
10. Bhadla-II PS – Sikar-II 765kV 2xD/c line
11. Sikar-II – Neemrana 400kV D/c line (Twin HTLS)*
12. 1x330 MVAR Switchable line reactor for each circuit at Sikar end of Bhadla-II – Sikar-II 765kV 2xD/c line
13. 1x240 MVAR Switchable line reactor for each circuit at Bhadla-II end of Bhadla-II – Sikar-II 765kV 2xD/c line
14. 1x330MVAR Switchable line reactor for each circuit at each end of Sikar-II – Modipuram 765kV D/c line
15. Augmentation with 765/400kV, 2x1500MVA transformer (5th & 6th) at Fatehgarh-II PS
16. Fatehgarh-II PS – Bhadla-II PS 765kV D/c line (2nd)
17. 1x240 MVAR Switchable line reactor for each circuit at each end of Fatehgarh-II – Bhadla-II 765kV D/c line
18. Augmentation with 400/220kV, 4x500MVA transformer at Fatehgarh-II PS
19. Augmentation with 765/400kV, 1x1500MVA transformer (4th) at Bhadla-II PS
20. 1x240 MVAR Switchable line reactor for each circuit at Bhadla-II end of Bhadla-II – Sikar-II 765kV D/c line
21. Augmentation with 400/220kV, 3x500MVA transformer at Bhadla-II PS
22. Khetri - Bhiwadi 400kV D/c line (Twin HTLS)*
23. Power reversal on ± 500 kV, 2500MW Balia – Bhiwadi HVDC line upto 2000MW from Bhiwadi to Balia
24. 220kV line bays for interconnection of solar projects at Bikaner-II PS (10 nos.), Ramgarh-II PS (7 nos), Fatehgarh-II PS (7 nos) & Bhadla-II PS (4 nos)
25. Establishment of 765/400 kV, 3X1500 MVA substation at Narela with 765 kV (2x330 MVAR) bus reactor and 400kV (1x125 MVAR) bus reactor.
26. Khetri – Narela 765 kV D/c line
27. 2 nos. of 765 kV line bays at Khetri for Khetri – Narela 765 kV D/c line.
28. 1x330 MVAR Switchable line reactor for each circuit at Narela end of Khetri – Narela 765kV D/c line

I/6925/2019

29. LILO of 765 kV Meerut- Bhiwani S/c line at Narela
30. Removal of LILO of Bawana – Mandola 400kV D/c(Quad) line at Maharani Bagh/ Gopalpur S/s. Extension of above LILO section from Maharani Bagh/Gopalpur upto Narela S/s so as to form Maharani Bagh – Narela 400kV D/c(Quad) and Maharani Bagh -Gopalpur-Narela 400kV D/c(Quad) lines.
31. STATCOM:
 Fatehgarh – II S/s : STATCOM : ± 600 MVar, 4x125 MVAR MSC , 2x125 MVar MSR
 Bhadla – II S/s : STATCOM : ± 600 MVar, 4x125 MVAR MSC , 2x125 MVar MSR
 Bikaner – II S/s : STATCOM : ± 300 MVar, 2x125 MVAR MSC , 1x125 MVar MSR

* with minimum capacity of 2200 MVA on each circuit at nominal voltage

Estimated Cost: 12770 Cr.

Alternative -2 (Kadarpur)

1. Establishment of 400/220kV, 4x500 MVA pooling station at suitable location near Ramgarh/Kuchheri in Distt Jaisalmer (Ramgarh-II PS) with 2x125 MVar bus reactor.
2. Ramgarh-II PS –Fatehgarh-II PS 400 kV D/c Line (Twin HTLS)
3. Ramgarh-II PS – Jaisalmer-II (RVPN) 400 kV D/c Line (Twin HTLS)
4. Establishment of 400/220kV, 6x500MVA pooling station at suitable location near Bikaner (Bikaner-II PS) with 2x125 MVar bus reactor
5. Bikaner-II PS – Khetri 400kV 2xD/c line (Twin HTLS line on M/c tower)
6. Removal of LILO of one circuit of Bhadla-Bikaner(RVPN) 400kV D/c(Quad) line at Bikaner(PG). Extension of above LILO section from Bikaner(PG) upto Bikaner-II PS to form Bikaner-II PS – Bikaner (PG) 400kV D/c(Quad) line.
7. 1x80 MVar Switchable line reactor for each circuit at each end of Bikaner-II – Khetri 400kV 2xD/c line.
8. Establishment of 765/400kV, 2x1500 MVA S/s at suitable location near Sikar (Sikar-II Substation) with 1x125, MVar & 2x240 MVar bus reactor at Sikar (II)
9. Sikar-II – Kadarpur-II 765kV D/c line
10. Bhadla-II PS – Sikar-II 765kV 2xD/c line
11. Sikar-II – Neemrana 400kV D/c line (Twin HTLS).
12. 1x330 MVar Switchable line reactor for each circuit at Sikar end of Bhadla-II – Sikar-II 765kV 2xD/c line
13. 1x240 MVar Switchable line reactor for each circuit at Bhadla-II end of Bhadla-II – Sikar-II 765kV 2xD/c line.
14. 1x330MVar Switchable line reactor for each circuit at each end of Sikar-II – Kadarpur-II 765kV D/c line.
15. Establishment of 765/400kV, 2x1500MVA substation at suitable location near Kadarpur (Kadarpur-II substation) with 1x125 MVar & 2x330 MVar bus reactor at Kadarpur-(II)
16. LILO of 765kV Jhatikara – Agra S/c line at Kadarpur-II
17. Kadarpur-II – Bareilly 765kV D/c line.
18. Kadarpur-II – Prithala 400kV D/c line (Twin HTLS)*
19. 1x330MVar Switchable line reactor for each circuit at Kadarpur-II end of Kadarpur-II – Bareilly 765kV D/c line

I/6925/2019

20. 1x240 MVar Switchable line reactor for each circuit at Bareilly end of Kadarpur-II – Bareilly 765kV D/c line
21. Augmentation with 765/400kV, 2x1500MVA transformer (5th & 6th) at Fatehgarh-II PS
22. Fatehgarh-II PS – Bhadla-II PS 765kV D/c line(2nd)
23. 1x240 MVar Switchable line reactor for each circuit at each end of Fatehgarh-II – Bhadla-II 765kV D/c line
24. Augmentation with 400/220kV, 4x500MVA transformer at Fatehgarh-II PS
25. Augmentation with 765/400kV, 1x1500MVA transformer (4th) at Bhadla-II PS
26. 1x240 MVar Switchable line reactor for each circuit at Bhadla-II end of Bhadla-II – Sikar-II 765kV D/c line
27. Augmentation with 400/220kV, 3x500MVA transformer at Bhadla-II PS
28. Khetri - Bhiwadi 400kV D/c line (Twin HTLS)
29. Power reversal on ± 500 kV, 2500MW Balia – Bhiwadi HVDC line upto 2000MW from Bhiwadi to Balia
30. Establishment of 765/400 kV, 3X1500 MVA substation at Narela with 765 kV (2x330 MVar) bus reactor and 400 kV (1x125 MVar) bus reactor
31. Khetri – Narela 765 kV D/c line
32. 2 nos. of 765 kV line bays at Khetri for Khetri – Narela 765 kV D/c line.
33. 1x330 MVar Switchable line reactor for each circuit at Narela end of Khetri – Narela 765kV D/c line
34. LILO of 765 kV Meerut- Bhiwani S/c line at Narela
35. Removal of LILO of Bawana – Mandola 400kV D/c(Quad) line at Maharani Bagh/ Gopalpur S/s. Extension of above LILO section from Maharani Bagh/Gopalpur upto Narela S/s so as to form Maharani Bagh – Narela 400kV D/c(Quad) and Maharani Bagh -Gopalpur-Narela 400kV D/c(Quad) lines.
36. 220kV line bays for interconnection of solar projects at Bikaner-II PS (10 nos.), Ramgarh-II PS (7 nos), Fatehgarh-II PS (7 nos) & Bhadla-II PS (4 nos)
37. STATCOM:
 Fatehgarh – II S/s : STATCOM : ± 600 MVar, 4x125 MVar MSC , 2x125 MVar MSR
 Bhadla – II S/s : STATCOM : ± 600 MVar, 4x125 MVar MSC , 2x125 MVar MSR
 Bikaner – II S/s : STATCOM : ± 300 MVar, 2x125 MVar MSC , 1x125 MVar MSR

** with minimum capacity of 2200 MVA on each circuit at nominal voltage*

Estimated Cost: 13660 Cr.

Alternative -3 (Aligarh)

1. Establishment of 400/220kV, 4x500 MVA pooling station at suitable location near Ramgarh/Kuchheri in Distt Jaisalmer (Ramgarh-II PS) with 2x125 MVar bus reactor.
2. Ramgarh-II PS –Fatehgarh-II PS 400 kV D/c Line (Twin HTLS).
3. Ramgarh-II PS – Jaisalmer-II (RVPN) 400 kV D/c Line (Twin HTLS)
4. Establishment of 400/220kV, 6x500MVA pooling station at suitable location near Bikaner (Bikaner-II PS)) with 2x125 MVar bus reactor
5. Bikaner-II PS – Khetri 400kV 2xD/c line (Twin HTLS line on M/c tower)
6. Removal of LILO of one circuit of Bhadla-Bikaner(RVPN) 400kV D/c(Quad) line at Bikaner(PG). Extension of above LILO section from Bikaner(PG) upto Bikaner-II PS to form Bikaner-II PS – Bikaner (PG) 400kV D/c(Quad) line)

I/6925/2019

7. 1x80 MVA Switchable line reactor for each circuit at each end of Bikaner-II – Khetri 400kV 2xD/c line
8. Establishment of 765/400kV, 2x1500 MVA S/s at suitable location near Sikar (Sikar-II Substation) with 1x125 MVA & 2x330 MVA bus reactor at Sikar (II)
9. Sikar-II – Aligarh 765kV D/c line
10. Bhadla-II PS – Sikar-II 765kV 2xD/c line
11. Sikar-II – Neemrana 400kV D/c line (Twin HTLS)*
12. 1x330 MVA Switchable line reactor for each circuit at Sikar end of Bhadla-II – Sikar-II 765kV 2xD/c line
13. 1x240 MVA Switchable line reactor for each circuit at Bhadla-II end of Bhadla-II – Sikar-II 765kV 2xD/c line
14. 1x330MVA Switchable line reactor for each circuit at each end of Sikar-II –Aligarh 765kV D/c line
15. Augmentation with 765/400kV, 2x1500MVA transformer (5th & 6th) at Fatehgarh-II PS
16. Fatehgarh-II PS – Bhadla-II PS 765kV D/c line (2nd)
17. 1x240 MVA Switchable line reactor for each circuit at each end of Fatehgarh-II – Bhadla-II 765kV D/c line
18. Augmentation with 400/220kV, 4x500MVA transformer at Fatehgarh-II PS
19. Augmentation with 765/400kV, 1x1500MVA transformer (4th) at Bhadla-II PS
20. 1x240 MVA Switchable line reactor for each circuit at Bhadla-II end of Bhadla-II – Sikar-II 765kV 2xD/c line
21. Augmentation with 400/220kV, 3x500MVA transformer at Bhadla-II PS
22. Khetri - Bhiwadi 400kV D/c line (Twin HTLS)
23. Power reversal on ± 500 kV, 2500MW Balia – Bhiwadi HVDC line upto 2000MW from Bhiwadi to Balia
24. 220kV line bays for interconnection of solar projects at Bikaner-II PS (10 nos.), Ramgarh-II PS (7 nos), Fatehgarh-II PS (7 nos) & Bhadla-II PS (4 nos)
25. Establishment of 765/400 kV, 3X1500 MVA substation at Narela with 765 kV (2x330 MVA) bus reactor and 400kV (1x125 MVAR) bus reactor.
26. Khetri – Narela 765 kV D/c line
27. 2 nos. of 765 kV line bays at Khetri for Khetri – Narela 765 kV D/c line.
28. 1x330 MVA Switchable line reactor for each circuit at Narela end of Khetri – Narela 765kV D/c line
29. LILO of 765 kV Meerut- Bhiwani S/c line at Narela
30. Removal of LILO of Bawana – Mandola 400kV D/c(Quad) line at Maharani Bagh/ Gopalpur S/s. Extension of above LILO section from Maharani Bagh/Gopalpur upto Narela S/s so as to form Maharani Bagh – Narela 400kV D/c(Quad) and Maharani Bagh -Gopalpur-Narela 400kV D/c(Quad) lines.
31. STATCOM:
 Fatehgarh – II S/s : STATCOM : ± 600 MVA, 4x125 MVAR MSC , 2x125 MVA MSR
 Bhadla – II S/s : STATCOM : ± 600 MVA, 4x125 MVAR MSC , 2x125 MVA MSR
 Bikaner – II S/s : STATCOM : ± 300 MVA, 2x125 MVAR MSC , 1x125 MVA MSR

* with minimum capacity of 2200 MVA on each circuit at nominal voltage

Estimated Cost: 12442 Cr.

I/6925/2019

- 2.7 RVPN stated that though costly, VSC based HVDC system can provide reactive power support and may take care of the dynamic reactive power support for renewable integration. The grid stability is also enhanced on account of active and reactive modulations. RVPN also stated that with HVDC transmission system, the power flows can be controlled, however, in case of AC alternatives, more RE power is likely to flow into intra state system of Rajasthan due to inter-connection of intra-State with inter-State network and it would result in increase their POC charges. RVPNL also raised the concern about high voltages in their intra-state grid during the no solar scenario.
- RNPN also suggested that in reference to proposed HVDC system, it is suggested that uni – directional HVDC may be considered instead bidirectional HVDC system, as there are no load Centre in and around Jaisalmer / Bhadla, so power flow from Modipuram (UP) may not be required. RVPN has already a strong existing inter-state EHV AC transmission lines in Northern Rajasthan. This arrangement would reduce the cost terminal stations at both Bhadla and Modipuram.
- 2.8 PSTCL stated that with such a huge injection of RE power in the State grids, CTU should also work out the requirement of system strengthening as well as provision of reactors under Intra-State.
- 2.9 CTU stated that with the above interconnections, no overloading has been observed in the State's network. Also, adequate reactive power support has also been worked out with the proposed scheme. Regarding, suggestion made by RVPNL for considering uni – directional HVDC instead bidirectional HVDC system, CTU clarified that there is little cost difference between the two configurations.
- 2.10 CEA also clarified that to take care of the dynamic reactive power support, provision of STATCOMs has been kept in the EHVAC schemes. Also, from the load flow studies, it has been observed that power flow in the intra state transmission system of Rajasthan with the EVHAC transmission system is almost same when compared with power flow with VSC based transmission system.
- 2.11 PSTCL opined that the solar power would be available for limited hours in the day time only and for optimum utilization of the same, storage facility in generating plants may be explored, which would help in less requirements for transmission corridors.
- 2.12 RVPN emphasised that there should be installation of battery banks of capacity equivalent to 1/3rd capacity of Solar Power Projects, so that variability is not injected into the State's transmission system.
- 2.13 On this, SECI informed that they have already floated a tender regarding development of co-located storage facility.
- 2.14 RVPN and HVPN raised the issue of increase in the fault level in the their Intra state transmission system due to interconnection with the proposed ISTS transmission system for evacuation of power from solar potential of 8.1 GW under phase II. RVPN also stated that since a large quantum of power is expected to flow towards Phagi, 400kV outlet at Phagi may be planned. It was agreed that while studying the all India scenarios with RE integration of all regions, the requirements of 400 kV outlets from Phagi would also be studied and proposed, if required.
- 2.15 CEA stated that the fault level at various nodes in NR is high. We had earlier carried out the studies for reducing the fault levels and the schemes were taken up for implementation in three pockets of Northern region. Separate studies would be carried out shortly to reduce the fault level at these nodes.
- 2.16 All the constituents including Rajasthan expressed their concern regarding increase of POC charges with implementation of the above transmission system associated with

I/6925/2019

RE generations. It was informed by CTU that POC mechanism is under review & the matter is likely to be resolved in near future. As the transmission system is associated with RE Generation capacity addition plan of GoI is a national project, all the constituents requested to explore for some financial assistance for the subject scheme through Govt. of India funding.

- 2.17** RVPN and HVPN suggested that a recommendation/ suggestion must be submitted to Gol from NRSCT so that the approved transmission system may be developed through Viability Gap Funding (VGF) mode or Government may provide funding from Central assistance so that its impact through PoC mechanism is reduced on the Discoms.
- 2.18** POSOCO enquired that normally the STATCOMs are placed at the load side, however in the present scheme, the STATCOMs are proposed near the generating station/s.
- 2.19** CTU stated that as per technical standards of CEA, Renewable Generators shall be capable of supplying dynamically varying reactive power support so as to maintain power factor within limits of 0.95 lagging to 0.95 leading. Assuming length of 50 km, reactive power loss of about 30 MVar is envisaged for 300 MW on 220kV S/c line. Accordingly, in the absence of proper reactive power support to transmission system, compensation is required to be provided near RE Generation Pooling Stations.
- 2.20** During fault conditions in the absence of conventional generator & low short circuit levels in close proximity, grid/voltage stability would be a major concern. Due to persistence of low voltage in the network, there could be cascading effect of multiple RE generation tripping due to breach of LVRT triggers. This could lead to further fall in system voltage due to generation loss and may lead to voltage collapse in the system. In view of above, dynamic reactive power support is required to maintain Grid parameters within acceptable limits with variation in generation.
- 2.21** Further, during 4th NRSCT meeting POSOCO informed that Short Circuit Ratio(SCR) of 3 nos of 220kV buses i.e Fatehgarh-II(about 4), Bhadla(about 5) and Bhadla-II(about 5) is low. STACOMs also provide support in this regard.
- 2.22** It is also observed from simulation studies that many line & bus reactors are required to be switch off to operate the grid in high RE scenario. Considering huge volume of Renewables Energy (both State & ISTS) expected to be available in Western Rajasthan, Ramp up/down of generation is envisaged to be very fast. In such a scenario, manual switching ON/OFF of Reactors may not be practically feasible & STATCOM controllers may be used for switching in/out nearby Reactors.
- 2.23** Accordingly, STATCOMs have been proposed considering anticipated generation at various complexes of Western Rajasthan is as given below:

Anticipated Generation

	Earlier (MW)	Ph-I (MW)	Ph-II (MW)	Total (MW)
Fatehgarh	1000	1200		2200
Fatehgarh-II		2300	2200	4500
Ramgarh			1900	1900
	Sub Total			8600
Bhadla	2330	1050		3380
Bhadla-II		2500	1050	3550
	Sub Total			6930

I/6925/2019

Bikaner		1850		1850
Bikaner-II			2950	2950
				4800
			Sub Total	20330

2.24 It was discussed that Alternative-1 involves Modipuram(UPPTCL) which is presently under tendering. Accordingly, commissioning of Modipuram(UPPTCL) by December, 2021 is uncertain. Regarding, Alternative-2, HVPNL opined the option includes additional 765/400kV S/s at Kadarapur, hence costlier than alternative 1 & 3.

2.25 After deliberations, looking into techno-cost economics and the implementation time period, the constituents of NRSCT preferred the 3rd Alternative (Aligarh) for transmission System Strengthening scheme for potential solar energy zones –Phase-II (Ramgarh/Kuchheri (1.9 GW), Bikaner (2.95 GW), Bhadla (1.05GW) & Fatehgarh (2.2GW) in Northern Region. RVPN agreed for the 3rd alternative subject to following conditions:

- 1) No reactive power injection should occur in the intra State Transmission System, so as to avoid voltage excursions.
- 2) There should not be excessive increase in fault levels of State owned Grid Sub-station, due to present system strengthening scheme for 8.1 GW RE generations. In case of high fault level beyond the limits, the solutions/ schemes worked out for reduction of fault level would be implemented under ISTS.
- 3) Since in AC transmission system the power flow of solar generation would also increase the slab rate of PoC for host state i.e. Rajasthan. Hence, the host state should be given relief from such-additional financial burden. therefore, RVPN requested CEA/PGCIL to forward their recommendation to appropriate forum constituted by Govt. of India. Also, CERC in order dated 09.08.2019 in Petition No. 23/ MP/2019 regarding grant of regulatory approval for execution of transmission system for SEZ in Rajasthan has directed PGCIL/ CTU to seek grant and subsidies from GOI / State Governments so that the cost of implementation is not passed on to the consumers.
- 4) Furthermore, CEA would have to explore to split bus arrangement of existing CTU's buses so that no solar power exchange occurs with STU system as these solar generators are Inter State generators getting connected at Solar Parks viz. Bhadla Fatehgarh, Ramgarh/ Kuchheri and Bikaner and the Discom's of Rajasthan would have no commercial agreement with these solar generators.

Regarding point no.(1), it was informed that adequate compensation has been provided for ISTS system for reactive power support & to contain high voltages. Further, STATCOMs have been proposed for dynamic stability enhancement. Accordingly, it was envisaged that reactive power exchange with state system would be minimal.

Regarding point no.(2) , CEA stated that the fault level at various nodes in NR is high. We had earlier carried out the studies for reducing the fault levels and the schemes were taken up for implementation in three pockets of Northern region. Separate studies would be carried out shortly to reduce the fault level at these nodes.

Regarding point no.(3), it was discussed that POC mechanism is under review & the matter is likely to be resolved in near future.

I/6925/2019

Regarding point no.(4), bus sectionalisation at Fatehgarh-II, Bhadla-II & Bikaner-II have already been envisaged in the present scope. Requirement of further splitting buses shall be studied alongwith separate joint studies mentioned above.

2.26 CTU pointed out that Narela is located in NCR/Delhi where finding land for substation is difficult, hence it should be implemented as GIS substation.

2.27 Based on the deliberations in the meeting, following was agreed for Transmission schemes for Solar Energy Zones (SEZs) in Rajasthan (8.1 GW) under Phase-II

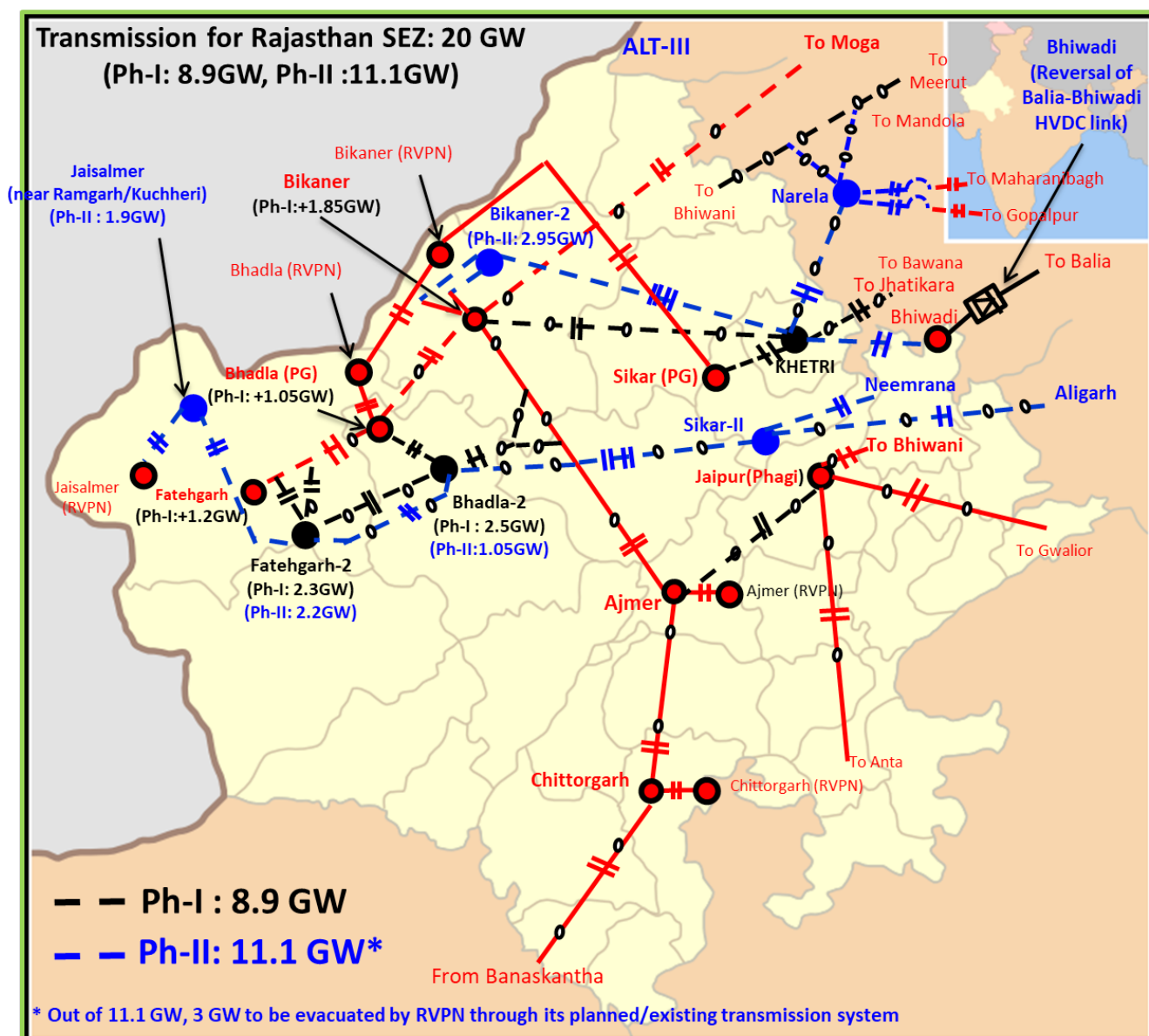
1. Establishment of 400/220kV, 4x500 MVA pooling station at suitable location near Ramgarh/Kuchheri in Distt Jaisalmer (Ramgarh-II PS) with 2x125 MVA bus reactor.
2. Ramgarh-II PS –Fatehgarh-II PS 400 kV D/c Line (Twin HTLS*)
3. Ramgarh-II PS – Jaisalmer-II (RVPN) 400 kV D/c Line (Twin HTLS*)
4. Establishment of 400/220kV, 6x500MVA pooling station at suitable location near Bikaner (Bikaner-II PS) with 2x125 MVA bus reactor and with suitable bus sectionalisation at 400 and 220 kV level.
5. Bikaner-II PS – Khetri 400kV 2xD/c line (Twin HTLS* line on M/c tower)
6. Removal of LILO of one circuit of Bhadla-Bikaner(RVPN) 400kV D/c(Quad) line at Bikaner(PG). Extension of above LILO section from Bikaner(PG) upto Bikaner-II PS to form Bikaner-II PS – Bikaner (PG) 400kV D/c(Quad) line)
7. 1x80 MVA Switchable line reactor for each circuit at each end of Bikaner-II – Khetri 400kV 2xD/c line
8. Establishment of 765/400kV, 2x1500 MVA S/s at suitable location near Sikar (Sikar-II Substation) with 1x125 MVA & 2x330 MVA bus reactor at Sikar -II
9. Sikar-II – Aligarh 765kV D/c line
10. Bhadla-II PS – Sikar-II 765kV 2xD/c line
11. Sikar-II – Neemrana 400kV D/c line (Twin HTLS*)
12. 1x330 MVA Switchable line reactor for each circuit at Sikar II end of Bhadla-II – Sikar-II 765kV 2xD/c line
13. 1x240 MVA Switchable line reactor for each circuit at Bhadla-II end of Bhadla-II – Sikar-II 765kV 2xD/c line
14. 1x330MVA Switchable line reactor for each circuit at each end of Sikar-II –Aligarh 765kV D/c line
15. Augmentation with 765/400kV, 2x1500MVA transformer (5th & 6th) at Fatehgarh-II PS
16. Fatehgarh-II PS – Bhadla-II PS 765kV D/c line (2nd)
17. 1x240 MVA Switchable line reactor for each circuit at each end of Fatehgarh-II – Bhadla-II 765kV D/c line
18. Augmentation with 400/220kV, 4x500MVA transformer (6th to 9th) at Fatehgarh-II PS with suitable bus sectionalisation at 400 kV & 220 kV
19. Augmentation with 765/400kV, 1x1500MVA transformer (4th) at Bhadla-II PS.
20. Augmentation with 400/220kV, 3x500MVA transformer (6th to 8th) at Bhadla-II PS with suitable bus sectionalisation at 400 kV & 220 kV
21. Khetri - Bhiwadi 400kV D/c line (Twin HTLS*)#
22. Power reversal on ± 500 kV, 2500MW Balia – Bhiwadi HVDC line upto 2000MW from Bhiwadi to Balia in high solar generation scenario
23. 220kV line bays for interconnection of solar projects at Bikaner-II PS (10 nos.), Ramgarh-II PS (7 nos), Fatehgarh-II PS (7 nos) & Bhadla-II PS (4 nos)
24. Establishment of 765/400 kV, 3X1500 MVA GIS substation at Narela with 765 kV (2x330 MVA) bus reactor and 400kV (1x125 MVA) bus reactor.
25. Khetri – Narela 765 kV D/c line

I/6925/2019

26. 1x330 MVAR Switchable line reactor for each circuit at Narela end of Khetri – Narela 765kV D/c line
27. LILO of 765 kV Meerut- Bhiwani S/c line at Narela
28. Removal of LILO of Bawana – Mandola 400kV D/c(Quad) line at Maharani Bagh/ Gopalpur S/s. Extension of above LILO section from Maharani Bagh/Gopalpur upto Narela S/s so as to form Maharani Bagh – Narela 400kV D/c(Quad) and Maharani Bagh -Gopalpur-Narela 400kV D/c(Quad) lines.
29. STATCOM:
 - Fatehgarh – II S/s : STATCOM : ± 600 MVAR, 4x125 MVAR MSC , 2x125 MVAR MSR
 - Bhadla – II S/s : STATCOM : ± 600 MVAR, 4x125 MVAR MSC , 2x125 MVAR MSR
 - Bikaner – II S/s : STATCOM : ± 300 MVAR, 2x125 MVAR MSC , 1x125 MVAR MSR

* with minimum capacity of 2200 MVA on each circuit at nominal voltage

Due to space constraints 400kV bays at Bhiwadi S/s to be implemented as GIS



I/6925/2019

3.0 Agenda by PTCUL: Interim Power evacuation arrangement for under construction Tapovan Vishnugarh and Singoli Bhatwari HEP:

- 3.1 CEA stated that PTCUL vide their letter dated 12.9.2019 has proposed to LILO one circuit of Vishnuprayag –Muzzafarpur 400kV D/c line at Srinagar HEP as an interim arrangement due to delay in Kandulkhal –Rampura (Srinagar –Kashipur) 400kV D/c line. As no participant from UPPTCL was present in the meeting, so it was decided to convene a separate meeting to discuss the issue.

