

BEFORE  
THE CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI

PETITION FOR  
APPROVAL OF TRANSMISSION TARIFF

For

Transmission Assets of

*Project - "Implementation of 1 No. 220kV Line Bay at 400/220 kV Bikaner-II PS for  
Interconnection of Solar Project (M/s. NHPC Ltd.)"*

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**

**C/O 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/2024**

**IN THE MATTER OF:** Petition for determination of transmission tariff for 2024-29 tariff block for assets under “Implementation of 1 No. 220kV Line Bay at 400/220 kV Bikaner-II PS for Interconnection of Solar Project (M/s. NHPC Ltd.)” 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: C/O 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**

**.....RESPONDENT(S)**

Filed by

**POWERGRID Bikaner Transmission System Limited**

Represented by



**PLACE: BiKaner**

**Project-in-Charge,**

**DATED: 25.04.2025**

**POWERGRID Bikaner Transmission System Limited**

कंचन कुमार चौधरी

(प्रोक्सी/हस्ताक्षर)

पावरग्रिड बिहार ट्रांसमिशन सिस्टम लिमिटेड

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

**PETITION NO.: .../TT/2024**

**IN THE MATTER OF:** Petition for determination of transmission tariff for 2024-29 tariff block for assets under “Implementation of 1 No. 220kV Line Bay at 400/220 kV Bikaner-II PS for Interconnection of Solar Project (M/s. NHPC Ltd.)” 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: C/O ED (TBCB),  
“SAUDAMINI”, Plot No.-2, Sector-29, Gurgaon-122 001  
(Haryana)

**.....PETITIONER**

**Versus**

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

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

**.....RESPONDENT(S)**

**INDEX**

Sl. No.	Description	Annexure No.	Page No.
1	Index	-	3-4
2	Letter for registration	-	5
3	Memo of Parties	-	6-9
6	Memo of appearance	-	10
7	Petition for determination of transmission tariff	-	11-32



Sl. No.	Description	Annexure No.	Page No.
	for 2024-29 tariff block		
8	Supporting affidavit	-	33
9	Power of Attorney	-	34-36
<b><u>ANNEXURES</u></b>			
10	order dated 28.01.2024 in Petition No. 181/TL/2023	Annexure-1	37-55
11	Copy of CTUIL OM dated 28.11.2022	Annexure-2	56-65
12	Investment Approval	Annexure-3	66
13	A copy of CEA Energization certificate, RLDC No load trial operation certificate and SPV Chairman certificate	Annexure-4	67-71
14	Copy of Auditor Certificate	Annexure – 5	72-73
15	Statement of cash IDC and Liabilities flow Statement	Annexure - 6	74-77
16	Tariff Forms for 2024-29 block	Annexure - 7	78-111
17	Checklist	-	112-115

Filed by

**POWERGRID Bikaner Transmission System Limited**



**PLACE: Bikaner**

**Project-in-Charge,**

**DATED: 25.04.2025**

**POWERGRID Bikaner Transmission System Limited**

कंचन कुमार चौधरी  
(परियोजना प्रभारी)  
पावरग्रिड बीकानेर ट्रांसमिशन सिस्टम लिमिटेड



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

**PETITION NO.: .../TT/2024**

**IN THE MATTER OF:** Petition for determination of transmission tariff for 2024-29 tariff block for assets under **"Implementation of 1 No. 220kV Line Bay at 400/220 kV Bikaner-II PS for Interconnection of Solar Project (M/s. NHPC Ltd.)"** 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 please be registered and taken on record by the Hon'ble Commission.

**Filed by**  
**POWERGRID Bikaner Transmission System Limited**

**Represented by**



**PLACE: Bikaner**  
**DATED: 25.04.2025**

**Project-in-Charge,**  
**POWERGRID Bikaner Transmission System Limited**

**कंचन कुमार चौधरी**  
**(परियोजना प्रभारी)**  
**पावरग्रिड बीकानेर ट्रांसमिशन सिस्टम लिमिटेड**

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

**PETITION NO.: .../TT/2024**

**IN THE MATTER OF:** Petition for determination of transmission tariff for 2024-29 tariff block for assets under “Implementation of 1 No. 220kV Line Bay at 400/220 kV Bikaner-II PS for Interconnection of Solar Project (M/s. NHPC Ltd.)” 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**

**.....RESPONDENT(S)**

**MEMO OF PARTIES**

**Power Grid Corporation of India Ltd.**

Registered office: B-9, Qutab Institutional Area,

Katwaria Sarai, New Delhi. 110 016.

Corporate Centre: ‘SAUDAMINI’, Plot No-2,

Sector-29, Gurgaon-122 001 (Haryana).

**VERSUS**

1. UTTAR PRADESH POWER CORPORATION LTD.

SHAKTI BHAWAN, 14, ASHOK MARG

**----RESPONDENT(S)**



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 KASHMIR POWER CORPORATION LIMITED  
220/66/33 KV GLADNI SS SLDC BULIDING





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 UTILITY OF INDIA LTD (CTUIL))  
FLOORS NO. 5-10, TOWER 1,  
PLOT NO. 16, IRCON INTERNATIONAL TOWER,  
INSTITUTIONAL AREA, SECTOR 32, GURUGRAM, HARYANA - 122001  
REPRESENTED BY ITS COO

17. NHPC LIMITED  
CORPORATE OFFICE, SECTOR-33, FARIDABAD-121003,  
HARYANA, INDIA

Filed by  
**POWERGRID Bikaner Transmission System Limited**  
Represented by



**PLACE: Bikaner**  
**DATED: 25.04.2025**

**Project-in-Charge,**  
**POWERGRID Bikaner Transmission System Limited**

कंचन कुमार चौधरी  
(परियोजना प्रभारी)  
पावरग्रिड बीकानेर ट्रांसमिशन सिस्टम लिमिटेड

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

**PETITION NO.: .../TT/2024**

**IN THE MATTER OF:** Petition for determination of transmission tariff for 2024-29 tariff block for assets under “Implementation of 1 No. 220kV Line Bay at 400/220 kV Bikaner-II PS for Interconnection of Solar Project (M/s. NHPC Ltd.)” 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**

**.....RESPONDENT(S)**

**MEMO OF APPEARANCE**

**POWERGRID Bikaner Transmission System Limited**

**..... PETITIONER**

1. Shri K.K.Choudhury, Project-in-charge, PBTSL

I, K.K.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 4<sup>th</sup> date of December 2024.

**PETITIONER  
POWERGRID Bikaner Transmission System Limited**



**Project-in-Charge,  
POWERGRID Bikaner Transmission System Limited**

**PLACE: Bikaner  
DATED: 25.04.2025**

**कंचन कुमार चौधरी  
(परियोजना प्रभारी)  
पावरग्रिड बीकानेर ट्रांसमिशन सिस्टम लिमिटेड**

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

**PETITION NO.: .../TT/2024**

**IN THE MATTER OF:** Petition for determination of transmission tariff for 2024-29 tariff block for assets under “Implementation of 1 No. 220kV Line Bay at 400/220 kV Bikaner-II PS for Interconnection of Solar Project (M/s. NHPC Ltd.)” 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: C/O 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**

**.....RESPONDENT(S)**

**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 (erstwhile 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 (RTM) and the Petitioner approached the Hon’ble Commission through Petition 137/TL/2022 for grant of separate RTM transmission license. Hon’ble Commission vide order dated 21.11.2022 in Petition No. 137/TL/2022 granted a separate transmission license to the Petitioner to implement the transmission projects under RTM route. Further, CTUIL/MOP again assigned additional RTM schemes to Petitioner and Petitioner approached Hon’ble Commission through petition 181/TL/2023 for amendment of earlier RTM license granted vide petition 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 (comprising of total of 7 schemes awarded to PBTSL under RTM mode) which inter-alia included the scheme - **“Implementation of 1 No. 220kV Line Bay at 400/220 kV Bikaner-II PS for Interconnection of Solar Project (M/s. NHPC Ltd.)”**. PBTSL operates and functions within the regulatory control of Hon’ble Commission. Tariff for the transmission system in the present petition established by PBTSL under RTM is required to be determined by this Hon’ble Commission in accordance with the Tariff Regulations as notified by this Hon’ble Commission from time to time in exercise of its powers under Section 178 of the Electricity Act, 2003.

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

2. PBTSL has impleaded the distribution licensees and Government departments 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. In Addition, PBTSL has also impleaded Central Transmission Utility of India Limited (CTUIL) as Respondent No 16 and the





Associated Generator i.e. NHPC limited as Respondent No 17 for which the instant transmission asset has been implemented.

**(iii) Background of Transmission Assets:**

3. PBTSL is filing the present petition for determination of transmission tariff for 2024-29 tariff block for the following asset under subject transmission scheme, i.e. **Implementation of 1 No. 220kV Line Bay at 400/220 kV Bikaner-II PS for Interconnection of Solar Project (M/s. NHPC Ltd.)**:

Asset No	Asset Name	COD
Asset-1	1 No. 220kV line bay at 400/220kV Bikaner-II PS for interconnection of solar projects (NHPC Ltd.)	Proposed COD – 28.01.2025

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

S.No	Event	Date
1.	Instant transmission scheme viz. Implementation of 1 No. 220kV Line Bay at 400/220 kV Bikaner-II PS for Interconnection of Solar Project (M/s. NHPC Ltd.) was assigned to Petitioner by CTUIL under RTM mode.	28.11.2022
2.	Petition No.181/TL/2023 filed by the Petitioner for amendment of RTM transmission license	01.05.2023
3.	Final order issued by Hon'ble Commission amending RTM transmission license to PBTSL	28.01.2024
4.	Investment Approval	06.06.2023
5.	SCOD	28.02.2024
6.	Proposed COD	28.01.2025
7.	Revised Cost Estimates (RCE)	Under preparation



(v) Summary of Claims:

4. 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 proposed Commercial Operation Date (“**Proposed 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**”).

5. The details of FR/RCE 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	
Asset-1	2245.49	1,144.74	226.11	678.34	113.06	113.06	2,275.31

*Revise Cost estimate is under preparation for instant Transmission Scheme*

6. Details of Time- Overrun:

Asset No.	SCOD	COD	Delay in days
Asset-1:	28.02.2024	28.01.2025 (Proposed)	335

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 award of contract to achieve optimum and competitive price.

7. Details of tariff claimed are as under:

Tariff claimed for 2024-29 tariff block:

(Rs. in Lakhs)

Name of the asset	2024-25	2025-26	2026-27	2027-28	2028-29
Asset-1:	38.99	303.11	366.64	378.95	381.05



8. 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:**

9. 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.
10. 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.
11. 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.
12. That subsequently, various transmission schemes were awarded to Petitioner under Regulated Tariff Mechanism (RTM) mode vide CTUIL OMs. 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 no. additional transmission schemes were assigned by CTUIL to Petitioner and accordingly, petition 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 which inter-alia included instant transmission scheme i.e. **Implementation of 1 No. 220kV Line Bay at 400/220 kV Bikaner-II PS for Interconnection of Solar Project (M/s. NHPC Ltd.).**

A copy of the order dated 28.01.2024 in Petition No. 181/TL/2023 is enclosed as **Annexure 1.**

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 (3<sup>rd</sup>).

13. That the present petition covers approval of transmission tariff for following Asset:

Asset No	Asset Name	DOCO
Asset-1:	1 No. 220kV line bay at 400/220kV Bikaner-II PS for interconnection of solar projects (NHPC Ltd.)	Proposed COD – 28.01.2025

#### Approval of the Scheme

14. That instant transmission scheme viz. **Implementation of 1 No. 220kV Line Bay at 400/220 kV Bikaner-II PS for Interconnection of Solar Project (M/s. NHPC Ltd.)**





was assigned to the Petitioner by CTUIL vide its OM dated 28.11.2022 for implementation under RTM mode.

Copy of CTUIL OM dated 28.11.2022 is attached as **Annexure-2**.

15. 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 28<sup>th</sup> meeting held on 06.06.2023 at an estimated cost of Rs. 22.46 Crores for all assets of the instant project.

A copy of investment approval is attached hereto as **Annexure - 3**.

**SCOPE OF WORK:**

16. The complete scope of work covered under “**Implementation of 1 No. 220kV Line Bay at 400/220 kV Bikaner-II PS for Interconnection of Solar Project (M/s. NHPC Ltd.)**” and covered under instant petition is as follows:

Asset	Asset Name	Remarks
Asset-1	1 No. 220 kV line bay at 400/220kV Bikaner-II PS for interconnection of solar projects (NHPC Ltd.) and implementation of 220kV bus sectionalizer along with bus coupler and transfer bus coupler	Entire project is covered under instant petition

**Approval of Proposed COD**

It is to mention that the associated generator for instant 220 kV line bay is NHPC Limited. On the date of completion of instant 220 kV bay by PBTSL i.e. 28.01.2025, the associated generation was not commissioned and PBTSL is praying this Hon'ble Commission to approve the DOCO as 28.01.2025 in terms of the Regulation 5 of the Tariff Regulations, 2024 and Regulations 27 of the Indian Grid Code Regulations, 2023. Relevant excerpts of Tariff Regulations, 2024 are provided below;

**Quote**

5. *Date of Commercial Operation: (1) The date of commercial operation of a generating*



station or unit thereof or a transmission system or element thereof and associated communication system shall be determined in accordance with the provisions of the Grid Code. In the event of mismatch of COD between associated transmission and/or generating stations, the liability for the transmission charges shall be in accordance with the provisions of the Sharing Regulations, 2020 as amended from time to time.

**Unquote**

Further, Regulations 27 of the Grid Code Regulations, 2023 provides for declaration of commercial operation (DOCO) as follows;

**Quote**

**27. DECLARATION OF COMMERCIAL OPERATION (DOCO) AND COMMERCIAL OPERATION DATE (COD)**

(1) A generating station or unit thereof or a transmission system or an element thereof or ESS may declare commercial operation as follows and inform CEA, the concerned RLDC, the concerned RPC and its beneficiaries:

.....