Meeting ended with the thanks to chair.

I/6925/2019

Annexure I**List of Participants of 5th meeting of NRSCT held on 13.09.2019**

S.No.	Name Shri	Designation	Contact No.	Email ID
I	CEA			
1.	P.S Mhaske	Chairman		
2.	Goutam Roy	CE	8376817933	Goutamroy.715@gmail.com
3.	Manjari Chaturvedi	Director	9810502209	Manjari.cea@gmail.com
4.	Priyam Srivastava	AD-I	9717650473	Priyam.cea@gmail.com
5.	Kanhaiya Singh Kushwaha	AD-II	8334951500	kanhaiyasinghk@gmail.com
6.	Komal Dupare	AD-II	9425618454	Komal.dupare16@gmail.com
II	NRPC			
7	Naresh Bhandari	MS	9899061449	nbnareshbhandari@gmail.com
III	POWERGRID			
8.	Subir Sen	Coo(CTU-plg.)	9650293185	subir@powergridindia.com
9.	Mukesh Khanna	CGM(CTU-plg.)	9910378098	mkhanna@powergridindia.com
10.	Rajesh Varma	Sr.DGM	9599192320	rvarma@powergridindia.com
11.	Ankita Singh	Manager(CTU-plg.)	9560050234	ankita@powergridindia.com
12.	VMS Prakash	Manager	9560890042	yumsprakash@powergridindia.com
13.	Sandeep Behera	Dy. Manager(CTU_plg.)	7042396729	sandeep.behera@powergridindia.com
14.	Narendra Sathvik R.	Dy.Manger	7042195056	rnsathvik@powergridindia.com
15	Roushan Kumar	Engineer (TI plg.)	7546075385	roushan.k@powergridindia.com
IV	POSOCO			
16.	S.R Narasimhan	Director	9971117022	srnarasimhan@posoco.in

I/6925/2019

17.	S.S Barpanda	ED NRLDC	97172969 28	ssbarpanda@posoco.in
18.	Rajeev Porwal	GM	98715811 33	rk.porwal@posoco.in
19.	Riza Naqvi	Manager(SO)	96504805 05	riza.naqvi@posoco.in
20.	Priyam Jain	Dy. Manager (SO)	95999516 86	Priyam.jain@posoco.in
21	Suruchi Jain	Dy.Manager	99710389 56	suruchi.jain@posoco.in
V	PSTCL			
22.	Sanjeev Gupta	CE/TS	96461008 64	Ce-ltepstcl.org
23	Paramjit Singh	SE/Plg & Comm	96461187 69	Se-planning@pstcl.org
24	Nitin Kumar	AEE/Plg.	96461128 26	
VI	HVPNL			
25	M.M Matte	SE/Plg.	93163692 81	seplg@hvpn.org.in
26.	B.S Malik	XEN	93153536 18	xenplgss@hvpn.org
27	Amit Maan	AEE	93153156 19	mpccggn@gmail.com
VII	HPPTCL			
28	K.S.Attri	Director	94184887 10	directorpchpptcl@.com
29	Sandeep Sharma	AGM	98166287 34	agmplgit@hpptcl.com
VIII	HPPC			
30	Manish Kumar	AE	95995742 50	Mani.iit2011@gmail.com
IX	SECI			
31	S.K Mishra	Director	97178902 22	Sk.mishra@secl.com.in
X	PTCUL			
32	S.P. Arya	SE(Projects)	70881179 25	Sp_arya@ptcul.org
33	Ashok Kumar	EE(SS)	70881179 39	Ashok-kumar@ptcul.org
XI	RVPN			
34	Sona Shishodia	XEN (P&P)	94140303 03	Xen2.pp@rvpn.co.in
35	M.P. Sharma	AEN (Design)	94133826	Mahavir_sh@rediffmail.com

I/6925/2019

			17	
36	S.K.Baswal	AEE	91413330 95	ee.ppm@rvpn.co.in

KANCHAN KUMAR CHOUDHARY

Digitally signed
by KANCHAN
KUMAR
CHOUDHARY
Date:
2026.04.22
17:23:48 +05'30'

**CENTRAL TRANSMISSION UTILITY OF INDIA LTD.**

(A wholly owned subsidiary of Power Grid Corporation of India Limited)

(A Government of India Enterprise)

Ref. No.: C/CTU/AI/00/15th CCTP/POWERGRID26th October 2023**OFFICE MEMORANDUM****Sub: Inter-State Transmission Schemes (costing up to Rs.100 Cr.) to be taken up for implementation under Regulated Tariff Mechanism (RTM).**

The undersigned is directed to inform that CTU has approved the implementation of the following ISTS costing less than or equal to Rs.100 Cr. in line with the MoP office order dated 28.10.2021 under the Regulated Tariff Mechanism (RTM) mode by the implementing agencies as indicated in the table below:

Sl. No.	Name of Transmission Scheme	Implementing Agency
Eastern Region		
1.	Eastern Region Expansion Scheme-XXXVIII (ERES-XXXVIII)	Power Grid Corporation of India Ltd.
2.	Eastern Region Expansion Scheme-41 (ERES-41)	Power Grid Corporation of India Ltd.
Western Region		
3.	Augmentation of Transformation Capacity at 400/220 kV Bhachau substation in Gujarat by 400/220 kV, 1x500 MVA ICT (3rd)	Power Grid Corporation of India Ltd.
4.	Augmentation of Transformation Capacity at 400/220 kV Magarwada GIS substation in DD & DNH by 400/220 kV, 1x500 MVA ICT (3rd)	Power Grid Corporation of India Ltd.
5.	Replacement of 63 MVA Bus reactor with 125MVA Bus reactor at 400kV level of Jabalpur S/s of POWERGRID	Power Grid Corporation of India Ltd.
Northern Region		
6.	Augmentation of Transformation Capacity at 400/220 kV Fatehgarh-III PS(Section-1) by 400/220 kV, 1x500 MVA ICT (5th)	POWERGRID Ramgarh Transmission Ltd. (a subsidiary of Power Grid Corporation of India Ltd.)
7.	Implementation of Bus Sectionalizer at 400kV level of 400/220kV Bikaner-II PS	POWERGRID Bikaner Transmission System Ltd. (a subsidiary of Power Grid Corporation of India Ltd.)
Southern Region		
8.	Augmentation of Transformation Capacity at 400/220 kV Hassan Substation in Karnataka by 400/220 kV, 1x500 MVA ICT (3rd)	Power Grid Corporation of India Ltd.

The detailed scope of works for the above transmission schemes is given at **Annexure-I**.

The above transmission schemes are awarded to the Implementing Agency for its implementation under RTM mode. The implementing agency shall enter into a concession

agreement with CTU for the implementation of the above-mentioned transmission schemes through the Regulated Tariff Mechanism (RTM).

This issues with the approval of Competent Authority.

Ashok Pal.

(Ashok Pal)

Dy. Chief Operating Officer

Encl: as stated.

To:

1. The Chairman & Managing Director Power Grid Corporation of India Ltd., Saudamini, Plot No. 2, Sector-29, Gurgaon- 122 001
--

Copy to:

1. Shri Ishan Sharan Chief Engineer & Member Secretary (NCT) Central Electricity Authority Sewa Bhawan, R. K. Puram, New Delhi-110 066.

2. Shri Om Kant Shukla Director (Trans) Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi 110 001
--

Eastern Region**1. Eastern Region Expansion Scheme-XXXVIII (ERES-XXXVIII)**

Sl. No.	Scope of the Transmission Scheme	Item Description	Implementation Timeframe.
1.	Shifting of Ranchi (POWERGRID) – Raghunathpur (DVC) 400kV D/c (Quad) line to bays 431 and 434 in diameters 431-432-433 and 434-435-436 at Ranchi (POWERGRID) end: about 1.27km new line section (<i>refer note a</i>).	400kV D/c (Quad) line – 1.27 km	24 months from the issuance of OM by CTUIL
2.	Dismantling of 1355m section of Ranchi (POWERGRID) – Raghunathpur (DVC) 400kV D/c (Quad) line of DVC at Ranchi end from tower location 433 to 438 and scraping of the same (<i>refer note b</i>).	-	
3.	Shifting of 420kV, 125MVA _r bus reactor installed in bay no. 431 to bay no. 413 [vacated after shifting of Ranchi (POWERGRID) – Raghunathpur (DVC) 400kV ckt-2] at Ranchi (POWERGRID) end.	-	
4.	Shifting of equipment of bay no. 416 [released upon shifting of Ranchi (POWERGRID) – Raghunathpur (DVC) 400kV ckt-3] to bay no. 434 for completion/establishment of bay no. 434 at Ranchi (POWERGRID) end.	-	
5.	Installation of 420kV, 1x80MVA _r switchable line reactor, one each in both circuits of Raghunathpur (DVC) – Ranchi-New (POWERGRID) 400kV D/c (Quad) line [formed after bypassing of Ranchi (POWERGRID) – Raghunathpur (DVC) and Ranchi (POWERGRID) – Ranchi-New (POWERGRID) ckt-3 & 4 of 400kV D/c (Quad) lines from Ranchi-New through tie circuit breaker in diameters 431-432-433 and 434-435-436] at Ranchi-New (POWERGRID) end along 400ohm NGR (including NGR bypass scheme).	420kV, 1x80MVA _r switchable line reactor with 500ohm NGR (including NGR bypass scheme) – 2 no.	
Total Estimated Cost:			₹ 41.74 Crore

Note:

- The ISTS licensee shall coordinate with DVC for shifting of Ranchi (POWERGRID) – Raghunathpur (DVC) 400kV D/c (Quad) line to bays 431 & 434. Further, ISTS licensee shall also take care of completion of communication link upon line shifting.
- The scrap value of the tower members, ACSR conductor, auxiliaries etc. of dismantled assets shall be deducted by the ISTS licensee as per prevailing scrap value to arrive at the final cost of the project. As the scrap value of dismantled assets (about 1355m of line) is already being

adjusted against the project cost of this new scheme, tariff of Ranchi (POWERGRID) – Raghunathpur (DVC) 400kV D/c (Quad) line of DVC shall remain unaffected.

- c) During the implementation period of the above scheme, ERS can be used for temporary bypassing of Ranchi (POWERGRID) – Raghunathpur (DVC) and Ranchi (POWERGRID) – Ranchi-New (POWERGRID) ckt-3 & 4 lines outside Ranchi S/s so as to facilitate shifting of bus reactor and bay equipment, if required.
- d) Upon implementation of this scheme, the Ranchi (POWERGRID) – Raghunathpur (DVC) 400kV D/c (Quad) line may be bypassed from Ranchi S/s with Ranchi – Ranchi (New) 400kV D/c line (ckt-3 & ckt-4) through tie circuit breakers (432 & 435) as per system requirement and based on instructions from Grid-India.

2. Eastern Region Expansion Scheme-41 (ERES-41)

Sl. No.	Scope of the Transmission Scheme	Item Description	Implementation Timeframe.
1.	Installation of 400/220kV, 1x500MVA ICT (3 rd) along with associated bays at Rajarhat GIS (POWERGRID) 400kV S/s	• 400/220kV, 1x500MVA ICT– 1 no. • 400kV GIS ICT Bay– 1 no. + 1 no. additional bay for diameter completion (<i>refer note a</i>) • 220kV GIS ICT Bay– 1 no. • 400kV GIS duct (1-phase) – 650m • 220kV GIS duct (1-phase) – 300m	21 months from the date of issuance of OM by CTUIL
Total Estimated Cost:			₹ 86 Crore

Note:

- a) In view of GIS substation, complete diameter with three Circuit Breakers (one and half switching scheme) needs to be implemented at 400kV level for installation of 3rd ICT in one 400kV bay. Utilisation of other 400kV bay of the diameter shall be identified in future.

Western Region

3. Augmentation of Transformation Capacity at 400/220 kV Bhachau substation in Gujarat by 400/220 kV, 1x500 MVA ICT (3rd)

Sl. No.	Scope of the Transmission Scheme	Item Description	Implementation Timeframe.
1.	Augmentation of Transformation capacity at 400/220kV Bhachau S/s in Gujarat by 400/220kV 1x500MVA ICT (3 rd)	• 400/220kV, 1x500MVA ICT–1 No. • 400kV ICT bay – 1 No. • 220kV ICT bay – 1 No.	18 months from date of issuance of OM by CTUIL
Total Estimated Cost:			₹ 49 Crore

4. Augmentation of Transformation Capacity at 400/220 kV Magarwada GIS substation in DD & DNH by 400/220 kV, 1x500 MVA ICT (3rd)

Sl. No.	Scope of the Transmission Scheme	Item Description	Implementation Timeframe.
1.	Augmentation of Transformation capacity at 400/220kV Magarwada GIS S/s by 400/220kV 1x500MVA ICT (3 rd)	• 400/220kV, 1x500MVA ICT – 1 No. • 400kV GIS ICT Bay– 1 No. • 220kV GIS ICT Bay – 1 No. • 400kV GIS duct (1ph) – 350m. (approx.) • 220kV GIS duct (1ph) – 150m. (approx.)	21 months from date of issuance of OM by CTUIL
Total Estimated Cost:			₹ 64 Crore

5. Replacement of 63 MVar Bus reactor with 125MVar Bus reactor at 400kV level of Jabalpur S/s of POWERGRID

Sl. No.	Scope of the Transmission Scheme	Item Description	Implementation Timeframe.
1.	Replacement of 420kV, 63 MVar Bus reactor with 420kV, 125MVar bus reactor at Jabalpur (PG) S/s along with associated civil works	• 420kV, 125MVar bus reactor – 1 No.	27 months from date of issuance of OM by CTUIL
Total Estimated Cost:			₹ 17 Crore

Northern Region

6. Augmentation of Transformation Capacity at 400/220 kV Fatehgarh-III PS(Section-1) by 400/220 kV, 1x500 MVA ICT (5th)

Sl. No.	Scope of the Transmission Scheme	Item Description	Implementation Timeframe.
1.	Augmentation with 400/220kV, 1x500MVA Transformer at Fatehgarh-III PS (5th ICT at Section-1) along with associated transformer bays* *1 no. of 400kV (AIS) (including associated tie bay) and 1 no. of 220kV (AIS) transformer bay	• 500 MVA 400/220 kV ICT – 1no. • 400 kV ICT bay (including associated tie bay) – 1 no. • 220 kV ICT bay – 1 no.	18 months from the date of issuance of OM by CTUIL
Total Estimated Cost:			₹ 58.18 Crore

7. Implementation of Bus Sectionalizer at 400kV level of 400/220kV Bikaner-II PS

Sl. No.	Scope of the Transmission Scheme	Item Description	Implementation Timeframe.
1.	- One set of bus sectionalizer at 400kV level of 400/220kV Bikaner-II PS - One no. of 400kV tie bay (associated with 400/220kV ICT-4)	400 kV Bus sectionalizer– 1 no. 400kV tie bay–1 no.	Matching with implementation of 400/220kV ICTs (4 th to 7 th) i.e., Dec'24
Total Estimated Cost:			₹ 28 Crore

Southern Region

8. Augmentation of Transformation Capacity at 400/220 kV Hassan Substation in Karnataka by 400/220 kV, 1x500 MVA ICT (3rd)

Sl. No.	Scope of the Transmission Scheme	Item Description	Implementation Timeframe.
1.	Augmentation of Transformation Capacity at 400/220 kV Hassan Substation in Karnataka by 400/220 kV, 1x500 MVA ICT (3 rd)	500 MVA 400/220 kV ICT–1no. 400 kV ICT bay (in existing dia) – 1 no. 220 kV ICT bay – 1 no.	18 months from the date of issuance of OM by CTUIL
Total Estimated Cost:			₹ 49 Crore

KANCHAN
KUMAR
CHOUDHARY

Digitally signed
by KANCHAN
KUMAR
CHOUDHARY
Date: 2026.04.22
17:25:02 +05'30'

POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED

Formerly known as Bikaner-II Bhiwadi Transco Limited
(A Wholly Owned Subsidiary of Power Grid Corporation of India Limited)

Annexure-4

Certified True Copy of the Resolution passed in 34th Meeting of the Board of Directors of POWERGRID Bikaner Transmission System Limited held on Wednesday, 28th February, 2024 at 05:00 P.M. at "Saudamini", Plot No. 2, Sector-29, Gurgaon-122001.

Item No. 34.2.1

**Investment Approval for the RTM Projects allotted to M/s PBTSL:
Implementation of Bus Sectionalizer at 400kV level of 400/220kV Bikaner-II PS.:**

The Board passed the following resolution unanimously:

X

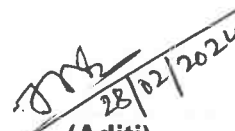
X

X

"RESOLVED THAT Investment Approval, be and is hereby accorded for "Implementation of Bus Sectionalizer at 400 kV level of 400/220kV Bikaner-II PS to PBTSL" at an estimated cost of Rs. 8.22 crores (comprising of Rs. 5.75 crore as debt and Rs. 2.47 crore as equity maintaining debt equity ratio as 70:30) with the commissioning schedule by Dec'24 from the date of issuance of OM (i.e. 26.10.2023) by CTUIL, be and is hereby approved, as per the memorandum submitted before the Board of Directors."

RESOLVED FURTHER THAT approval of the Board be and is hereby accorded for availing consultancy services from POWERGRID @ 5% of the actual project cost (excl IDC i.e. ₹ 0.75 cr. & IEDC i.e. ₹0.25 cr.) plus GST as applicable for additional scope of additional scope of works."

**Certified to be True Copy
For POWERGRID Bikaner Transmission System Limited**


28/02/2024
(Aditi)

**Company Secretary
Membership No.: A66193
Address: Saudamini", Plot No. 2,
Sector-29, Gurgaon-122001**

KANCHAN KUMAR CHOUDHARY
Digitally signed
by KANCHAN
KUMAR
CHOUDHARY
Date:
2026.04.22
17:25:59 +05'30'

**Registered Office
B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi – 110016
Tel: 011 – 26560112, 26560115, Email: mrinal@powergrid.in
CIN: U40300DL2020GOI363669**



Annexure-5

भारत सरकार/Govt. of India
विद्युत मंत्रालय/Ministry of Power
केन्द्रीय विद्युत प्राधिकरण/Central Electricity Authority
मुख्य विद्युत निरीक्षणालय प्रभाग/Chief Electrical Inspectorate

Approval for Energisation

(Under Regulation 45 of CEA (Measures relating to Safety and Electric Supply), Regulations, 2023)

Sh. Abhimanyu Singh,
PowerGrid Bikaner Transmission system Limited (PBTSL)
400/220 kV Bikaner-II S/S, Jaimalsar,
Tehsil Kolayat,
Bikaner (RAJ)-334001

Subject: Approval for Energization of electrical equipments of Bays as provided in List of Equipments attached in below mentioned application of PBTSL under Regulation 45 of Central Electricity Authority (Measures relating to Safety and Electrical Supply) Regulations, 2023.

Ref.:

1. Online Application A/2025/17413 dated 25.10.2025
2. CEA-PS-16/6/2025-CEI Division dated: 10.11.2025
3. Your compliance report dated: 25.11.2025

Whereas the inspection of **electrical installations as provided in List of Equipments in below mentioned application of PBTSL** was carried out on 10.11.2025.

Approval for Energization of the said Electrical installations/apparatus is hereby accorded subject to following conditions:

1. M/s **PBTSL** shall ensure to have all other requisite clearances/NOCs from Government and Local bodies, as applicable, before energization.
2. Adherence to relevant provisions of Central Electricity Authority (Measures relating to Safety and Electricity Supply) Regulations, 2023 shall be ensured by M/s **PBTSL** for safety during operation and maintenance.

The periodic inspection of above installation under Regulation 32 of CEA (Measures relating to safety and Electric Supply) Regulations, 2023 shall be carried out at **an interval not exceeding 05 years** from the date of this inspection.. This periodicity is subject to change by government notification.

Digitally signed by
Rahul Singh
Date: 26-11-2025
16:44:34

(राहुल सिंह)

उप निदेशक, (मुख्य विद्युत निरीक्षणालय प्रभाग)
और भारत सरकार के विद्युत निरीक्षक

List of Bays/Equipment to be Energized at 400/220KV Bikaner-II SS

Sl No	Bay	Equipment Name	Make	MODEL	Rating	SL Number		
						R-Phase	Y-Phase	B-Phase
1		Isolator with One E/S (89B)	S & S POWER SWITCHGEAR EQUIPMENT LTD	420kV, 3000A, 63kA	420KV, 3000A, 63kA, DB ISOLATOR WITH ONE EARTH SWITCH (3-PHASE)	001ER	001EY	001EB
2		Circuit Breaker	CG Power & Industrial solution	400-SFM-60KA (PIR)	420KV, 3150A, 63KA CIRCUIT BREAKER,(3-PHASE) WITHOUT CLOSING RESISTOR		68255C	
3	428	Isolator with Two E/S (89A)	S & S POWER SWITCHGEAR EQUIPMENT LTD	420kV, 3000A, 63kA	420KV, 3000A, 63kA, DB ISOLATOR WITH TWO EARTH SWITCH (3-PHASE)	002ER	002EY	002EB
4		CT	CG Power & Industrial solution	IOSK 420/630/1425	420KV, 3000A, 63kV, 1sec CURRENT TRANSFORMER (1-PHASE) WITH 120% EXTENDED CURRENT RATING	753634	753635	753636
5		Isolator with One E/S (89B)	S & S POWER SWITCHGEAR EQUIPMENT LTD	420kV, 3000A, 63kA	420KV, 3000A, 63kA, DB ISOLATOR WITH ONE EARTH SWITCH (3-PHASE)	001ER	001EY	001EB
6		Circuit Breaker	CG Power & Industrial solution	400-SFM-60KA	420KV, 3150A, 63KA CIRCUIT BREAKER,(3-PHASE) WITHOUT CLOSING RESISTOR		68254C	
7	429	Isolator with Two E/S (89A)	S & S POWER SWITCHGEAR EQUIPMENT LTD	420kV, 3000A, 63kA	420KV, 3000A, 63kA, DB ISOLATOR WITH TWO EARTH SWITCH (3-PHASE)	002ER	002EY	002EB
8		CT	CG Power & Industrial solution	IOSK 420/630/1425	420KV, 3000A, 63kV, 1sec CURRENT TRANSFORMER (1-PHASE) WITH 120% EXTENDED CURRENT RATING	753637	753638	753639
9		Isolator with One E/S (89A)	S & S POWER SWITCHGEAR EQUIPMENT LTD	420kV, 3000A, 63kA	420KV, 3000A, 63kA, DB ISOLATOR WITH ONE EARTH SWITCH (3-PHASE)	001ER	001EY	001EB
10	423	CT	CG Power & Industrial solution	IOSK 420/630/1425	420KV, 3000A, 63kV, 1sec CURRENT TRANSFORMER (1-PHASE) WITH 120% EXTENDED CURRENT RATING	753640	753641	753642
11		Isolator with One E/S (89B)	S & S POWER SWITCHGEAR EQUIPMENT LTD	420kV, 3000A, 63kA	420KV, 3000A, 63kA, DB ISOLATOR WITH ONE EARTH SWITCH (3-PHASE)	001ER	001EY	001EB
12		Circuit Breaker	CG Power & Industrial solution	400-SFM-60KA	420KV, 3150A, 63KA CIRCUIT BREAKER,(3-PHASE) WITH CLOSING RESISTOR		68253C	
9		Isolator with One E/S (89A)	S & S POWER SWITCHGEAR EQUIPMENT LTD	420kV, 3000A, 63kA	420KV, 3000A, 63kA, DB ISOLATOR WITH ONE EARTH SWITCH (3-PHASE)		18962-112-48B	
10	420	CT	CG Power & Industrial solution	IOSK 420/630/1425	420KV, 3000A, 63kV, 1sec CURRENT TRANSFORMER (1-PHASE) WITH 120% EXTENDED CURRENT RATING	749326	749328	749329
11		Isolator with One E/S (89B)	S & S POWER SWITCHGEAR EQUIPMENT LTD	420kV, 3000A, 63kA	420KV, 3000A, 63kA, DB ISOLATOR WITH ONE EARTH SWITCH (3-PHASE)		18962-112-47B	
12		Circuit Breaker	CG Power & Industrial solution	400-SFM-60KA	420KV, 3150A, 63KA CIRCUIT BREAKER,(3-PHASE) WITH CLOSING RESISTOR		65014	
13	400 kV Bus-1B	Bus CVT	GE T&D India Limited	CCV 420	400 kV, 4400pF 1 Phase CVT	37992034268	37992034269	37992034270
14	400 kV Bus-2B	Bus CVT	GE T&D India Limited	CCV 420	400 kV, 4400pF 1 Phase CVT	37992034271	37992034272	37992034273



पावरग्रिड बीकानेर ट्रान्समिशन सिस्टम लिमिटेड

(पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड की 100% पूर्ण स्वामित्व वाली सहायक कम्पनी)

Asset-1

POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED

(A 100% wholly owned subsidiary of Power Grid Corporation of India Limited)

पता: 400/220 के वी, बीकानेर-II उपकेन्द्र, ग्राम जयमलसर, भानीपुरा रोड, बीकानेर (राजस्थान) – 334001

Address: 400/220 KV Bikaner-II Sub-station, Village Jaimalsar, Bhanipura Road, Bikaner (Rajasthan) – 334001

CIN:U40300DL2020GOI363669

Certificate as per CERC (Indian Electricity Grid Code) Regulations, 2023

(For Inter State Transmission System)

It is to certify that the following Asset under “**Implementation of Bus Sectionalizer at 400 kV level of 400/220 kV Bikaner-II PS**” conforms to the CEA Technical Standards for Construction, CEA Technical Standards for Connectivity, CEA Technical Standards for Communication, Central Electricity Authority (Measures relating to Safety and Electricity Supply) Regulations, 2010 and Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2023, and is capable of operation to its full capacity as per requirements for declaration of commercial operation as per following details:

S. No.	Name of the Asset	Date/Time of successful completion of Trial Run Operation
1	400 kV Bus Sectionalizer Bay-428 along with 400 kV Main Bus-1B (Bus-3) at Bikaner-II PS	18.12.2025 / 22:20 Hrs



(Rajil Srivastava)

Chairman

POWERGRID Bikaner Transmission System Limited

पावरग्रिड बीकानेर ट्रान्समिशन सिस्टम लिमिटेड

(पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड की 100% पूर्ण स्वामित्व वाली सहायक कम्पनी)

POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED

(A 100% wholly owned subsidiary of Power Grid Corporation of India Limited)

पता: 400/220 के.वी. बीकानेर-II उपकेन्द्र, ग्राम जयमलसर, भानीपुरा रोड, बीकानेर (राजस्थान) - 334001

Address: 400/220 KV Bikaner-II Sub-station, Village Jaimalsar, Bhanipura Road, Bikaner (Rajasthan) - 334001

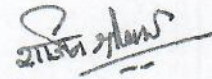
CIN:U40300DL2020GOI363

Certificate as per

CERC (Indian Electricity Grid Code) Regulation 2023

(For Inter State Transmission System)

It is to certify that "400 kV Bus Sectionalizer Bay-429 along with 400 kV Bus-2B (Bus-4) AT BIKANER-II SS" under the Transmission system namely "IMPLEMENTATION OF BUS SECTIONALIZER AT 400KV LEVEL OF 400/220KV BIKANER-II PS)" Scheme in Northern Region conform to the CEA Technical Standards for Construction, CEA Technical Standards for Connectivity, CEA Technical Standards for Communication, Central Electricity Authority (Measures relating to Safety and Electricity Supply) Regulations, 2010 and Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2023 and are capable of operation to their full capacity as per requirements for declaration of commercial operation w.e.f 22.01.2026 (20:25 hrs)



(Rajil Srivastava)

Chairman

POWERGRID Bikaner Transmission System Limited

पंजीकृत कार्यालय: बी 9, कुतुब इंस्टीट्यूशनल एरिया, कटवारिया सराय, नई दिल्ली - 110016 दूरभाष - 011 6560121 (ई पी बी एक्स) फैक्स: 6560039,
Registered Office: B-9, Qutub Institutional Area, Katwaria Sarai, New Delhi - 110016, Ph: 26560121(EPBAX), Fax: 011-26560112

उत्तरी क्षेत्र पारंपरण प्रणाली- I, क्षेत्रीय कार्यालय: एस.सी.ओ. बें. नं. 5-10 सेक्टर 16A, फरीदाबाद - 121002, हरियाणा
Northern Region Transmission System-I, Regional Head Quarter: SCO BAY No. 5 - 10, Sector 16A, Faridabad, Haryana 121002

Certificate Number: GRID-INDIA/NRLDC/SO/716

Date: 29-01-2026

Certificate of successful Trial Run (with electrical load) as per Clause 25 of CERC (IEGC), 2023
Certificate of completion of Trial Operation of 400kV Bus Sectionalizer Bay 428 of 400 kV Bus-1B (Bus-3) and 400 kV Bus-1 at Bikaner_2 (PBTSL).

Reference:

1. **POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED (PBTSL)** Communication dated **20 Sep 2025 13:31, 16 Oct 2025 23:25, vide Format - I and 07 Dec 2025 20:19, vide Format - III** regarding the submission of pre charging documents for -

400kV Bus Sectionalizer Bay 428 of 400 kV Bus-1B (Bus-3) and 400 kV Bus-1 at Bikaner_2 (PBTSL)

2. **NRLDC Acknowledgement dated 17 Oct 2025 16:46 vide Format - II and Provisional Approval dated 11 Dec 2025 14:56 vide Format - IV.**

3. Real time code issued by **NRLDC** on request of **POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED (PBTSL)** Real Time Code No-8513.

4. **POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED (PBTSL)** , Communication dated **29 Dec 2025 15:10, 28 Jan 2026 12:37, vide Format - V** regarding the submission of post charging documents.

5. No objections received from Beneficiaries.

Based on above references, it is hereby certified that the following Power System elements have been successfully completed the trial operation:

Name of the Transmission Asset:	400kV Bus Sectionalizer Bay 428 of 400 kV Bus-1B (Bus-3) and 400 kV Bus-1 at Bikaner_2 (PBTSL).
Owner of the Transmission Asset:	POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED.
Date and Time of Energization for commencement of successful trial run operation	17-12-2025 - 22:20Hrs.
Date/Time of completion of successful trial run operation	18-12-2025 - 22:20Hrs.

Note:

This certificate is being issued in accordance with Regulation 25 (1) and 25(2) of CERC (Indian Electricity Grid Code) Regulations, 2023 and amendments thereof to certify successful trial run of power system element with electrical load.


Somara Lakra
CGM(SO)-NRLDC

Place : New Delhi

Copy to :

I. Head-POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED.

II. Member Secretary, NRPC, New Delhi

III. Executive Director, NLDC, New Delhi.

IV.Executive Director, NRLDC, New Delhi.

V. Beneficiary(ies).



ग्रिड-इंडिया
GRID-INDIA

ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)

GRID CONTROLLER OF INDIA LIMITED

(A Government of India Enterprise)

[formerly Power System Operation Corporation Limited (POSOCO)]

उत्तर क्षेत्रीय भार प्रेषण केन्द्र / Northern Regional Load Despatch Centre



कार्यालय : 18-ए, शहीद जीत सिंह सनसनवाल मार्ग, कटवारिया सराय, नई दिल्ली - 110016
Office : 18-A, Shaheed Jeet Singh Sansanwal Marg, Katwaria Sarai, New Delhi-110016
CIN : U40105DL2009GOI188682, Website : www.nrlcdc.in, E-mail : nrlcdc@grid-india.in, Tel.: 011- 26854015, 40224603

Certificate Number: GRID-INDIA/NRLDC/SO/728

Date: 05-03-2026

Certificate of successful Trial Run (with electrical load) as per Clause 25 of CERC (IEGC), 2023

Certificate of completion of Trial Operation of 400kV Bus Sectionalizer Bay 429 of 400 kV Bus-2B (Bus-4) & 400 kV Bus-2 at Bikaner_2 (PBTSL).

Reference:

1. **POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED (PBTSL)** Communication dated **20 Sep 2025 13:32, 16 Oct 2025 23:25, vide Format - I and 14 Jan 2026 12:01, vide Format - III** regarding the submission of pre charging documents for -

i. 400kV Bus Sectionalizer Bay 429 of 400 kV Bus-2B (Bus-4) and 400 kV Bus-2 at Bikaner_2 (PBTSL)

2. NRLDC Acknowledgement dated **17 Oct 2025 16:47** vide Format - II and Provisional Approval dated **16 Jan 2026 16:38** vide Format - IV.

3. Real time code issued by NRLDC on request of **POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED (PBTSL)** Real Time Code No-9752

4. **POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED (PBTSL)** , Communication dated **02 Mar 2026 19:52,** vide Format - V regarding the submission of post charging documents.

5. No Objections received from (Beneficiary(ies)).

Based on above references, it is hereby certified that the following Power System elements have been successfully completed the trial operation:

Name of the Element:	400kV Bus Sectionalizer Bay 429 of 400 kV Bus-2B (Bus-4) & 400 kV Bus-2 at Bikaner_2 (PBTSL).
Owner of the Element:	POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED
Date and Time of Energization for commencement of successful trial run operation	21-01-2026 - 20:25Hrs
Date/Time of completion of successful trial run operation	22-01-2026 - 20:25Hrs

Note:

This certificate is being issued in accordance with Regulation 25 (1) and 25(2) of CERC (Indian Electricity Grid Code) Regulations, 2023 and amendments thereof to certify successful trial run of power system element with electrical load.

Sajan George

Executive Director, NRLDC

Place : New Delhi

Copy to :

I. Head-POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED.

II. CMD, Grid Controller Of India Limited.

III. Director - System Operation, Grid Controller Of India Limited.

IV. Member Secretary, NRPC, New Delhi

V. Executive Director, NLDC, New Delhi.

VI. Beneficiary(ies).

पावरग्रिड बीकानेर ट्रांसमिशन सिस्टम लिमिटेड

(पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड की 100% पूर्ण स्वामित्व वाली सहायक कम्पनी)

POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED

(A 100% wholly owned subsidiary of Power Grid Corporation of India Limited)

पता: 400/220 के.वी. बीकानेर-II उपकेन्द्र, ग्राम जयमलसर, भानीपुरा रोड, बीकानेर (राजस्थान) – 334001

Address: 400/220 KV Bikaner-II Sub-station, Village Jaimalsar, Bhanipura Road, Bikaner (Rajasthan) – 334001

CIN:U40300DL2020GOI363669

Ref: TBCB-RTM/PBTSL/DOCO Letter/428 Bay

Date: 30.01.2026

To
COO, CTUIL
Floor No. 7, Tower 1, Plot No. 16,
IRCON International Tower, Institutional Area, Sector 32,
Gurugram, Haryana – 122001.

Kind Attention: COO, CTUIL

Subject: Issuance of DOCO Certificate of transmission element namely 400kV Bus Sectionalizer Bay 428 of 400kV Bus-1B (Bus -3) and 400kV Bus -1 at Bikaner-II SS under the "Implementation of Bus sectionalizer at 400kV level of 400/220kV Bikaner -II PS"

Ref: (i) "CTU's OM C/CTU/AI/00/15th CCTP/POWERGRID dated 26.10.2023"

Dear Sir(s),

Consequent to the successful charging, the 400kV Bus Sectionalizer Bay 428 of 400kV Bus-1B (Bus -3) and 400kV Bus -1 at 400/220 kV Bikaner-II under the "Implementation of Bus sectionalizer at 400kV level of 400/220kV Bikaner -II PS" has been put under commercial operation with effect from 00:00 Hrs. of 19.12.2025, in terms of CERC (Indian Electricity Grid Code) Regulations 2023 and Clause 1 of Regulation (5) of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024.

Transmission charges for the above asset is payable with effect from 19.12.2025.

Thanking You,

Yours faithfully,
For and on behalf of POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED



K K Choudhary
Project Incharge
POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED
Email id: kanchan@powergrid.in
Mobile No.: 9560690612

पंजीकृत कार्यालय: बी 9, कुतुब इस्टीट्यूशनल एरिया, कटवारिया सराय, नई दिल्ली – 110016 दूरभाष -011 6560121 (ई पी बी एक्स) फेक्स: 6560039,
Registered Office: B-9, Qutub Institutional Area, Katwaria Sarai, New Delhi – 110016, Ph: 26560121 (EPBAX), Fax: 011-26560112

उत्तरी क्षेत्र पारिषद प्रणाली- I, क्षेत्रीय कार्यालय: एस.सी.ओ. बें.नं. 5-10 सेक्टर 16A, फरीदाबाद – 121002, हरियाणा

Northern Region Transmission System-I, Regional Head Quarter : SCO BAY No. 5 – 10, Sector 16A, Faridabad, Haryana 121002

पावरग्रिड बीकानेर ट्रांसमिशन सिस्टम लिमिटेड

(पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड की 100% पूर्ण स्वामित्व वाली सहायक कम्पनी)

POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED

(A 100% wholly owned subsidiary of Power Grid Corporation of India Limited)

पता: 400/220 के.वी. बीकानेर-II उपकेन्द्र, ग्राम जयमलसर, भानीपुरा रोड, बीकानेर (राजस्थान) – 334001

Address: 400/220 KV Bikaner-II Sub-station, Village Jaimalsar, Bhanipura Road, Bikaner (Rajasthan) – 334001

CIN:U40300DL2020GOI363669

Ref: TBCB-RTM/PBTSL/DOCO Letter/429 Bay

Date: 20.03.2026

To
COO, CTUIL
Floor No. 7, Tower 1, Plot No. 16,
IRCON International Tower, Institutional Area, Sector 32,
Gurugram, Haryana – 122001.

Kind Attention: Shri Shri Kailash Kumar Gupta

Subject: Issuance of DOCO Certificate of transmission element namely 400kV Bus Sectionalizer Bay 429 of 400 kV Bus-2B (Bus -4) and 400kV Bus -2 at Bikaner-II SS under "Implementation of Bus sectionalizer at 400kV level of 400/220kV Bikaner -II PS"

Ref: (i) "CTU's OM C/CTU/AI/00/15th CCTP/POWERGRID dated 26.10.2023"

Dear Sir(s),

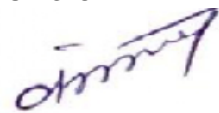
Consequent to the successful charging, the 400kV Bus Sectionalizer Bay 429 of 400kV Bus-2B (Bus -4) and 400kV Bus -2 at 400/220 kV Bikaner-II under the "Implementation of Bus sectionalizer at 400kV level of 400/220kV Bikaner -II PS" has been put under commercial operation with effect from 00:00 Hrs. of 23.01.2026, in terms of CERC (Indian Electricity Grid Code) Regulations 2023 and Clause 1 of Regulation (5) of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024.

Transmission charges for the above asset is payable with effect from 23.01.2026.

Thanking You,

Yours faithfully,

For and on behalf of POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED



K K Choudhary

Project Incharge

POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED

Email id: kanchan@powergrid.in

Mobile No.: 9560690612

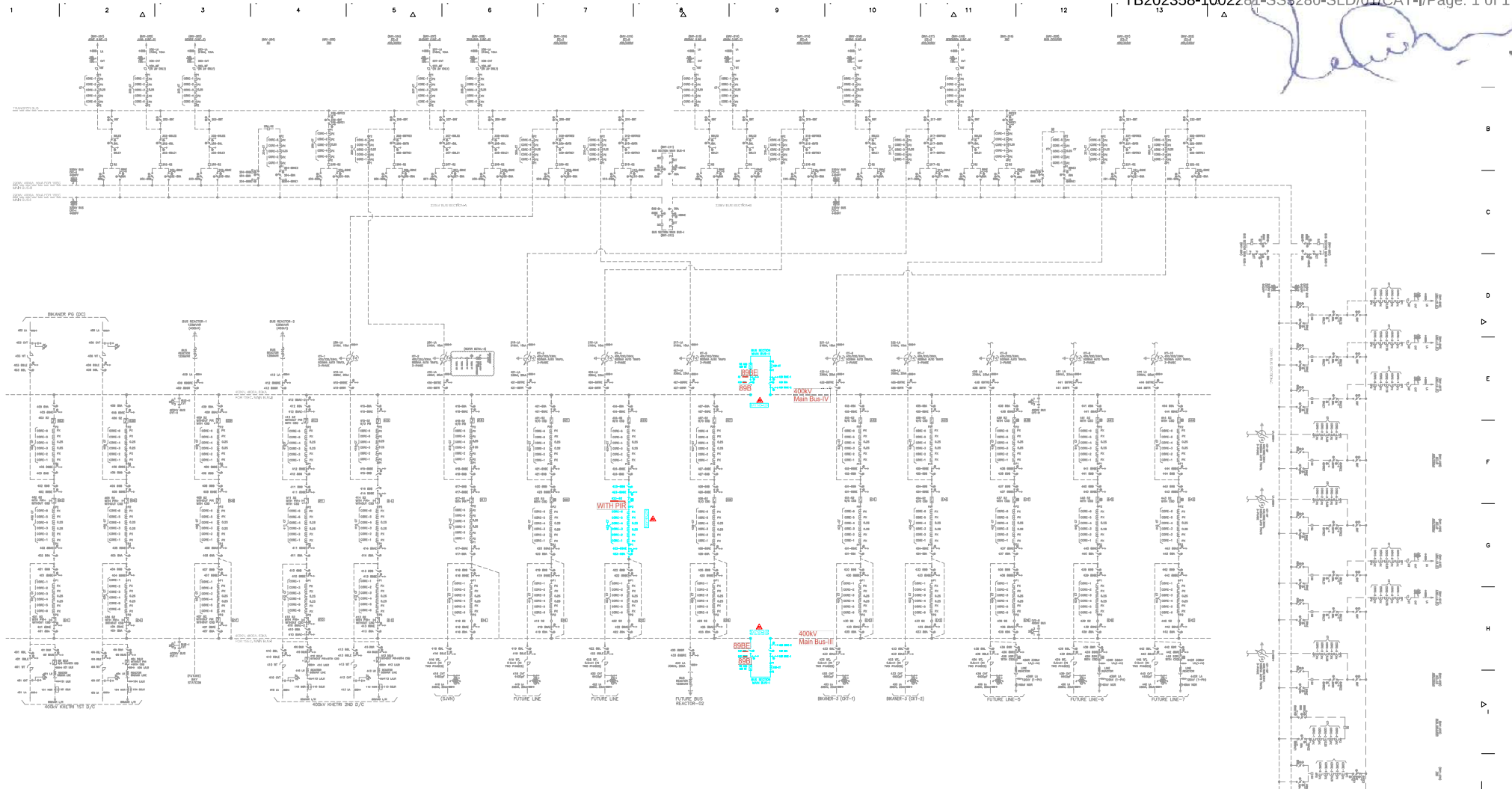
KANCHAN

KUMAR

CHOUHARY

Y

Digitally signed by
KANCHAN KUMAR
CHOUHARY
Date: 2026.04.22
17:27:35 +05'30'



BIL OF QUANTITIES 400V EQUIPMENT (BNA/REC)

SLD SYMBOL	DESCRIPTION	UNIT	REQ QTY	LOC QTY
01	400V 1250A 3P+N 4W CIRCLE BREAKER (3-PHASE) WITH CLOSING RESISTOR	NOS.	1	1
02	400V 1250A 3P+N 4W CIRCLE BREAKER (3-PHASE) WITHOUT CLOSING RESISTOR	NOS.	2	2
03	400V 1250A 4W 1P ISOLATOR WITH ONE EARTH SWITCH (3-PHASE)	NOS.	4	4
04	400V 1250A 4W 1P ISOLATOR WITH TWO EARTH SWITCH (3-PHASE)	NOS.	2	2
05	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING	NOS.	8	8

400V CURRENT TRANSFORMERS

No. of Core	Application	Current Ratio	Output Current	Accuracy Class	Max. Allowable Temp. (°C)	Sec. CT Ratio	Sec. CT Impedance (Ω)	Sec. CT Burden (VA)
1	400V 1250A 3P+N 4W CIRCLE BREAKER (3-PHASE) WITH CLOSING RESISTOR	3000/2000/1000/1	—	FX	3000/2000/1000	15/10/2.5	25	25
2	400V 1250A 3P+N 4W CIRCLE BREAKER (3-PHASE) WITHOUT CLOSING RESISTOR	3000/2000/1000/1	—	FX	3000/2000/1000	15/10/2.5	25	25
3	400V 1250A 4W 1P ISOLATOR WITH ONE EARTH SWITCH (3-PHASE)	3000/2000/1000/1	—	FX	3000/2000/1000	15/10/2.5	25	25
4	400V 1250A 4W 1P ISOLATOR WITH TWO EARTH SWITCH (3-PHASE)	3000/2000/1000/1	—	FX	3000/2000/1000	15/10/2.5	25	25
5	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING	3000/2000/1000/1	—	FX	3000/2000/1000	15/10/2.5	25	25

SYSTEM PARAMETERS

SL. No.	DESCRIPTION OF PARAMETERS	400V System
1	SYSTEM OPERATING VOLTAGE (PHS)	400V
2	MAXIMUM VOLTAGE OF THE SYSTEM	420V
3	RATED FREQUENCY	50Hz
4	NO. OF PHASES	3
5	DESIGN INSULATION LEVEL	
6	MULTIPLE WITHSTANDING VOLTAGE FOR - TRANSFORMER AND REACTORS - FOR OTHER EQUIPMENT - FOR ISOLATOR STRINGS	1150kV 1140kV 1150kV
7	ONE MINUTE POWER FREQUENCY DRY AND ONE MINUTE DRYING VOLTAGE	630kV
8	MAX. RATED INTERFERENCE VOLTAGE FOR FREQUENCY BETWEEN 0.5 MHz AND 1.5 MHz	1000 V at 2880V/m
9	MINIMUM CREEPAGE DISTANCE - FOR ISOLATOR STRINGS - FOR OTHER EQUIPMENT	1350 mm 1050 mm
10	MINIMUM CLEARANCES	
11	PHASE TO PHASE	4250 mm
12	PHASE TO EARTH	3650 mm
13	STRUCTURAL CLEARANCES	4000 mm
14	PHASE TO SHORT CIRCUIT CURRENT	1.5 m for 400V
15	SYSTEM NEUTRAL, EARTHING	Effectively earthed
16	CORONA EXTINCTION VOLTAGE	330kV
17	DESIGN AMBIENT TEMPERATURE	50 Deg. C

EQUIPMENT IDENTIFICATION

Equipment ID	Description
1	400V 1250A 3P+N 4W CIRCLE BREAKER (3-PHASE) WITH CLOSING RESISTOR
2	400V 1250A 3P+N 4W CIRCLE BREAKER (3-PHASE) WITHOUT CLOSING RESISTOR
3	400V 1250A 4W 1P ISOLATOR WITH ONE EARTH SWITCH (3-PHASE)
4	400V 1250A 4W 1P ISOLATOR WITH TWO EARTH SWITCH (3-PHASE)
5	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
6	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
7	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
8	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
9	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
10	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
11	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
12	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
13	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
14	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
15	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
16	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
17	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
18	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
19	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
20	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
21	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
22	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
23	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
24	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
25	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
26	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
27	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
28	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
29	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
30	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
31	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
32	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
33	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
34	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
35	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
36	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
37	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
38	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
39	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
40	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
41	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
42	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
43	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
44	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
45	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
46	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
47	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
48	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
49	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
50	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
51	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
52	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
53	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
54	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
55	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
56	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
57	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
58	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
59	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
60	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
61	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
62	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
63	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
64	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
65	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
66	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
67	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
68	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
69	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
70	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
71	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
72	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
73	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
74	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
75	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
76	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
77	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
78	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
79	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
80	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
81	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
82	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
83	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
84	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
85	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
86	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
87	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
88	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
89	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
90	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
91	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
92	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
93	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
94	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
95	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
96	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
97	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
98	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING
99	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITH 100A EXTENDED CURRENT RATING
100	400V 1250A 4W 1P CURRENT TRANSFORMER (1-PHASE) WITHOUT 100A EXTENDED CURRENT RATING

LEGENDS
PRESENT SCOPE
EXISTING SCOPE

KANCHAN KUMAR CHOUDHARY
Digitally signed by KANCHAN KUMAR CHOUDHARY
Date: 2026.04.22 17:28:15 +05'30'

R1	26.09.24	REVISED AS PER COMMENTS	AM	NP	MMK
RD	09.08.24	FIRST ISSUE	AM	NP	MMK
REV.	DATE	DESCRIPTION	DRAWN	CHKD	APPD
CLIENT:					
PROJECT:		765kV AIS SUBSTATION EXTENSION PACKAGE SS-120 FOR EXTENSION OF 400/220kV BIKANER-II SUBSTATION			
EPC CONTRACTOR:		GODREJ & BOYCE MFG. CO. LTD. (A Government of India Enterprise)			
NAME OF SUBSTATION:		400/220kV BIKANER-II SUBSTATION			
NDA No.:		CC/NT/W-AS/DOA/A00/23/13127/NDA-1/24-106817/03 AND 04			
DRAWN	09.08.24	AM			
CHKD	09.08.24	NP			
APPROVED	09.08.24	MMK			
SHEET NO.	01	SCALE	CONTRACTOR DRAWING NO.	SIZE	REV.
NTS		ONE-POOL-BKN-ELE-002		A0	R1

Annexure-7



भारत सरकार

Government of India

विद्युत मंत्रालय

Ministry of Power

केंद्रीय विद्युत प्राधिकरण

Central Electricity Authority

विद्युत प्रणाली योजना एवं मूल्यांकन प्रभाग- II

Power System Planning & Appraisal Division-II

सेवा में /To

As per list of Addresses

विषय: ट्रांसमिशन पर राष्ट्रीय समिति (एनसीटी) की अट्ठाईसवीं बैठक का कार्यव्रत ।**Subject: Minutes of the 28th Meeting of the National Committee on Transmission (NCT).**

महोदया (Madam) / महोदय (Sir),

The 28th meeting of the National Committee on Transmission (NCT) was held on 06th March, 2025 at New Delhi. The minutes of the meeting are attached herewith.

भवदीय / Yours faithfully,

(बी.एस.बैरवा / B.S. Bairwa)

मुख्य अभियन्ता (इंचार्ज) एवं सदस्य सचिव, एन.सी.टी.
/Chief Engineer (I/C) & Member Secretary (NCT)

प्रतिलिपि / Copy to:

Joint Secretary (Trans), Ministry of Power, New Delhi

Minutes of the 28th Meeting of the National Committee on Transmission (NCT)

1 Confirmation of the minutes of the 27th meeting of National Committee on Transmission.

1.1 The minutes of the 27th meeting of NCT held on 06.02.2025 were issued on 24.02.2025. No comments were received on the minutes.

1.2 Members confirmed the minutes.

2 Status of the transmission schemes noted/approved/recommended to MoP in the 27th meeting of NCT

2.1 Members noted the status of transmission schemes approved/recommended in the 27th meeting of NCT as given below.

Sr. No	Name of the Transmission Scheme	Noted/ Recommended/ Approved	Mode of Implementation	BPC	Award/ Gazette notification
1.	Inter-regional (NR-WR) Transmission System strengthening to relieve the loading of 765 kV Vindhyachal-Varanasi D/c line	Recommended	TBCB	PFFCL	Informed to MoP vide letter dated 24.02.2025. Approval of MoP under process.
2.	Transmission system for evacuation of power from Pumped Storage Projects in Sonbhadra District. Uttar Pradesh	Recommended	TBCB	RECPDCL	
3.	Transmission system for evacuation of Power from RE Projects in Morena SEZ in Madhya Pradesh-Phase I (2500 MW)	Recommended	TBCB	PFCL	
4.	Provision of ICT Augmentation and Bus Reactor at Bhuj-II PS	Recommended	RTM	Not applicable	
5.	Augmentation of transformation capacity at Bhuj-II PS (GIS)	Approved	RTM	Not applicable	
6.	OPGW installation on	Approved	RTM	Not	

Minutes of 28th meeting of National Committee on Transmission (NCT)

Sl. No	Scope of the Transmission Scheme	Capacity /km	Schedule
.			
	make Hassan - CN'Halli 400kV D/c line (25 KM)		

3.8 Procurement of Regional Spares for Southern Region in compliance to Commission's Order dated 18.01.2018 in Petition No. 38/TT/2017 of POWERGRID

3.8.1 Representative of POWERGRID stated that during the 50th TCC & 53rd SRPC meeting held on 29-30th November, 2024, forum approved regional cold spare transformers and reactors for Southern Region. The details are as below:

A. Transformers

MVA rating & phase	Voltage rating	Qty approved	Location approved of spare transformers	Tentative Cost / Unit (Rs in Cr.)	Amount (Rs. in Cr.)
3Ø – 500 MVA	400/220/33kV	5	AP, Karnataka, Kerala Telangana & Tamil Nadu	26.81	134.05

B. Reactors

MVA rating & phase	Voltage rating	Qty approved	Location approved of spare transformers	Tentative Cost / Unit (Rs in Cr.)	Amount (Rs. in Cr.)
3Ø – 125 MVar	420kV	5	AP, Karnataka, Kerala Telangana & Tamil Nadu	13	65
3Ø – 80 MVar	420kV	2	Karnataka & Tamil Nadu	11.25	22.5
Total					0

3.8.2 POWERGRID sought the approval of NCT for the above spares.

3.8.3 After deliberations, NCT decided that comprehensive proposals for all regions may be prepared for each region and deliberated in respective RPCs and thereafter in the National Power Committee (NPC). Further, NPC may formulate comprehensive guidelines for requirement and use of spares.

3.9 Challenges being faced by POWERGRID in Awarding of Contracts for Projects allocated under RTM

3.9.1 Representative from POWERGRID highlighted certain challenges being faced by

Minutes of 28th meeting of National Committee on Transmission (NCT)

them in the tendering process for projects allocated by CTUIL in multiple compressed timeframe. Despite multiple efforts, engagement from potential bidders remain limited due to the low financial value and geographically dispersed nature of these projects. POWERGRID has highlighted key challenges observed in awarding these contracts including AIS/GIS bay extension and transformer augmentation works are as follows:

- Low Bidder participation
- Compressed timeline in CTUIL OM
- High lead time for ICT/Reactor manufacturing
- Small work in staggered geographical location
- Variation in cost mentioned in CTUIL OM & estimated cost
- Extension of existing GIS substation
- Reconductoring packages

3.9.2 Representative from POWERGRID requested to increase the timelines of Transformer & Reactor Augmentation Works, GIS Extension Works, AIS Extension Works, Reconductoring Works, etc. to resolve these issues.

3.9.3 Representative of CTUIL stated that presently, the timelines considered for Bay extension works as 15 months, ICT augmentation works as 18 months and GIS extension works as 21 months.

3.9.4 After deliberations, NCT decided to consider the following timelines for implementation of the projects under RTM:

- (i). Bay extension works - 18 months,
- (ii). ICT augmentation works - 21 months and
- (iii). GIS extension works - 24 months.

3.10 Mismatch in transmission system and implementation of line bays under ISTS for termination of DTL of RE generation projects

KANCHAN KUMAR CHOUDHARY
Digitally signed
by KANCHAN
KUMAR
CHOUDHARY
Date: 2026.04.22
17:28:57 +05'30'

Certificate of Capital Cost

Name of the Company: Power Grid Bikaner Transmission System Ltd. having its Registered Office at B-9, Qutub Institutional Area, Katwaria Sarai, New Delhi-110016

Name of the Region: Northern Region-I

Name of the Project: Implementation of Bus Sectionalizer at 400kV Level of 400/220kv Bikaner-II SS

Name of the Element: 400kV Bus Sectionalizer Bay 428 at Bikaner-II SS

Date of Commercial Operation: 19/12/2025

S/N	Particulars	Rs. in Lacs			
		Capital Cost	IEDC	IDC	Total
1	Expenditure up to 18.12.2025 (DOCO 19.12.2025)	236.21	14.99	5.68	256.88
2	Expenditure from 19.12.2025 to 31.03.2026	25.77			25.77
3	Estimated Expenditure from 01.04.2026 to 31.03.2027	77.32			77.32
4	Estimated Expenditure from 01.04.2027 to 31.03.2028	12.89			12.89
5	Estimated Expenditure from 01.04.2028 to 31.03.2029	12.89			12.89
	Total	365.08	14.99	5.68	385.75

- a) We have verified the expenditure mentioned at Sl. No. 1 to 2 excluding liabilities in the above table. The same is based on information drawn from the books of Accounts of Power Grid Corporation of India Ltd., NR1, Faridabad for the period ended on 31.03.2026.
- b) The Estimated Expenditure mentioned at Sl. No. 3 to 5 are based on Management estimates.

Place: Faridabad
Date: 10/04/2026

PMSS AND CO.

Chartered Accountants

FRN: 019667N

Ajay Kumar Digitally signed by
 Ajay Kumar Gupta

Gupta Date: 2026.04.17
 11:10:12 +05'30'

Ajay Kumar Gupta

Partner

M.No.095714

UDIN: 26095714LNQNF9541

P M S S & Co.
CHARTERED ACCOUNTANTS
 118 B.G.F. INDRAPRASTHA COLONY, SECTOR 33, FARIDABAD-121 003

Certificate Ref. No.

Dated:.....

Name of the Company :
 Name of the Region :
 Name of the Project :
 Name of the Element :
 Date of Commercial Operation :

CERTIFICATE OF CAPITAL COST
 Power Grid Bikaner Transmission System Ltd. having its Registered Office at B-9, Qutub Institutional Area, Katwaria Sarai, New Delhi-110016
 Northern Region-I
 Implementation of Bus Sectionalizer at 400kV Level of 400/220kV Bikaner-II SS
 400kV Bus Sectionalizer Bay 428 at Bikaner-II SS
 19.12.2025

Rs in Lacs											
S/N	Particulars	Freehold Land	Leasehold Land	Building and Civil Works	Tr. Line	Sub Station	OPGW	Communication System excl. OPGW	I. T Equipment Incl. software, UNM5, URTDSM, EMS, Cyber Security System, REMC, WAMS, SCADA System	Batteries	Total
1	Expenditure up to 18.12.2025 (DOCO 19.12.2025)	0.00	0.00	0.00	0.00	214.13	0.00	0.00	42.75	0.00	256.88
2	Expenditure from 19.12.2025 to 31.03.2026	0.00	0.00	0.00	0.00	25.04	0.00	0.00	0.74	0.00	25.77
3	Estimated Expenditure from 01.04.2026 to 31.03.2027	0.00	0.00	0.00	0.00	75.11	0.00	0.00	2.21	0.00	77.32
4	Estimated Expenditure from 01.04.2027 to 31.03.2028	0.00	0.00	0.00	0.00	12.52	0.00	0.00	0.37	0.00	12.89
5	Estimated Expenditure from 01.04.2028 to 31.03.2029	0.00	0.00	0.00	0.00	12.52	0.00	0.00	0.37	0.00	12.89
	Total	0.00	0.00	0.00	0.00	339.32	0.00	0.00	46.43	0.00	385.75

S/N	Particulars	TL	Sub station Incl PLCC & IT Equipment	OPGW	Total
1	Total Cost (Plant and Machinery cost excluding IDC, IEDC, Land cost and cost of Civil works for the purpose of Initial Spares)	0.00	365.08	0.00	365.08
2	Initial Spares Included above	0.00	19.18	0.00	19.18

- a) We have verified the expenditure mentioned at Sr. No. 1 to 2 excluding liabilities in the above table. The same is based on information drawn from the books of Accounts of Power Grid Corporation of India Ltd., NR1, Faridabad for the period ended on 31.03.2025
- b) The Estimated Expenditure mentioned at Sl. No. 3 to 5 are based on Management estimates.