(c) Transmission System (i) The commercial operation date in the case of an Inter-State Transmission System or an element thereof shall be the date declared by the transmission licensee on which the Transmission System or an element thereof is in regular service at 0000 hours after successful trial operation for transmitting electricity and communication signals from the sending end to the receiving end as per Regulation 23 and submission of a declaration as per clause (3) of Regulation 26 of these regulations :

.....

**Provided also that in case a transmission system or an element thereof executed under regulated tariff mechanism is prevented from regular service on or after the scheduled COD for reasons not attributable to the transmission licensee or its supplier or its contractors but is on account of the delay in commissioning of the concerned generating station or in commissioning of the upstream or downstream transmission system of other transmission licensee, the transmission licensee shall approach the Commission through an appropriate petition along with a certificate from the CTU to the effect that the transmission system is complete as per the applicable CEA Standards, for**



**approval of the commercial operation date of such transmission system or an element thereof:**

**Unquote**

In compliance with the above regulatory requirement, PBTSL has approached CTUIL for issuance of completion certificate and CTUIL is in process to issue the completion certificate in terms of the Grid Code regulations. No load trial run was completed on 27.01.2025 and accordingly approval of COD has been prayed w.e.f. 28.01.2025.

A copy of CEA Energization certificate, RLDC No load trial operation certificate and SPV Chairman certificate for the instant asset are enclosed as **Annexure - 4**.

17. 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 instant petition is being filed in compliance with Regulation 9 of CERC Tariff Regulations, 2024.

**18. 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
Asset-1:	28.02.2024	28.01.2025 (Proposed)	335





### **Reasons of Time Over-run**

As can be seen from the table above, there is a delay of 335 days in commissioning of instant asset vis-à-vis SCOD 28.02.2024. Following are the reasons which led to delay in commissioning of the instant 220 kV bay;

**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 Licence 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. However, in the instant case, the transmission license was granted after a period of 272 days. Petitioner filed the petition for license on 01.05.2023 and the transmission license was granted vide order dated 28.01.2024 in Petition No.181/TL/2023 i.e. after 272 days from the date of filing of petition. A detailed chronology of the events is shown below:

Sl. No.	Date	Description of Event/Activity
1	01.05.2023	Petition No.181/TL/2023 filed by the Petitioner for amendment of existing RTM transmission license required for instant transmission scheme.
2	31.07.2023	Hearing in the petition was held and Hon'ble Commission directed Petitioner to file certain information on affidavit.
3	11.08.2023	Petition filed requisite information.
4	12.09.2023	Next hearing held in the petition and order was reserved.
5	13.11.2023	Hon'ble Commission issued interim order held that Petitioner is eligible for the grant of a transmission licence.
6	28.11.2023	Hearing in the petition was held and Hon'ble Commission reserved the petition for final order.
7	28.01.2024	Final order issued by Hon'ble Commission amending the existing RTM license after 272 days of filing of petition.





From the above, it can be seen that the commissioning date of the instant asset was pushed back from the scheduled timeline due to the delay in grant of transmission license to the Petitioner, which is beyond the control of PBTSL. After adjusting 90 days which was factored in for grant of transmission license, extra time lapsed due to above event was 182 days.

Further time overrun is mainly due to delay in award of contract. 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. It is humbly submitted that the said delay was beyond the control of Petitioner.

#### Estimated Completion Cost:

19. 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 proposed DOCO (i.e. 28.01.2025) 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 Addcap 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 - 5**.

(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	
Asset-1	2245.49	1,144.74	226.11	678.34	113.06	113.06	2,275.31

*The Revised cost estimate of the instant project is under preparation and same shall be filed upon its approval.*



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)
Asset-1	2245.49	2275.31	29.82

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:

Asset-I

S. No	Description	Cost as per FR	Estimated Capital Cost	Variation (-decrease, +increase)
		a	b	c = b - a
1.	CIVIL works	20	0	-20.0
2.	Substation	1647.60	1683.15	35.5
3.	Taxes and Duties	314.56	358.43	43.9
4.	Spares	68.56	109.48	40.9
5.	Communication	83.12	97.88	14.8
6.	Over heads	57.8	0	-57.8
7.	Interest During Construction (IDC)	53.85	26.36	-27.5
	<b>Total</b>	<b>2245.491</b>	<b>2275.3</b>	<b>29.81</b>

**Variation in IDC: (Rs -27.5 Lakhs)** - Decrease in IDC is attributable to variation in the rate of interest considered in FR v/s 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 Certificate.

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

**(Rs 115.1 Lakhs)** - 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.

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

#### **DETAILS OF THE INITIAL SPARES:**

#### **20. 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*

.....

21. 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]
Asset-1	SS(Brown Field)	2,169.97	133.15	6	130.01	3.14

It is evident from the above that the spares claimed are marginally higher than allowable limit. 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. Initial spares discharge summary is as follows;

Particulars	Sub station incl PLCC & IT Equipment
Total Value of Spares as per Certificate	133.15
Expenditure up to 28.01.2025 (Prop DOCO)	14.02
Estimated Expenditure from 28.01.2025 to 31.03.2025	39.71
Estimated Expenditure from 01.04.2025 to 31.03.2026	39.71
Estimated Expenditure from 01.04.2026 to 31.03.2027	39.71

## DETAILS OF ADDITIONAL CAPITALIZATION

### 22. 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.

**23. Additional capitalization claims under Regulation:**

Asset	DOCO date	Cut-off date
Asset-1	28.01.2025 (Proposed)	31.03.2028

**Add cap for 2024-29 block:**

Asset	Add cap detail (Rs. Lakhs)				
	2024-25	2025-26	2026-27	2027-28	2028-29
Asset-1	226.11	678.34	113.06	113.06	-
	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)	-

24. 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 under 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:**

25. 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.
26. 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.
27. Further, for the instant asset, details of accrual IDC as considered under add cap during the year of discharge is tabulated below:

**Asset-1:**

(Rs. in lakhs)

Sl. No.	Expenditure	Sub-Station	Communication System excl. OPGW	I.T. Equipment	Total
1	As per Auditor Certificate (Upto DOCO) as on 28.01.2025	1079.12	65.62	0.00	1144.74
2	Less: Accrual IDC not discharged upto DOCO	-4.08	-0.25	0.00	-4.32
3	Notional IDC	0.00	0.00	0.00	0.00
4	Expenditure upto DOCO Excluding Accrual IDC	1075.04	65.37	0.00	1140.42
5	Add Cap during for FY 2024-25	184.89	4.09	37.13	226.11





Sl. No.	Expenditure	Sub-Station	Communication System excl. OPGW	I.T. Equipment	Total
6	Estimated Expenditure 2025-26 as per auditor certificate	554.68	12.26	111.40	678.34
7	Add: Accrual IDC Discharged in 2025-26	4.08	0.25	0.00	4.32
8	Expenditure 2025-26 (Including Accrual IDC discharge)	558.76	12.51	111.40	682.66
9	Estimated Expenditure 2026-27	92.45	2.04	18.57	113.06
10	Estimated Expenditure 2027-28	92.45	2.04	18.57	113.06
11	Estimated Completion Cost	2003.590	86.050	185.670	2275.31

28. It is submitted that for the instant asset, out of the total IDC of Rs 26.36 Lakhs, Rs 22.04 Lakhs has been discharged upto DOCO. The balance IDC of Rs 4.32 Lakhs is likely to be discharged during FY 2025-26. Further, the entire amount of IEDC for the instant asset has been discharged as on DOCO. It is further submitted that expenditure other than the above accrued IDC has been considered on cash basis in the Auditor certificate. Furthermore, Petitioner has not claimed any notional IDC.

29. The Hon'ble Commission is requested to kindly allow the IDC based on cash out flow. It is further submitted that accrued IDC to be discharged during respective years for the assets has not been included in the Add Cap expenditure for the respective year as per the Auditor certificate. Further, the entire IEDC amount mentioned in the auditor certificate is on cash basis and is paid up to DOCO. Furthermore, statement of cash IDC and Liabilities flow Statement is enclosed at **Annexure - 6**.

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 - 7**.

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

(Rs. In Lakhs)

Project	2024-25	2025-26	2026-27	2027-28	2028-29
Asset-1	38.99	303.11	366.64	378.95	381.05

32. It is submitted that the petitioner has opted to pay income tax under Section 115BAA of Income-tax Act, 1961. Therefore, ROE has been calculated @ 20.045% after grossing up the ROE with tax rate of 25.168% (Base Rate 22% + Surcharge 10% + Cess 4%) 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 instant petition 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 & 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 Spare:**

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 31 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 **Annexure -1 to 7** 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) Admit the instant petition in absence of CTUIL completion certificate as Petitioner has already approached the CTUIL for issuance of Completion Certificate and issuance of same is under process.



- 2) Grant the liberty to submit the CTUIL Completion certificate during the proceedings of the instant petition on issuance by CTUIL.
- 3) Approve the proposed DOCO for instant asset i.e. "1 No. 220kV line bay at 400/220kV Bikaner-II PS for interconnection of solar projects (NHPC Ltd.)" as 28.01.2025.
- 4) Condone the delay in completion of subject asset on merit of the same being beyond the control of Petitioner.
- 5) Admit the capital cost claimed in the petition and approve the incurred/ projected additional capitalization during 2024-29.
- 6) Approve the transmission tariff for 2024-29 block for the assets covered under this petition.
- 7) 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.
- 8) 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 Minimum Alternate/Corporate 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 as per Para 31 above for respective block.
- 9) 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.
- 10) 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 (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024.
- 11) 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.
- 12) Allow the Initial spares to be claimed as project as a whole.



- 13) 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.
- 14) Allow the petitioner to claim the overall insurance expenses and consequential IOWC on that insurance expenses separately.
- 15) 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.
- 16) 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.
- 17) 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**

**PLACE: Bikaner**

**DATED: 25.04.2025**

**Project-in-Charge,**

**POWERGRID Bikaner Transmission System Limited**

  
कंचन कुमार चौधरी  
(परियोजना प्रभारी)  
पावरग्रिड बीकानेर ट्रांसमिशन सिस्टम लिमिटेड



**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 1 No. 220kV Line Bay at 400/220 kV Bikaner-II PS for Interconnection of Solar Project (M/s. NHPC Ltd.)” 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)**  
**and others**

**--- RESPONDENTS**

**AFFIDAVIT VERIFYING THE PETITION**

I, K.K.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.

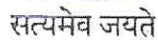
Solemnly affirmed at Gurgaon on this 25<sup>th</sup> Day of April 2025.

**(DEPONENT)**



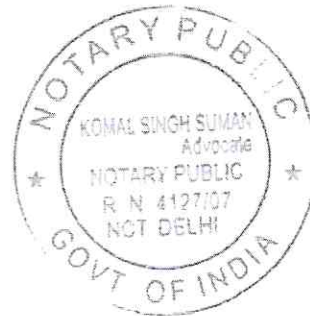
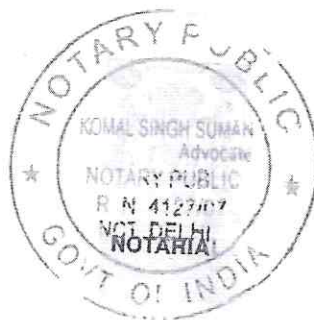
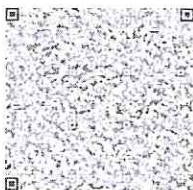
**ATTESTED**  
*25/4/2025*  
**CENTRAL NOTARY**  
**BIKANER (RAJ.) INDIA**





**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-

1. The authenticity of this Stamp certificate should be verified at '[www.shoolestamp.com](http://www.shoolestamp.com)' or using e-Stamp Mobile App of Stock Holding Corporation of India Limited. 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,





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 01<sup>st</sup> 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



.....  
[Mr. Aditi Jain  
(Company Secretary)]

.....  
[Shri Rajiv Srivastava  
36 (Director)]

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

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 181/TL/2023**

**Coram:**

**Shri Jishnu Barua, Chairperson**

**Shri Arun Goyal, Member**

**Shri P.K. Singh, Member**

**Date of order: 28<sup>th</sup> January, 2024**

**In the matter of:**

Application under Section 14 of the Electricity Act, 2003 read with the Central Electricity Regulatory Commission (Procedure, Terms and Conditions for Grant of Transmission License and other related matters) Regulations, 2009 for grant of a separate transmission license to POWERGRID Bikaner Transmission System Limited for the "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, 1 X 500 MVA ICT (3<sup>rd</sup>)" through "Regulated Tariff Mechanism" (RTM) mode.

**And**

**In the matter of**

POWERGRID Bikaner Transmission System Limited,  
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 122001, Haryana

**...Petitioner**

**Vs**

1. The Chairman,  
U.P. Power Corporation Limited,  
Import Export Payment Circle, 14th Floor,  
Shakti Bhawan Extension Building, 14, Ashok Marg,  
Lucknow, UP.

2. The Chief Engineer,  
Haryana Power Purchase Centre,  
Shakti Bhawan, Energy Exchange Room No. 446,



Top Floor, Sector - 6,  
Panchkula - 134 109, Haryana

3. The Chairman & Managing Director,  
Punjab State Power Corporation Limited,  
Shed No. T-1 A, Thermal Design,  
Near 22 No. Phatak, Patiala, Punjab

4. The Chairman,  
Jaipur Vidyut Vitran Nigam Limited,  
Vidyut Bhawan, Janpath, Jaipur - 302 005.

5. The Chairman,  
Ajmer Vidyut Vitran Nigam Limited,  
Vidyut Bhawan, Panchsheel Nagar,  
Makarwali Road, Ajmer - 305004

6. The Chairman,  
Jodhpur Vidyut Vitran Nigam Limited,  
New Power House, Industrial Area,  
Jodhpur - 342003.

7. The Principal Secretary (Power),  
Power Development Department,  
Govt. of J&K Govt. of Jammu & Kashmir  
SLDC Building, 1st Floor, Gladani Power House,  
Narwal, Jammu

8. Chief Electrical Distribution Engineer,  
North Central Railway, Subedar Ganj,  
Allahabad, Uttar Pradesh

9. The Chief Executive Officer,  
BSES Yamuna Power Limited,  
2nd Floor, B Block, Shakti Kiran Bldg.,  
Karkardooma, New Delhi - 110092

10. The Chief Executive Officer,  
BSES Rajdhani Power Limited,  
BSES Bhawan, 2<sup>nd</sup> Floor, B Block,  
Nehru Place, New Delhi - 110 019

11. CEO & ED,  
Tata Power Delhi Distribution Limited,  
NDPL House, Hudson Lines,  
Kingsway Camp, Delhi - 110 009





12. The Director (Commercial),  
New Delhi Municipal Corporation NDMC,  
Palika Kendra, Sansad Marg,  
New Delhi – 110 001

13. The Superintending Engineer,  
Electricity Wing of Engineering Department,  
Union Territory of Chandigarh, Electricity OP Circle,  
UT – Chandigarh

14. The Executive Director (Commercial),  
Uttarakhand Power Corporation Limited,  
UPCL, Urja Bhawan, Kanwali Road, Balliwala Chowk,  
Dehradun-248001, Uttarakhand.