Place:- Faridabad
 Date:- 10/04/2026

P M S S & Co.
 Chartered Accountants
 FRN-019667N

Ajay Kumar Gupta
 Partner
 M.No. 095714
 UDIN: 26095714LNQNF9541

Digitaly signed by Ajay Kumar Gupta
 Date: 2026.04.12 11:18:14 +0530

Auto Transformer

Certificate of Capital Cost

Name of the Company: Power Grid Bikaner Transmission System Ltd. having its Registered Office at B-9, Qutub Institutional Area, Katwaria Sarai, New Delhi-110016

Name of the Region: Northern Region-I

Name of the Project: Implementation of Bus Sectionalizer at 400kV Level of 400/220kv Bikaner-II SS

Name of the Element: 400kV Bus Sectionalizer Bay 429 at Bikaner-II SS

Date of Commercial Operation: 23/01/2026

S/N	Particulars	Capital Cost	IEDC	IDC	Rs. in Lacs
					Total
1	Expenditure up to 22.01.2026 (DOCO 23.01.2026)	255.74	15.86	9.41	281.01
2	Expenditure from 23.01.2026 to 31.03.2026	21.87			21.87
3	Estimated Expenditure from 01.04.2026 to 31.03.2027	65.61			65.61
4	Estimated Expenditure from 01.04.2027 to 31.03.2028	10.93			10.93
5	Estimated Expenditure from 01.04.2028 to 31.03.2029	10.93			10.93
	Total	365.08	15.86	9.41	390.35

- a) We have verified the expenditure mentioned at Sl. No. 1 to 2 excluding liabilities in the above table. The same is based on information drawn from the books of Accounts of Power Grid Corporation of India Ltd., NR1, Faridabad for the period ended on 31.03.2026.
- b) The Estimated Expenditure mentioned at Sl. No. 3 to 5 are based on Management estimates.

Place: Faridabad
Date: 10/04/2026

PMSS AND CO.

Chartered Accountants

FRN: 019667N

Ajay Kumar Gupta
 Digitally signed by
 Ajay Kumar Gupta
 Date: 2026.04.17
 11:12:17 +05'30'

Ajay Kumar Gupta

Partner

M.No.095714

UDIN: 26095714CYRKWN2203

P M S S & Co.
CHARTERED ACCOUNTANTS
 118 B.G.F. INDRAPRASTHA COLONY, SECTOR 33, FARIDABAD-121 003

CERTIFICATE OF CAPITAL COST

Name of the Company : Power Grid Bikaner Transmission System Ltd. having its Registered Office at B-9, Qutub Institutional Area, Katwaria Sarai, New Delhi-110016
Name of the Region : Northern Region-I
Name of the Project : Implementation of Bus Sectionalizer at 400kV Level of 400/220kV Bikaner-II SS
Name of the Element : 400kV Bus Sectionalizer Bay 429 at Bikaner-II SS
Date of Commercial Operation : 23.01.2026

Rs in Lacs											
S/N	Particulars	Freehold Land	Leasehold Land	Building and Civil Works	Tr. Line	Sub Station	OPGW	Communication System exd. OPGW	I. T Equipment incl. software, UNMS, URTDSM, EMS, Cyber Security System, REMC, WAMS, SCADA System	Batteries	Total
1	Expenditure up to 22.01.2026 (DOCO 23.01.2026)	0.00	0.00	0.00	0.00	237.81	0.00	0.00	43.20	0.00	281.01
2	Expenditure from 23.01.2026 to 31.03.2026	0.00	0.00	0.00	0.00	16.33	0.00	0.00	5.54	0.00	21.87
3	Estimated Expenditure from 01.04.2026 to 31.03.2027	0.00	0.00	0.00	0.00	48.98	0.00	0.00	16.62	0.00	65.60
4	Estimated Expenditure from 01.04.2027 to 31.03.2028	0.00	0.00	0.00	0.00	8.16	0.00	0.00	2.77	0.00	10.93
5	Estimated Expenditure from 01.04.2028 to 31.03.2029	0.00	0.00	0.00	0.00	8.16	0.00	0.00	2.77	0.00	10.93
	Total	0.00	0.00	0.00	0.00	319.45	0.00	0.00	70.90	0.00	390.35

S/N	Particulars	TL	Sub station incl PLCC & IT Equipment	OPGW	Total
1	Total Cost (Plant and Machinery cost excluding IDC, IEDC, Land cost and cost of Civil works for the purpose of initial Spares)	0.00	365.08	0.00	365.08
2	Initial Spares included above	0.00	19.18	0.00	19.18

- a) We have verified the expenditure mentioned at Sr. No. 1 to 2 excluding liabilities in the above table. The same is based on information drawn from the books of Accounts of Power Grid Corporation of India Ltd., NR1, Faridabad for the period ended on 31.03.2025
- b) The Estimated Expenditure mentioned at Sl. No. 3 to 5 are based on Management estimates.

Place:- Faridabad
 Date:- 10/04/2026

P M S S & Co.
 Chartered Accountants
 FRN-019667N
Ajay Kumar Gupta
 Partner
 M.No. 095714
 UDIN : 26095714CYRKWN2203

Digitally signed by Ajay Kumar Gupta
 Date: 2026.04.17 11:15:59 +05'30'

KANCHAN KUMAR CHOUDHARY
 Digitally signed by KANCHAN KUMAR CHOUDHARY
 Date: 2026.04.22 17:29:38 +05'30'

1

Name of the Petitioner :	Power Grid Bikaner Transmission System Ltd.
Name of the Region :	NR
Name of the Project :	Implementation of Bus Sectionalizer at 400kV Level of 400/220kV Bikaner-II SS
Name of the Transmission Element or Communication System :	400kV Bus Sectionalizer Bay 428 of 400kV Bus-1B (Bus-3) and 400kV Bus-1 at Bikaner-II SS
Date of Commercial Operation :	19.12.2025

Initial Spares Discharge details*(Rs. In Lakhs)*

Particulars	TL	Sub station incl PLCC & IT Equipment	OPGW
Total Value of Spares as per Certificate		19.18	
Expenditure up to 18.12.2025 (DOCO 19.12.2025)		0.00	
Expenditure from 19.12.2025 to 31.03.2026		3.84	
Estimated Expenditure from 01.04.2026 to 31.03.2027		11.5	
Estimated Expenditure from 01.04.2027 to 31.03.2028		1.92	
Estimated Expenditure from 01.04.2028 to 31.03.2029	0.00	1.92	
Balance		0.00	

2

Name of the Petitioner : Power Grid Bikaner Transmission System Ltd.
Name of the Region : NR
Name of the Project : Implementation of Bus Sectionalizer at 400kV Level of 400/220kV Bikaner-II SS
Name of the Transmission Element or Communication System : 400kV Bus Sectionalizer Bay 429 of 400kV Bus-1B (Bus-3) and 400kV Bus-1 at Bikaner-II SS
Date of Commercial Operation : 23.01.2026

Initial Spares Discharge details**(Rs. In Lakhs)**

Particulars	TL	Sub station incl PLCC & IT Equipment	OPGW
Total Value of Spares as per Certificate		19.18	
Expenditure up to 22.01.2026 (DOCO 23.01.2026)		0.00	
Expenditure from 23.01.2026 to 31.03.2026		3.84	
Estimated Expenditure from 01.04.2026 to 31.03.2027		11.50	
Estimated Expenditure from 01.04.2027 to 31.03.2028		1.92	
Estimated Expenditure from 01.04.2028 to 31.03.2029	0.00	1.92	0.00
Balance		0.00	

KANCHAN KUMAR CHOUDHARY
 Digitally signed
 by KANCHAN KUMAR CHOUDHARY
 Date: 2026.04.22 17:30:21 +05'30'

Statement showing IDC Discharged upto DOCO

TBCB:1128		POWERGRID Bikaner Transmission System Ltd					
Project:		Implementation of Bus Sectionalizer at 400kV Level of 400/220kV Bikaner-II SS					
Element:		400kV Bus Sectionalizer Bay 428 of 400kV Bus-1B (Bus-3) and 400kV Bus-1 at Bikaner-II SS					
DOCO: Actual		19-Dec-25					
Loans	Amount	Interest Rate	Drawl Date	Total IDC	Annual Interest Payment Date upto DOCO	Interest Discharged upto DOCO	Annual Interest Payment Date after DOCO
HDFC_1	27.33	7.47%	21-May-25	0.06	03-Oct-25	0.06	05-Jan-26
HDFC_1		7.47%		0.16	03-Oct-25	0.16	05-Jan-26
HDFC_1		6.97%		0.01	03-Oct-25	0.01	05-Jan-26
HDFC_1		6.97%		0.16	03-Oct-25	0.16	05-Jan-26
HDFC_1		6.97%		0.16	03-Oct-25	0.16	05-Jan-26
HDFC_1		6.97%		0.16	03-Oct-25	0.16	05-Jan-26
HDFC_1		6.97%		0.16	03-Oct-25	0.00	05-Jan-26
HDFC_1		6.97%		0.16	03-Oct-25	0.00	05-Jan-26
HDFC_1		6.97%		0.09	03-Oct-25	0.00	05-Jan-26
HDFC_1	3.00	7.47%	04-Jun-25	0.00	03-Oct-25	0.00	05-Jan-26
HDFC_1		7.47%		0.02	03-Oct-25	0.02	05-Jan-26
HDFC_1		6.97%		0.00	03-Oct-25	0.00	05-Jan-26
HDFC_1		6.97%		0.02	03-Oct-25	0.02	05-Jan-26
HDFC_1		6.97%		0.02	03-Oct-25	0.02	05-Jan-26
HDFC_1		6.97%		0.02	03-Oct-25	0.02	05-Jan-26
HDFC_1		6.97%		0.02	03-Oct-25	0.00	05-Jan-26
HDFC_1		6.97%		0.02	03-Oct-25	0.00	05-Jan-26
HDFC_1		6.97%		0.01	03-Oct-25	0.00	05-Jan-26
HDFC_1	12.50	6.97%	03-Oct-25	0.07	03-Oct-25	0.00	05-Jan-26
HDFC_1		6.97%		0.07	03-Oct-25	0.00	05-Jan-26
HDFC_1		6.97%		0.04	03-Oct-25	0.00	05-Jan-26
CANARA	0.43	7.15%	26-Jun-25	0.00	03-Oct-25	0.00	05-Jan-26
CANARA		7.15%		0.00	03-Oct-25	0.00	05-Jan-26
CANARA		7.15%		0.00	03-Oct-25	0.00	05-Jan-26
CANARA		7.15%		0.00	03-Oct-25	0.00	05-Jan-26
CANARA		7.15%		0.00	03-Oct-25	0.00	05-Jan-26
CANARA		7.15%		0.00	03-Oct-25	0.00	05-Jan-26
CANARA		7.15%		0.00	03-Oct-25	0.00	05-Jan-26
CANARA		6.90%		0.00	03-Oct-25	0.00	05-Jan-26
CANARA	2.00	7.65%	27-Jun-25	0.00	03-Oct-25	0.00	05-Jan-26
CANARA		7.15%		0.01	03-Oct-25	0.01	05-Jan-26
CANARA		7.15%		0.01	03-Oct-25	0.01	05-Jan-26
CANARA		7.15%		0.01	03-Oct-25	0.01	05-Jan-26
CANARA		7.15%		0.01	03-Oct-25	0.00	05-Jan-26
CANARA		7.15%		0.01	03-Oct-25	0.00	05-Jan-26
CANARA		7.15%		0.00	03-Oct-25	0.00	05-Jan-26
CANARA		6.90%		0.00	03-Oct-25	0.00	05-Jan-26
SBI_LOC_V	1.83	6.82%	30-Jun-25	0.00	03-Oct-25	0.00	05-Jan-26
SBI_LOC_V		6.82%		0.01	03-Oct-25	0.01	05-Jan-26
SBI_LOC_V		6.82%		0.01	03-Oct-25	0.01	05-Jan-26
SBI_LOC_V		6.82%		0.01	03-Oct-25	0.01	05-Jan-26
SBI_LOC_V		6.85%		0.00	03-Oct-25	0.00	05-Jan-26
SBI_LOC_V		6.85%		0.01	03-Oct-25	0.00	05-Jan-26
SBI_LOC_V		6.85%		0.01	03-Oct-25	0.00	05-Jan-26
SBI_LOC_V		6.85%		0.01	03-Oct-25	0.00	05-Jan-26
SBI_LOC_V	130.86	6.82%	04-Jul-25	0.68	03-Oct-25	0.68	05-Jan-26
SBI_LOC_V		6.82%		0.76	03-Oct-25	0.76	05-Jan-26

Loans	Amount	Interest Rate	Drawl Date	Total IDC	Annual Interest Payment Date upto DOCO	Interest Discharged upto DOCO	Annual Interest Payment Date after DOCO
SBI_LOC_V		6.82%		0.71	03-Oct-25	0.71	05-Jan-26
SBI_LOC_V		6.85%		0.02	03-Oct-25	0.02	05-Jan-26
SBI_LOC_V		6.85%		0.76	03-Oct-25	0.00	05-Jan-26
SBI_LOC_V		6.85%		0.74	03-Oct-25	0.00	05-Jan-26
SBI_LOC_V		6.85%		0.44	03-Oct-25	0.00	05-Jan-26
SBI_LOC_VI (IR Replacement) (2025-26)	1.87	6.85%	30-Dec-25	0.00		0.00	
Total	179.82			5.68		3.03	

Total IDC as per Certificate	5.68
IDC Discharged upto DOCO	3.03
Accrual IDC upto DOCO (To be Discharged during 2025-2026)	2.65
Accrual IDC upto DOCO (To be Discharged during 2026-2027)	0.00

Certified that Interest on Bonds is paid annually and Interest on HDFC/SBI/Canara loans is paid monthly as per terms of issue of bonds/loan agreement and no default has been made in respect of debt servicing.

Statement showing IDC Discharged upto DOCO

[illegible]

Loans	Amount	Interest Rate	Drawl Date	Total IDC	Annual Interest Payment Date upto DOCO	Interest Discharged upto DOCO	Annual Interest Payment Date after DOCO
HDFC_1	14.57	6.97%	30-Apr-25	0.06	05-Jan-26	0.06	02-Apr-26
HDFC_1		6.72%		0.00	05-Jan-26	0.00	02-Apr-26
HDFC_1		6.72%		0.04	05-Jan-26	0.00	02-Apr-26
HDFC_1		7.72%		0.00	05-Jan-26	0.00	02-Apr-26
HDFC_1		7.47%		0.00	05-Jan-26	0.00	02-Apr-26
HDFC_1		7.47%		0.09	05-Jan-26	0.09	02-Apr-26
HDFC_1		7.47%		0.09	05-Jan-26	0.09	02-Apr-26
HDFC_1		6.97%		0.00	05-Jan-26	0.00	02-Apr-26
HDFC_1		6.97%		0.09	05-Jan-26	0.09	02-Apr-26
HDFC_1		6.97%		0.09	05-Jan-26	0.09	02-Apr-26
HDFC_1		6.97%		0.08	05-Jan-26	0.08	02-Apr-26
HDFC_1		6.97%		0.09	05-Jan-26	0.09	02-Apr-26
HDFC_1		6.97%		0.08	05-Jan-26	0.08	02-Apr-26
HDFC_1		6.97%		0.08	05-Jan-26	0.08	02-Apr-26
HDFC_1	7.00	6.72%	05-May-25	0.00	05-Jan-26	0.00	02-Apr-26
HDFC_1		6.72%		0.06	05-Jan-26	0.00	02-Apr-26
HDFC_1		7.47%		0.04	05-Jan-26	0.04	02-Apr-26
HDFC_1		7.47%		0.04	05-Jan-26	0.04	02-Apr-26
HDFC_1		6.97%		0.00	05-Jan-26	0.00	02-Apr-26
HDFC_1		6.97%		0.04	05-Jan-26	0.04	02-Apr-26
HDFC_1		6.97%		0.04	05-Jan-26	0.04	02-Apr-26
HDFC_1		6.97%		0.04	05-Jan-26	0.04	02-Apr-26
HDFC_1		6.97%		0.04	05-Jan-26	0.04	02-Apr-26
HDFC_1		6.97%		0.04	05-Jan-26	0.04	02-Apr-26
HDFC_1		6.97%		0.04	05-Jan-26	0.04	02-Apr-26
HDFC_1		6.97%		0.04	05-Jan-26	0.04	02-Apr-26
HDFC_1		6.97%		0.04	05-Jan-26	0.04	02-Apr-26
HDFC_1		6.97%		0.04	05-Jan-26	0.04	02-Apr-26
HDFC_1	46.11	6.72%	21-May-25	0.00	05-Jan-26	0.00	02-Apr-26
HDFC_1		6.72%		0.03	05-Jan-26	0.00	02-Apr-26
HDFC_1		7.47%		0.10	05-Jan-26	0.10	02-Apr-26
HDFC_1		7.47%		0.27	05-Jan-26	0.27	02-Apr-26
HDFC_1		6.97%		0.01	05-Jan-26	0.01	02-Apr-26
HDFC_1		6.97%		0.27	05-Jan-26	0.27	02-Apr-26
HDFC_1		6.97%		0.27	05-Jan-26	0.27	02-Apr-26
HDFC_1		6.97%		0.26	05-Jan-26	0.26	02-Apr-26
HDFC_1		6.97%		0.27	05-Jan-26	0.27	02-Apr-26
HDFC_1		6.97%		0.26	05-Jan-26	0.26	02-Apr-26
HDFC_1		6.97%		0.26	05-Jan-26	0.26	02-Apr-26
HDFC_1		6.97%		0.26	05-Jan-26	0.26	02-Apr-26
HDFC_1		6.72%		0.01	05-Jan-26	0.01	02-Apr-26
HDFC_1		6.72%		0.19	05-Jan-26	0.00	02-Apr-26
HDFC_1	19.54	6.97%	03-Oct-25	0.11	05-Jan-26	0.11	02-Apr-26
HDFC_1		6.97%		0.11	05-Jan-26	0.11	02-Apr-26
HDFC_1		6.97%		0.11	05-Jan-26	0.11	02-Apr-26
HDFC_1		6.72%		0.00	05-Jan-26	0.00	02-Apr-26
HDFC_1		6.72%		0.08	05-Jan-26	0.00	02-Apr-26
CANARA	1.03	7.65%	17-Apr-25	0.00	05-Jan-26	0.00	02-Apr-26
CANARA		7.65%		0.01	05-Jan-26	0.01	02-Apr-26
CANARA		7.65%		0.00	05-Jan-26	0.00	02-Apr-26
CANARA		7.15%		0.00	05-Jan-26	0.00	02-Apr-26
CANARA		7.15%		0.01	05-Jan-26	0.01	02-Apr-26
CANARA		7.15%		0.01	05-Jan-26	0.01	02-Apr-26
CANARA		7.15%		0.01	05-Jan-26	0.01	02-Apr-26
CANARA		7.15%		0.01	05-Jan-26	0.01	02-Apr-26
CANARA		7.15%		0.01	05-Jan-26	0.01	02-Apr-26
CANARA		7.15%		0.00	05-Jan-26	0.00	02-Apr-26
CANARA		6.90%		0.00	05-Jan-26	0.00	02-Apr-26
CANARA		6.90%		0.00	05-Jan-26	0.00	02-Apr-26
CANARA		7.65%		0.04	05-Jan-26	0.04	02-Apr-26
CANARA		7.65%		0.13	05-Jan-26	0.13	02-Apr-26
CANARA	20.12	7.65%	21-Apr-25	0.05	05-Jan-26	0.05	02-Apr-26
CANARA		7.15%		0.07	05-Jan-26	0.07	02-Apr-26
CANARA		7.15%		0.12	05-Jan-26	0.12	02-Apr-26
CANARA		7.15%		0.12	05-Jan-26	0.12	02-Apr-26
CANARA		7.15%		0.12	05-Jan-26	0.12	02-Apr-26
CANARA		7.15%		0.12	05-Jan-26	0.12	02-Apr-26
CANARA		7.15%		0.12	05-Jan-26	0.12	02-Apr-26
CANARA		7.15%		0.12	05-Jan-26	0.12	02-Apr-26
CANARA		7.15%		0.12	05-Jan-26	0.12	02-Apr-26
CANARA		7.15%		0.12	05-Jan-26	0.12	02-Apr-26
CANARA		7.15%		0.12	05-Jan-26	0.12	02-Apr-26
CANARA		7.15%		0.12	05-Jan-26	0.12	02-Apr-26
CANARA		7.15%		0.12	05-Jan-26	0.12	02-Apr-26
CANARA		7.15%		0.04	05-Jan-26	0.04	02-Apr-26

Loans	Amount	Interest Rate	Drawl Date	Total IDC	Annual Interest Payment Date upto DOCO	Interest Discharged upto DOCO	Annual Interest Payment Date after DOCO
CANARA	12.44	6.90%	23-Apr-25	0.08	05-Jan-26	0.08	02-Apr-26
CANARA		6.90%		0.08	05-Jan-26	0.00	02-Apr-26
CANARA		7.65%		0.02	05-Jan-26	0.02	02-Apr-26
CANARA		7.65%		0.08	05-Jan-26	0.08	02-Apr-26
CANARA		7.65%		0.03	05-Jan-26	0.03	02-Apr-26
CANARA		7.15%		0.05	05-Jan-26	0.05	02-Apr-26
CANARA		7.15%		0.08	05-Jan-26	0.08	02-Apr-26
CANARA		7.15%		0.08	05-Jan-26	0.08	02-Apr-26
CANARA		7.15%		0.07	05-Jan-26	0.07	02-Apr-26
CANARA		7.15%		0.08	05-Jan-26	0.08	02-Apr-26
CANARA		7.15%		0.07	05-Jan-26	0.07	02-Apr-26
CANARA		7.15%		0.03	05-Jan-26	0.03	02-Apr-26
CANARA		6.90%		0.05	05-Jan-26	0.05	02-Apr-26
CANARA		6.90%		0.05	05-Jan-26	0.00	02-Apr-26
CANARA	12.00	7.65%	25-Apr-25	0.02	05-Jan-26	0.02	02-Apr-26
CANARA		7.65%		0.08	05-Jan-26	0.08	02-Apr-26
CANARA		7.65%		0.03	05-Jan-26	0.03	02-Apr-26
CANARA		7.15%		0.04	05-Jan-26	0.04	02-Apr-26
CANARA		7.15%		0.07	05-Jan-26	0.07	02-Apr-26
CANARA		7.15%		0.07	05-Jan-26	0.07	02-Apr-26
CANARA		7.15%		0.07	05-Jan-26	0.07	02-Apr-26
CANARA		7.15%		0.07	05-Jan-26	0.07	02-Apr-26
CANARA		7.15%		0.07	05-Jan-26	0.07	02-Apr-26
CANARA		7.15%		0.03	05-Jan-26	0.03	02-Apr-26
CANARA		6.90%		0.05	05-Jan-26	0.05	02-Apr-26
CANARA		6.90%		0.05	05-Jan-26	0.00	02-Apr-26
SBI_LOC_V		6.82%	04-Jul-25	0.00	05-Jan-26	0.00	02-Apr-26
SBI_LOC_V		6.82%		0.00	05-Jan-26	0.00	02-Apr-26
SBI_LOC_V		6.82%		0.00	05-Jan-26	0.00	02-Apr-26
SBI_LOC_V		6.85%		0.00	05-Jan-26	0.00	02-Apr-26
SBI_LOC_V		6.85%		0.00	05-Jan-26	0.00	02-Apr-26
SBI_LOC_V		6.85%		0.00	05-Jan-26	0.00	02-Apr-26
SBI_LOC_V		6.85%		0.00	05-Jan-26	0.00	02-Apr-26
SBI_LOC_V		6.72%		0.00	05-Jan-26	0.00	02-Apr-26
SBI_LOC_V		6.72%		0.00	05-Jan-26	0.00	02-Apr-26
SBI_LOC_V		6.82%		0.07	05-Jan-26	0.07	02-Apr-26
SBI_LOC_V		6.82%		0.08	05-Jan-26	0.08	02-Apr-26
SBI_LOC_V		6.82%		0.07	05-Jan-26	0.07	02-Apr-26
SBI_LOC_V		6.85%		0.00	05-Jan-26	0.00	02-Apr-26
SBI_LOC_V		6.85%		0.08	05-Jan-26	0.08	02-Apr-26
SBI_LOC_V	13.00	6.85%	04-Jul-25	0.07	05-Jan-26	0.07	02-Apr-26
SBI_LOC_V		6.85%		0.07	05-Jan-26	0.07	02-Apr-26
SBI_LOC_V		6.85%		0.07	05-Jan-26	0.07	02-Apr-26
SBI_LOC_V		6.85%		0.07	05-Jan-26	0.07	02-Apr-26
SBI_LOC_V		6.72%		0.00	05-Jan-26	0.00	02-Apr-26
SBI_LOC_V		6.72%		0.05	05-Jan-26	0.00	02-Apr-26
SBI_LOC_V		6.82%		0.03	05-Jan-26	0.03	02-Apr-26
SBI_LOC_V		6.82%		0.04	05-Jan-26	0.04	02-Apr-26
SBI_LOC_V		6.82%		0.03	05-Jan-26	0.03	02-Apr-26
SBI_LOC_V		6.85%		0.00	05-Jan-26	0.00	02-Apr-26
SBI_LOC_V		6.85%		0.04	05-Jan-26	0.04	02-Apr-26
SBI_LOC_V		6.85%		0.04	05-Jan-26	0.04	02-Apr-26
SBI_LOC_V		6.85%		0.04	05-Jan-26	0.04	02-Apr-26
SBI_LOC_V		6.85%		0.04	05-Jan-26	0.04	02-Apr-26
SBI_LOC_V	6.40	6.72%	04-Jul-25	0.00	05-Jan-26	0.00	02-Apr-26
SBI_LOC_V		6.72%		0.03	05-Jan-26	0.00	02-Apr-26
SBI_LOC_V		6.72%		0.03	05-Jan-26	0.00	02-Apr-26
SBI_LOC_V		6.72%		0.00	05-Jan-26	0.00	02-Apr-26
SBI_LOC_V		6.72%		0.00	05-Jan-26	0.00	02-Apr-26
SBI_LOC_V		6.72%		0.00	05-Jan-26	0.00	02-Apr-26
SBI_LOC_V		6.72%		0.00	05-Jan-26	0.00	02-Apr-26
SBI_LOC_V		6.72%		0.00	05-Jan-26	0.00	02-Apr-26
SBI_LOC_V		6.72%		0.00	05-Jan-26	0.00	02-Apr-26
SBI_LOC_V		6.72%		0.00	05-Jan-26	0.00	02-Apr-26
SBI_LOC_V		6.72%		0.00	05-Jan-26	0.00	02-Apr-26
SBI_LOC_V		6.72%		0.00	05-Jan-26	0.00	02-Apr-26
SBI_LOC_V		6.72%		0.00	05-Jan-26	0.00	02-Apr-26
SBI_LOC_V		6.72%		0.00	05-Jan-26	0.00	02-Apr-26
Union Bank (IR Replacement) (2026-27)	0.56	6.65%	02-Apr-26	0.00		0.00	
Total	196.70			9.41		8.61	

Total IDC as per Certificate	9.41
IDC Discharged upto DOCO	8.61
Accrual IDC upto DOCO (To be Discharged during 2025-2026)	0.00
Accrual IDC upto DOCO (To be Discharged during 2026-2027)	0.80

Certified that Interest on Bonds is paid annually and Interest on HDFC/SBI/Canara loans is paid monthly as per terms of issue of bonds/loan agreement and no default has been made in respect of debt servicing.