15. Tata Power Green Energy Limited,  
34, Sant Tukaram Road, Carnac Bunder,  
Masjid Bunder (E), Mumbai -400009

16. The Chief Engineer,  
Power System Project Monitoring Division,  
Central Electricity Authority,  
Sewa Bhawan, R. K. Puram,  
Sector-1, New Delhi - 110 066

17. The Chief Operating Officer,  
Central Transmission Utility,  
Saudamini, Plot no.2, Sector -29,  
Gurgaon, Haryana

...Respondents

**The following were present:**

Shri Prashant Kumar, PBTSL  
Shri Abhijit Daimari, PBTSL  
Shri Yatin Sharma, CTUIL  
Shri Siddharth Sharma, CTUIL  
Shri Akshyvat Kislay, CTUIL  
Shri Lashit Sharma, CTUIL

**ORDER**

The Petitioner, POWERGRID Bikaner Transmission System Limited, (in Short 'PBTSL'), has filed the present Petition under Section 14 and of the Electricity Act, 2003 (hereinafter referred to as 'the Act') read with the provisions of the Central Electricity



Regulatory Commission (Terms and Conditions for grant of Transmission Licence and other related matters) Regulations, 2009 (hereinafter referred to as 'the Transmission Licence Regulations') for the grant of a separate transmission licence for the Implementation of 1 no. of 220 kV line bay at 400/220 kV Bikaner-II PS for inter-connection of a solar project NHPC Limited), Implementation of 2 nos. of 220 kV line bays at 400/220 kV Bikaner-II PS for inter-connection 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, 1 X 500 MVA ICT (3<sup>rd</sup>) on Regulated Tariff Mechanism mode (hereinafter referred to as the 'transmission scheme/project'). The scope of the project for which a transmission licence has been sought is as under:

**(a) Implementation of 1 no. of 220 kV line bay at 400/220 kV Bikaner-II PS for interconnection of the solar project (NHPC Ltd.):**

<b>S no</b>	<b>Scope of the Transmission Scheme</b>	<b>Capacity/km</b>	<b>Implementation timeframe</b>
1	1 no. of 220 kV line bay at 400/220 kV Bikaner-II PS for interconnection of RE project (NHPC Ltd.)	<ul style="list-style-type: none"> <li>220 kV line bay – 1 no. (refer to note a)</li> </ul>	15 months from the issue of OM by CTUIL, i.e. <b>27.2.2024</b>
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)	
<b>Total Estimated Cost:</b>			<b>Rs.29.21 crore</b>



**Note:**

a) At 220 kV Bikaner-II, future line bays in Section-C are proposed to be allocated to RE developers with bays in the 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.

(b) **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.:**

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
<b>Total Estimated Cost:</b>			<b>INR 11.68 Crore</b>

(c) **Transmission system for evacuation of power from the Rajasthan REZ Ph-IV (Part-1) (Bikaner Complex) - Part-E:**

S. 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
<b>Total Estimated Cost:</b>			<b>INR 368 Crore**</b>

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

(d) **Augmentation of transformation capacity at 400/220 kV Bikaner-II PS by 400/220 kV, 1X500 MVA ICT (3<sup>rd</sup>)**

S. 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 (3 <sup>rd</sup> ) along with associated transformer	500 MVA, 400/220 kV ICT – 1 no. 400 kV ICT bay (including associated tie bay) – 1 no. 220 kV ICT bays - 1	18 months from the issue of OM by CTUIL, i.e. <b>7.12.2024</b>





bays*	no.	
*1 no. of 400kV (AIS) (including associated tie bay) and 1 no. of 220 kV (AIS) transformer bay		
<b>Total estimated cost:</b>		<b>Rs. 55.82 crore</b>

2. PBTSL was incorporated as a special purpose vehicle by PFC Consulting Limited (PFCCL) as part of the Tariff Based Competitive Bidding ('TBCB') process for implementing the "Transmission System Strengthening Scheme for Evacuation of Power from Solar Energy Zones in Rajasthan (8.1 GW) under Phase II-Part F" on a Build, Own, Operate, and Maintain (BOOM) basis. Power Grid Corporation of India (PGCIL) Limited participated in the competitive bidding process conducted by PFCCL, and upon emerging as the successful bidder, a Letter of Intent (LOI) was issued by PFCCL to PGCIL on 16.2.2021. In accordance with the bidding documents, PGCIL acquired 100% of the shareholding in PBTSL by executing a Share Purchase Agreement with PFCCL on 25.3.2021. PBTSL entered into a Transmission Service Agreement (TSA) with LTTCs on 16.10.2020. The Commission, in its order dated 15.7.2021 in Petition No. 99/TL/2021, granted a transmission licence to PBTSL for inter-State transmission of electricity 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' on a Build, Own, Operate, and Maintain ("BOOM") basis consisting of the following elements:

Sr.	Name of the Transmission Element	Scheduled COD in months from Effective Date
1.	Establishment of 400 kV switching station at Bikaner-II PS with 420kV (2x125 MVAR) bus reactor 400 kV line bays – 4 nos. 125 MVAR, 420 kV bus reactor - 2 nos.	18 months from effective date or June, 2022, whichever is



Sr.	Name of the Transmission Element	Scheduled COD in months from Effective Date
	400 kV bus reactor bay – 2 nos. 400 kV, 80MVAR line reactor on each circuit at Bikaner-II end of Bikaner-II – Khetri 400 kV 2xD/c Line – 4 nos. Switching equipment for 400 kV switchable line reactor – 4 nos. <u>Future provisions:</u> Space for 400/220 kV ICTs along with bays – 10 nos. 400 kV line bays – 6 nos. 220 kV line bays – 16 nos. 420 kV reactors along with bays – 2 nos. Suitable bus sectionaliser arrangement at 400 kV and 220 kV	later*
2.	Bikaner-II PS – Khetri 400 kV 2xD/c line (Twin HTLS* on M/c Tower)	
3.	1x80MVAR Fixed Line reactor on each circuit at Khetri end of end of Bikaner-II – Khetri 400 kV 2xD/c Line - 4 nos.	
4.	4 nos. of 400 kV line bays at Khetri for Bikaner –II PS – Khetri 400kV 2xD/c line	
5.	Khetri-Bhiwadi 400 kV D/c line (Twin HTLS)*	
6.	2 nos. of 400 kV line bays at Khetri for Khetri - Bhiwadi 400kV D/c line	
7.	2 nos. of 400 kV(GIS) line bays at Bhiwadi for Khetri-Bhiwadi 400 kV D/c line	
8.	STATCOM at Bikaner-II S/s± 300 MVAR, 2x125 MVAR MSC, 1x125 MVAR MSR	

*\*With a minimum capacity of 2100 MVA on each circuit at a nominal voltage*

3. The Commission has already granted a transmission licence to POWERGRID Bikaner Transmission System Limited under RTM mode vide its order dated 21.11.2022 in Petition No. 137/TL/2022 with the following scope of works.



***“Implementation of 220 kV bays for RE generators and 400/220kV ICTs at Bikaner-II PS”***

<b>S. No.</b>	<b>Scope of the Transmission Scheme</b>	<b>Capacity</b>	<b>Implementation timeframe</b>
1.	2x500 MVA, 400/220 kV ICT at Bikaner-II PS	400/220 kV, 500 MVA ICT - 2 nos. 400 kV ICT bays - 2 nos. 220 kV ICT bays - 2 nos.	ICT-I: March, 2023 ICT-II: April, 2023
2.	4 nos. 220 kV line bays	220 kV line bays - 4 nos.	1 no. of bay: March, 2023 1 no. of bay: April, 2023 2 nos. of bays: December, 2023

***(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.***

<b>S. No.</b>	<b>Scope of the Transmission Scheme</b>	<b>Capacity/km</b>	<b>Implementation timeframe</b>
1.	1 no. of 400 kV line bay at 400/220kV Bikaner-II S/s for interconnection of 1000 MW Solar Project of SJVN Ltd.	400 kV line bay- 1 No.	1.10.2023

***(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.).***

<b>S. No.</b>	<b>Scope of the Transmission Scheme</b>	<b>Capacity/km</b>	<b>Implementation timeframe</b>
1.	2 nos. of 220 kV line bays at 400/220 kV Bikaner-II PS for interconnection of RE projects (ACME Solar Holdings Pvt Ltd., Prerak Greentech Pvt. Ltd.)	220 kV line bay – 2 Nos. (refer to note a)	15 months from the issue of OM by CTUIL
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 extension works for future Bays (3 Nos. of Line Bays & 3 Nos. of ICT Bays) -1Set	
--	--	--	--

**Note:**

a) At 220 kV Bikaner-II, future line bays (no.214/216/218) in Section-B are allocated to RE developers with bays in the RE developer's Scope.

4. Subsequently, the Petitioner filed an amended Petition for the grant of a separate licence for the additional scope of works assigned by CTUIL, vide OMs dated 28.11.2022, 17.1.2023, 16.2.2023, and 8.6.2023. Regarding the grant of a separate transmission licence for the implementation of 1 no. of 220 kV line bay at 400/220 kV Bikaner-II PS for inter-connection of a solar project NHPC Limited, implementation of 2 nos. of 220 kV line bays at 400/220 kV Bikaner-II PS for inter-connection of RE power park of ALF Solar Amarsar Pvt. Ltd., transmission system for the 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, 1 X 500 MVA ICT (3<sup>rd</sup>) on the Regulated Tariff Mechanism (RTM) mode" as described in paragraph 1 of the order, 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 13.11.2023, *prima facie* proposed to grant a transmission licence to the Petitioner. The relevant extract of the order dated 13.11.2023 is extracted as under:

*"30. In the present case, the Petitioner does not fulfil any of the eligibility conditions for the grant of a transmission licence. However, in the 6th meeting of the National Committee on Transmission, it was indicated that, as per the revised Terms of Reference issued by the Ministry of Power, Government of India, ISTS projects costing up to Rs. 100 crore or such limit as may be prescribed by the*



Ministry of Power from time to time would be approved by CTUIL, including its mode of implementation. The scheme has been identified for implementation through RTM mode by CTUIL. The non-grant of a transmission licence to any agency nominated by NCT to implement a transmission scheme through a regulated tariff mechanism in view of the provisions of Regulation 6 defeats the purpose of the Policy decision of the Government. We are of the view that, considering the strategic importance of the transmission line, it is a fit case for a relaxation of the provisions of Regulation 6 by invoking the power vested under Regulation 24 of the Transmission Licence Regulations.

31. Regulation 24 of the Transmission Licence Regulations, dealing with the power to relax in appropriate cases, provides as under:

“24. The Commission may, when it considers necessary or expedient to do so and for reasons to be recorded in writing, relax or depart from any of the provisions of these regulations”.

32. It is an established principle of law that the power to relax has to be strictly construed and is to be exercised judiciously and with caution. Further, the power to relax is to be exercised only when undue hardship is caused by the application of the rules or regulations. In the present case, the Petitioner is a transmission licensee who is already implementing the project defined under its scope through the TBCB 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 less than or equal to Rs.100 crore.

33. Since the Petitioner is already an inter-State transmission licensee and has been identified as an agency to implement the project as per RTM, the Commission, in the exercise of power under Regulation 24, hereby relaxes the provision of Regulation 6 of the Transmission Licence Regulations and holds that the Petitioner is eligible for the grant of a 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 grant a transmission licence aforesaid. The objections or suggestions, if any, shall be filed by any person before the Commission, by **22.11.2023**.”

4. A public notice under Sub-section (5) of Section 15 of the Act was published on 21.11.2023 in all editions of the Times of India (English) and Dainik Jagran (Hindi). No suggestions/objections have been received from members of the public in response to the public notice.





5. The case was called out for hearing on 28.11.2023. The learned counsel for the Petitioner submitted that no objection has been received in response to the public notice published by the Commission under sub-section (5) of Section 15 of the Act. Accordingly, it was requested that a transmission licence be granted to the Petitioner Company. The representative of the CTUIL further submitted that CTUIL has already recommended the grant of the transmission licence.

6. Vide Record of Proceedings for the hearing dated 28.11.2023, the CTUIL was directed to furnish its comments/submissions with regard to the compliance of Rule 3(5) of Transmission System Planning Rules and to submit a copy of the approval of the Central Government for the transmission scheme covered in the instant Petition, in terms of the said Rules, 2021 notified by the Ministry of Power on 1.10.2021 on an affidavit within a week. CTUIL, vide its affidavit dated 15.1.2024, has submitted that the National Committee on Transmission ("NCT") was reconstituted *vide* Ministry of Power Office Order dated 28.10.2021 as per the decision made in a meeting held under the Chairmanship of the Hon'ble Minister of Power & NRE on 5.10.2021 to discuss the transmission related issues for renewable energy. In the aforementioned order, it was directed that (a) for the STS Projects costing more than Rs. 500 crore, NCT shall recommend to the Ministry of Power for the implementation of such projects along with their mode of implementation, (B) for ISTS Projects costing between Rs. 100 crore to Rs. 500 crore, NCT shall approve such projects along with their mode of implementation under intimation to the Ministry of Power, (c) for ISTS Projects costing less than or equal to Rs. 100 crore, CTUIL will approve such projects along with their mode of implementation under intimation to NCT





and MoP. CTUIL has further submitted that accordingly, in line with the above order of the Ministry of Power, CTUIL awarded the transmission scheme covered under the instant Petition to the Petitioner. However, as per directions of the Commission, CTUIL, vide its letter dated 15.12.2023 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 the Projects costing up to Rs. 500 crore approved by NCT/CTUIL as per the Ministry's Order dated 28.10.2021. Any directions or observations received from the Ministry of Power in this regard shall be placed before the Commission. Considering the submissions, CTUIL is directed to place on record the response received from the Ministry of Power as and when it is received. Meanwhile, we proceed to grant the transmission licence to the Petitioner Company so that the construction work of the transmission line may not be hampered.