Asset-1, NIDC details

ELEMENTC ODE	QUARTER	YEAR	BEGDA	ENDDA	DOCO	QTR_DAY S	NO_OF_D AYS	EXP_OB	EXP_ADD	EXP_CB	FUNDING_ OB	DRAWL_LOAN	REPAYMEN T LOAN	FUNDING_CB	NOR_FUNDING	IDC_BASE	RATE	Notional IDC	
0783001	2	2024	01-07-2024	30-09-2024	19-12-2025	92	92	0.00	2.22	2.22	0.00	0.00	0.00	0.00	0.00	1.55	1.55	2.16	0.03
0783001	3	2024	01-10-2024	31-12-2024	19-12-2025	92	92	2.22	0.50	2.72	0.00	0.00	0.00	0.00	0.00	1.90	1.90	2.16	0.04
0783001	4	2024	01-01-2025	31-03-2025	19-12-2025	90	90	2.72	77.79	80.51	0.00	0.00	0.00	0.00	0.00	56.36	56.36	2.16	1.22
0783001	1	2025	01-04-2025	30-06-2025	19-12-2025	91	91	80.51	133.13	213.64	0.00	34.59	0.00	34.59	149.55	114.96	1.86	2.14	0.00
0783001	2	2025	01-07-2025	30-09-2025	19-12-2025	92	92	213.64	22.97	236.61	34.59	130.86	0.00	165.45	165.63	0.18	1.73	0.00	0.00
0783001	3	2025	01-10-2025	31-12-2025	19-12-2025	92	79	236.61	17.63	254.24	165.45	12.50	0.00	177.95	177.97	0.02	1.73	0.00	0.00
Total									254.24			177.95	0.00						3.43

Asset-2, NIDC details

ELEMENT ODE	QUARTER	YEAR	BEGDA	ENDDA	DOCO	QTR_DAY S	NO_OF_D AYS	EXP_OB	EXP_ADD	EXP_CB	FUNDING_ OB	DRAWL_LOAN	REPAYMEN T LOAN	FUNDING_CB	NOR_FUNDING	IDC_BASE	RATE	Notional IDC
0783002	2	2024	01-07-2024	30-09-2024	23-01-2026	92	92	0.00	2.22	2.22	0.00	0.00	0.00	0.00	1.55	1.55	2.16	0.03
0783002	3	2024	01-10-2024	31-12-2024	23-01-2026	92	92	2.22	0.50	2.72	0.00	0.00	0.00	0.00	1.90	1.90	2.16	0.04
0783002	4	2024	01-01-2025	31-03-2025	23-01-2026	90	90	2.72	77.79	80.51	0.00	0.00	0.00	0.00	56.36	56.36	2.16	1.22
0783002	1	2025	01-04-2025	30-06-2025	23-01-2026	91	91	80.51	145.06	225.57	0.00	156.47	0.00	156.47	157.90	1.43	1.86	0.03
0783002	2	2025	01-07-2025	30-09-2025	23-01-2026	92	92	225.57	31.87	257.44	156.47	20.14	0.00	176.61	180.21	3.60	1.77	0.06
0783002	3	2025	01-10-2025	31-12-2025	23-01-2026	92	92	257.44	22.77	280.21	176.61	19.54	0.00	196.15	196.15	0.00	1.76	-
0783002	4	2025	01-01-2026	31-03-2026	23-01-2026	90	22	280.21	0.00	280.21	196.15	0.00	0.00	196.15	196.15	0.00	1.67	-
Total									280.21			196.15	0.00					1.38

Asset-1, LFS

ADD Cap Details/Liability Flow Statement

Name of Petitioner Power Grid Bikaner Transmission Ltd.
 Asset Name 400kV Bus Sectionalizer Bay 428 of 400kV Bus-1B (Bus-3) and 400kV Bus-1 at Bikaner-II SS
 Project Name Implementation of Bus Sectionalizer at 400kV Level of 400/220kV Bikaner-II SS

Asset No.	Headwise /Partywise	Particulars [#]	Year of Actual Capitalisation	Outstanding Liability as on COD	Discharge						Reversal						Additional Liability Recognized [^]						Outstanding Liability as on 31.03.2029
					2024-25	2025-26	2026-27	2027-28	2028-29	Total (24-29)	2024-25	2025-26	2026-27	2027-28	2028-29	Total (24-29)	2024-25	2025-26	2026-27	2027-28	2028-29	Total (24-29)	
Asset-1	M/S GODREJ & BOYCE MFG CO. LTD.	Sub Station	19.12.2025	34.10	0.00	6.83	20.45	3.41	3.41	34.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	M/S GODREJ & BOYCE MFG CO. LTD.	I. T Equipment incl. software, UNMS, URTDSM, EMS, Cyber Security System, REMC, WAMS, SCADA System	19.12.2025	3.64	0.00	0.73	2.19	0.36	0.36	3.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Asset No.	Headwise /Partywise	Particulars [#]	Year of Actual Capitalisation	Details of unexecuted work (as on DOCO) for which works has been completed before Cut-off date											Remarks
				2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	Total (24-29 & 29-34)	
Asset-1	M/S GODREJ & BOYCE MFG CO. LTD.	Sub Station	19.12.2025	0.00	18.21	54.66	9.11	9.11	0.00	0.00	0.00	0.00	0.00	91.09	-
	M/S GODREJ & BOYCE MFG CO. LTD.	I. T Equipment incl. software, UNMS, URTDSM, EMS, Cyber Security System, REMC, WAMS, SCADA System	19.12.2025	0.00	0.01	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.04	

All Works completed within Cut-off Date

Asset-2, LFS

Name of Petitioner Power Grid Bikaner Transmission Sysstem Ltd.
Asset Name 400kV Bus Sectionalizer Bay 429 of 400kV Bus-2B (Bus-4) and 400kV Bus-2 at Bikaner-II SS
Project Name Implementation of Bus Sectionaliser at 400kV Level of 400/220kV Bikaner-II SS

ADD Cap Details/Liability Flow Statement

Rs in Lakhs

Asset No.	Headwise /Partywise	Particulars [#]	Year of Actual Capitalisation	Outstanding Liability as on COD	Discharge						Reversal						Additional Liability Recognized [^]						Outstanding Liability as on 31.03.2029
					2024-25	2025-26	2026-27	2027-28	2028-29	Total (24-29)	2024-25	2025-26	2026-27	2027-28	2028-29	Total (24-29)	2024-25	2025-26	2026-27	2027-28	2028-29	Total (24-29)	
Asset-2	M/S GODREJ & BOYCE MFG CO. LTD.	Sub Station	23.01.2026	28.89	0.00	5.77	17.34	2.89	2.89	28.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	M/S GODREJ & BOYCE MFG CO. LTD.	I. T Equipment incl. software, UNMS, URTDSM, EMS, Cyber Security System, REMC, WAMS, SCADA System	23.01.2026	1.43	0.00	0.29	0.86	0.14	0.14	1.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Asset No.	Headwise /Partywise	Particulars [#]	Year of Actual Capitalisation	Details of unexecuted work (as on DOCO) for which works has been completed before Cut-off date											Remarks
				2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	Total (24-29 & 29-34)	
Asset-2	M/S GODREJ & BOYCE MFG CO. LTD.	Sub Station	23.01.2026	0.00	10.56	31.64	5.27	5.27	0.00	0.00	0.00	0.00	0.00	52.75	-
	M/S GODREJ & BOYCE MFG CO. LTD.	I. T Equipment incl. software, UNMS, URTDSM, EMS, Cyber Security System, REMC, WAMS, SCADA System	23.01.2026	0.00	5.25	15.76	2.63	2.63	0.00	0.00	0.00	0.00	0.00	26.27	

All Works completed within Cut-off Date

KANCHAN KUMAR CHAUDHARY Digitally signed by KANCHAN KUMAR CHAUDHARY Date: 2026.04.22 17:31:17 +05'30'

Name of the Transmission Licensee:		POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED	
Project	Implementation of Bus Sectionalizer Bay at 400KV level of 400/220KV Bikaner-II PS		
Element Description	400KV Bus Sectionalizer bay 428 of 400KV Bus-1B (Bus-3) and 400KV Bus-1 at 400/220KV Bikaner-II		
Region	Corporate Centre	DOCO Date	Dec 19, 2025

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Year Days	0.00	365.00	365.00	366.00	365.00
Tariff Days	0.00	103.00	365.00	366.00	365.00
Depreciation-Form No. 10A	0.00	4.56	18.58	20.62	21.20
Interest on Loan-Form No. 9E	0.00	3.65	14.72	15.54	14.72
Return on Equity-Form No. 8	0.00	3.45	14.61	16.64	17.22
Int. on Working capital-Form No.11	0.00	0.57	2.19	2.33	2.42
Op. and maintenance-Form No.2	0.00	8.77	32.71	34.43	36.23
Total AFC	0.00	21.00	82.81	89.56	91.79

(Petitioner)

Summary of Asset Level Cost

Form No. - 1A

Name of the Transmission Licensee	POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED		
Project	Implementation of Bus Sectionalizer Bay at 400KV level of 400/220KV Bikaner-II PS		
Element Description	400KV Bus Sectionalizer bay 428 of 400KV Bus-1B (Bus-3) and 400KV Bus-1 at 400/220KV Bikaner-II		
Region	Corporate Centre	DOC Date	Dec 19, 2025

A) Summary of Capital Cost, Means of Finance of the Asset

(Amount in Rs. Lakh)

Particular	i) Apportioned Approved Cost		ii) Summary of Actual / Projected Capital Expenditure incurred						
	As Per IA	As per RCE	As on COD / 01.04.2024	2024-25	2025-26	2026-27	2027-28	2028-29	As on 31.03.2029
Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	0.00	0.00	248.88	0.00	20.42	54.66	9.11	9.11	342.18
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT/Software/UNMS/URTDMS/	0.00	0.00	46.52	0.00	0.45	0.02	0.01	0.01	47.01
Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Capital Cost as per Books	0.00	0.00	295.40	0.00	20.87	54.68	9.12	9.12	389.19
Less: Liability	0.00	0.00	37.74	0.00	0.00	0.00	0.00	0.00	0.00
Add:discharge of liability	0.00	0.00	0.00	0.00	7.56	22.64	3.77	3.77	0.00
De cap During Year As per Books	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Capital incurred	0.00	0.00	257.66	0.00	28.43	77.32	12.89	12.89	389.19
Equity	0.00	0.00	77.30	0.00	8.52	23.20	3.87	3.87	116.76
Debt	0.00	0.00	180.36	0.00	19.91	54.12	9.02	9.02	272.43

Details of Transmission Lines and Substations, Communication System covered in the project scope and O&M for instant asset Form No. - 2

Name of the Transmission Licensee	POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED		
Project	Implementation of Bus Sectionalizer Bay at 400KV level of 400/220KV Bikaner-II PS		
Element Description	400KV Bus Sectionalizer bay 428 of 400KV Bus-1B (Bus-3) and 400KV Bus-1 at 400/220KV Bikaner-II		
Region	Corporate Centre	DOC Date	Dec 19, 2025

1. Transmission Lines

(Amount in Rs. Lakh)

Summary:

2. Sub Station

Name of Sub-station	Type of Substation	Voltage Level KV	No. of Transformers/ Reactor/ SVC etc. (with capacity)	No. of Bays				MVA/MVAR Capacity				Date of Comm. operation	Covered in the present petition	
				765 KV	400 KV	220 KV	132 KV	765 KV	400 KV	220 KV	132 KV		Yes/ No	If No, Petition No.
:BUS SECTIONALIZER BAY 428 OF 400 KV BUS-1B (BUS-3) AND 400 KV BUS-1	Brownfield	400 KV			1.000							Dec 19, 2025	Y	

Summary:

O&M Expenses For Substations Covered in the instant petition	2024-25	2025-26	2026-27	2027-28	2028-29
400KV SUB-STATION					
Normative Rate of O&M as per Regulation	0.00	31.08	32.71	34.43	36.23
No. of Units	0.00	1.00	1.00	1.00	1.00
O&M Claimed	0.00	8.77	32.71	34.43	36.23

Summary of O&M Expenses claim

(Amount in Rs. Lakh)

Particular	2024-25	2025-26	2026-27	2027-28	2028-29
A) Normative O&M					
Transmission Line	0.00	0.00	0.00	0.00	0.00
Substation	0.00	8.77	32.71	34.43	36.23
Communication System	0.00	0.00	0.00	0.00	0.00
Total Normative O&M	0.00	8.77	32.71	34.43	36.23
B) O&M Claimed under Regulation 35 (3)(C) (* The same is not being claimed and will be claimed through separate Petition)					
*Security Expenses	0.00	0.00	0.00	0.00	0.00
*Actual Capital Spare consumed	0.00	0.00	0.00	0.00	0.00
*Insurance Premium Paid	0.00	0.00	0.00	0.00	0.00
Total O&M	0.00	8.77	32.71	34.43	36.23

(Petitioner)

Normative parameters considered for tariff computations

Form No. - 3

Name of the Transmission Licensee	POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED				
Project	Implementation of Bus Sectionalizer Bay at 400KV level of 400/220KV Bikaner-II PS				
Element Description	400KV Bus Sectionalizer bay 428 of 400KV Bus-1B (Bus-3) and 400KV Bus-1 at 400/220KV Bikaner-II				
Region	Corporate Centre	DOC Date	Dec 19, 2025		

(Amount in Rs. Lakh)

Particulars	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
Base Rate of Return of Equity (in %)						
Tax Rate (in %)	17.472	17.472	17.472	17.472	17.472	17.472
Effective tax rate (in %)						
Grossed up Rate for ROE of 15.5% (in %)	18.782	18.782	18.782	18.782	18.782	18.782
Grossed up Rate for ROE of 15.0% (in %)	18.176	18.176	18.176	18.176	18.176	18.176
Target availability - AC System (in %)	98.00	98.00	98.00	98.00	98.00	98.00
Target availability - HVDC System (in %)	96.00	96.00	96.00	96.00	96.00	96.00
Norms for sub-station Bays (Rs Lakh per bay)						
765 kV	51.68	41.34	43.51	45.79	48.20	50.73
400 kV	36.91	29.53	31.08	32.71	34.43	36.23
220 kV	25.84	20.67	21.75	22.90	24.10	25.36
132 kV and below	18.46	15.78	16.61	17.48	18.40	19.35
Norms for Transformers (Rs Lakh per MVA)						
765 kV	0.564	0.262	0.276	0.29	0.305	0.322
400 kV	0.411	0.262	0.276	0.29	0.305	0.322
220 kV	0.282	0.262	0.276	0.29	0.305	0.322
132 kV and below	0.282	0.262	0.276	0.29	0.305	0.322
Norms for Reactor (Rs Lakh per MVAR)						
765 kV	0.00	0.262	0.276	0.29	0.305	0.322
400 kV	0.00	0.262	0.276	0.29	0.305	0.322

220 kV	0.00	0.262	0.276	0.29	0.305	0.322
132 kV and below	0.00	0.262	0.276	0.29	0.305	0.322
Norms for AC and HVDC lines (Rs Lakh per km)						
Single Circuit (Bundled Conductor with six or more sub-conductors)	1.011	0.861	0.906	0.953	1.003	1.056
Single Circuit (Bundled conductor with four sub-conductors)	0.867	0.738	0.776	0.817	0.86	0.905
Single Circuit (Twin & Triple Conductor)	0.578	0.492	0.518	0.545	0.573	0.603
Single Circuit (Single Conductor)	0.289	0.246	0.259	0.272	0.287	0.302
Double Circuit (Bundled conductor with four or more sub-conductors)	1.517	1.291	1.359	1.43	1.506	1.585
Double Circuit (Twin & Triple Conductor)	1.011	0.861	0.906	0.953	1.003	1.056
Double Circuit (Single Conductor)	0.433	0.369	0.388	0.409	0.43	0.453
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.662	2.266	2.385	2.51	2.642	2.781
Multi Circuit (Twin & Triple Conductor)	1.773	1.509	1.588	1.671	1.759	1.851
Norms for HVDC stations (Rs Lakh/MW)						
HVDC bipole scheme (Rs Lakh/MW)	0.00	1.04	1.10	1.16	1.22	1.28
HVDC Back-to-Back stations (Rs Lakh/MW) (Except Gazuwaka BTB)	0.00	2.07	2.18	2.30	2.42	2.55
Gazuwaka HVDC Back-to-Back station (Rs Lakh/MW)	0.00	1.83	1.92	2.03	2.13	2.24

(Petitioner)

Statement of Capital cost

Form No. - 4A

Name of the Transmission Licensee	POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED		
Project	Implementation of Bus Sectionalizer Bay at 400KV level of 400/220KV Bikaner-II PS		
Element Description	400KV Bus Sectionalizer bay 428 of 400KV Bus-1B (Bus-3) and 400KV Bus-1 at 400/220KV Bikaner-II		
Region	Corporate Centre	DOC Date	Dec 19, 2025

A) Capital Cost

(Amount in Rs. Lakh)

Particular	Accrual Basis	Un-discharged Liabilities	Cash Basis
As on relevant date :2025-26			
a) Opening Gross Block Amount as per books	295.40	37.74	257.66
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	0.00	0.00	0.00
As on relevant date :2026-27			
a) Opening Gross Block Amount as per books	316.27	30.18	286.09
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	0.00	0.00	0.00
a) Addition in Gross Block Amount during the period	20.87	0.00	20.87
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in B(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in B(a) above	0.00	0.00	0.00
d) De-cap in gross block amount during the year	0.00	0.00	0.00
a) Closing Gross Block Amount as per books	316.27	30.18	286.09
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in C(a) above	0.00	0.00	0.00
As on relevant date :2026-27			
a) Opening Gross Block Amount as per books	316.27	30.18	286.09
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	0.00	0.00	0.00

c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	0.00	0.00	0.00
---	------	------	------

a) Addition in Gross Block Amount during the period	54.68	0.00	54.68
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in B(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in B(a) above	0.00	0.00	0.00
d) De-cap in gross block amount during the year	0.00	0.00	0.00

a) Closing Gross Block Amount as per books	370.95	7.54	363.41
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost)included in C(a) above	0.00	0.00	0.00

As on relevant date :2027-28

a) Opening Gross Block Amount as per books	370.95	7.54	363.41
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	0.00	0.00	0.00

a) Addition in Gross Block Amount during the period	9.12	0.00	9.12
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in B(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in B(a) above	0.00	0.00	0.00
d) De-cap in gross block amount during the year	0.00	0.00	0.00

a) Closing Gross Block Amount as per books	380.07	3.77	376.30
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost)included in C(a) above	0.00	0.00	0.00

As on relevant date :2028-29

a) Opening Gross Block Amount as per books	380.07	3.77	376.30
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	0.00	0.00	0.00

a) Addition in Gross Block Amount during the period	9.12	0.00	9.12
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in B(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in B(a) above	0.00	0.00	0.00
d) De-cap in gross block amount during the year	0.00	0.00	0.00

a) Closing Gross Block Amount as per books	389.19	0.00	389.19
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in C(a) above	0.00	0.00	0.00

B) Flow of liability for the Asset

(Amount in Rs. Lakh)

Particular	2025-2026	2026-2027	2027-2028	2028-2029					
Opening balance of liability	37.74	30.18	7.54	3.77	0.00	0.00	0.00	0.00	0.00
Add: Liability from ACE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Discharge of liability by payment and claimed as ACE	7.56	22.64	3.77	3.77	0.00	0.00	0.00	0.00	0.00
Reversal/cancelation (to be entered)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Closing Balance of Admitted liability	30.18	7.54	3.77	0.00	0.00	0.00	0.00	0.00	0.00

(Petitioner)

Financial Package upto COD

Form No. - 6

Name of the Transmission Licensee	POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED		
Project	Implementation of Bus Sectionalizer Bay at 400KV level of 400/220KV Bikaner-II PS		
Element Description	400KV Bus Sectionalizer bay 428 of 400KV Bus-1B (Bus-3) and 400KV Bus-1 at 400/220KV Bikaner-II		
Region	Corporate Centre	DOCODate	Dec 19, 2025

(Amount in Rs. Lakh)

Particulars	Financial Package as Approved		Financial Package as on COD 01/04/2024		As Admitted on COD 01/04/2024	
	Currency	Amount	Currency	Amount	Currency	Amount
Loans		0.00		0.00		0.00
Loan-Domestic		0.00		0.00		0.00
Loan-Foreign		0.00		0.00		0.00
Total Loans	INR	0.00	INR	180.36		0.00
Equity		0.00		0.00		0.00
Foreign		0.00		0.00		0.00
Domestic	INR	0.00	INR	77.30		0.00
Total Equity	INR	0.00	INR	77.30		0.00
Debt Equity Ratio					70:30	
Total Cost	INR	0.00	INR	257.66		0.00

Particulars	Debt	Equity	Total	
Addcap for 2025 - 2026			28.43	
Addcap for 2026 - 2027			77.32	
Addcap for 2027 - 2028			12.89	
Addcap for 2028 - 2029		143	12.89	

Particulars	Actual	Normative	
Addcap for 2025 - 2026			
Equity		8.52	
Debt		19.91	
Total		28.43	
Addcap for 2026 - 2027			
Equity		23.20	
Debt		54.12	
Total		77.32	
Addcap for 2027 - 2028			
Equity		3.87	
Debt		9.02	
Total		12.89	
Addcap for 2028 - 2029			
Equity		3.87	
Debt		9.02	
Total		12.89	
Total Capital cost with Addcap		389.19	

(Petitioner)

Statement of Additional Capitalisation after COD

Form No. - 7

Name of the Transmission Licensee	POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED		
Project	Implementation of Bus Sectionalizer Bay at 400KV level of 400/220KV Bikaner-II PS		
Element Description	400KV Bus Sectionalizer bay 428 of 400KV Bus-1B (Bus-3) and 400KV Bus-1 at 400/220KV Bikaner-II		
Region	Corporate Centre	DOC Date	Dec 19, 2025

(Amount in Rs. Lakh)

Particulars	Addition into Gross Block as per books of Account during the year (2)	De-Cap into Gross Block as per books of Account during the year	Less: Deductions dr. the year towards				Add: Discharge of earlier admitted liability	ACE on cash basis for tariff purpose	Admitted Cost in final tariff (Rs Lakh)
			Grants Received (if any) (3)	Asset pertaining to other businesses (If any) (4)	Other Deduction (if any) (5)	Less: Undischarged liability included in (2-4-5)			
ACE for the year :2024-25 (Actual/Projected)									
Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT/Software/UNMS/URTDMS/ SCADA,etc	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ACE for the year :2025-26 (Actual/Projected)									

Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	20.42	0.00	0.00	0.00	0.00	0.00	6.83	27.25	0.00
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT/Software/UNMS/URTDMS/ SCADA,etc	0.45	0.00	0.00	0.00	0.00	0.00	0.73	1.18	0.00
Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	20.87	0.00	0.00	0.00	0.00	0.00	7.56	28.43	0.00
ACE for the year :2026-27 (Actual/Projected)									
Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	54.66	0.00	0.00	0.00	0.00	0.00	20.45	75.11	0.00
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT/Software/UNMS/URTDMS/ SCADA,etc	0.02	0.00	0.00	0.00	0.00	0.00	2.19	2.21	0.00
Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	54.68	0.00	0.00	0.00	0.00	0.00	22.64	77.32	0.00
ACE for the year :2027-28 (Actual/Projected)									
Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	9.11	0.00	0.00	0.00	0.00	0.00	3.41	12.52	0.00
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT/Software/UNMS/URTDISM/ SCADA,etc	0.01	0.00	0.00	0.00	0.00	0.00	0.36	0.37	0.00
Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	9.12	0.00	0.00	0.00	0.00	0.00	3.77	12.89	0.00
ACE for the year :2028-29 (Actual/Projected)									
Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	9.11	0.00	0.00	0.00	0.00	0.00	3.41	12.52	0.00
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT/Software/UNMS/URTDISM/ SCADA,etc	0.01	0.00	0.00	0.00	0.00	0.00	0.36	0.37	0.00
Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	9.12	0.00	0.00	0.00	0.00	0.00	3.77	12.89	0.00

(Petitioner)

Financing of Additional Capitalisation

Form No. - 7A

Name of the Transmission Licensee	POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED		
Project	Implementation of Bus Sectionalizer Bay at 400KV level of 400/220KV Bikaner-II PS		
Element Description	400KV Bus Sectionalizer bay 428 of 400KV Bus-1B (Bus-3) and 400KV Bus-1 at 400/220KV Bikaner-II		
Region	Corporate Centre	DOCO Date	Dec 19, 2025

(Amount in Rs. Lakh)

Financial Year (Starting of COD)	Actual/Projected					Admitted				
	2024-25	2025-26	2026-27	2027-28	2028-29	2024-25	2025-26	2026-27	2027-28	2028-29
Amount capitilized in Work/ Equipment										
Financing Details										
Total Loan	0.00	19.91	54.12	9.02	9.02					
Equity	0.00	8.52	23.20	3.87	3.87					
Total	0.00	28.43	77.32	12.89	12.89					

(Petitioner)

Calculation of ROE

Form No. - 8

Name of the Transmission Licensee	POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED		
Project	Implementation of Bus Sectionalizer Bay at 400KV level of 400/220KV Bikaner-II PS		
Element Description	400KV Bus Sectionalizer bay 428 of 400KV Bus-1B (Bus-3) and 400KV Bus-1 at 400/220KV Bikaner-II		
Region	Corporate Centre	DOCO Date	Dec 19, 2025

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
No. of Days in the year	0.00	365.00	365.00	366.00	365.00
No. of days for which tariff claimed	0.00	103.00	365.00	366.00	365.00
Opening Normative Equity	0.00	77.30	85.82	109.02	112.89
Less: Adjustment in Equity*	0.00	0.00	0.00	0.00	0.00
Adjustment during the year	0.00	0.00	0.00	0.00	0.00
Net opening equity (Normal)	0.00	77.30	85.82	109.02	112.89
Add: Increase in Equity due to addition during the year / period	0.00	6.25	16.41	2.74	2.74
Less: Decrease due to de-capitalisation during the year / period	0.00	0.00	0.00	0.00	0.00
Add: Increase due to discharge during the year / period	0.00	2.27	6.79	1.13	1.13
Closing Normative Equity	0.00	85.82	109.02	112.89	116.76
Average Normative Equity	0.00	81.56	97.42	110.96	114.83
Rate of return on Equity (%)	0.00	15.00	15.00	15.00	15.00
Reduced rate of 1% decided by commission under Regulation 30(2) (if any)	0.00	0.00	0.00	0.00	0.00
Effective rate of ROE	0.00	15.00	15.00	15.00	15.00
MAT/Corporate Rate	0.00	0.00	0.00	0.00	0.00
Grossed up rate of ROE	0.00	15.00	15.00	15.00	15.00
Return on Equity	0.00	12.23	14.61	16.64	17.22
Pro rata return on Equity	0.00	3.45	14.61	16.64	17.22

(Petitioner)

Calculation of WAR of interest on actual loan

Form No. - 9C

Name of the Transmission Licensee	POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED		
Project	Implementation of Bus Sectionalizer Bay at 400KV level of 400/220KV Bikaner-II PS		
Element Description	400KV Bus Sectionalizer bay 428 of 400KV Bus-1B (Bus-3) and 400KV Bus-1 at 400/220KV Bikaner-II		
Region	Corporate Centre	DOCO Date	Dec 19, 2025

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
PBTSL Loan (Canara-02) -DOCO FUNDING					
Gross Loan- Opening	0.00	0.43	0.43	0.43	0.43
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.02	0.05
Net loan-Opening	0.00	0.43	0.43	0.41	0.38
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.02	0.04	0.04
Net Loan-Closing	0.00	0.43	0.41	0.37	0.34
Average Net Loan	0.00	0.43	0.42	0.39	0.36
Rate of Interest on Loan on Annual Basis	0.00	6.90	6.90	6.90	6.90
Interest on loan	0.00	0.0297	0.029	0.0269	0.0248

PBTSL Loan (Canara-02) -DOCO FUNDING					
Gross Loan- Opening	0.00	2.00	2.00	2.00	2.00
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.08	0.25
Net loan-Opening	0.00	2.00	2.00	1.92	1.75
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.08	0.17	0.17
Net Loan-Closing	0.00	2.00	1.92	1.75	1.58

Average Net Loan	0.00	2.00	1.96	1.84	1.67
Rate of Interest on Loan on Annual Basis	0.00	6.90	6.90	6.90	6.90
Interest on loan	0.00	0.138	0.1352	0.127	0.1152

PBTSL SBI-05 -DOCO FUNDING					
Gross Loan- Opening	0.00	1.83	1.83	1.83	1.83
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.08	0.23
Net loan-Opening	0.00	1.83	1.83	1.75	1.60
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.08	0.15	0.15
Net Loan-Closing	0.00	1.83	1.75	1.60	1.45
Average Net Loan	0.00	1.83	1.79	1.68	1.53
Rate of Interest on Loan on Annual Basis	0.00	6.85	6.85	6.85	6.85
Interest on loan	0.00	0.1254	0.1226	0.1151	0.1048

PBTSL SBI-05 -DOCO FUNDING					
Gross Loan- Opening	0.00	130.86	130.86	130.86	130.86
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	5.47	16.41
Net loan-Opening	0.00	130.86	130.86	125.39	114.45
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	5.47	10.94	10.94
Net Loan-Closing	0.00	130.86	125.39	114.45	103.51
Average Net Loan	0.00	130.86	128.13	119.92	108.98
Rate of Interest on Loan on Annual Basis	0.00	6.85	6.85	6.85	6.85
Interest on loan	0.00	8.9639	8.7769	8.2145	7.4651

PBTSL Bond LXXXIII (83) -ADD CAP					
Gross Loan- Opening	0.00	0.00	18.04	18.04	18.04
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.75	2.26
Net loan-Opening	0.00	0.00	18.04	17.29	15.78
Add: Drawl(s) during the year	0.00	18.04	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.75	1.51	1.51
Net Loan-Closing	0.00	18.04	17.29	15.78	14.27
Average Net Loan	0.00	9.02	17.67	16.54	15.03
Rate of Interest on Loan on Annual Basis	0.00	7.02	7.02	7.02	7.02
Interest on loan	0.00	0.6332	1.2404	1.1611	1.0551

PBTSL Bond LXXXIII (83) -ADD CAP ACCRUAL IDC					
Gross Loan- Opening	0.00	0.00	1.87	1.87	1.87
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.08	0.23
Net loan-Opening	0.00	0.00	1.87	1.79	1.64
Add: Drawl(s) during the year	0.00	1.87	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.08	0.16	0.16
Net Loan-Closing	0.00	1.87	1.79	1.63	1.48
Average Net Loan	0.00	0.94	1.83	1.71	1.56
Rate of Interest on Loan on Annual Basis	0.00	7.02	7.02	7.02	7.02
Interest on loan	0.00	0.066	0.1285	0.12	0.1095