7. As regards the grant of the transmission licence, Clauses (15) and (16) of Regulation 7 of the Transmission Licence Regulations provide as under:

*"(15) The Commission may after consideration of the further suggestions and objections, if any, received in response to the public notice as aforesaid, grant licence as nearly as practicable in Form-III attached to these regulations or for reasons to be recorded in writing, reject the application if such application is not in accordance with the provisions of the Act, the rules or regulations made thereunder or any other law for the time being in force or for any other valid reason.*

*(16) The Commission may, before granting licence or rejecting the application, provide an opportunity of hearing to the applicant, the Central Transmission Utility, the long-term customers, or the person who has filed suggestions and objections, or any other person:*

*Provided further that the applicant shall always be given a reasonable opportunity of being heard before rejecting the application."*



8. In our order dated 13.11.2023, we had proposed to grant the transmission licence to the Petitioner company and directed the issue of public notice, against which no suggestions/objections have been received as stated above. Further, CTUIL, in its letters dated 21.6.2023 and 22.8.2023, has recommended the grant of a transmission licence to the Petitioner. The Commission, in its order dated 13.11.2023, had observed that the Petitioner fulfils the eligibility conditions for the grant of a transmission licence. Since, in the present case, the Petitioner is a transmission licensee that is already implementing the project defined under its scope through the TBCB mechanism, and the present Petition is consequent to the office order 28.10.2021 notified by the Ministry of Power Government of India, the Commission, vide said order dated 13.11.2023 relaxed the provision of Regulation 6 of the Transmission Licence Regulations and held that the Petitioner is eligible for the grant of a transmission licence. Considering the strategic importance of the transmission line, we, accordingly, direct that the transmission licence be granted to the Petitioner, POWERGRID Bikaner Transmission System Limited, to establish the transmission scheme through the RTM route as per the details given in paragraph 1 above.

9. Considering the above, it is hereby directed that the existing transmission licence of PBTSL granted vide Order in Petition No. 137/TL/2022 dated 21.11.2022 under RTM mode may be amended to include the assets covered in the instant Petition. Accordingly, the transmission licence granted to POWERGRID Bikaner Transmission System Limited under RTM mode shall comprise the following scope of works:

(i) ***"Implementation of 220 kV bays for RE generators and 400/220kV ICTs at Bikaner-II PS"***

<b><i>S. No.</i></b>	<b><i>Scope of the Transmission Scheme</i></b>	<b><i>Capacity</i></b>	<b><i>Implementation timeframe</i></b>
----------------------	--	------------------------	--

Order in Petition No. 181/TL/2023

Page 13



1.	2x500MVA, 400/220 kV ICT at Bikaner-II PS	400/220 kV, 500 MVA ICT - 2 nos. 400 kV ICT bays - 2 nos. 220 kV ICT bays - 2 nos.	ICT-I: Mar' 2023 ICT-II: Apr' 2023
2.	4 nos. 220 kV line bays	220 kV line bays - 4 nos.	1 no. of bay: Mar'2023 1 no. of bay: Apr'2023 2 no. of bays: Dec'2023

**(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.**

S. No.	Scope of the Transmission Scheme	Capacity/km	Implementation timeframe
1.	1 no. of 400 kV line bay at 400/220kV Bikaner-II S/s for interconnection of 1000 MW Solar Project of SJVN Ltd.	400 kV line bay- 1 No.	01.10.2023

**(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.).**

S. No.	Scope of the Transmission Scheme	Capacity/km	Implementation timeframe
1.	2 nos. of 220 kV line bays at 400/220 kV Bikaner-II PS for interconnection of RE projects (ACME Solar Holdings Pvt Ltd., Prerak Greentech Pvt. Ltd.)	220 kV line bay – 2 Nos. (refer to note a)	15. months from the issue of OM by CTUIL
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 extension works for future Bays (3 Nos. of Line Bays & 3 Nos. of ICT Bays) -1Set	

**Note:**





b) At 220 kV Bikaner-II, future line bays (no.214/216/218) in Section-B are allocated to RE developers with bays in the RE developer's Scope.

(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.):**

<b>S. no.</b>	<b>Scope of the Transmission Scheme</b>	<b>Capacity/km</b>	<b>Implementation timeframe</b>
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 to note a)	15 months from the issue of OM by CTUIL, i.e. <b>27.2.2024</b>
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)	
<b>Total Estimated Cost:</b>			<b>Rs.29.21 crore</b>

**Note:**

a) At 220 kV Bikaner-II, future line bays in Section-C are proposed to be allocated to RE developers with bays in the 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.

(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.:**

<b>Sl. No.</b>	<b>Scope of the Transmission Scheme</b>	<b>Capacity/km</b>	<b>Implementation timeframe</b>
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

(vi) **Transmission system for evacuation of power from the Rajasthan REZ Ph-IV (Part-1) (Bikaner Complex) - Part-E:**



<b>S. No.</b>	<b>Scope of the Transmission Scheme</b>	<b>Capacity/km</b>	<b>Implementation timeframe</b>
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

**(vii) Augmentation of transformation capacity at 400/220 kV Bikaner-II PS by 400/220 kV, 1X500 MVA ICT (3<sup>rd</sup>)**

<b>S. No.</b>	<b>Scope of the Transmission Scheme</b>	<b>Capacity/km</b>	<b>Implementation timeframe</b>
1.	Augmentation of transformation capacity at 400/220 kV Bikaner-II PS by 400/220 kV, 1X500 MVA ICT (3 <sup>rd</sup> ) 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. <b>7.12.2024</b>

10. The grant 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 13 (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 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 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 CEA; and
- (m) The licensee shall submit all such report or information as may be required under 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.
11. The Central Electricity Authority/ CTUIL shall monitor the execution of the Project and bring to the notice of the Commission any lapse on the part of the licensee to meet the schedule for further appropriate action in accordance with the provisions of the Act and the Transmission Licence Regulations.
12. Let an extract copy of this order 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.
13. Petition No. 181/TL/2023 is allowed in terms of the above.

Sd/-  
**(P.K. Singh)**  
Member

sd/-  
**(Arun Goyal)**  
Member

sd/-  
**(Jishnu Barua)**  
Chairperson



सेंट्रल ट्रांसमिशन यूटिलिटी ऑफ इंडिया लिमिटेड  
(पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड के स्वामित्व में)  
(भारत सरकार का उद्यम)

**CENTRAL TRANSMISSION UTILITY OF INDIA LTD.**

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

Ref.: C/CTU/AI/00/9<sup>th</sup> CCTP

28<sup>th</sup> November 2022

**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.	Name of scheme	Implementing Agency
<b>Western Region</b>		
1.	Implementation of 1 no. 220kV line bay at Bhuj PS for providing Connectivity to M/s NTPC Renewable Energy Ltd. (300MW)	Power Grid Corporation of India Ltd.
2.	Transmission System for providing connectivity to M/s VEH Jayin Renewables Pvt. Ltd. at Rajgarh (PG) S/s	Power Grid Corporation of India Ltd.
3.	Western Region Expansion Scheme XXXI (WRES-XXXI): Part C	Power Grid Corporation of India Ltd.
4.	Western Region Expansion Scheme XXXIII (WRES-XXXIII): Part D	Power Grid Corporation of India Ltd.
<b>Northern Region</b>		
5.	Implementation of 2 nos. of 220 kV line bays at 400/220 kV Panchkula (Barwala) (PG) S/s for interconnection with 220 kV Dera Bassi S/s.	Power Grid Corporation of India Ltd.
6.	Replacement of 1x315 MVA 400/220kV ICT (ICT-1) at 400/220 kV Ludhiana (PG) S/s with 1x500 MVA 400/220kV ICT	Power Grid Corporation of India Ltd.
7.	Replacement of 1x250 MVA, 400/220 kV ICT at 765/400/220 kV Moga (PG) S/s with 1x500 MVA 400/220kV ICT along with associated works at 220kV level.	Power Grid Corporation of India Ltd.
8.	Augmentation of Transformation Capacity by 1x500 MVA, 400/220kV ICT (3rd) at 400/220 kV Patran (GIS) S/s	Patran Transmission Company Ltd. (PTCL) (a subsidiary of India Grid Trust)
9.	Implementation of 1 no. of 220 kV line bay at 400/220kV Bikaner-II PS for interconnection of solar project (M/s NHPC Ltd.):	POWERGRID Bikaner Transmission System Ltd. (a subsidiary of Power Grid Corporation of India Ltd. [erstwhile known as Bikaner-II Bhiwadi Transco Ltd.]

"सौदामिनी" प्रथम तल, प्लॉट सं. 2, सेक्टर-29, गुरुग्राम -122001 (हरियाणा), दूरभाष :0124-2822547, सीआईएन: U40100HR2020GC1091857

"Saudamini", 1st Floor, Plot No. 2, Sector-29, Gurugram-122001, (Haryana) Tel.: 0124-2822547, CIN: U40100HR2020GC1091857

Website: <https://www.ctuil.in>






Eastern Region		
10.	Eastern Region Expansion Scheme-XXX (ERES-XXX)	Power Grid Corporation of India Ltd.
11.	Eastern Region Expansion Scheme-XXXIII (ERES-XXXIII)	Power Grid Corporation of India Ltd.
North Eastern Region		
12.	North Eastern Region Expansion Scheme-XVIII (NERES-XVIII)	Power Grid Corporation of India Ltd.
13.	North Eastern Region Expansion Scheme-XX (NERES-XX)	Power Grid Corporation of India Ltd.
Southern Region		
14.	Implementation of 1 no. 400kV line, bay at Kurnool New S/s for providing Connectivity to M/s Greenko AP01 IREP Pvt. Ltd. (2 <sup>nd</sup> 400kV line bay for M/s Greenko)	Power Grid Corporation of India Ltd.

The detailed scope of works for the above transmission schemes, as approved by CTU is given at **Annexure-I**.

Implementing agencies shall enter into a concession agreement with CTU for the implementation of the above-mentioned schemes through the Regulated Tariff Mechanism (RTM).

This issues with the approval of Competent Authority.

  
 (Jasbir Singh)  
 Chief General Manager

Encl: as stated.



To:

<b>1. The Chairman &amp; Managing Director</b> Power Grid Corporation of India Ltd., Saudamini, Plot No. 2, Sector-29, Gurgaon- 122 001	<b>2. Shri Lokendra Singh Ranawat</b> Head (Regulatory) Patran Transmission Company Ltd., (PTCL) (a subsidiary of India Grid Trust) Unit No. 101, First Floor, Windsor, Village KuleKalyan, off CST Road, Vidyanagari Marg, Kalina, Santacruz (East), Mumbai – 400 098
--	---

Copy to:

<b>1. Shri Ishan Sharan</b> Chief Engineer & Member Secretary (NCT) Central Electricity Authority Sewa Bhawan, R. K. Puram, New Delhi-110 066.	<b>2. Shri Goutam Ghosh</b> Director (Trans) Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi 110 001
---	---



**Western Region**

1. Implementation of 1 no. 220kV line bay at Bhuj PS for providing Connectivity to M/s NTPC Renewable Energy Ltd. (300MW)

Sl.	Scope of the Transmission Scheme	Capacity /km	Implementation Timeframe.
1	1 no. 220kV line bay at Bhuj PS associated with M/s NTPC Renewable Energy Ltd. (300MW)	220kV line bay: 1 no.	15 months from the date of issue of OM by CTUIL (refer Note a).
<b>Total Estimated Cost:</b>			<b>INR 5.84 Crore</b>

Note:

- a. Best efforts shall be carried out to implement the transmission scheme within 12 months from the issue of OM by CTUIL.

2. Transmission System for providing connectivity to M/s VEH Jayin Renewables Pvt. Ltd. at Rajgarh (PG) S/s

Sl.	Scope of the Transmission Scheme	Capacity /km	Implementation Timeframe.
1.	220kV bus extension (GIS) of Rajgarh 400/220 kV (PG) S/s along with 220kV Bus Coupler bay for extended bus.	<ul style="list-style-type: none"> <li>Bus Extension along with 220kV Bus coupler bay- 1 no. using GIS</li> <li>Space provision in 220kV GIS Hall for accommodating 5 nos. 220kV future bays</li> </ul>	21 months from the issue of OM by CTUIL.
2.	220kV bus sectionaliser bay (GIS) between existing & extended 220 kV bus of Rajgarh S/s.	220kV Bus Sectionaliser – 1 set (GIS)	
3.	220kV GIS line bay at Rajgarh 400/220 kV (PG) S/s (on extended bus) for RE interconnection.	220kV line bay: 1 no. (GIS) along with 220kV Bus Duct for Bus Extension (AIS to GIS building)	
<b>Total Estimated Cost:</b>			<b>INR 29.33 Crore</b>

3. Western Region Expansion Scheme XXXI (WRES-XXXI): Part C

Sl.	Scope of the Transmission Scheme	Capacity /km	Implementation Timeframe.
1.	Augmentation of transformation capacity at Pune (GIS) 765/400	765/400 kV, 1500 MVA ICT – 1 no.	21 months from the issue of OM by CTUIL (refer note-a)





Sl.	Scope of the Transmission Scheme	Capacity /km	Implementation Timeframe.
	kV substation by 1x1500 MVA ICT (3rd)	<ul style="list-style-type: none"> <li>400 kV ICT bay (GIS) – 1 no.</li> <li>765/400kV, 1500MVA ICT in existing bay with GIS bus duct along with associated GIS to AIS termination, Erection hardware are required.</li> </ul>	
<b>Total Estimated Cost:</b>			<b>INR 86.01 Crore</b>

**Note:**

- Best efforts shall be carried out to implement the transmission scheme within 18 months from the issue of OM by CTUIL.
- 1 no. 765kV ICT bay is available (up to wall of GIS building)

#### 4. Western Region Expansion Scheme XXXIII (WRES-XXXIII): Part D

Sl.	Scope of the Transmission Scheme	Capacity /km	Implementation Timeframe.
1.	Installation of 1x500 MVA, 400/220 kV ICT (4 <sup>th</sup> ) along with associated ICT bays at Satna(PG)	<ul style="list-style-type: none"> <li>400/220 kV, 500 MVA ICT – 1 no.</li> <li>400 kV ICT bay – 1 no.</li> <li>220 kV ICT bay – 1 no. (includes 220kV Cable interconnection for 220kV side of ICT)</li> </ul>	18 months from the issue of OM by CTUIL
2.	2 No. of 220kV line bays at Satna for LILO of Satna 220kV - Maihar 220kV line at Satna (PG) S/s	220kV line bay – 2 nos.	
<b>Total Estimated Cost:</b>			<b>INR 77.52 Crore</b>

#### Northern Region

#### 5. Implementation of 2 nos. of 220 kV line bays at 400/220 kV Panchkula (Barwala) (PG) S/s for interconnection with 220 kV Dera Bassi S/s

Sl. No.	Scope of the Transmission Scheme	Capacity/km	Implementation timeframe
1	Implementation of 2 nos. of 220 kV line bays at 400/220 kV Panchkula (Barwala) (PG) S/s for interconnection with 220 kV Dera Bassi S/s	220 kV line bays – 2 nos.	31.05.24
<b>Total Estimated Cost:</b>			<b>INR 11.68 Crore</b>



**6. Replacement of 1x315 MVA 400/220kV ICT (ICT-1) at 400/220 kV Ludhiana (PG) S/s with 1x500 MVA 400/220kV ICT**

Sl. No.	Scope of the Transmission Scheme	Capacity/km	Implementation timeframe
1	Replacement of 1x315 MVA 400/220kV ICT (ICT-1) at 400/220 kV Ludhiana (PG) S/s with 1x500 MVA 400/220kV ICT *  *along with 66kV cable for shifting auxillary supply to SVC from ICT-1 to ICT-2	500 MVA 400/220 kV ICT- 1no.	18 months from the issue of OM by CTUIL (refer note-a)
<b>Total Estimated Cost:</b>			<b>INR 26.98 Crore</b>

Note:

- a. TSP may expedite the implementation of the above transmission scheme to the extent possible, as per the request of PSTCL vide letter dated 06.09.22 for implementation schedule of May'23 (reconfirmed to 31.05.23 vide mail dated 01.11.22)

**7. Replacement of 1x250 MVA, 400/220 kV ICT at 765/400/220 kV Moga (PG) S/s with 1x500 MVA 400/220kV ICT along with associated works at 220kV level**

Sl. No.	Scope of the Transmission Scheme	Capacity/km	Implementation timeframe
1.	Replacement of 1x250 MVA, 400/220 kV ICT at 765/400/220 kV Moga (PG) S/s with 1x500 MVA 400/220kV ICT along with associated works at 220 kV level	500 MVA 400/220 kV ICT- 1no. (with associated works at 220 kV level)	18 months from the issue of OM by CTUIL (refer note a)
<b>Total Estimated Cost:</b>			<b>INR 27.03Crore</b>

Note:

- a. TSP may expedite the implementation of the above transmission scheme to the extent possible, as per the request of PSTCL vide letter dated 06.09.22 for implementation schedule of May'23 (reconfirmed to 31.05.23 vide mail dated 01.11.22)

**8. Augmentation of Transformation Capacity by 1x500 MVA, 400/220kV ICT (3rd) at 400/220 kV Patran (GIS) S/s**

Sl. No.	Scope of the Transmission Scheme	Capacity/km	Implementation timeframe
1.	Augmentation of Transformation Capacity by 1x500 MVA, 400/220kV ICT (3rd) at 400/220 kV Patran (GIS) S/s along with GIS duct (at 400kV and 220kV) in new diameter of ICT – Tie– Line.	<ul style="list-style-type: none"> <li>• 500 MVA 400/220 kV ICT- 1no.</li> <li>• 400 kV ICT bay (GIS) – 1 no.</li> <li>• 400kV bay (GIS) for diameter completion for</li> </ul>	21 months from the issue of OM by CTUIL.



		future line (duct up to outside GIS Hall) – 1 no. • 220 kV ICT bay (GIS) – 1 no.	
<b>Total Estimated Cost:</b>			<b>INR 65.19 Crore</b>

Note:

- a. Best efforts shall be carried out to implement the transmission scheme by 31.05.2024 as per the request of PSTCL letter vide dated 06.09.22 and mail dated 01.11.2022

**9. Implementation of 1 no. of 220 kV line bay at 400/220kV Bikaner-II PS for interconnection of solar project (M/s NHPC Ltd.)**

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
2.	Implementation of 220kV Bus sectionalizer along with bus coupler and transfer bus coupler at 400/220kV Bikaner-II PS	• 220kV Bus Sectionalizer Bay– 1 Set • 220kV Bus Coupler Bay–1 No. • 220kV Transfer Bus Coupler Bay–1No. • Bus works for future Bays (4 Nos. of Line Bays & 3 Nos. of ICT Bays)	
<b>Total Estimated Cost:</b>			<b>INR 29.21 Crore</b>

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. 226-227). Accordingly, 220 kV bus works may also be suitably taken up under the above scope.

**Eastern Region**

**10. Eastern Region Expansion Scheme-XXX (ERES-XXX)**

Sl. No.	Scope of the Transmission Scheme	Capacity/km	Implementation timeframe
---------	----------------------------------	-------------	--------------------------





1.	Installation of existing spare 132/66kV, 1x50MVA ICT (already stationed at Gangtok) as 3 <sup>rd</sup> ICT at Gangtok (POWERGRID) S/s along with conversion of existing 132kV TBC bay as 132kV ICT bay for 3 <sup>rd</sup> ICT and construction of new 66kV ICT bay in Hybrid/Outdoor GIS with suitable modification in the gantry structure of 66kV side.	<ul style="list-style-type: none"> <li>• 132/66kV, 50MVA spare ICT as 3<sup>rd</sup> ICT – 1 no.</li> <li>• Conversion of 132kV TBC bay to ICT bay – 1 no.</li> <li>• New 66kV ICT bay (in Hybrid/Outdoor GIS) – 1 no.</li> </ul>	21 months from the issue of OM by CTUIL (best efforts may be made for early commissioning to the extent possible)
2.	Construction of new 132kV TBC bay in Hybrid/Outdoor GIS.	<ul style="list-style-type: none"> <li>• New 132kV TBC bay (in Hybrid/Outdoor GIS) – 1 no.</li> </ul>	
Total Estimated Cost:			INR 11.64 Crore

#### 11. Eastern Region Expansion Scheme-XXXIII (ERES-XXXIII)

Sl. No.	Scope of the Transmission Scheme	Capacity/km	Implementation timeframe
1.	Reconductoring of Rangpo – Gangtok 132kV D/c line with single HTLS conductor of 800A (at nominal voltage level).	Ckt-1: 28km Ckt-2: 26km	24 months from the issue of OM by CTUIL.
2.	Upgradation of CTs at Gangtok end in both circuits of Rangpo – Gangtok 132kV D/c line from 600A to rating commensurate with rating of HTLS conductor (800A)	-	
Total Estimated Cost:			INR 23.08 Crore

#### North Eastern Region

#### 12. North Eastern Region Expansion Scheme-XVIII (NERES-XVIII)

Sl. No.	Scope of the Transmission Scheme	Capacity/km	Implementation timeframe
1.	Reconductoring of Melriat (GIS) (POWERGRID) – Zuangtui (Mizoram) 132kV ACSR Panther S/c line with Single HTLS conductor of 900A (at nominal voltage level)  <i>Note: The existing line bay and dead tower at Melriat (POWERGRID) end of Melriat (POWERGRID) – Zuangtui (Mizoram) 132kV HTLS S/c line may be kept as spare bay after shifting of the line to newly constructed bay.</i>	10.13km	Apr 2025



2.	One (1) new 132kV line bay at Melriat (GIS) (POWERGRID) S/s (of rating commensurate with rating of HTLS viz. 900A) for shifting of Melriat (GIS) (POWERGRID) – Zuangtui (Mizoram) 132kV HTLS line from existing bay and termination of the HTLS line in the new bay (0.5km including approx. 5 nos. towers)	<ul style="list-style-type: none"> <li>132kV GIS line bay – 1 no.</li> <li>New 132kV S/c HTLS line section – 0.5km (including approx. 5 nos. towers)</li> </ul>	
3.	Replacement of existing CT of 600/1A at Zuangtui (Mizoram) end in Melriat (GIS) (POWERGRID) – Zuangtui (Mizoram) 132kV S/c line with rating commensurate with ampacity (900A) of HTLS conductor.	-	
4.	Reconductoring of Aizawl (POWERGRID) – Luangmual (Mizoram) 132kV ACSR Panther S/c line with Single HTLS conductor of 800A (at nominal voltage level)	0.8km	
5.	Replacement of existing CT of 600/1A at Luangmual (Mizoram) end in Aizawl (POWERGRID) – Luangmual (Mizoram) 132kV S/c line with rating commensurate with ampacity (800A) of HTLS conductor.	-	
6.	Installation of OPGW in Aizawl (POWERGRID) – Luangmual (Mizoram) 132kV S/c line	0.8km	
<b>Total Estimated Cost:</b>			<b>INR 11.49 Crore</b>

### 13. North Eastern Region Expansion Scheme-XX (NERES-XX)

Sl. No.	Scope of the Transmission Scheme	Capacity/km	Implementation timeframe
1.	Reconductoring of existing Single ACSR Panther Kopili (NEEPCO) – Khandong (NEEPCO) 132kV S/c line-1 (10.9km) of POWERGRID with Single HTLS conductor of ampacity of 800A (at nominal voltage level) along with replacement of existing wave trap at Kopili end and CT at Khandong end with rating commensurate with ampacity (800A) of HTLS conductor	10.9km	24 months from the issue of OM by CTUIL.
2.	Reconductoring of existing Single ACSR Panther Khandong (NEEPCO) – Khliehriat (POWERGRID) 132kV S/c line-1 (42.48km) of POWERGRID with Single HTLS conductor of ampacity of 800A (at nominal voltage level) along with replacement of existing CTs at both ends with rating commensurate with ampacity (800A) of HTLS conductor.	42.48km	





3.	Reconductoring of existing Single AAAC Panther Khandong (NEEPCO) – Khliehriat (POWERGRID) 132kV S/c line-2 (40.93km) of POWERGRID with Single HTLS conductor of ampacity of 800A (at nominal voltage level) along with replacement of existing CTs at both ends & wave trap at Khandong end with rating commensurate with ampacity (800A) of HTLS conductor, and strengthening of requisite tower members (approx. 0.348 MT).	40.93km	
4.	Reconductoring of existing Single ACSR Panther Khliehriat (POWERGRID) – Khliehriat (MePTCL) 132kV S/c POWERGRID line-1 (7.8km) of POWERGRID with Single HTLS conductor of ampacity of 800A (at nominal voltage level) along with replacement of existing CTs at both ends with rating commensurate with ampacity (800A) of HTLS conductor, and strengthening of requisite tower members (approx. 0.121 MT).	7.8km	
5.	Reconductoring of existing Single AAAC Panther Khliehriat (POWERGRID) – Badarpur (POWERGRID) 132kV S/c line (76.64km) with Single HTLS conductor of ampacity of 900A (at nominal voltage level) along with replacement of existing CTs at both ends with rating commensurate with ampacity (900A) of HTLS conductor.	76.64km	
6.	Replacement of existing bus coupler bay CT at Khandong HEP (NEEPCO) switchyard from 600A to 800A		
<b>Total Estimated Cost:</b>			<b>INR 77.04 Crore</b>

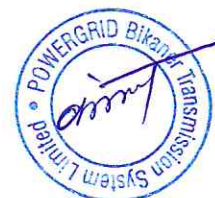
### Southern Region

#### **14.Implementation of 1 no. 400kV line bay at Kurnool New S/s for providing Connectivity to M/s Greenko AP01 IREP Pvt. Ltd. (2<sup>nd</sup> 400kV line bay for M/s Greenko)**

Sl. No.	Scope of the Transmission Scheme	Capacity/km	Implementation timeframe
1	Implementation of 1 no. 400kV line bay at Kurnool New S/s for providing Connectivity to M/s Greenko AP01 IREP Pvt. Ltd. (2 <sup>nd</sup> 400kV line bay for M/s Greenko)	• 400kV line bay – 1 No (Bay No. 412, SLD enclosed).	15 months from the issue of OM by CTUIL (refer note a.)
<b>Total Estimated Cost:</b>			<b>INR 8.55 Crore</b>

Note:

- a. Best efforts shall be carried out to implement the transmission scheme by 15.12.2023 as per the request of M/s Greenko AP01 IERP Pvt. Ltd. in its application / grant for enhancement of Connectivity.





**POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED**  
(Formerly known as Bikaner-II Bhiwadi Transco Limited)  
(A Wholly Owned Subsidiary of Power Grid Corporation of India Limited)

**Certified True Copy of the Resolution passed at the 28<sup>th</sup> Meeting of Board of Directors of POWERGRID Bikaner Transmission System Limited held on Tuesday, 06<sup>th</sup> June, 2023 at 05:30 p.m. at "Saudamini", Plot No. 2, Sector-29, Gurgaon-122001 through Video Conferencing.**

**Item No. 28.2.2.:**

**Investment Approval for the RTM Projects allotted to M/s PBTSL: implementation of 1 no 220kV line bay at 400/220 kV Bikaner-II PS for interconnection of solar projects (NHPC Ltd.)**

X

X

X

The Board passed the following resolution:

**"RESOLVED THAT** Investment Approval, be and is hereby accorded for "Implementation of 1 no. of 220kV line bay at 400/220 kV Bikaner-II PS for interconnection of solar project (M/s NHPC Ltd)" at an estimated cost of Rs. 22.46 Crore, covering scope of work:

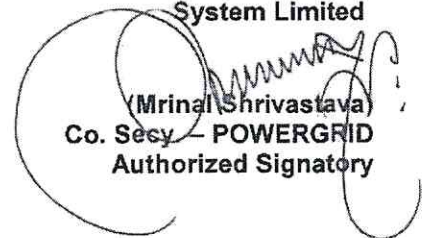
- i) 1 no. of 220 kV line bays at 400/220 kV Bikaner-II PS for interconnection of RE projects (NHPC Ltd.); and
- ii) Implementation of 220 kV Bus sectionalizer along with bus coupler and transfer bus coupler at 400/220 kV Bikaner-II PS at an estimated cost of Rs. 22.46 Crore,

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

\*\*\*\*\*

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

(Mrinal Shrivastava)  
Co. Secy – POWERGRID  
Authorized Signatory



Registered Office

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





भारत सरकार/Govt. of India  
विद्युत मंत्रालय/Ministry of Power  
केन्द्रीय विद्युत प्राधिकरण/Central Electricity Authority  
क्षेत्रीय निरीक्षणालय संगठन (उत्तर)/Regional Inspectorial Organization (North)  
07वां तल, सीईए, सेवा भवन, आर.के.पुरम सेक्टर-1, नई दिल्ली-110066  
07<sup>th</sup> floor, CEA, Sewa Bhawan, R.K.Puram Sector-1, New Delhi-110066  
\*\*\*\*\*

NRIO/POWERGRID Bikaner/Raj/2025/041

Dated: 14.01.2025

**Approval for Energisation**

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

To,

M/s POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED,  
400/220 kV Bikaner-II SS VILLAGE JAIMALSAR, TEHSIL KOLAYAT,  
BIKANER (RAJ)-334001

**Subject:** Approval for Energization of electrical installation as mentioned in List of Equipment in application of M/s POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED, under Regulation 45 of Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2023.

**Ref.:** (1) Online Application A/2024/15149 dated 10.12.2024.  
(2) NRIO/POWERGRID Bikaner/Raj/2024/721 Order dated 30.12.2024  
(3) Compliance report uploaded on portal on 08.01.2025 and 10.01.2025

Whereas the inspection of electrical installation as mentioned in List of Equipment in application of M/s POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED was carried out by the undersigned on 24.12.2024 under Regulation 45 of CEA (Measures relating to Safety and Electric Supply) Regulations, 2023.

Approval for Energisation of the said Electrical installations/apparatus (Details being enclosed as **Annexure**) is hereby accorded subject to following conditions:

1. M/s POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED shall ensure to have all other requisite clearances/NOCs from Government and Local bodies, as applicable, before Energisation.
2. Adherence to relevant provisions of Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2023 shall be ensured by M/s POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED 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. The application shall be filed by the applicant **at least 6 months in advance** so that compliance and final approval is granted on time. This periodicity is subject to change by government notification.



(Deepanshu Rastogi)

67 Deputy Director & Electrical Inspector (GoI)



# ANNEXURE

List of Bays/Equipment to be Energized at 400/220KV Bikaner-II PS under Implementation of 1 no. of 220 kV line bay at 400/220 KV Bikaner-II PS for interconnection of Solar Projects (NHPC Ltd.)

Sl No	Bay	Equipment Name	Make	MODEL	Rating	SL Number		
						R-Phase	Y-Phase	B-Phase
1	Bus CVT	Bus-5 CVT	Siemens	TCVT 245	245KV	2CV8899	2CV8897	2CV8898
2		Bus-6 CVT	Siemens	TCVT 245	245KV	2CV8894	2CV8895	2CV8896
12	223	Isolator with One E/S (89A)	S&S	DBR	245KV/2500A, 50KA/1 Sec		1850-212-01	
13		Circuit Breaker	Siemens	3AP1FI	245KV, 2500 A, 50 kA/1 Sec		06/2024/39840	
14		Isolator with Two E/S (89B)	S&S	DBR	245KV/2500A, 50KA/1 Sec		1850-213-05	
15		CT	CG Power	IOSK:245/460/1050	245KV	750302	750298	750300
16	224	Isolator with One E/S (89A)	S&S	DBR	245KV/2500A, 50KA/1 Sec		1850-212-02	
17		Circuit Breaker	Siemens	3AP1FI	245KV, 2500 A, 50 kA/1 Sec		06/2024/39839	
18		Isolator with Two E/S (89B)	S&S	DBR	245KV/2500A, 50KA/1 Sec		1850-213-06	
19		CT	CG Power	IOSK:245/460/1050	245KV	750303	750297	750294
20		Isolator with One E/S (89A)	S&S	DBR	245KV/1600A, 50KA/1 Sec		1850-212-14	
21		89B Tendam isolator	S&S	DBR	245KV/1600A, 50KA/1 Sec		1850-212-07	
22		89L	S&S	DBR	245KV/1600A, 50KA/1 Sec		1850-212-28	
23		89T	S&S	DBR	245KV/1600A, 50KA/1 Sec		1850-214-08	
24	225	Circuit Breaker	Siemens	3AP1FI	245KV/1600A, 50KA/1 Sec		06/2024/39841	
25		CT	CG Power	IOSK:245/460/1050	245KV,	750336	750335	750339
27		CVT	Siemens	TCVT 245	245KV	2CV8893	2CV8892	2CV8891
28		LA	CG Power	ZLAX25L	216KV	40116213	40116214	40116215
29	233	Isolator with Two E/S	S&S	DBR	245KV/2500A, 50KA/1 Sec		1850-212-03	
30		Circuit Breaker	Siemens	3AP1FI	245KV, 2500 A, 50 kA/1 Sec		06/2024/39842	
31		Isolator with Two E/S	S&S	DBR	245KV/2500A, 50KA/1 Sec		1850-212-04	
32		CT	CG Power	IOSK:245/460/1050	245KV	750295	750296	750299
33	234	Isolator with One E/S (89A)	S&S	DBR	245KV/1600A, 50KA/1 Sec		1850-212-15	
34		89B	S&S	DBR	245KV/1600A, 50KA/1 Sec		1850-214-09	
35		CT	CG Power	IOSK:245/460/1050	245KV, 1600A, 50KA/1 Sec	750337	750338	750334
36		89T	S&S	DBR	245KV/2500A, 50KA/1 Sec		1850-212-29	
37		CB	Siemens	3AP1FI	245KV		06/2024/39838	







**ग्रिड-इंडिया**  
**GRID-INDIA**

**ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड**  
(भारत सरकार का उद्यम)  
**GRID CONTROLLER OF INDIA LIMITED**

75  
आजादी का  
अमृत महोत्सव

G20

(A Government of India Enterprise)  
[formerly Power System Operation Corporation Limited (POSOCO)]

उत्तर क्षेत्रीय भार प्रेषण केंद्र / Northern Regional Load Despatch Centre

कार्यालय: 18-ए, शाहीद 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.nrlc.in, E-mail : nrlc@grid-india.in, Tel.: 011- 26854015, 40224603

Certificate Number: GRID-INDIA/NRLDC/SO/607

Date: 03-04-2025

**Certificate of successful Trial Run (without electrical load) as per Clause 25 of CERC (IEGC), 2023**

**Certificate of completion of Trial Operation of 220kV Main Bay 225 of 220kV  
KSP\_NHPC\_LTD\_SL\_BKN2-Bikaner\_2 (PBTSL) ckt-1 at Bikaner\_2(PBTSL).**

Reference:

1. **POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED (PBTSL)** Communication dated 08 Jan 2025 23:36, 14 Jan 2025 07:47, vide Format - I and 20 Jan 2025 16:24, vide Format - III regarding the submission of pre charging documents for -

i. 220kV Main Bay 225 of 220 kV NHPC Line and (to be charged on No load) at Bikaner\_2 (PBTSL)

ii. 220kV Bus Sectionalizer Bay 223 of 220KV BUS-3 and 220KV BUS-5 at Bikaner\_2 (PBTSL)

iii. 220kV Main Bus 5 at Bikaner\_2 (PBTSL)

2. NRLDC Acknowledgement dated 15 Jan 2025 16:46 vide Format - II and Provisional Approval dated 23 Jan 2025 15:25 vide Format - IV.

3. Real time code issued by NRLDC on request of **POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED (PBTSL)** Real Time Code No-NR2501-9882.

4. **POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED (PBTSL)**, Communication dated 27 Mar 2025 11:19, 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 Transmission Asset:	220kV Main Bay 225 of 220kV KSP_NHPC_LTD_SL_BKN2-Bikaner_2 (PBTSL) ckt-1 at Bikaner_2(PBTSL).
Owner of the Transmission Asset:	POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED (PBTSL)
Date and Time of Energization for commencement of successful trial run operation	26-01-2025 - 00:00Hrs
Date/Time of completion of successful trial run operation	27-01-2025 - 00:00Hrs

Note:

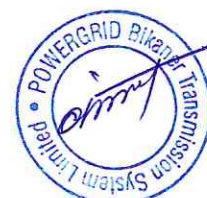
1. Above mentioned bays was charged at no load as 220kV line not commissioned.

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 **without** electrical load.

Manoj Kumar Agrawal

Executive Director, NRLDC

Place : New Delhi



Copy to :

I. Head-POWERGRID BIKANER TRANSMISSION SYSTEM LIMITED (PBTSL).

II. Member Secretary, NRPC, New Delhi.

III. Executive Director, NLDC, New Delhi.

IV. Beneficiary(ies).



पंजीकृत कार्यालय : प्रथम तल, बी-9, कृतुव इंस्टीट्यूशनल एरिया, कटवारीया साराय, नई दिल्ली - 110016  
Registered Office : First Floor, B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi -110016



# 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) - 334302

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

CIN:U40300DL2020GOI363669

**Certificate as per  
CERC (Indian Electricity Grid Code) Regulation 2023**

**(For Inter State Transmission System)**

It is to certify that "1 NO. 220KV LINE BAY AT 400/220KV BIKANER-II PS FOR INTERCONNECTION OF SOLAR PROJECTS (NHPC LTD.)" under the Transmission system namely "IMPLEMENTATION OF 1 NO. 220KV LINE BAY AT 400/220KV BIKANER-II PS FOR INTERCONNECTION OF SOLAR PROJECT (M/S NHPC LTD.)" Scheme in Northern Region conform to the Central Electricity Authority Technical Standards for Construction, Central Electricity Authority Technical Standards for Connectivity, Central Electricity Authority 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 25.01.2025 (22:44 hrs.)

  
(Dr. Subir Sen)  
Chairman

**POWERGRID Bikaner Transmission System Limited**

  
कंचन कुमार चौधरी

(परियोजना प्रभारी)

पावरग्रिड बीकानेर ट्रांसमिशन सिस्टम लिमिटेड

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 परिचय प्रणाली- I, क्षेत्रीय कार्यालय: एस.सी.ओ. ब. 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





# PMSS & CO.

Chartered Accountants

GSTIN: 06AAHFP9830G1Z2

PAN: AAHFP9830G

Head Office: 118 B, G.F., Sector-30-33,  
Indraprastha Colony, Faridabad-121003

Email: guptaak990@gmail.com

M.No. 9871325500

## CERTIFICATE

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 1 No. 220kV Line Bay at 400/220 kV  
Bikaner-II PS for Interconnection of Solar Project (M/s.  
NHPC Ltd.)

Name of the Element

1 No. 220kV line bay at 400/220kV Bikaner-II PS for  
interconnection of solar projects (NHPC Ltd.)

Date of Commercial Operation

28.01.2025 (Proposed)

Rs in Lacs

S/N	Particulars	Capital Cost	IEDC	IDC	Total
1	Expenditure up to 27.01.2025 (DOCO 28.01.2025)	1039.40	78.98	26.36	1,144.74
2	Estimated Expenditure from 28.01.2025 to 31.03.2025	226.11			226.11
3	Estimated Expenditure from 01.04.2025 to 31.03.2026	678.34			678.34
4	Estimated Expenditure from 01.04.2026 to 31.03.2027	113.06			113.06
5	Estimated Expenditure from 01.04.2027 to 31.03.2028	113.06			113.06
	<b>Total</b>	<b>2,169.97</b>	<b>78.98</b>	<b>26.36</b>	<b>2,275.31</b>

- a) We have verified the expenditure mentioned at Sl. No. 1 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 28.02.2025.
- b) The Estimated Expenditure mentioned at Sl. No. 2 to 4 are based on Management estimates.

**PMSS & Co.**

Chartered Accountants

FRN-019667N

Digitally signed by  
Ajay Kumar Gupta  
Date: 2025.04.14  
15:50:32 +05'30'

Ajay Kumar Gupta

Partner

M.No. 095714

UDIN 25095714BMISXO8736

Place:- Faridabad

Date:- 14.04.2025



**CERTIFICATE**

**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 I No. 220kV Line Buy at 400/220 KV Bikaner-II PS for Interconnection of Solar Project (M/s. NHPC Ltd.)

**Name of the Element** I No. 220kV line buy at 400/220kV Bikaner-II PS for interconnection of solar projects (NHPC Ltd.)

**Date of Commercial Operation** 28.01.2025 (Proposed)

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, UNRS, URTDSM, EMS, Cyber Security System, REMC, WAMS, SCADA	Batteries	Total
1	Expenditure up to 27.01.2025 (DOCO 28.01.2025)	-	-	-	-	1,079.12	-	65.62	-	-	1144.74
2	Estimated Expenditure from 28.01.2025 to 31.03.2025	-	-	-	-	184.89	-	4.09	37.13	-	226.11
3	Estimated Expenditure from 01.04.2025 to 31.03.2026	-	-	-	-	554.68	-	12.26	111.40	-	678.34
4	Estimated Expenditure from 01.04.2026 to 31.03.2027	-	-	-	-	92.45	-	2.04	18.57	-	113.06
5	Estimated Expenditure from 01.04.2027 to 31.03.2028	-	-	-	-	92.45	-	2.04	18.57	-	113.06
	<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>2003.59</b>	<b>0.00</b>	<b>86.05</b>	<b>185.67</b>	<b>0.00</b>	<b>2275.31</b>

S/N	Particulars	TL Communication System & IT Equipment	OPGW	Total
1	Total Cost (Plant and Machinery cost excluding IDC, IEBC, Land cost and cost of Civil works for the purpose of initial Spares)	2,169.97	-	2169.97
2	Initial Spares included above	133.15	-	133.15

- a) We have verified the expenditure mentioned at Sl. No. 1 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., Faridabad for the period ended on 28.02.2025
- b) The Estimated Expenditure mentioned at Sl. No. 2 to 5 are based on Management estimates.