PBTSL HDFC-03 -DOCO FUNDING					
Gross Loan- Opening	0.00	27.33	27.33	27.33	27.33
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	1.14	3.43
Net loan-Opening	0.00	27.33	27.33	26.19	23.90

Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	1.14	2.28	2.28
Net Loan-Closing	0.00	27.33	26.19	23.91	21.62
Average Net Loan	0.00	27.33	26.76	25.05	22.76
Rate of Interest on Loan on Annual Basis	0.00	6.97	6.97	6.97	6.97
Interest on loan	0.00	1.9049	1.8652	1.746	1.5864

PBTSL HDFC-03 -DOCO FUNDING					
Gross Loan- Opening	0.00	3.00	3.00	3.00	3.00
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.13	0.38
Net loan-Opening	0.00	3.00	3.00	2.87	2.62
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.13	0.25	0.25
Net Loan-Closing	0.00	3.00	2.87	2.62	2.37
Average Net Loan	0.00	3.00	2.94	2.75	2.50
Rate of Interest on Loan on Annual Basis	0.00	6.97	6.97	6.97	6.97
Interest on loan	0.00	0.2091	0.2049	0.1917	0.1743

PBTSL HDFC-03 -DOCO FUNDING					
Gross Loan- Opening	0.00	12.50	12.50	12.50	12.50
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.52	1.57
Net loan-Opening	0.00	12.50	12.50	11.98	10.93
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.52	1.04	1.04
Net Loan-Closing	0.00	12.50	11.98	10.94	9.89
Average Net Loan	0.00	12.50	12.24	11.46	10.41

Rate of Interest on Loan on Annual Basis	0.00	6.97	6.97	6.97	6.97
Interest on loan	0.00	0.8713	0.8531	0.7988	0.7256

Summary

Gross Loan- Opening	0.00	177.95	197.86	197.86	197.86
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	8.27	24.81
Net loan-Opening	0.00	177.95	197.86	189.59	173.05
Add: Drawl(s) during the year	0.00	19.91	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	8.27	16.54	16.54
Net Loan-Closing	0.00	197.86	189.59	173.05	156.51
Average Net Loan	0.00	187.91	193.74	181.34	164.80
Rate of Interest on Loan on Annual Basis	0.00	6.8871	6.8937	6.8937	6.8937
Interest on loan	0.00	12.9415	13.3558	12.5011	11.3608

(Petitioner)

Calculation of interest on Normative loan

Form No. - 9E

Name of the Transmission Licensee	POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED		
Project	Implementation of Bus Sectionalizer Bay at 400KV level of 400/220KV Bikaner-II PS		
Element Description	400KV Bus Sectionalizer bay 428 of 400KV Bus-1B (Bus-3) and 400KV Bus-1 at 400/220KV Bikaner-II		
Region	Corporate Centre	DOCO Date	Dec 19, 2025

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
No. of Days in the Year	0.00	365.00	365.00	366.00	365.00
No. of days for which Tariff claimed	0.00	103.00	365.00	366.00	365.00
Gross normative loan-Opening	0.00	180.36	200.27	254.39	263.41
Cumulative repayments of Normative loan upto previous year	0.00	0.00	4.56	23.14	43.76
Net normative loan-Opening	0.00	180.36	195.71	231.25	219.65
Addition in normative loan towards the ACE	0.00	19.91	54.12	9.02	9.02
Adjustment of normative gross loan pertaining to the decapitalised asset	0.00	0.00	0.00	0.00	0.00
Normative repayments of normative loan during the year	0.00	4.56	18.58	20.62	21.20
Adjustment of cumulative repayment pertaining to the decapitalised asset	0.00	0.00	0.00	0.00	0.00
Net normative loan - closing	0.00	195.71	231.25	219.65	207.47
Average normative loan	0.00	188.04	213.48	225.45	213.56
Weighted Average Rate of interest on actual loan	0.00	6.8871	6.8937	6.8937	6.8937
Interest on normative loan	0.00	12.95	14.72	15.54	14.72
Pro rata interest on normative loan	0.00	3.65	14.72	15.54	14.72

(Petitioner)

Calculation of Depreciation Rate on Original Project Cost

Form No. - 10

Name of the Transmission Licensee	POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED		
Project	Implementation of Bus Sectionalizer Bay at 400KV level of 400/220KV Bikaner-II PS		
Element Description	400KV Bus Sectionalizer bay 428 of 400KV Bus-1B (Bus-3) and 400KV Bus-1 at 400/220KV Bikaner-II		
Region	Corporate Centre	DOCO Date	Dec 19, 2025

(Amount in Rs. Lakh)

Name of Assets	Gross block at the beginning of the year	Add Cap during the year	Gross block at the end of the year	Average Gross Block	Depreciation Rate as per CERC's Depreciation Rate Schedule	Depreciation Amount for each year upto 31.03.2029
2025-26						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00
Civil & Building	0.00	0.00	0.00	0.00	3.34	0.00
Transmission Line	0.00	0.00	0.00	0.00	4.22	0.00
Sub Station	214.78	27.25	242.03	228.41	4.22	2.72
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	15.00	0.00
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDMS/ SCADA,etc	42.88	1.18	44.06	43.47	15.00	1.84
Batteries	0.00	0.00	0.00	0.00	9.50	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
TOTAL	257.66	28.43	286.09	271.88	0.00	4.56
Weighted Average Rate of Depreciation(%)					1.677211	

2026-27						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00

Civil & Building	0.00	0.00	0.00	0.00	3.34	0.00
Transmission Line	0.00	0.00	0.00	0.00	4.22	0.00
Sub Station	242.03	75.11	317.14	279.59	4.22	11.80
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	15.00	0.00
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDMS/SCADA,etc	44.06	2.21	46.27	45.17	15.00	6.78
Batteries	0.00	0.00	0.00	0.00	9.50	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
TOTAL	286.09	77.32	363.41	324.76	0.00	18.58
Weighted Average Rate of Depreciation(%)					5.721148	

2027-28						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00
Civil & Building	0.00	0.00	0.00	0.00	3.34	0.00
Transmission Line	0.00	0.00	0.00	0.00	4.22	0.00
Sub Station	317.14	12.52	329.66	323.40	4.22	13.65
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	15.00	0.00
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDMS/SCADA,etc	46.27	0.37	46.64	46.46	15.00	6.97
Batteries	0.00	0.00	0.00	0.00	9.50	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
TOTAL	363.41	12.89	376.30	369.86	0.00	20.62
Weighted Average Rate of Depreciation(%)					5.575082	

2028-29						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00
Civil & Building	0.00	0.00	0.00	0.00	3.34	0.00
Transmission Line	0.00	0.00	0.00	0.00	4.22	0.00
Sub Station	329.66	12.52	342.18	335.92	4.22	14.18
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	15.00	0.00
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDISM/SCADA,etc	46.64	0.37	47.01	46.83	15.00	7.02
Batteries	0.00	0.00	0.00	0.00	9.50	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
TOTAL	376.30	12.89	389.19	382.75	0.00	21.20
Weighted Average Rate of Depreciation(%)					5.538863	

(Petitioner)

Statement of Depreciation

Form No. - 10A

Name of the Transmission Licensee	POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED				
Project	Implementation of Bus Sectionalizer Bay at 400KV level of 400/220KV Bikaner-II PS				
Element Description	400KV Bus Sectionalizer bay 428 of 400KV Bus-1B (Bus-3) and 400KV Bus-1 at 400/220KV Bikaner-II				
Region	Corporate Centre	DOC Date	Dec 19, 2025		

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
No of Days in the year	0.00	365.00	365.00	366.00	365.00
No of days for which tariff claimed	0.00	103.00	365.00	366.00	365.00
Life at the beginning of the year					
1.1 Weighted Average useful life of the Asset/Project	0.00	22.00	22.00	22.00	22.00
1.2 Lapsed Weighted Average useful life of the Asset/Project(in completed no. of year)	0.00	0.00	0.00	1.00	2.00
1.3 Balance Weighted Average useful life of the Asset/Project(in completed no. of year)	0.00	22.00	22.00	21.00	20.00
Capital Base					
1.4 Opening capital cost	0.00	257.66	286.09	363.41	376.30
1.5 Additional Capital Expenditure dr. the year	0.00	28.43	77.32	12.89	12.89
1.6 De-Capitalisation During the year	0.00	0.00	0.00	0.00	0.00
1.7 Closing capital cost	0.00	286.09	363.41	376.30	389.19
1.8 Average capital cost	0.00	271.88	324.76	369.86	382.75
1.9 Freehold land included in 1.8	0.00	0.00	0.00	0.00	0.00
1.10 Asset having NIL salvage value included in 1.8	0.00	43.47	45.17	46.46	46.83
1.11 Asset having 10% salvage value included in 1.8	0.00	228.41	279.59	323.40	335.92
1.12 Depreciable Value(1.10+90% of 1.11)	0.00	249.04	296.80	337.52	349.16
Depreciation for the period and Cum. Depreciation					
1.13 Weighted Average Rate of depreciation	0.00	1.677211	5.721148	5.575082	5.538863

1.14 Depreciation(for the period)	0.00	4.56	18.58	20.62	21.20
1.15 Depreciation(Annualised)	0.00	4.56	18.58	20.62	21.20
Unrecovered Depreciation for DECAP	0.00	0.00	0.00	0.00	0.00
1.16 Cumulative depreciation at the beginning of the period	0.00	0.00	4.56	23.14	43.76
1.17 Less:Adj of Cum. Dep pertaining to decapitalised Asset	0.00	0.00	0.00	0.00	0.00
1.18 Cumulative depreciation at the end of the period	0.00	4.56	23.14	43.76	64.96

(Petitioner)

Calculation of interest on working Capital

Form No. - 11

Name of the Transmission Licensee	POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED		
Project	Implementation of Bus Sectionalizer Bay at 400KV level of 400/220KV Bikaner-II PS		
Element Description	400KV Bus Sectionalizer bay 428 of 400KV Bus-1B (Bus-3) and 400KV Bus-1 at 400/220KV Bikaner-II		
Region	Corporate Centre	DOC Date	Dec 19, 2025

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
No of Days in the year	0.00	365.00	365.00	366.00	365.00
No of days for which tariff claimed	0.00	103.00	365.00	366.00	365.00
O&M Expenses-one month	0.00	2.59	2.73	2.87	3.02
Maintenance spares 15% of O&M Expenses	0.00	4.66	4.91	5.16	5.43
Receivables equivalent to 45 days of AFC	0.00	9.17	10.21	11.01	11.32
Total Working capital	0.00	16.42	17.85	19.04	19.77
Bank Rate as on 01.04.2024 or as on 01st April of the COD year, whichever is later.	0.00	12.25	12.25	12.25	12.25
Interest on working capital	0.00	2.01	2.19	2.33	2.42
Pro rata interest on working capital	0.00	0.57	2.19	2.33	2.42

(Petitioner)

Drawdown schedule Calculation of IDC & Financing Charges

Form No. - 12B

Name of the Transmission Licensee	POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED		
Project	Implementation of Bus Sectionalizer Bay at 400KV level of 400/220KV Bikaner-II PS		
Element Description	400KV Bus Sectionalizer bay 428 of 400KV Bus-1B (Bus-3) and 400KV Bus-1 at 400/220KV Bikaner-II		
Region	Corporate Centre	DOC Date	Dec 19, 2025

(Amount in Rs. Lakh)

Particulars	Quarter 1			Quarter 2			Quarter n (COD)		
	Quantum in FC	Ex. Rate on Drawn Down Date	Amount in Indian Rupee	Quantum in FC	Ex. Rate on Drawn Down Date	Amount in Indian Rupee	Quantum in FC	Ex. Rate on Drawn Down Date	Amount in Indian Rupee
Loans									
Foreign Loans									
Total of Foreign Loans									
Indian Loans									
PBTSL Loan (Canara-02) -DOCO FUNDING									
Draw Down Account									0.43
IDC									
Financing Charges									
PBTSL Loan (Canara-02) -DOCO FUNDING									

Draw Down Account									2.00
IDC									
Financing Charges									
PBTSL SBI-05 -DOCO FUNDING									
Draw Down Account									1.83
IDC									
Financing Charges									
PBTSL SBI-05 -DOCO FUNDING									
Draw Down Account									130.86
IDC									
Financing Charges									
PBTSL HDFC-03 -DOCO FUNDING									
Draw Down Account									27.33
IDC									
Financing Charges									
PBTSL HDFC-03 -DOCO FUNDING									
Draw Down Account									3.00

IDC									
Financing Charges									
PBTSL HDFC-03 -DOCO FUNDING									
Draw Down Account									12.50
IDC									
Financing Charges									
Total of Indian Loans									177.95
Total of Loan Drawn									177.95

(Petitioner)

Abstract of Capital Cost Estimates and Schedule of Commissioning for New Project/Element			PART-III FORM-4C
Name of the Transmission Asset: 400kV Bus Sectionalizer Bay 428			
DOCO: 19.12.2025			
Board of Director/ Agency approving the Capital cost estimates:			
Date of approval of the Capital cost estimates:			
	Present Day Cost	Completed Cost	
Price level of approved estimates	As of End of 3rd Qtr. of the year 2014	As on Scheduled COD of the transmission system/transmission element/ Communication System	
		As of End of 3rd Qtr. of the year 2020	
Foreign Exchange rate considered for the Capital cost estimates	1 USD= Rs 61.79 1 Uk Pound= Rs 78.47		
Capital Cost excluding IDC, IEDC& FC			
Foreign Component, if any (In Million US \$ or the relevant Currency)			
Domestic Component (Rs. Lakh)			
Capital cost excluding IDC, FC, FERV & Hedging Cost (Rs. Lakh)			
	398.25	380.06	
IDC, IEDC, FC, FERV & Hedging Cost			
Foreign Component, if any (In Million US \$ or the relevant Currency)			
Domestic Component (Rs Lakh)			
Total IDC, FC, FERV & Hedging Cost (Rs Lakh)			
	12.70	5.68	
Rate of taxes & duties considered			
Capital cost Including IDC, IEDC, FC, FERV &			
Foreign Component, if any (In Million US \$ or the relevant Currency)			
Domestic Component (Rs Lakh)			
Capital cost Including IDC, IEDC& FC (Rs Lakh)			
	410.95	385.74	
Schedule of Commissioning			
COD of transmission system 1 /transmission element 1/Communication System 1	31.12.2024	19.12.2025	

(Petitioner)

S. No. (1)	Particulars (2)		As per Original Estimates (3)			As per Revised Cost Estimates (if any)(4)			Actual Capital Expenditure (Gross Block) as on COD as per Books of Account ^{3,4,5} (6)			The portion Capital cost included in col. 5 which is not eligible for transmission tariff (eg. Grant, other business etc. ⁶ (6)	Projected/actual cost of Deferred work to be capitalised after COD but before cut-off date (7)	Variation between actual Cost and 1A/RCE cost as on COD (8=(5-6+7)-(3 or 4))	Reasons for Variation 1 (9)	Un- Discharge Liabilities included in Col. 5 (10)	Admitted cost ⁷ (11)	Capital Work in Progress as per Books of Account as on COD (12)
		Unit	Quantity	Rate	Estimated Cost	Quantity	Rate	Estimated Cost	Quantity	Rate	Gross Block of the asset		Liability (Ant.)	Variation		Un- Discharge Liabilities included in Col. 5 (10)		
A	TRANSMISSION LINE																	
1	Preliminary works																	
1.1	Design & Engineering													0				
B.	SUBSTATIONS																	
4	Preliminary works & land																	
4.1	Design & Engineering																	
4.20	Land ²	Ls																
4.30	Site preparation	Ls																
4.40	Total Preliminary works & land (4.1+4.2+4.3)																	
5.00	Civil Works																	
5.10	Control Room & Office Building including HVAC	LS																
5.20	Township & Colony	LS																
5.30	Roads and Drainage	LS																
5.40	Foundation for structures																	
5.50	Misc. civil works	LS			0.00			0.00			0.00		0.00	0.00				
5.60	Total Civil Works (5.1+5.2+5.3+5.4+5.5)				0.00			0.00			0.00		0.00	0.00				
6.00	Substation Equipment																	
6.10	Switchgear (CT,PT, Circuit Breaker, Isolator etc)	No.	876.00		184.74			126.37			112.89		13.48	58.37	Quantity variation in LOA items and incorporation of some new and substituted items (GIB outside GIS Hall, ventilation system, EOT crane, LCLM, Hydrant system for GIS Bldg) as per actual site requirement	10.73	102.16	
6.20	Transformers	No.			0.00			0.00			0.00		0.00	0.00		0.00	0.00	
6.30	Compensating Equipment (Reactor, SVCs etc)	No.																
6.40	Control, Relay & Protection Panel	No.	10.00		19.50			14.55			14.52		0.03	4.95		1.13	13.38	
6.50	PLCC																	
6.60	HVDC package																	
6.70	Bus Bars/ conductors / Insulators																	
6.80	Outdoor lighting	LS	1.00		0.00			0.00			0.00		0.00	0.00		0.00	0.00	
6.90	Emergency D.G. Set																	
6.10	Power & Control cable	Ls	1.00		14.90	1.00		29.54			14.21		15.33	-14.64		1.24	12.97	
	communication	No.	1.00		0.00	1.00		0.00			0.00		0.00			0.00	0.00	
	Testing equipment	No.	1.00		0.00	1.00												
6.11	Structure for switchyard	Ls	1.00		70.65	1.00		87.52			54.95		32.57	-16.87		20.99	33.96	
6.12	Total Substation Equipment (Sum of 6.1 to 6.11)				289.80			257.98			196.56		61.42	31.82		34.10	162.46	

7.00	Spares	Ls	1.00		0.00	1.00		19.18			0.00		19.18	-19.18		0.00	0.00	
					0.00													
8.00	Taxes and Duties				0.00													
8.10	Custom Duty																0.00	
8.20	Other Taxes & Duties				48.61			44.92			34.44		10.48	3.69		0.00	34.44	
8.30	Total Taxes & Duties (8.1+8.2+8.3)				48.61			44.92			34.44		10.48	3.69		0.00	34.44	
					0.00													
8.40	Total (Sub-station) (4.4+5.6+6.12+7+8.3)				338.41			322.08			231.00		91.08	16.33		34.10	196.90	
C	Communication System				0.00													
9.10	Preliminary Works				0.00													
9.20	IT				9.97			36.54			36.50		0.03	-26.56		3.64	32.86	
	IT SPARE				0.00			0.00			0.00		0.00			0.00	0.00	
9.30	Taxes and Duties				1.73			6.45			6.45		0.01			0.00	6.45	
9.40	Total (Communication System) (9.1+9.2+9.3)				11.70			42.99			42.95		0.04	-31.29		3.64	39.31	
10.00	Cost of Plant & Machinery (5.4+8.4+9.4)				360.61			365.07			273.95		91.12	-4.46		37.74	236.21	
11.00	Construction and pre-commissioning expenses																	
11.10	Site supervision & site administration etc.				37.64			14.99			14.99		0.00	22.65			14.99	
11.20	Tools & Plants										0.00		0.00					
11.30	Construction Insurance																	
11.40	Total Construction and pre-commissioning expenses (11.1+11.2+11.3)				37.64			14.99			14.99		0.00	22.65		0.00	14.99	
12.00	Over heads																	
12.10	Establishment																	
12.20	Audit & Accounts																	
12.30	Contingency				10.50								0.00	10.50				
12.40	Other overheads																	
12.50	Total Overheads (12.1+12.2+12.3+12.4)				37.64			14.99			14.99		0.00	10.50			14.99	
13.00	IDC, FC, FERV & Hedging Cost																	
13.10	Interest During Construction (IDC)				12.70			5.68			5.68		0.00	7.02			5.68	
13.20	Financing Charges (FC)																	
13.30	Foreign Exchange Rate Variation (FERV)										0.00		0.00					
13.40	Hedging Cost																	
13.50	Total of IDC, FC, FERV & Hedging Cost (13.1+13.2+13.3+13.4)				12.70			5.68			5.68		0.00	7.02		0.00	5.68	
14.00	Capital cost including IDC, FC, FERV & Hedging Cost (10+11.4+12.5+13.5)				410.95			385.74			294.62	0.00	91.12			37.74	256.88	

B)

Particular	Plant & Machinery Cost including initial spare but excluding IDC&IE DC	Initial Spare capitalised	IEDC capitalised	IDC capitalised	Loan FERV	Gross Block as per books of Account as on COD	Deduction from Gross Block	Gross block meant for tariff as on COD (after deductions)	Un- discharged liability included in 8	Capital Cost on Cash basis for tariff as on COD
	1.00	2.00	3.00	4.00	5.00	6=(1+3+4+5)	7.00	8=(6-7)	9.00	10=(8-9)
Land (Freehold Land)	0.00					0.00		0.00	0.00	0.00
Land (Leasehold)	0.00								0.00	0.00
Building & Civil Works	0.00		0.00	0.00	0.00	0.00		0.00	0.00	0.00
Transmission Line	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
Sub-Station	231.00	0.00	12.50	4.73	0.00	248.23		248.23	34.10	214.13

PLCC		0.00		0.00	0.00	0.00	0.00		0.00	0.00	0.00
IT		42.95		2.49	0.95	0.00	46.39		46.39	3.64	42.75
Total Capital Cost as per Books of Account		273.95	0.00	14.99	5.68	0.00	294.62	NIL	294.62	37.74	256.88
Less: Un-discharged liabilities											

|

Details of all the assets covered in the project						PART-III	
Name of the Transmission Project: Implementation of 400 kV Bus Sectionalizer at 400 kV level of 400/220 kV Bikaner-II PS						FORM- 5B	
DOCO: 19.12.2025							
S. No.	Name of Asset	COD	Apportioned approved cost (Rs. Lakh)	Revised cost estimates, if applicable (Rs. Lakh)	Completed Cost (Rs. Lakh)	Covered in the present Petition	
						Yes/No	If No, Petition No.
1	400kV Bus Sectionalizer Bay 428	29.12.2025	410.95	-	389.19	Yes	
2	400kV Bus Sectionalizer Bay 429	23.01.2026	410.95	-	391.72		
(Petitioner)							



Form-12A				
Incidental Expenditure during Construction Name of the Transmission Asset: 400kV Bus Sectionalizer Bay 428 of 400kV Bus-1B (Bus-3) and 400kV Bus-1 at Bikaner-II SS Date of Commercial Operation: 19.12.2025				
Name of the Project :-"Implementation of Bus Sectionaliser at 400kV Level of 400/220kV Bikaner-II SS" Executed by POWERGRID Bikaner Transmission System Limited (PBTSL)				
Rs in Lakhs				
S. No.	Parameters	Upto 31.03.2025	2025-26	Total
A	Expenses:			
1	Employees' Remuneration & Benefits			0.00
2	Finance Costs			0.00
3	Water Charges			0.00
4	Communication Expenses			0.00
5	Power Charges			0.00
6	Depreciation			0.00
7	Consultancy Charges	9.33	11.13	20.46
8	Other Office and Administrative Expenses			0.00
9	Others (Please Specify Details)			0.00
10	License Fees			
11	WIP transfer from CC			0.00
12	CERC Petition Fees Reimbursable	-2.24	-3.23	-5.47
13	Other pre-Operating Expenses			0.00
	TOTAL	7.09	7.90	14.99
B	Total Expenses			
14	Less: Income from sale of tenders			0.00
15	Less: Income from guest house			0.00
16	Less: Interest recovered from Contractors			0.00
17	Less: Interest on Deposits			0.00
18	Less: Int.Income.Temp.Fund			0.00
	TOTAL	0.00	0.00	0.00
	GRAND TOTAL	7.09	7.90	14.99

Details of Initial Spares															
Name of the petitioner		POWERGRID CORPORATION OF INDIA LIMITED													
Claimed / Admitted COD		29.12.2025		Cut-off Date of the Asset: 31.03.2029											
Name of Transmission Asset: 400kV Bus Sectionalizer Bay 428															
DOCO: 19.12.2025															
A) Determination of Excess initial spare and its adjustment from Capital cost															
Particulars	Plant and machinery cost as on cut-off Date ¹	Initial Spare Capitalised as per Books of Account up to Cut-off Date					Ceiling limit as mentioned in Regulations 23	Entitled Initial Spare as per Regulations	Excess of capitalised Initial Spare to be reduced from Capital cost.			Adjustment of Excess Initial Spare from Capital cost of Plant and Machinery			
		As on COD	As ACE dr. Y1	As ACE dr. Y2	As ACE dr. Y3	Total as on Cut off Date ³						COD	ACE for Y1	ACE for Y2	ACE for Y3
1	2	3	4	5	6	7	8	9	10=7-9 (Note 2)			11	12	13	14
Transmission Line	0.00	0	0	0	0	0.00	1.00%	0.00							
Substation Green field							4.00%								
Substation Brown Field	345.91	0.00	3.84	11.50	3.84	19.18	6.00%	20.75	0.00						
Series Compensation devices and HVDC Station															
GIS/S- Green field							5.00%								
GIS/S-Brown field							7.00%								
Communication System	0.00	0	0.00	0.00	0.00	0	3.50%	0.00	0.00						
Static Synchronous Compensator							6.00%								
initial spare as per Books of Account								0	0						
Un-Discharge liabilities included above															
Total Capitalized initial spare															

B) Determination of Plant & Machinery Cost for ceiling of initial											
Particulars	Plant & Machinery Cost including initial spare but excluding IDC&IE DC	Less: Amount included in Col. B towards					Plant and machinery cost as on COD for Initial Spare purpose	Plant & Machinery Capitalised as ACE up to cut off date			Plant and machinery cost as on cut-off Date for the purpose of initial spare
		Land Cost	Cost of Civil Works	IEDC	IDC	Initial Spare		Year -1	Year-2	Year-3 & Year-4	
a	b	c	d	e	f	g	h=b-c-d-e-f-g	i	j	k	l=h+i+j+k
Transmission Line	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substation Green field											
Substation Brown Field	294.62	0.00	0.00	14.99	5.68	19.18	254.77	18.21	54.69	18.24	345.91
Series Compensation devices and HVDC Station											
Gas Insulated Substation-Green field											
Gas Insulated Substation-Brown field											
Communication System	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Static Synchronous Compensator											

(Petitioner)

Name of the Transmission Licensee:		POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED	
Project	Implementation of Bus Sectionalizer Bay at 400KV level of 400/220KV Bikaner-II PS		
Element Description	400KV Bus Sectionalizer bay 429 of 400KV Bus-2B (Bus-4) and 400KV Bus-2 at 400/220KV Bikaner-II		
Region	Corporate Centre	DOC Date	Jan 23, 2026

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Year Days	0.00	365.00	365.00	366.00	365.00
Tariff Days	0.00	68.00	365.00	366.00	365.00
Depreciation-Form No. 10A	0.00	3.23	20.37	23.05	23.82
Interest on Loan-Form No. 9E	0.00	2.57	15.11	15.47	14.40
Return on Equity-Form No. 8	0.00	2.45	15.15	16.89	17.38
Int. on Working capital-Form No.11	0.00	0.38	2.23	2.37	2.46
Op. and maintenance-Form No.2	0.00	5.79	32.71	34.43	36.23
Total AFC	0.00	14.42	85.57	92.21	94.29

(Petitioner)

Summary of Asset Level Cost

Form No. - 1A

Name of the Transmission Licensee	POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED		
Project	Implementation of Bus Sectionalizer Bay at 400KV level of 400/220KV Bikaner-II PS		
Element Description	400KV Bus Sectionalizer bay 429 of 400KV Bus-2B (Bus-4) and 400KV Bus-2 at 400/220KV Bikaner-II		
Region	Corporate Centre	DOC Date	Jan 23, 2026

A) Summary of Capital Cost, Means of Finance of the Asset

(Amount in Rs. Lakh)

Particular	i) Apportioned Approved Cost		ii) Summary of Actual / Projected Capital Expenditure incurred						
	As Per IA	As per RCE	As on COD / 01.04.2024	2024-25	2025-26	2026-27	2027-28	2028-29	As on 31.03.2029
Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	0.00	0.00	267.19	0.00	10.56	32.32	5.27	5.27	320.61
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT/Software/UNMS/URTDMS/	0.00	0.00	44.72	0.00	5.25	15.88	2.63	2.63	71.11
Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Capital Cost as per Books	0.00	0.00	311.91	0.00	15.81	48.20	7.90	7.90	391.72
Less: Liability	0.00	0.00	30.32	0.00	0.00	0.00	0.00	0.00	0.00
Add:discharge of liability	0.00	0.00	0.00	0.00	6.06	18.20	3.03	3.03	0.00
De cap During Year As per Books	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Capital incurred	0.00	0.00	281.59	0.00	21.87	66.40	10.93	10.93	391.72
Equity	0.00	0.00	84.48	0.00	6.56	19.92	3.28	3.28	117.52
Debt	0.00	0.00	197.11	0.00	15.31	46.48	7.65	7.65	274.20

Details of Transmission Lines and Substations, Communication System covered in the project scope and O&M for instant asset Form No. - 2

Name of the Transmission Licensee	POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED		
Project	Implementation of Bus Sectionalizer Bay at 400KV level of 400/220KV Bikaner-II PS		
Element Description	400KV Bus Sectionalizer bay 429 of 400KV Bus-2B (Bus-4) and 400KV Bus-2 at 400/220KV Bikaner-II		
Region	Corporate Centre	DOC Date	Jan 23, 2026

1. Transmission Lines

(Amount in Rs. Lakh)

Summary:

2. Sub Station

Name of Sub-station	Type of Substation	Voltage Level KV	No. of Transfor ms/ Reactor/ SVC etc. (with capacity)	No. of Bays				MVA/MVAR Capacity				Date of Comm. operation	Covered in the present petition	
				765 KV	400 KV	220 KV	132 KV	765 KV	400 KV	220 KV	132 KV		Ye s/ No	If No, Petitio n No.
:400 KV BUS SECTIONALIZER BAY 429 OF 400 KV BUS-2B(BUS-4) AND 400 KV BUS-2	Brownfield	400 KV			1.000							Jan 23, 2026	Y	