Place:- Faridabad  
Date:- 14.04.2025



**P M S S & Co.**  
Chartered Accountants  
FRN-019667N  
**Alay Kumar**  
Gupta  
Digitally signed by Alay Kumar  
DN: cn=Alay Kumar, o=P M S S & Co., ou=Chartered Accountants, email=alaykumar@pms.co.in, c=IN  
UDIN 23095714BMISX08736



Statement showing IDC Discharged upto DOCO





BOND-LXXVII	23.42	7.55%	11-Jun-24	1.12	03-Jan-25	0.99	04-Apr-25
BOND-LXXVII	1.46	7.55%	14-Jun-24	0.07	03-Jan-25	0.06	04-Apr-25
BOND-LXXVII	0.30	7.55%	25-Jun-24	0.01	03-Jan-25	0.01	04-Apr-25
BOND-LXXVII	24.36	7.55%	27-Jun-24	1.08	03-Jan-25	0.95	04-Apr-25
BOND-LXXVII	0.35	7.55%	28-Jun-24	0.02	03-Jan-25	0.01	04-Apr-25
BOND-LXXVII	11.39	7.55%	04-Jul-24	0.49	03-Jan-25	0.43	04-Apr-25
BOND-LXXVII	3.44	7.55%	05-Jul-24	0.15	03-Jan-25	0.13	04-Apr-25
BOND-LXXVII	3.36	7.55%	05-Jul-24	0.14	03-Jan-25	0.13	04-Apr-25
BOND-LXXVII	4.57	7.55%	09-Jul-24	0.19	03-Jan-25	0.17	04-Apr-25
BOND-LXXVII	4.97	7.55%	10-Jul-24	0.21	03-Jan-25	0.18	04-Apr-25
BOND-LXXVII	10.37	7.55%	11-Jul-24	0.43	03-Jan-25	0.37	04-Apr-25
BOND-LXXVII	6.75	7.55%	24-Jul-24	0.26	03-Jan-25	0.22	04-Apr-25
BOND-LXXVIII	7.33	7.38%	29-Jul-24	0.27	03-Jan-25	0.23	04-Apr-25
BOND-LXXVIII	9.99	7.38%	30-Jul-24	0.37	03-Jan-25	0.31	04-Apr-25
BOND-LXXVIII	10.61	7.38%	30-Jul-24	0.39	03-Jan-25	0.33	04-Apr-25
BOND-LXXVIII	0.19	7.38%	02-Aug-24	0.01	03-Jan-25	0.01	04-Apr-25
BOND-LXXVIII	3.40	7.38%	06-Aug-24	0.12	03-Jan-25	0.10	04-Apr-25
BOND-LXXVIII	2.59	7.38%	22-Aug-24	0.08	03-Jan-25	0.07	04-Apr-25
BOND-LXXVIII	6.66	7.38%	28-Aug-24	0.21	03-Jan-25	0.17	04-Apr-25
BOND-LXXVIII	5.17	7.38%	29-Aug-24	0.16	03-Jan-25	0.13	04-Apr-25
BOND-LXXVIII	6.06	7.38%	30-Aug-24	0.19	03-Jan-25	0.15	04-Apr-25
BOND-LXXVIII	0.81	7.38%	05-Sep-24	0.02	03-Jan-25	0.02	04-Apr-25
BOND-LXXVIII	2.67	7.38%	05-Sep-24	0.08	03-Jan-25	0.06	04-Apr-25
BOND-LXXVIII	4.34	7.38%	17-Sep-24	0.12	03-Jan-25	0.09	04-Apr-25
BOND-LXXVIII	1.41	7.38%	18-Sep-24	0.04	03-Jan-25	0.03	04-Apr-25
BOND-LXXVIII	28.25	7.38%	23-Sep-24	0.73	03-Jan-25	0.57	04-Apr-25
BOND-LXXVIII	1.93	7.38%	24-Sep-24	0.05	03-Jan-25	0.04	04-Apr-25
BOND-LXXVIII	21.31	7.38%	25-Sep-24	0.54	03-Jan-25	0.42	04-Apr-25
BOND-LXXVIII	2.21	7.38%	26-Sep-24	0.06	03-Jan-25	0.04	04-Apr-25
BOND-LXXVIII	3.50	7.38%	27-Sep-24	0.09	03-Jan-25	0.07	04-Apr-25
BOND-LXXVIII	0.08	7.38%	30-Sep-24	0.00	03-Jan-25	0.00	04-Apr-25
BOND-LXXVIII	4.78	7.38%	01-Oct-24	0.12	03-Jan-25	0.09	04-Apr-25
BOND-LXXVIII	0.00	7.38%	04-Oct-24	0.00	03-Jan-25	0.00	04-Apr-25
BOND-LXXVIII	0.83	7.38%	07-Oct-24	0.02	03-Jan-25	0.01	04-Apr-25
CANARA	0.00	Floating	09-Oct-24	0.00	03-Jan-25	0.00	04-Apr-25
CANARA	0.00	Floating	10-Oct-24	0.00	03-Jan-25	0.00	04-Apr-25
CANARA	0.00	Floating	17-Oct-24	0.00	03-Jan-25	0.00	04-Apr-25
CANARA	0.00	Floating	17-Oct-24	0.00	03-Jan-25	0.00	04-Apr-25
CANARA	0.00	Floating	21-Oct-24	0.00	03-Jan-25	0.00	04-Apr-25
CANARA	0.00	Floating	23-Oct-24	0.00	03-Jan-25	0.00	04-Apr-25
BOND-LXXIX	7.86	7.08%	25-Oct-24	0.14	03-Jan-25	0.10	04-Apr-25
BOND-LXXIX	2.66	7.08%	25-Oct-24	0.05	03-Jan-25	0.04	04-Apr-25
BOND-LXXIX	1.31	7.08%	25-Oct-24	0.02	03-Jan-25	0.02	04-Apr-25
BOND-LXXIX	6.07	7.08%	25-Oct-24	0.11	03-Jan-25	0.08	04-Apr-25
BOND-LXXIX	4.74	7.08%	29-Oct-24	0.08	03-Jan-25	0.06	04-Apr-25
BOND-LXXIX	0.00	7.08%	29-Oct-24	0.00	03-Jan-25	0.00	04-Apr-25
BOND-LXXIX	32.92	7.08%	29-Oct-24	0.58	03-Jan-25	0.41	04-Apr-25
BOND-LXXIX	32.92	7.08%	29-Oct-24	0.58	03-Jan-25	0.41	04-Apr-25
BOND-LXXIX	4.89	7.08%	29-Oct-24	0.09	03-Jan-25	0.06	04-Apr-25
BOND-LXXIX	209.47	7.08%	29-Oct-24	3.70	03-Jan-25	2.60	04-Apr-25
CANARA	0.00	Floating	01-Nov-24	0.00	03-Jan-25	0.00	04-Apr-25
BOND-LXXIX	0.00	7.08%	01-Nov-24	0.00	03-Jan-25	0.00	04-Apr-25
BOND-LXXIX	11.64	7.08%	05-Nov-24	0.19	03-Jan-25	0.13	04-Apr-25
BOND-LXXIX	2.79	7.08%	29-Nov-24	0.03	03-Jan-25	0.02	04-Apr-25
BOND-LXXIX	37.30	7.08%	03-Dec-24	0.41	03-Jan-25	0.21	04-Apr-25
BOND-LXXIX	3.65	7.08%	04-Dec-24	0.04	03-Jan-25	0.02	04-Apr-25
BOND-LXXIX	0.00	7.08%	09-Jan-25	0.00	09-Jan-25	0.00	04-Apr-25
BOND-LXXX	0.00	7.12%	13-Mar-25	0.00	13-Mar-25	0.00	04-Apr-25
BOND-LXXX	0.00	7.12%	19-Mar-25	0.00	19-Mar-25	0.00	04-Apr-25
BOND-LXXX	0.00	7.12%	20-Mar-25	0.00	20-Mar-25	0.00	04-Apr-25
BOND-LXXX	0.00	7.12%	20-Mar-25	0.00	20-Mar-25	0.00	04-Apr-25
BOND-LXXX	0.00	7.12%	21-Mar-25	0.00	21-Mar-25	0.00	04-Apr-25
BOND-LXXX	0.00	7.12%	25-Mar-25	0.00	25-Mar-25	0.00	04-Apr-25
BOND-LXXX	0.00	7.12%	25-Mar-25	0.00	25-Mar-25	0.00	04-Apr-25
BOND-LXXX	0.00	7.12%	25-Mar-25	0.00	25-Mar-25	0.00	04-Apr-25
Proposed Loan (2025-26)	3.03			0.00			
Total	801.32			26.36		22.04	

Total IDC as per Cost Certificate	26.36
IDC Discharged upto DOCO	22.04
Accrual IDC upto DOCO (To be Discharged during 2025-2026)	4.32



Name of Petitioner Asset Name		POWERGRID Bikaner Transmission System Limited 1 No. 220kV line bay at 400/220kV Bikaner-II PS for interconnection of solar projects (NHPCL Ltd.)																				Outstanding Liability as on 31.03.2024			
Project Name		Implementation of 1 No. 220kV Line Bay at 400/220 kV Bikaner-II PS for Interconnection of Solar Project (M/s. NHPCL Ltd.)																							
Asset No.	Headwise /Partywise	Particulars <sup>#</sup>	Year of Actual Capitalisation	Outstanding Liability as on COD/31st March 2019 <sup>*</sup>	Discharge					Reversal					Additional Liability Recognized <sup>#</sup>					Outstanding Liability as on 31.03.2024					
					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		Land	28.01.2025	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	0.00	0.00	0.00	0.00	0.00	0.00			
		Civil & Building	28.01.2025	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	0.00	0.00	0.00	0.00	0.00	0.00			
		Tr. Line	28.01.2025	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	0.00	0.00	0.00	0.00	0.00	0.00			
		Sub Station	28.01.2025	205.08	41.62	124.84	20.81	20.81	0.00	205.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
		OPGW	28.01.2025	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	0.00	0.00	0.00	0.00	0.00	0.00			
		Communication System excl. OPGW	28.01.2025	9.24	1.85	6.65	0.92	0.92	0.00	9.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
		I.T Equipment incl. software, UNMS, URTDSM, EMS, Cyber Security System, REMC, WAMS, SCADA System	28.01.2025	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	0.00	0.00	0.00	0.00	0.00	0.00			
Asset-1	Headwise /Partywise	Particulars <sup>#</sup>	Year of Actual Capitalisation	Outstanding Liability as on COD/31st March 2019 <sup>*</sup>	Discharge					Reversal					Additional Liability Recognized <sup>#</sup>					Outstanding Liability as on 31.03.2024					
					2029-30	2030-31	2031-32	2032-33	2033-34	Total (29-34)	2029-30	2030-31	2031-32	2032-33	2033-34	Total (29-34)	2029-30	2030-31	2031-32		2032-33	2033-34	Total (29-34)		
		Land	28.01.2025	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	0.00	0.00	0.00	0.00	0.00	0.00			
		Civil & Building	28.01.2025	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	0.00	0.00	0.00	0.00	0.00	0.00			
		Tr. Line	28.01.2025	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	0.00	0.00	0.00	0.00	0.00	0.00			
		Sub Station	28.01.2025	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	0.00	0.00	0.00	0.00	0.00	0.00			
		OPGW	28.01.2025	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	0.00	0.00	0.00	0.00	0.00	0.00			
		Communication System excl. OPGW	28.01.2025																						
		I.T Equipment incl. software, UNMS, URTDSM, EMS, Cyber Security System, REMC, WAMS, SCADA System	28.01.2025	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	0.00	0.00	0.00	0.00	0.00	0.00			



Asset No.	Headwise /Partywise	Particulars <sup>a</sup>	Year of Actual Capitalisation	Details of unexecuted work for which works has been completed before DOCO/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 (24-34)
Asset-1		Land	28.01.2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
		Civil & Building	28.01.2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
		Tr. Line	28.01.2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
		Sub Station	28.01.2025	143.27	429.84	71.64	71.64	0.00	0.00	0.00	0.00	0.00	0.00	716.39	-
		OPGW	28.01.2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
		Communication System excl. OPGW	28.01.2025	2.24	6.71	1.12	1.12	0.00	0.00	0.00	0.00	0.00	0.00	11.19	-
		I. T Equipment incl. software, UNMS, URDMS, EMS, Cyber Security System, REMC, WAMS, SCADA System	28.01.2025	37.13	111.40	18.57	18.57	0.00	0.00	0.00	0.00	0.00	0.00	185.67	-

All Works completed within Cut-off Date





**Summary of Tariff**

Form No. - 1

Name of the Transmission Licensee:		Power Grid Bikaner Transmission System Ltd	
Project	Implementation of 1 No. 220kV Line Bay at 400/220 kV Bikaner-II PS for Interconnection of Solar Project (M/s. NH		
Element Description	1 No. 220kV line bay at 400/220kV Bikaner-II PS fo interconnection of solar projects (NHPC Ltd.)		
Region	Corporate Centre	DOCO Date	Jan 28, 2025

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Year Days	365.00	365.00	365.00	366.00	365.00
Tariff Days	63.00	365.00	365.00	366.00	365.00
Depreciation-Form No. 10A	10.73	90.24	114.82	121.81	125.31
Interest on Loan-Form No. 9E	11.01	83.37	96.27	93.40	87.26
Return on Equity-Form No. 8	13.01	102.70	126.63	133.43	136.83
Int. on Working capital-Form No.11	0.67	5.05	6.02	6.21	6.29
Op. and maintenance-Form No.2	3.57	21.75	22.90	24.10	25.36
Total AFC	38.99	303.11	366.64	378.95	381.05