Summary:

O&M Expenses For Substations Covered in the instant petition	2024-25	2025-26	2026-27	2027-28	2028-29
400KV SUB-STATION					
Normative Rate of O&M as per Regulation	0.00	31.08	32.71	34.43	36.23
No. of Units	0.00	1.00	1.00	1.00	1.00
O&M Claimed	0.00	5.79	32.71	34.43	36.23

Summary of O&M Expenses claim

(Amount in Rs. Lakh)

Particular	2024-25	2025-26	2026-27	2027-28	2028-29
A) Normative O&M					
Transmission Line	0.00	0.00	0.00	0.00	0.00
Substation	0.00	5.79	32.71	34.43	36.23
Communication System	0.00	0.00	0.00	0.00	0.00
Total Normative O&M	0.00	5.79	32.71	34.43	36.23
B) O&M Claimed under Regulation 35 (3)(C) (* The same is not being claimed and will be claimed through separate Petition)					
*Security Expenses	0.00	0.00	0.00	0.00	0.00
*Actual Capital Spare consumed	0.00	0.00	0.00	0.00	0.00
*Insurance Premium Paid	0.00	0.00	0.00	0.00	0.00
Total O&M	0.00	5.79	32.71	34.43	36.23

(Petitioner)

Normative parameters considered for tariff computations

Form No. - 3

Name of the Transmission Licensee	POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED				
Project	Implementation of Bus Sectionalizer Bay at 400KV level of 400/220KV Bikaner-II PS				
Element Description	400KV Bus Sectionalizer bay 429 of 400KV Bus-2B (Bus-4) and 400KV Bus-2 at 400/220KV Bikaner-II				
Region	Corporate Centre	DOC Date	Jan 23, 2026		

(Amount in Rs. Lakh)

Particulars	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
Base Rate of Return of Equity (in %)						
Tax Rate (in %)	17.472	17.472	17.472	17.472	17.472	17.472
Effective tax rate (in %)						
Grossed up Rate for ROE of 15.5% (in %)	18.782	18.782	18.782	18.782	18.782	18.782
Grossed up Rate for ROE of 15.0% (in %)	18.176	18.176	18.176	18.176	18.176	18.176
Target availability - AC System (in %)	98.00	98.00	98.00	98.00	98.00	98.00
Target availability - HVDC System (in %)	96.00	96.00	96.00	96.00	96.00	96.00
Norms for sub-station Bays (Rs Lakh per bay)						
765 kV	51.68	41.34	43.51	45.79	48.20	50.73
400 kV	36.91	29.53	31.08	32.71	34.43	36.23
220 kV	25.84	20.67	21.75	22.90	24.10	25.36
132 kV and below	18.46	15.78	16.61	17.48	18.40	19.35
Norms for Transformers (Rs Lakh per MVA)						
765 kV	0.564	0.262	0.276	0.29	0.305	0.322
400 kV	0.411	0.262	0.276	0.29	0.305	0.322
220 kV	0.282	0.262	0.276	0.29	0.305	0.322
132 kV and below	0.282	0.262	0.276	0.29	0.305	0.322
Norms for Reactor (Rs Lakh per MVAR)						
765 kV	0.00	0.262	0.276	0.29	0.305	0.322
400 kV	0.00	0.262	0.276	0.29	0.305	0.322

220 kV	0.00	0.262	0.276	0.29	0.305	0.322
132 kV and below	0.00	0.262	0.276	0.29	0.305	0.322
Norms for AC and HVDC lines (Rs Lakh per km)						
Single Circuit (Bundled Conductor with six or more sub-conductors)	1.011	0.861	0.906	0.953	1.003	1.056
Single Circuit (Bundled conductor with four sub-conductors)	0.867	0.738	0.776	0.817	0.86	0.905
Single Circuit (Twin & Triple Conductor)	0.578	0.492	0.518	0.545	0.573	0.603
Single Circuit (Single Conductor)	0.289	0.246	0.259	0.272	0.287	0.302
Double Circuit (Bundled conductor with four or more sub-conductors)	1.517	1.291	1.359	1.43	1.506	1.585
Double Circuit (Twin & Triple Conductor)	1.011	0.861	0.906	0.953	1.003	1.056
Double Circuit (Single Conductor)	0.433	0.369	0.388	0.409	0.43	0.453
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.662	2.266	2.385	2.51	2.642	2.781
Multi Circuit (Twin & Triple Conductor)	1.773	1.509	1.588	1.671	1.759	1.851
Norms for HVDC stations (Rs Lakh/MW)						
HVDC Back-to-Back stations (Rs Lakh/MW) (Except Gazuwaka BTB)	0.00	2.07	2.18	2.30	2.42	2.55
Gazuwaka HVDC Back-to-Back station (Rs Lakh/MW)	0.00	1.83	1.92	2.03	2.13	2.24
HVDC bipole scheme (Rs Lakh/MW)	0.00	1.04	1.10	1.16	1.22	1.28

(Petitioner)

Statement of Capital cost

Form No. - 4A

Name of the Transmission Licensee	POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED		
Project	Implementation of Bus Sectionalizer Bay at 400KV level of 400/220KV Bikaner-II PS		
Element Description	400KV Bus Sectionalizer bay 429 of 400KV Bus-2B (Bus-4) and 400KV Bus-2 at 400/220KV Bikaner-II		
Region	Corporate Centre	DOC Date	Jan 23, 2026

A) Capital Cost

(Amount in Rs. Lakh)

Particular	Accrual Basis	Un-discharged Liabilities	Cash Basis
As on relevant date :2025-26			
a) Opening Gross Block Amount as per books	311.91	30.32	281.59
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	0.00	0.00	0.00
a) Addition in Gross Block Amount during the period	15.81	0.00	15.81
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in B(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in B(a) above	0.00	0.00	0.00
d) De-cap in gross block amount during the year	0.00	0.00	0.00
a) Closing Gross Block Amount as per books	327.72	24.26	303.46
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost)included in C(a) above	0.00	0.00	0.00
As on relevant date :2026-27			
a) Opening Gross Block Amount as per books	327.72	24.26	303.46
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	0.00	0.00	0.00

c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	0.00	0.00	0.00
---	------	------	------

a) Addition in Gross Block Amount during the period	48.20	0.00	48.20
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in B(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in B(a) above	0.00	0.00	0.00
d) De-cap in gross block amount during the year	0.00	0.00	0.00

a) Closing Gross Block Amount as per books	375.92	6.06	369.86
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost)included in C(a) above	0.00	0.00	0.00

As on relevant date :2027-28

a) Opening Gross Block Amount as per books	375.92	6.06	369.86
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	0.00	0.00	0.00

a) Addition in Gross Block Amount during the period	7.90	0.00	7.90
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in B(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in B(a) above	0.00	0.00	0.00
d) De-cap in gross block amount during the year	0.00	0.00	0.00

a) Closing Gross Block Amount as per books	383.82	3.03	380.79
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost)included in C(a) above	0.00	0.00	0.00

As on relevant date :2028-29

a) Opening Gross Block Amount as per books	383.82	3.03	380.79
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	0.00	0.00	0.00

a) Addition in Gross Block Amount during the period	7.90	0.00	7.90
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in B(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in B(a) above	0.00	0.00	0.00
d) De-cap in gross block amount during the year	0.00	0.00	0.00

a) Closing Gross Block Amount as per books	391.72	0.00	391.72
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in C(a) above	0.00	0.00	0.00

B) Flow of liability for the Asset

(Amount in Rs. Lakh)

Particular	2025-2026	2026-2027	2027-2028	2028-2029					
Opening balance of liability	30.32	24.26	6.06	3.03	0.00	0.00	0.00	0.00	0.00
Add: Liability from ACE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Discharge of liability by payment and claimed as ACE	6.06	18.20	3.03	3.03	0.00	0.00	0.00	0.00	0.00
Reversal/cancelation (to be entered)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Closing Balance of Admitted liability	24.26	6.06	3.03	0.00	0.00	0.00	0.00	0.00	0.00

(Petitioner)

Financial Package upto COD

Form No. - 6

Name of the Transmission Licensee	POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED		
Project	Implementation of Bus Sectionalizer Bay at 400KV level of 400/220KV Bikaner-II PS		
Element Description	400KV Bus Sectionalizer bay 429 of 400KV Bus-2B (Bus-4) and 400KV Bus-2 at 400/220KV Bikaner-II		
Region	Corporate Centre	DOCO Date	Jan 23, 2026

(Amount in Rs. Lakh)

Particulars	Financial Package as Approved		Financial Package as on COD 01/04/2024		As Admitted on COD 01/04/2024	
	Currency	Amount	Currency	Amount	Currency	Amount
Loans		0.00		0.00		0.00
Loan-Domestic		0.00		0.00		0.00
Loan-Foreign		0.00		0.00		0.00
Total Loans	INR	0.00	INR	197.11		0.00
Equity		0.00		0.00		0.00
Foreign		0.00		0.00		0.00
Domestic	INR	0.00	INR	84.48		0.00
Total Equity	INR	0.00	INR	84.48		0.00
Debt Equity Ratio					70:30	
Total Cost	INR	0.00	INR	281.59		0.00

Particulars	Debt	Equity	Total	
Addcap for 2025 - 2026			21.87	
Addcap for 2026 - 2027			66.40	
Addcap for 2027 - 2028			10.93	
Addcap for 2028 - 2029		182	10.93	

Particulars	Actual	Normative	
Addcap for 2025 - 2026			
Equity		6.56	
Debt		15.31	
Total		21.87	
Addcap for 2026 - 2027			
Equity		19.92	
Debt		46.48	
Total		66.40	
Addcap for 2027 - 2028			
Equity		3.28	
Debt		7.65	
Total		10.93	
Addcap for 2028 - 2029			
Equity		3.28	
Debt		7.65	
Total		10.93	
Total Capital cost with Addcap		391.72	

(Petitioner)

Statement of Additional Capitalisation after COD

Form No. - 7

Name of the Transmission Licensee	POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED		
Project	Implementation of Bus Sectionalizer Bay at 400KV level of 400/220KV Bikaner-II PS		
Element Description	400KV Bus Sectionalizer bay 429 of 400KV Bus-2B (Bus-4) and 400KV Bus-2 at 400/220KV Bikaner-II		
Region	Corporate Centre	DOC Date	Jan 23, 2026

(Amount in Rs. Lakh)

Particulars	Addition into Gross Block as per books of Account during the year (2)	De-Cap into Gross Block as per books of Account during the year	Less: Deductions dr. the year towards				Add: Discharge of earlier admitted liability	ACE on cash basis for tariff purpose	Admitted Cost in final tariff (Rs Lakh)
			Grants Received (if any) (3)	Asset pertaining to other businesses (If any) (4)	Other Deduction (if any) (5)	Less: Undischarged liability included in (2-4-5)			
ACE for the year :2024-25 (Actual/Projected)									
Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT/Software/UNMS/URTDMS/ SCADA,etc	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ACE for the year :2025-26 (Actual/Projected)									

Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	10.56	0.00	0.00	0.00	0.00	0.00	5.77	16.33	0.00
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT/Software/UNMS/URTDMS/ SCADA,etc	5.25	0.00	0.00	0.00	0.00	0.00	0.29	5.54	0.00
Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	15.81	0.00	0.00	0.00	0.00	0.00	6.06	21.87	0.00
ACE for the year :2026-27 (Actual/Projected)									
Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	32.32	0.00	0.00	0.00	0.00	0.00	17.34	49.66	0.00
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT/Software/UNMS/URTDMS/ SCADA,etc	15.88	0.00	0.00	0.00	0.00	0.00	0.86	16.74	0.00
Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	48.20	0.00	0.00	0.00	0.00	0.00	18.20	66.40	0.00
ACE for the year :2027-28 (Actual/Projected)									
Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	5.27	0.00	0.00	0.00	0.00	0.00	2.89	8.16	0.00
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT/Software/UNMS/URTDMS/ SCADA,etc	2.63	0.00	0.00	0.00	0.00	0.00	0.14	2.77	0.00
Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	7.90	0.00	0.00	0.00	0.00	0.00	3.03	10.93	0.00
ACE for the year :2028-29 (Actual/Projected)									
Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	5.27	0.00	0.00	0.00	0.00	0.00	2.89	8.16	0.00
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT/Software/UNMS/URTDMS/ SCADA,etc	2.63	0.00	0.00	0.00	0.00	0.00	0.14	2.77	0.00
Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	7.90	0.00	0.00	0.00	0.00	0.00	3.03	10.93	0.00

(Petitioner)

Financing of Additional Capitalisation

Form No. - 7A

Name of the Transmission Licensee	POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED		
Project	Implementation of Bus Sectionalizer Bay at 400KV level of 400/220KV Bikaner-II PS		
Element Description	400KV Bus Sectionalizer bay 429 of 400KV Bus-2B (Bus-4) and 400KV Bus-2 at 400/220KV Bikaner-II		
Region	Corporate Centre	DOCO Date	Jan 23, 2026

(Amount in Rs. Lakh)

Financial Year (Starting of COD)	Actual/Projected					Admitted				
	2024-25	2025-26	2026-27	2027-28	2028-29	2024-25	2025-26	2026-27	2027-28	2028-29
Amount capitilized in Work/ Equipment										
Financing Details										
Total Loan	0.00	15.31	46.48	7.65	7.65					
Equity	0.00	6.56	19.92	3.28	3.28					
Total	0.00	21.87	66.40	10.93	10.93					

(Petitioner)

Calculation of ROE

Form No. - 8

Name of the Transmission Licensee	POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED		
Project	Implementation of Bus Sectionalizer Bay at 400KV level of 400/220KV Bikaner-II PS		
Element Description	400KV Bus Sectionalizer bay 429 of 400KV Bus-2B (Bus-4) and 400KV Bus-2 at 400/220KV Bikaner-II		
Region	Corporate Centre	DOCO Date	Jan 23, 2026

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
No. of Days in the year	0.00	365.00	365.00	366.00	365.00
No. of days for which tariff claimed	0.00	68.00	365.00	366.00	365.00
Opening Normative Equity	0.00	84.48	91.04	110.96	114.24
Less: Adjustment in Equity*	0.00	0.00	0.00	0.00	0.00
Adjustment during the year	0.00	0.00	0.00	0.00	0.00
Net opening equity (Normal)	0.00	84.48	91.04	110.96	114.24
Add: Increase in Equity due to addition during the year / period	0.00	4.74	14.46	2.37	2.37
Less: Decrease due to de-capitalisation during the year / period	0.00	0.00	0.00	0.00	0.00
Add: Increase due to discharge during the year / period	0.00	1.82	5.46	0.91	0.91
Closing Normative Equity	0.00	91.04	110.96	114.24	117.52
Average Normative Equity	0.00	87.76	101.00	112.60	115.88
Rate of return on Equity (%)	0.00	15.00	15.00	15.00	15.00
Reduced rate of 1% decided by commission under Regulation 30(2) (if any)	0.00	0.00	0.00	0.00	0.00
Effective rate of ROE	0.00	15.00	15.00	15.00	15.00
MAT/Corporate Rate	0.00	0.00	0.00	0.00	0.00
Grossed up rate of ROE	0.00	15.00	15.00	15.00	15.00
Return on Equity	0.00	13.16	15.15	16.89	17.38
Pro rata return on Equity	0.00	2.45	15.15	16.89	17.38

(Petitioner)

Calculation of WAR of interest on actual loan

Form No. - 9C

Name of the Transmission Licensee	POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED				
Project	Implementation of Bus Sectionalizer Bay at 400KV level of 400/220KV Bikaner-II PS				
Element Description	400KV Bus Sectionalizer bay 429 of 400KV Bus-2B (Bus-4) and 400KV Bus-2 at 400/220KV Bikaner-II				
Region	Corporate Centre	DOC Date	Jan 23, 2026		

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
PBTSL Loan (Bond LXXX) -DOCO FUNDING					
Gross Loan- Opening	0.00	9.61	9.61	9.61	9.61
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.41	1.23
Net loan-Opening	0.00	9.61	9.61	9.20	8.38
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.41	0.82	0.82
Net Loan-Closing	0.00	9.61	9.20	8.38	7.56
Average Net Loan	0.00	9.61	9.41	8.79	7.97
Rate of Interest on Loan on Annual Basis	0.00	7.12	7.12	7.12	7.12
Interest on loan	0.00	0.6842	0.67	0.6258	0.5675

PBTSL Loan (Canara-02) -DOCO FUNDING					
Gross Loan- Opening	0.00	1.03	1.03	1.03	1.03
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.04	0.13
Net loan-Opening	0.00	1.03	1.03	0.99	0.90
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.04	0.09	0.09
Net Loan-Closing	0.00	1.03	0.99	0.90	0.81

Average Net Loan	0.00	1.03	1.01	0.95	0.86
Rate of Interest on Loan on Annual Basis	0.00	6.90	6.90	6.90	6.90
Interest on loan	0.00	0.0711	0.0697	0.0656	0.0593

PBTSL Loan (Canara-02) -DOCO FUNDING					
Gross Loan- Opening	0.00	20.12	20.12	20.12	20.12
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.84	2.52
Net loan-Opening	0.00	20.12	20.12	19.28	17.60
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.84	1.68	1.68
Net Loan-Closing	0.00	20.12	19.28	17.60	15.92
Average Net Loan	0.00	20.12	19.70	18.44	16.76
Rate of Interest on Loan on Annual Basis	0.00	6.90	6.90	6.90	6.90
Interest on loan	0.00	1.3883	1.3593	1.2724	1.1564

PBTSL Loan (Canara-02) -DOCO FUNDING					
Gross Loan- Opening	0.00	12.44	12.44	12.44	12.44
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.52	1.56
Net loan-Opening	0.00	12.44	12.44	11.92	10.88
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.52	1.04	1.04
Net Loan-Closing	0.00	12.44	11.92	10.88	9.84
Average Net Loan	0.00	12.44	12.18	11.40	10.36
Rate of Interest on Loan on Annual Basis	0.00	6.90	6.90	6.90	6.90
Interest on loan	0.00	0.8584	0.8404	0.7866	0.7148

PBTSL Loan (Canara-02) -DOCO FUNDING					
Gross Loan- Opening	0.00	12.00	12.00	12.00	12.00
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.50	1.50
Net loan-Opening	0.00	12.00	12.00	11.50	10.50
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.50	1.00	1.00
Net Loan-Closing	0.00	12.00	11.50	10.50	9.50
Average Net Loan	0.00	12.00	11.75	11.00	10.00
Rate of Interest on Loan on Annual Basis	0.00	6.90	6.90	6.90	6.90
Interest on loan	0.00	0.828	0.8108	0.759	0.69

PBTSL SBI-05 -DOCO FUNDING					
Gross Loan- Opening	0.00	0.74	0.74	0.74	0.74
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.03	0.09
Net loan-Opening	0.00	0.74	0.74	0.71	0.65
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.03	0.06	0.06
Net Loan-Closing	0.00	0.74	0.71	0.65	0.59
Average Net Loan	0.00	0.74	0.73	0.68	0.62
Rate of Interest on Loan on Annual Basis	0.00	6.72	6.72	6.72	6.72
Interest on loan	0.00	0.0497	0.0491	0.0457	0.0417

PBTSL SBI-05 -DOCO FUNDING					
Gross Loan- Opening	0.00	13.00	13.00	13.00	13.00
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.54	1.63
Net loan-Opening	0.00	13.00	13.00	12.46	11.37

Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.54	1.09	1.09
Net Loan-Closing	0.00	13.00	12.46	11.37	10.28
Average Net Loan	0.00	13.00	12.73	11.92	10.83
Rate of Interest on Loan on Annual Basis	0.00	6.72	6.72	6.72	6.72
Interest on loan	0.00	0.8736	0.8555	0.801	0.7278

PBTSL SBI-05 -DOCO FUNDING					
Gross Loan- Opening	0.00	6.40	6.40	6.40	6.40
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.27	0.80
Net loan-Opening	0.00	6.40	6.40	6.13	5.60
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.27	0.54	0.54
Net Loan-Closing	0.00	6.40	6.13	5.59	5.06
Average Net Loan	0.00	6.40	6.27	5.86	5.33
Rate of Interest on Loan on Annual Basis	0.00	6.72	6.72	6.72	6.72
Interest on loan	0.00	0.4301	0.4213	0.3938	0.3582

PBTSL UBI -ADD CAP ACCRUAL IDC					
Gross Loan- Opening	0.00	0.00	0.00	0.56	0.56
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.02	0.07
Net loan-Opening	0.00	0.00	0.00	0.54	0.49
Add: Drawl(s) during the year	0.00	0.00	0.56	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.02	0.05	0.05
Net Loan-Closing	0.00	0.00	0.54	0.49	0.44
Average Net Loan	0.00	0.00	0.27	0.52	0.47

Rate of Interest on Loan on Annual Basis	0.00	6.65	6.65	6.65	6.65
Interest on loan	0.00	0.00	0.018	0.0346	0.0313

PBTSL Bond LXXXIII (83) -ADD CAP					
Gross Loan- Opening	0.00	0.00	15.31	15.31	15.31
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.64	1.92
Net loan-Opening	0.00	0.00	15.31	14.67	13.39
Add: Drawl(s) during the year	0.00	15.31	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.64	1.28	1.28
Net Loan-Closing	0.00	15.31	14.67	13.39	12.11
Average Net Loan	0.00	7.66	14.99	14.03	12.75
Rate of Interest on Loan on Annual Basis	0.00	7.02	7.02	7.02	7.02
Interest on loan	0.00	0.5377	1.0523	0.9849	0.8951

PBTSL HDFC-03 -DOCO FUNDING					
Gross Loan- Opening	0.00	5.42	5.42	5.42	5.42
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.23	0.68
Net loan-Opening	0.00	5.42	5.42	5.19	4.74
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.23	0.45	0.45
Net Loan-Closing	0.00	5.42	5.19	4.74	4.29
Average Net Loan	0.00	5.42	5.31	4.97	4.52
Rate of Interest on Loan on Annual Basis	0.00	6.72	6.72	6.72	6.72
Interest on loan	0.00	0.3642	0.3568	0.334	0.3037

PBTSL HDFC-03 -DOCO FUNDING

Gross Loan- Opening	0.00	3.97	3.97	3.97	3.97
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.17	0.50
Net loan-Opening	0.00	3.97	3.97	3.80	3.47
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.17	0.33	0.33
Net Loan-Closing	0.00	3.97	3.80	3.47	3.14
Average Net Loan	0.00	3.97	3.89	3.64	3.31
Rate of Interest on Loan on Annual Basis	0.00	6.72	6.72	6.72	6.72
Interest on loan	0.00	0.2668	0.2614	0.2446	0.2224

PBTSL HDFC-03 -DOCO FUNDING					
Gross Loan- Opening	0.00	14.00	14.00	14.00	14.00
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.59	1.76
Net loan-Opening	0.00	14.00	14.00	13.41	12.24
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.59	1.17	1.17
Net Loan-Closing	0.00	14.00	13.41	12.24	11.07
Average Net Loan	0.00	14.00	13.71	12.83	11.66
Rate of Interest on Loan on Annual Basis	0.00	6.72	6.72	6.72	6.72
Interest on loan	0.00	0.9408	0.9213	0.8622	0.7836

PBTSL HDFC-03 -DOCO FUNDING					
Gross Loan- Opening	0.00	10.20	10.20	10.20	10.20
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.43	1.28
Net loan-Opening	0.00	10.20	10.20	9.77	8.92
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00

Less: Repayment(s) of loan during the year	0.00	0.00	0.43	0.85	0.85
Net Loan-Closing	0.00	10.20	9.77	8.92	8.07
Average Net Loan	0.00	10.20	9.99	9.35	8.50
Rate of Interest on Loan on Annual Basis	0.00	6.72	6.72	6.72	6.72
Interest on loan	0.00	0.6854	0.6713	0.6283	0.5712

PBTSL HDFC-03 -DOCO FUNDING					
Gross Loan- Opening	0.00	14.57	14.57	14.57	14.57
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.61	1.83
Net loan-Opening	0.00	14.57	14.57	13.96	12.74
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.61	1.22	1.22
Net Loan-Closing	0.00	14.57	13.96	12.74	11.52
Average Net Loan	0.00	14.57	14.27	13.35	12.13
Rate of Interest on Loan on Annual Basis	0.00	6.72	6.72	6.72	6.72
Interest on loan	0.00	0.9791	0.9589	0.8971	0.8151

PBTSL HDFC-03 -DOCO FUNDING					
Gross Loan- Opening	0.00	7.00	7.00	7.00	7.00
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.29	0.88
Net loan-Opening	0.00	7.00	7.00	6.71	6.12
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.29	0.59	0.59
Net Loan-Closing	0.00	7.00	6.71	6.12	5.53
Average Net Loan	0.00	7.00	6.86	6.42	5.83
Rate of Interest on Loan on Annual Basis	0.00	6.72	6.72	6.72	6.72

Interest on loan	0.00	0.4704	0.461	0.4314	0.3918
------------------	------	--------	-------	--------	--------

PBTSL HDFC-03 -DOCO FUNDING					
Gross Loan- Opening	0.00	46.11	46.11	46.11	46.11
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	1.93	5.78
Net loan-Opening	0.00	46.11	46.11	44.18	40.33
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	1.93	3.85	3.85
Net Loan-Closing	0.00	46.11	44.18	40.33	36.48
Average Net Loan	0.00	46.11	45.15	42.26	38.41
Rate of Interest on Loan on Annual Basis	0.00	6.72	6.72	6.72	6.72
Interest on loan	0.00	3.0986	3.0341	2.8399	2.5812

PBTSL HDFC-03 -DOCO FUNDING					
Gross Loan- Opening	0.00	19.54	19.54	19.54	19.54
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.82	2.45
Net loan-Opening	0.00	19.54	19.54	18.72	17.09
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.82	1.63	1.63
Net Loan-Closing	0.00	19.54	18.72	17.09	15.46
Average Net Loan	0.00	19.54	19.13	17.91	16.28
Rate of Interest on Loan on Annual Basis	0.00	6.72	6.72	6.72	6.72
Interest on loan	0.00	1.3131	1.2855	1.2036	1.094

Summary

Gross Loan- Opening	0.00	196.15	211.46	212.02	212.02
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	8.88	26.61
Net loan-Opening	0.00	196.15	211.46	203.14	185.41
Add: Drawl(s) during the year	0.00	15.31	0.56	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	8.88	17.74	17.74
Net Loan-Closing	0.00	211.46	203.14	185.40	167.67
Average Net Loan	0.00	203.81	207.35	194.32	176.59
Rate of Interest on Loan on Annual Basis	0.00	6.7904	6.7985	6.7983	6.7983
Interest on loan	0.00	13.8395	14.0967	13.2105	12.0051

(Petitioner)

Calculation of interest on Normative loan

Form No. - 9E

Name of the Transmission Licensee	POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED		
Project	Implementation of Bus Sectionalizer Bay at 400KV level of 400/220KV Bikaner-II PS		
Element Description	400KV Bus Sectionalizer bay 429 of 400KV Bus-2B (Bus-4) and 400KV Bus-2 at 400/220KV Bikaner-II		
Region	Corporate Centre	DOCO Date	Jan 23, 2026

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
No. of Days in the Year	0.00	365.00	365.00	366.00	365.00
No. of days for which Tariff claimed	0.00	68.00	365.00	366.00	365.00
Gross normative loan-Opening	0.00	197.11	212.42	258.90	266.55
Cumulative repayments of Normative loan upto previous year	0.00	0.00	3.23	23.60	46.65
Net normative loan-Opening	0.00	197.11	209.19	235.30	219.90
Addition in normative loan towards the ACE	0.00	15.31	46.48	7.65	7.65
Adjustment of normative gross loan pertaining to the decapitalised asset	0.00	0.00	0.00	0.00	0.00
Normative repayments of normative loan during the year	0.00	3.23	20.37	23.05	23.82
Adjustment of cumulative repayment pertaining to the decapitalised asset	0.00	0.00	0.00	0.00	0.00
Net normative loan - closing	0.00	209.19	235.30	219.90	203.73
Average normative loan	0.00	203.15	222.25	227.60	211.82
Weighted Average Rate of interest on actual loan	0.00	6.7904	6.7985	6.7983	6.7983
Interest on normative loan	0.00	13.79	15.11	15.47	14.40
Pro rata interest on normative loan	0.00	2.57	15.11	15.47	14.40

(Petitioner)

Calculation of Depreciation Rate on Original Project Cost

Form No. - 10

Name of the Transmission Licensee	POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED		
Project	Implementation of Bus Sectionalizer Bay at 400KV level of 400/220KV Bikaner-II PS		
Element Description	400KV Bus Sectionalizer bay 429 of 400KV Bus-2B (Bus-4) and 400KV Bus-2 at 400/220KV Bikaner-II		
Region	Corporate Centre	DOCO Date	Jan 23, 2026

(Amount in Rs. Lakh)

Name of Assets	Gross block at the beginning of the year	Add Cap during the year	Gross block at the end of the year	Average Gross Block	Depreciation Rate as per CERC's Depreciation Rate Schedule	Depreciation Amount for each year upto 31.03.2029
2025-26						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00
Civil & Building	0.00	0.00	0.00	0.00	3.34	0.00
Transmission Line	0.00	0.00	0.00	0.00	4.22	0.00
Sub Station	238.30	16.33	254.63	246.47	4.22	1.94
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	15.00	0.00
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDMS/ SCADA,etc	43.29	5.54	48.83	46.06	15.00	1.29
Batteries	0.00	0.00	0.00	0.00	9.50	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
TOTAL	281.59	21.87	303.46	292.53	0.00	3.23
Weighted Average Rate of Depreciation(%)					1.10416	

2026-27						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00

Civil & Building	0.00	0.00	0.00	0.00	3.34	0.00
Transmission Line	0.00	0.00	0.00	0.00	4.22	0.00
Sub Station	254.63	49.66	304.29	279.46	4.22	11.79
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	15.00	0.00
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDMS/SCADA,etc	48.83	16.74	65.57	57.20	15.00	8.58
Batteries	0.00	0.00	0.00	0.00	9.50	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
TOTAL	303.46	66.40	369.86	336.66	0.00	20.37
Weighted Average Rate of Depreciation(%)					6.050615	

2027-28						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00
Civil & Building	0.00	0.00	0.00	0.00	3.34	0.00
Transmission Line	0.00	0.00	0.00	0.00	4.22	0.00
Sub Station	304.29	8.16	312.45	308.37	4.22	13.01
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	15.00	0.00
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDMS/SCADA,etc	65.57	2.77	68.34	66.96	15.00	10.04
Batteries	0.00	0.00	0.00	0.00	9.50	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
TOTAL	369.86	10.93	380.79	375.33	0.00	23.05
Weighted Average Rate of Depreciation(%)					6.141262	

2028-29						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00
Civil & Building	0.00	0.00	0.00	0.00	3.34	0.00
Transmission Line	0.00	0.00	0.00	0.00	4.22	0.00
Sub Station	312.45	8.16	320.61	316.53	4.22	13.36
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	15.00	0.00
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDISM/SCADA,etc	68.34	2.77	71.11	69.73	15.00	10.46
Batteries	0.00	0.00	0.00	0.00	9.50	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
TOTAL	380.79	10.93	391.72	386.26	0.00	23.82
Weighted Average Rate of Depreciation(%)					6.166831	

(Petitioner)

Statement of Depreciation

Form No. - 10A

Name of the Transmission Licensee	POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED				
Project	Implementation of Bus Sectionalizer Bay at 400KV level of 400/220KV Bikaner-II PS				
Element Description	400KV Bus Sectionalizer bay 429 of 400KV Bus-2B (Bus-4) and 400KV Bus-2 at 400/220KV Bikaner-II				
Region	Corporate Centre	DOC Date	Jan 23, 2026		

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
No of Days in the year	0.00	365.00	365.00	366.00	365.00
No of days for which tariff claimed	0.00	68.00	365.00	366.00	365.00
Life at the beginning of the year					
1.1 Weighted Average useful life of the Asset/Project	0.00	22.00	22.00	22.00	22.00
1.2 Lapsed Weighted Average useful life of the Asset/Project(in completed no. of year)	0.00	0.00	0.00	1.00	2.00
1.3 Balance Weighted Average useful life of the Asset/Project(in completed no. of year)	0.00	22.00	22.00	21.00	20.00
Capital Base					
1.4 Opening capital cost	0.00	281.59	303.46	369.86	380.79
1.5 Additional Capital Expenditure dr. the year	0.00	21.87	66.40	10.93	10.93
1.6 De-Capitalisation During the year	0.00	0.00	0.00	0.00	0.00
1.7 Closing capital cost	0.00	303.46	369.86	380.79	391.72
1.8 Average capital cost	0.00	292.53	336.66	375.33	386.26
1.9 Freehold land included in 1.8	0.00	0.00	0.00	0.00	0.00
1.10 Asset having NIL salvage value included in 1.8	0.00	46.06	57.20	66.96	69.73
1.11 Asset having 10% salvage value included in 1.8	0.00	246.47	279.46	308.37	316.53
1.12 Depreciable Value(1.10+90% of 1.11)	0.00	267.88	308.71	344.49	354.61
Depreciation for the period and Cum. Depreciation					
1.13 Weighted Average Rate of depreciation	0.00	1.10416	6.050615	6.141262	6.166831

1.14 Depreciation(for the period)	0.00	3.23	20.37	23.05	23.82
1.15 Depreciation(Annualised)	0.00	3.23	20.37	23.05	23.82
Unrecovered Depreciation for DECAP	0.00	0.00	0.00	0.00	0.00
1.16 Cumulative depreciation at the beginning of the period	0.00	0.00	3.23	23.60	46.65
1.17 Less:Adj of Cum. Dep pertaining to decapitalised Asset	0.00	0.00	0.00	0.00	0.00
1.18 Cumulative depreciation at the end of the period	0.00	3.23	23.60	46.65	70.47

(Petitioner)

Calculation of interest on working Capital

Form No. - 11

Name of the Transmission Licensee		POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED	
Project	Implementation of Bus Sectionalizer Bay at 400KV level of 400/220KV Bikaner-II PS		
Element Description	400KV Bus Sectionalizer bay 429 of 400KV Bus-2B (Bus-4) and 400KV Bus-2 at 400/220KV Bikaner-II		
Region	Corporate Centre	DOCO Date	Jan 23, 2026

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
No of Days in the year	0.00	365.00	365.00	366.00	365.00
No of days for which tariff claimed	0.00	68.00	365.00	366.00	365.00
O&M Expenses-one month	0.00	2.59	2.73	2.87	3.02
Maintenance spares 15% of O&M Expenses	0.00	4.66	4.91	5.16	5.43
Receivables equivalent to 45 days of AFC	0.00	9.54	10.55	11.34	11.62
Total Working capital	0.00	16.79	18.19	19.37	20.07
Bank Rate as on 01.04.2024 or as on 01st April of the COD year, whichever is later.	0.00	12.25	12.25	12.25	12.25
Interest on working capital	0.00	2.06	2.23	2.37	2.46
Pro rata interest on working capital	0.00	0.38	2.23	2.37	2.46

(Petitioner)

Drawdown schedule Calculation of IDC & Financing Charges

Form No. - 12B

Name of the Transmission Licensee	POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED		
Project	Implementation of Bus Sectionalizer Bay at 400KV level of 400/220KV Bikaner-II PS		
Element Description	400KV Bus Sectionalizer bay 429 of 400KV Bus-2B (Bus-4) and 400KV Bus-2 at 400/220KV Bikaner-II		
Region	Corporate Centre	DOCODate	Jan 23, 2026

(Amount in Rs. Lakh)

Particulars	Quarter 1			Quarter 2			Quarter n (COD)		
	Quantum in FC	Ex. Rate on Drawn Down Date	Amount in Indian Rupee	Quantum in FC	Ex. Rate on Drawn Down Date	Amount in Indian Rupee	Quantum in FC	Ex. Rate on Drawn Down Date	Amount in Indian Rupee
Loans									
Foreign Loans									
Total of Foreign Loans									
Indian Loans									
PBTSL Loan (Bond LXXX) -DOCOD FUNDING									
Draw Down Account									9.61
IDC									
Financing Charges									
PBTSL Loan (Canara-02) -DOCOD FUNDING									

Draw Down Account									1.03
IDC									
Financing Charges									
PBTSL Loan (Canara-02) -DOCO FUNDING									
Draw Down Account									20.12
IDC									
Financing Charges									
PBTSL Loan (Canara-02) -DOCO FUNDING									
Draw Down Account									12.44
IDC									
Financing Charges									
PBTSL Loan (Canara-02) -DOCO FUNDING									
Draw Down Account									12.00
IDC									
Financing Charges									
PBTSL SBI-05 -DOCO FUNDING									
Draw Down Account									0.74

IDC									
Financing Charges									
PBTSL SBI-05 -DOCO FUNDING									
Draw Down Account									13.00
IDC									
Financing Charges									
PBTSL SBI-05 -DOCO FUNDING									
Draw Down Account									6.40
IDC									
Financing Charges									
PBTSL HDFC-03 -DOCO FUNDING									
Draw Down Account									5.42
IDC									
Financing Charges									
PBTSL HDFC-03 -DOCO FUNDING									
Draw Down Account									3.97
IDC									

Financing Charges									
PBTSL HDFC-03 -DOCO FUNDING									
Draw Down Account									14.00
IDC									
Financing Charges									
PBTSL HDFC-03 -DOCO FUNDING									
Draw Down Account									10.20
IDC									
Financing Charges									
PBTSL HDFC-03 -DOCO FUNDING									
Draw Down Account									14.57
IDC									
Financing Charges									
PBTSL HDFC-03 -DOCO FUNDING									
Draw Down Account									7.00
IDC									
Financing Charges									

PBTSL HDFC-03 -DOCO FUNDING									
Draw Down Account									46.11
IDC									
Financing Charges									
PBTSL HDFC-03 -DOCO FUNDING									
Draw Down Account									19.54
IDC									
Financing Charges									
Total of Indian Loans									196.15
Total of Loan Drawn									196.15

(Petitioner)

Abstract of Capital Cost Estimates and Schedule of Commissioning for New Project/Element			PART-III FORM-4C
Name of the Transmission Asset: 400kV Bus Sectionalizer Bay 429			
DOCO: 23.01.2026			
Board of Director/ Agency approving the Capital cost estimates:			
Date of approval of the Capital cost estimates:			
	Present Day Cost	Completed Cost	
Price level of approved estimates	As of End of 3rd Qtr. of the year 2014	As on Scheduled COD of the transmission system/transmission element/ Communication System	
		As of End of 3rd Qtr. of the year 2020	
Foreign Exchange rate considered for the Capital cost estimates	1 USD= Rs 61.79 1 Uk Pound= Rs 78.47		
Capital Cost excluding IDC, IEDC& FC			
Foreign Component, if any (In Million US \$ or the relevant Currency)			
Domestic Component (Rs. Lakh)			
Capital cost excluding IDC, FC, FERV & Hedging Cost (Rs. Lakh)			
	398.25	380.93	
IDC, IEDC, FC, FERV & Hedging Cost			
Foreign Component, if any (In Million US \$ or the relevant Currency)			
Domestic Component (Rs Lakh)			
Total IDC, FC, FERV & Hedging Cost (Rs Lakh)			
	12.70	9.41	
Rate of taxes & duties considered			
Capital cost Including IDC, IEDC, FC, FERV &			
Foreign Component, if any (In Million US \$ or the relevant Currency)			
Domestic Component (Rs Lakh)			
Capital cost Including IDC, IEDC& FC (Rs Lakh)			
	410.95	390.34	
Schedule of Commissioning			
COD of transmission system 1 /transmission element 1/Communication System 1	31.12.2024	23.01.2026	

(Petitioner)

S. No. (1)	Particulars (2)		As per Original Estimates (3)			As per Revised Cost Estimates (if any)(4)			Actual Capital Expenditure (Gross Block) as on COD as per Books of Account ^{3,4,5} (5)			The portion Capital cost included in col. 5 which is not eligible for transmission tariff (eg. Grant, other business etc. ⁶ (6)	Projected/actual cost of Deferred work to be capitalised after COD but before cut-off date (7)	Variation between actual Cost and LA/RCE cost as on COD (8=(5-6+7)-(3 or 4))	Reasons for Variation 1 (9)	Un- Discharge Liabilities included in Col. 5 (10)	Admitted cost ⁷ (11)
			Unit	Quantity	Rate	Estimated Cost	Quantity	Rate	Estimated Cost	Quantity	Rate	Gross Block of the asset	Liability (Ant.)	Variation		Un- Discharge Liabilities included in Col. 5 (10)	
A	TRANSMISSION LINE																
1	Preliminary works																
1.1	Design & Engineering													0			
1.2	Preliminary Investigation, Right of way, forest clearance, PTCC, general civil works etc.	LS	1.00	0.00	0.00	1.00			0.00	1.00	0.00		0.00	0.00			
1.3	Total Preliminary works (1.1+1.2)				0.00				0.00			0.00	0.00	0.00		0.00	
2	Transmission Lines material																
2.1	Towers Steel	MT	0	0.00	0.00				0.00	0	0.00		0.00	0.00			
2.2	Conductor	Km	0	0.00	0.00				0.00	0	0.00	0	0.00	0.00		0.00	0
2.3	Earth Wire	Km	0	0.00					0.00	0	0.00		0.00	0.00		0.00	
2.4	Insulators	No	0	0.00	0.00				0.00	0	0.00	0	0.00	0.00		0.00	0
2.5	Hardware Fittings	LS	0	0.00	0.00				0.00	0	0.00		0.00	0.00		0.00	
2.6	Conductor & Earth wire accessories	LS	0	0.00						0	0.00						
2.7	Spares	LS	0	0.00						0	0.00						
2.8	Erection, Stringing & Civil works including foundation	LS	0	0.00						0	0.00		0.00	0.00		0.00	
	T/L SPARE								0.00			0.00	0.00				
2.9	OPGW	Km	0	0.00	0.00				0.00	0	0.00	0	0.00	0.00		0.00	0
3.0	OPGW SPARE				0.00				0.00				0.00				
2.10	Total Transmission Lines material (2.1+2.2+2.3+2.4+2.5+2.6+2.7+2.8+2.9)			0	0.00				0.00			0.00	0.00	0.00		0.00	0.00
3	Taxes and Duties				0.00				0.00				0.00				
3.1	Custom Duty												0.00				
3.2	Other Taxes & Duties				0							0	0.00	0		0.00	0.00
3.3	Total Taxes & Duties (3.1+3.2)				0.00				0.00			0.00	0.00	0		0.00	0
3.4	Total - Transmission lines (1.3+2.10+3.3)				0.00				0.00			0.00	0.00	0.00		0.00	0.00
B.	SUBSTATIONS																
4	Preliminary works & land																
4.1	Design & Engineering																
4.20	Land ²	LS															
4.30	Site preparation	LS															
4.40	Total Preliminary works & land (4.1+4.2+4.3)																
5.00	Civil Works																
5.10	Control Room & Office Building including HVAC	LS							0.00								
5.20	Township & Colony	LS															
5.30	Roads and Drainage	LS															
5.40	Foundation for structures																
5.50	Misc. civil works	LS			0.00				0.00				0.00	0.00			
5.60	Total Civil Works (5.1+5.2+5.3+5.4+5.5)				0.00				0.00			0.00	0.00	0.00			
6.00	Substation Equipment																

6.10	Switchgear (CT,PT, Circuit Breaker, Isolator etc)	No.	876.00		184.74		126.37		115.31		11.06	58.37	Quantity variation in LOA items and incorporation of some new and substituted items (GIB outside GIS Hall, ventilation system, EOT crane, LCLM, Hydrant sytem for GIS Bldg) as per actual site requirement	12.52	102.78
6.20	Transformers	No.			0.00		0.00		0.00		0.00	0.00		0.00	0.00
6.30	Compensating Equipment (Reactor, SVCs etc)	No.													
6.40	Control , Relay & Protection Panel	No.	10.00		19.50		14.55		14.54		0.01	4.95		1.23	13.30
6.50	PLCC														
6.60	HVDC package														
6.70	Bus Bars/ conductors / Insulators														
6.80	Outdoor lighting	LS	1.00		0.00		0.00		0.00		0.00	0.00		0.00	0.00
6.90	Emergency D.G. Set														
6.10	Power & Control cable	LS	1.00		14.90	1.00	29.54		14.20		15.34	-14.64		1.42	12.78
	communication	No.	1.00		0.00	1.00	0.00		0.00		0.00			0.00	0.00
	Testing equipment	No.	1.00		0.00	1.00									
6.11	Structure for switchyard	LS	1.00		70.65	1.00	87.52		62.56		24.96	-16.87		11.49	51.07
6.12	Total Substation Equipment (Sum of 6.1 to 6.11)				289.80		257.98		206.61		51.37	31.82		26.66	179.93
7.00	Spares	LS	1.00		0.00	1.00	19.18		0.00		19.18	-19.18		0.00	0.00
					0.00										
8.00	Taxes and Duties				0.00										
8.10	Custom Duty														0.00
8.20	Other Taxes & Duties				48.61		44.92		36.49		8.43	3.69		0.00	36.49
8.30	Total Taxes & Duties (8.1+8.2+8.3)				48.61		44.92		36.49		8.43	3.69		0.00	36.49
					0.00										
8.40	Total (Sub-station) (4.4+5.6+6.12+7+8.3)				338.41		322.08		243.10		78.98	16.33		26.66	216.42
C	Communication System				0.00										
9.10	Preliminary Works				0.00										
9.20	IT				9.97		36.54		36.50		0.04	-26.56		3.64	32.86
	IT SPARE				0.00		0.00		0.00		0.00			0.00	0.00
9.30	Taxes and Duties				1.73		6.45		6.45		0.00			0.00	6.45
9.40	Total (Communication System) (9.1+9.2+9.3)				11.70		42.99		42.95		0.04	-26.56		3.64	39.31
10.00	Cost of Plant & Machinery (3.4+8.4+9.4)				360.61		365.07		286.05		79.03	-4.46		30.30	255.73
11.00	Construction and pre-commissioning expenses														
11.10	Site supervision & site administration etc				37.64		15.86		15.86		0.00	21.78			15.86
11.20	Tools & Plants								0.00		0.00				
11.30	Construction Insurance														
11.40	Total Construction and pre commissioning expenses (11.1+11.2+11.3)				37.64		15.86		15.86		0.00	21.78		0.00	15.86
12.00	Over heads														
12.10	Establishment														
12.20	Audit & Accounts														

12.30	Contingency				10.50							0.00	10.50			
12.40	Other overheads															
12.50	Total Overheads (12.1+12.2+12.3+12.4)				37.64			15.86			15.86	0.00	10.50			15.86
13.00	IDC, FC, FERV & Hedging Cost															
13.10	Interest During Construction (IDC)				12.70			9.41			9.41	0.00	3.29			9.41
13.20	Financing Charges (FC)															
13.30	Foreign Exchange Rate Variation (FERV)									0.00		0.00				
13.40	Hedging Cost															
13.50	Total of IDC, FC, FERV & Hedging Cost (13.1+13.2+13.3+13.4)				12.70			9.41			9.41	0.00	3.29		0.00	9.41
14.00	Capital cost including IDC, FC, FERV & Hedging Cost (10+11.4+12.5+13.5)				410.95			390.34			311.32	0.00	79.03		30.30	281.00

B)

Particular	Plant & Machinery Cost including initial spare but excluding IDC&IE DC	Initial Spare capitalised	IEDC capitalised	IDC capitalised	Loan FERV	Gross Block as per books of Account as on COD	Deduction from Gross Block	Gross block meant for tariff as on COD (after deductions)	Un- discharged liability included in 8	Capital Cost on Cash basis for tariff as on COD
	1.00	2.00	3.00	4.00	5.00	6=(1+3+4+5)	7.00	8=(6-7)	9.00	10=(8-9)
Land (Freehold Land)	0.00					0.00		0.00	0.00	0.00
Land (Leasehold)	0.00								0.00	0.00
Building & Civil Works	0.00		0.00	0.00	0.00	0.00		0.00	0.00	0.00
Transmission Line	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
Sub-Station	243.10	0.00	13.42	7.96	0.00	264.48		264.48	26.66	237.82
PLCC	0.00		0.00	0.00	0.00	0.00		0.00	0.00	0.00
IT	42.95		2.44	1.45	0.00	46.83		46.83	3.64	43.19
Total Capital Cost as per Books of Account	286.05	0.00	15.86	9.41	0.00	311.32	NIL	311.32	30.30	281.01
Less: Un-discharged liabilities										

Form-12A				
Incidental Expenditure during Construction				
Name of the Transmission Asset:" 400kV Bus Sectionalizer Bay 429 of 400kV Bus-2B (Bus-4) and 400kV Bus-2 at Bikaner-II SS Date of Commercial Operation: 23.01.2026				
Name of the Project :-"Implementation of Bus Sectionaliser at 400kV Level of 400/220kV Bikaner-II SS" Executed by POWERGRID Bikaner Transmission System Limited (PBTSL)				
Rs in Lakhs				
S. No.	Parameters	Upto 31.03.2025	2025-26	Total
A	Expenses:			
1	Employees' Remuneration & Benefits			0.00
2	Finance Costs			0.00
3	Water Charges			0.00
4	Communication Expenses			0.00
5	Power Charges			0.00
6	Depreciation			0.00
7	Consultancy Charges	9.66	12.18	21.84
8	Other Office and Administrative Expenses			0.00
9	Others (Please Specify Details)			0.00
10	License Fees			0.00
11	WIP transfer from CC			0.00
12	CERC Petition Fees Reimbursable	-2.44	-3.54	-5.98
13	Other pre-Operating Expenses			0.00
	TOTAL	7.22	8.64	15.86
B	Total Expenses			
14	Less: Income from sale of tenders			0.00
15	Less: Income from guest house			0.00
16	Less: Interest recovered from Contractors			0.00
17	Less: Interest on Deposits			0.00
18	Less: Int.Income.Temp.Fund			0.00
	TOTAL	0.00	0.00	0.00
	GRAND TOTAL	7.22	8.64	15.86

Details of Initial Spares															
Name of the petitioner		POWERGRID CORPORATION OF INDIA LIMITED													
Claimed / Admitted COD		23.01.2026		Cut-off Date of the Asset: 31.03.2028											
Name of Transmission Asset: Combined Asset- 400kV Bus Sectionalizer Bay 429															
DOCO: 19.12.2025															
A) Determination of Excess initial spare and its adjustment from Capital cost															
Particulars	Plant and machinery cost as on cut-off Date ¹	Initial Spare Capitalised as per Books of Account up to Cut-off Date					Ceiling limit as mentioned in Regulations 23	Entitled Initial Spare as per Regulations	Excess of capitalised Initial Spare to be reduced from Capital cost.			Adjustment of Excess Initial Spare from Capital cost of Plant and Machinery			
		As on COD	As ACE dr. Y1	As ACE dr. Y2	As ACE dr. Y3 & Y4	Total as on Cut off Date ²						COD	ACE for Y1	ACE for Y2	ACE for Y3
1	2	3	4	5	6	7	8	9	10=7-9 (Note 2)			11	12	13	14
Transmission Line	0.00	0	0	0	0	0.00	1.00%	0.00	0.00						
Substation Green field							4.00%								
Substation Brown Field	365.07	0.00	3.84	11.50	3.84	19.18	6.00%	21.90	0.00						
Series Compensation devices and HVDC Station							4.00%								
GIS/S- Green field							5.00%								
GIS/S-Brown field							7.00%								
Communication System	0.00	0	0.00	0.00	0.00	0	3.50%	0.00	0.00						
Static Synchronous Compensator							6.00%								
Initial spare as per Books of Account								0	0						
Un-Discharge liabilities included above															
Total Capitalized initial spare															
B) Determination of Plant & Machinery Cost for ceiling of initial															
Particulars	Gross Block of Asset as on COD	Less: Amount included in Col. B towards					Plant and machinery cost as on COD for Initial Spare purpose	Plant & Machinery Capitalised as ACE up to cut off date			Plant and machinery cost as on cut-off Date for the purpose of initial spare				
		Land Cost	Cost of Civil Works	IEDC	IDC	Initial Spare		Year -1	Year-2	Year-3 & Year-4					
a	b	c	d	e	f	g	h=b-c-d-e-f-g	i	j	k	l=h+i+j+k				
Transmission Line	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Substation Green field															
Substation Brown Field	311.32	0.00	0.00	15.86	9.41		286.05	15.81	47.41	15.80	365.07				
Series Compensation devices and HVDC Station															
Gas Insulated Substation- Green field															
Gas Insulated Substation- Brown field															
Communication System	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Static Synchronous Compensator															

(Petitioner)

Summary of issue involved in the petition		PART-III FORM- 15	
1. Name of the Petitioner	POWERGRID Bikaner Transmission System Ltd.		
2. Petition Category	Transmission		
3. Tariff Period	2024-29		
4. Name of the Project	Implementation of Bus Sectionalizer at 400 kV level of 400/220 kV Bikaner-II PS		
5. Investment Approval date	28.02.2024		
6. SCOD of the Project	31.12.2024		
7. COD of the project	19.12.2025 & 23.01.2026		
8. Whether entire scope is covered in the present petition	Yes		
9. No. of Assets covered in instant petition	02 nos.		
10. No. of Assets having time over run	02 nos.		
11. Estimated Project Cost as per IA	Rs 821.9 Lacs		
12. Is there any RCE? if so, provide the date			
13. Revised Estimated Project Cost (if any)			
14. Completion cost for all the assets covered in the instant petition	Rs 780.91 Lacs		
15. No. of Assets covered in instant petition and having cost overrun	NIL		
16	Prayer in brief		
17	Key details and any Specific issue involved		
18	Respondents		
	Name of Respondents		
	1	UTTAR PRADESH POWER CORPORATION LTD.	2. BSES YAMUNA POWER Ltd
	3	AJMER VIDYUT VITRAN NIGAM LTD	4. BSES RAJDHANI POWER Ltd
	5	JAIPUR VIDYUT VITRAN NIGAM LTD	6. TATA POWER DELHI DISTRIBUTION LTD
	7	JODHPUR VIDYUT VITRAN NIGAM LTD	8.CHANDIGARH ELECTRICITY DEPTT
	9	HIMACHAL PRADESH STATE ELECTRICITY BOARD	10. UTTARAKHAND POWER CORPORATION LTD
	11	PUNJAB STATE POWER CORPORATION LIMITED	12. NORTH CENTRAL RAILWAY
	13	HARYANA POWER PURCHASE CENTRE	14.NEW DELHI MUNICIPAL COUNCIL
	15.	JAMMU KASHMIR POWER CORPORATION LIMITED	16. CTUIL
KANCHAN KUMAR CHOUDHARY Digitally signed by KANCHAN KUMAR CHOUDHARY Date: 2026.04.22 17:32:34 +05'30' (Petitioner)			

**Checklist of Forms and other information/ documents for tariff filing for
Transmission System& Communication System**

Form No.	Title of Tariff Filing Forms (Transmission& Communication System)	Tick
FORM- 1	Summary of Tariff	✓
FORM- 1A	Summary of Asset level cost	✓
FORM-2	Details of Transmission Lines and Substations and Communication System covered in the project scope and O&M for instant asset	✓
FORM-3	Normative parameters considered for tariff computations	✓
FORM- 4	Abstract of existing transmission assets/elements under project, Determination of Effective COD and Weighted Average Life for single AFC for the project as whole.	N.A.
FORM- 4A	Statement of Capital cost	✓
FORM- 4B	Statement of Capital Works in Progress	N.A.
FORM- 4C	Abstract of Capital Cost Estimates and Schedule of Commissioning for the New Project/ Element	✓
FORM-5	Element wise Break-up of Project/ Asset/ Element Cost for Transmission System or Communication System	✓
FORM-5A	Break-up of Construction/Supply/Service packages	✓
FORM-5B	Details of all the assets covered in the project	✓
FORM- 6	Actual Cash Expenditure and Financial Package up to COD	✓
FORM- 7	Statement of Additional Capitalisation after COD	✓
FORM- 7A	Financing of Additional Capitalisation	✓
FORM- 7B	Statement of Additional Capitalisation during five year before the end of the useful life of the project.	N.A.
FORM- 8	Calculation of Return on Equity	✓
FORM-8A	Details of Foreign Equity	N.A.
FORM-9	Details of Allocation of corporate loans to various transmission elements	N.A.
FORM-9A	Details of Project Specific Loans	N.A.
FORM-9B	Details of Foreign loans	N.A.
FORM-9C	Calculation of Weighted Average Rate of Interest on Actual Loans	✓
FORM-9D	Loans in Foreign Currency	N.A.
FORM-9E	Calculation of Interest on Normative Loan	✓
FORM- 10	Calculation of Depreciation Rate on original project cost	✓
FORM- 10A	Statement of Depreciation	✓
FORM- 10B	Statement of De-capitalisation	N.A.
FORM- 11	Calculation of Interest on Working Capital	✓
FORM- 12	Details of time over run	✓
FORM- 12A	Incidental Expenditure during Construction	✓
FORM- 12B	Calculation of IDC & Financing Charges	✓
FORM- 13	Details of Initial spares	✓
FORM- 14	Non-Tariff Income	N.A.
FORM- 15	Summary of issue involved in the petition	✓
FORM A	Summary of Capital Cost & Annual Fixed Cost (AFC) Claimed for ALL	✓

Other Information/ Documents		
S. No.	Information/Document	Tick
1	Certificate of incorporation, Certificate for Commencement of Business, Memorandum of Association, & Articles of Association (For New Project(s) setup by a company making tariff application for the first time to CERC)	N.A.
2	Region wise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & Annexure for the new Transmission System & Communication System for the relevant years.	N.A.
3	Copies of relevant loan Agreements	N.A.
4	Copies of the approval of Competent Authority for the Capital Cost and Financial package.	N.A.
5	Copies of the Equity participation agreements and necessary approval for the foreign equity.	N.A.
6	Copies of the BPTA/TSA/PPA with the beneficiaries, if any	N.A.
7	Detailed note giving reasons of cost and time over run, if applicable. List of supporting documents to be submitted: a. Detailed Project Report b. CPM Analysis c. PERT Chart and Bar Chart d. Justification for cost and time Overrun	N.A.
8	Transmission Licensee shall submit copy of Cost Audit Report along with cost accounting records, cost details, statements, schedules etc. for the transmission system as submitted to the Govt. of India for first two years i.e. 2019-20 and 2020-21 at the time of mid-term true-up in 2021- 22 and for balance period of tariff period 2019-24 at the time of final true-up in 2024-25. In case of initial tariff filing the latest available Cost Audit Report should be furnished.	N.A.
9	BBMB is maintaining the records as per the relevant applicable Acts. Formats specified herein may not be suitable to the available information with BBMB. BBMB may modify formats suitably as per available information to them for submission of required information for tariff purpose.	N.A.
10	Any other relevant information, (Please specify)	N.A.
Note 1. Electronic copy of the petition (in words format) and detailed calculation as per these formats (in excel format) and any other information submitted has to be uploaded in the e-filing website and shall also be furnished in pen drive/flash drive.		

KANCHAN
KUMAR
CHOUDHARY
Y

Digitally signed
by KANCHAN
KUMAR
CHOUDHARY
Date: 2026.04.22
17:33:10 +05'30'