(Petitioner)



**Summary of Asset Level Cost**

Name of the Transmission Licensee	Power Grid Bikaner Transmission System Ltd		
Project	Implementation of 1 No. 220kV Line Bay at 400/220 kV Bikaner-II PS for Interconnection of Solar Project (M/s. NHPC Ltd.)		
Element Description	1 No. 220kV line bay at 400/220kV Bikaner-II PS for interconnection of solar projects (NHPC Ltd.)		
Region	Corporate Centre	DOCO Date	Jan 28, 2025

(Amount in Rs. Lakh)

A) Summary of Capital Cost, Means of Finance of the Asset			ii) Summary of Actual / Projected Capital Expenditure incurred						
Particular	i) Apportioned Approved Cost		As on COD / 01.04.2024	2024-25	2025-26	2026-27	2027-28	2028-29	As on 31.03.2029
	As Per IA	As per RCE							
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	1,287.20	143.27	429.84	71.64	71.64	0.00	2,003.59
Comm. Sys. excluding Fiber Optic	0.00	0.00	74.86	2.24	6.71	1.12	1.12	0.00	86.05
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	0.00	37.13	111.40	18.57	18.57	0.00	185.67
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
<b>Total Capital Cost as per Books</b>	0.00	0.00	1,362.06	182.64	547.95	91.33	91.33	0.00	2,275.31
Less: Liability	0.00	0.00	221.65	0.00	0.00	0.00	0.00	0.00	0.00
Add: discharge of liability	0.00	0.00	0.00	43.47	134.72	21.73	21.73	0.00	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
<b>Total Capital incurred</b>	0.00	0.00	1,140.41	226.11	682.67	113.06	113.06	0.00	2,275.31
Equity	673.647	0.00	342.12	67.83	204.80	33.92	33.92	0.00	682.59
Debt	1,571.843	0.00	798.29	158.28	477.87	79.14	79.14	0.00	1,592.72

Name of the Transmission Licensee		Power Grid Bikaner Transmission System Ltd	
Project	Implementation of 1 No. 220kV Line Bay at 400/220 kV Bikaner-II PS for Interconnection of Solar Project (M/s. NHPC Ltd.)		
Element Description	1 No. 220kV line bay at 400/220kV Bikaner-II PS fo interconnection of solar projects (NHPC Ltd.)		
Region	Corporate Centre	DOCO Date	Jan 28, 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 Yes/ No
				765 KV	400 KV	220 KV	132 KV	765 KV	400 KV	220 KV	132 KV		
:220 KV BAY	Brownfield	220 KV				1.000						Jan 28, 2025	Y

## Summary:

O&M Expenses For Substations Covered in the instant petition												
220KV SUB-STATION												
Normative Rate of O&M as per Regulation				20.67		21.75		22.90		24.10		25.36
No. of Units				1.00		1.00		1.00		1.00		1.00
O&M Claimed				3.57		21.75		22.90		24.10		25.36



## Summary of O&amp;M Expenses claim

(Amount in Rs. Lakh)

Particular	2024-25	2025-26	2026-27	2027-28	2028-29
<b>A) Normative O&amp;M</b>					
Transmission Line	0.00	0.00	0.00	0.00	0.00
Substation	3.57	21.75	22.90	24.10	25.36
Communication System	0.00	0.00	0.00	0.00	0.00
Total Normative O&M	3.57	21.75	22.90	24.10	25.36
<b>B) O&amp;M Claimed under Regulation 35 (3)(C) (* The same is not being claimed and will be claimed through separate Petition )</b>					
*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	3.57	21.75	22.90	24.10	25.36

(Petitioner)



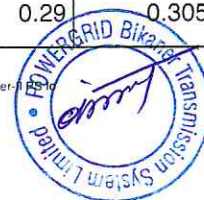
# **Normative parameters considered for tariff computations**

Form No. - 3

Name of the Transmission Licensee	Power Grid Bikaner Transmission System Ltd		
Project	Implementation of 1 No. 220kV Line Bay at 400/220 kV Bikaner-II PS for Interconnection of Solar Project (M/s. NH		
Element Description	1 No. 220kV line bay at 400/220kV Bikaner-II PS fo interconnection of solar projects (NHPC Ltd.)		
Region	Corporate Centre	DOCO Date	Jan 28, 2025

(Amount in Rs. Lakh)

Particulars	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
<b>Base Rate of Return of Equity (in %)</b>						
Tax Rate (in %)	17.472	17.472	17.472	17.472	17.472	17.472
<b>Effective tax rate (in %)</b>						
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
<b>Norms for sub-station Bays (Rs Lakh per bay)</b>						
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
<b>Norms for Transformers (Rs Lakh per MVA)</b>						
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
<b>Norms for Reactor (Rs Lakh per MVAR)</b>						
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
<b>Norms for AC and HVDC lines (Rs Lakh per km)</b>						
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
<b>Norms for HVDC stations (Rs Lakh/MW)</b>						
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

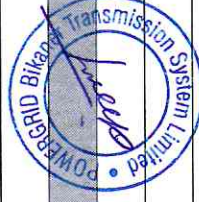
Form No. - 4A

Name of the Transmission Licensee	Power Grid Bikaner Transmission System Ltd		
Project	Implementation of 1 No. 220kV Line Bay at 400/220 kV Bikaner-II PS for Interconnection of Solar Project (M/s. NHPC Ltd.)		
Element Description	1 No. 220kV line bay at 400/220kV Bikaner-II PS for interconnection of solar projects (NHPC Ltd.)		
Region	Corporate Centre	DOCO Date	Jan 28, 2025

## A) Capital Cost

(Amount in Rs. Lakh)

Particular	Accrual Basis	Un-discharged Liabilities	Cash Basis
<b>As on relevant date :2024-25</b>			
a) Opening Gross Block Amount as per books	1,362.06	221.65	1,140.41
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	26.36	4.33	22.03
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	78.98	0.00	78.98
a) Addition in Gross Block Amount during the period	182.64	0.00	182.64
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	1,544.70	178.18	1,366.52
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above	26.36	4.33	22.03
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in C(a) above	78.98	0.00	78.98
<b>As on relevant date :2025-26</b>			
a) Opening Gross Block Amount as per books	1,544.70	178.18	1,366.52
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	26.36	4.33	22.03





c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	78.98	0.00	78.98
---	-------	------	-------

a) Addition in Gross Block Amount during the period	547.95	0.00	547.95
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	2,092.65	43.46	2,049.19
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above	26.36	0.00	26.36
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in C(a) above	78.98	0.00	78.98

<b>As on relevant date :2026-27</b>			
a) Opening Gross Block Amount as per books	2,092.65	43.46	2,049.19
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	26.36	0.00	26.36
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	78.98	0.00	78.98

a) Addition in Gross Block Amount during the period	91.33	0.00	91.33
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	2,183.98	21.73	2,162.25
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above	26.36	0.00	26.36
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in C(a) above	78.98	0.00	78.98

<b>As on relevant date :2027-28</b>			
a) Opening Gross Block Amount as per books	2,183.98	21.73	2,162.25
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	26.36	0.00	26.36
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	78.98	0.00	78.98





a) Addition in Gross Block Amount during the period		91.33	0.00	91.33
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		2,275.31	0.00	2,275.31
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above		26.36	0.00	26.36
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in C(a) above		78.98	0.00	78.98

**As on relevant date : 2028-29**

a) Opening Gross Block Amount as per books		2,275.31	0.00	2,275.31
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above		26.36	0.00	26.36
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above		78.98	0.00	78.98

a) Addition in Gross Block Amount during the period		0.00	0.00	0.00
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		2,275.31	0.00	2,275.31
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above		26.36	0.00	26.36
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in C(a) above		78.98	0.00	78.98

**B) Flow of liability for the Asset.**

(Amount in Rs. Lakh)

Particular	2024-2025	2025-2026	2026-2027	2027-2028			
Opening balance of liability	221.65	178.18	43.46	21.73	0.00	0.00	0.00
Add: Liability from ACE	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Discharge of liability by payment and claimed as ACE	43.47	134.72	21.73	21.73	0.00	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	0.00
Closing Balance of Admitted liability	178.18	43.46	21.73	0.00	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	Power Grid Bikaner Transmission System Ltd		
Project	Implementation of 1 No. 220kV Line Bay at 400/220 kV Bikaner-II PS for Interconnection of Solar Project (M/s. NH		
Element Description	1 No. 220kV line bay at 400/220kV Bikaner-II PS fo interconnection of solar projects (NHPC Ltd.)		
Region	Corporate Centre	DOCO Date	Jan 28, 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	1,571.843	INR	798.29		0.00
Equity		0.00		0.00		0.00
Foreign		0.00		0.00		0.00
Domestic	INR	673.647	INR	342.12		0.00
Total Equity	INR	673.647	INR	342.12		0.00
Debt Equity Ratio					70:30	
Total Cost	INR	2,245.49	INR	1,140.41		0.00

Particulars	Debt	Equity	Total	
Addcap for 2024 - 2025			226.11	
Addcap for 2025 - 2026			682.67	
Addcap for 2026 - 2027			113.06	
Addcap for 2027 - 2028			113.06	





Addcap for 2028 - 2029			0.00	
------------------------	--	--	------	--

Particulars	Actual	Normative	
<b>Addcap for 2024 - 2025</b>			
Equity		67.83	
Debt		158.28	
Total		226.11	
<b>Addcap for 2025 - 2026</b>			
Equity		204.80	
Debt		477.87	
Total		682.67	
<b>Addcap for 2026 - 2027</b>			
Equity		33.92	
Debt		79.14	
Total		113.06	
<b>Addcap for 2027 - 2028</b>			
Equity		33.92	
Debt		79.14	
Total		113.06	
<b>Addcap for 2028 - 2029</b>			
Equity		0.00	
Debt		0.00	
Total		0.00	
<b>Total Capital cost with Addcap</b>		2,275.31	

(Petitioner)



# Statement of Additional Capitalisation after COD

Form No. - 7

Name of the Transmission Licensee	Power Grid Bikaner Transmission System Ltd		
Project	Implementation of 1 No. 220kV Line Bay at 400/220 kV Bikaner-II PS for Interconnection of Solar Project (M/s. NH		
Element Description	1 No. 220kV line bay at 400/220kV Bikaner-II PS fo interconnection of solar projects (NHPC Ltd.)		
Region	Corporate Centre	DOCOC Date	Jan 28, 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 Receiv ed (if any) (3)	Asset pertaini ng to other busines s (If any) (4)	Other Dedu ct ion (if any) (5)	Less: Un- discharge d 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	143.27	0.00	0.00	0.00	0.00	0.00	41.62	184.89	0.00
Comm. Sys. excluding Fiber Optic	2.24	0.00	0.00	0.00	0.00	0.00	1.85	4.09	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	37.13	0.00	0.00	0.00	0.00	0.00	0.00	37.13	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	182.64	0.00	0.00	0.00	0.00	0.00	43.47	226.11	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	429.84	0.00	0.00	0.00	0.00	0.00	128.92	558.76	0.00
Comm. Sys. excluding Fiber Optic	6.71	0.00	0.00	0.00	0.00	0.00	5.80	12.51	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/URTDSM/SCADA,etc	111.40	0.00	0.00	0.00	0.00	0.00	0.00	111.40	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
<b>Total</b>	<b>547.95</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>134.72</b>	<b>682.67</b>	<b>0.00</b>
<b>ACE for the year :2026-27 (Actual/Projected)</b>									
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	71.64	0.00	0.00	0.00	0.00	0.00	20.81	92.45	0.00
Comm. Sys. excluding Fiber Optic	1.12	0.00	0.00	0.00	0.00	0.00	0.92	2.04	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/URTDSM/SCADA,etc	18.57	0.00	0.00	0.00	0.00	0.00	0.00	18.57	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
<b>Total</b>	<b>91.33</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>21.73</b>	<b>113.06</b>	<b>0.00</b>
<b>ACE for the year :2027-28 (Actual/Projected)</b>									
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	71.64	0.00	0.00	0.00	0.00	0.00	20.81	92.45	0.00
Comm. Sys. excluding Fiber Optic	1.12	0.00	0.00	0.00	0.00	0.00	0.92	2.04	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/URTDSM/ SCADA,etc	18.57	0.00	0.00	0.00	0.00	0.00	0.00	18.57	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
<b>Total</b>	<b>91.33</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>21.73</b>	<b>113.06</b>	<b>0.00</b>
<b>ACE for the year :2028-29 (Actual/Projected)</b>									
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/URTDSM/ 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
<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

(Petitioner)



**Financing of Additional Capitalisation**

Name of the Transmission Licensee	Power Grid Bikaner Transmission System Ltd		
Project	Implementation of 1 No. 220kV Line Bay at 400/220 kV Bikaner-II PS for Interconnection of Solar Project (M/s. NHPC Ltd.)		
Element Description	1 No. 220kV line bay at 400/220kV Bikaner-II PS for interconnection of solar projects (NHPC Ltd.)		
Region	Corporate Centre	DOCO Date	Jan 28, 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 capitalized in Work/ Equipment										
Financing Details										
Total Loan	158.28	477.87	79.14	79.14	0.00					
Equity	67.83	204.80	33.92	33.92	0.00					
Total	226.11	682.67	113.06	113.06	0.00					



(Petitioner)

**Calculation of ROE**

Form No. - 8

Name of the Transmission Licensee	Power Grid Bikaner Transmission System Ltd			
Project	Implementation of 1 No. 220kV Line Bay at 400/220 kV Bikaner-II PS for Interconnection of Solar Project (M/s. NHPC Ltd.)			
Element Description	1 No. 220kV line bay at 400/220kV Bikaner-II PS for interconnection of solar projects (NHPC Ltd.)			
Region	Corporate Centre	DOCO Date	Jan 28, 2025	

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
No. of Days in the year	365.00	365.00	365.00	366.00	365.00
No. of days for which tariff claimed	63.00	365.00	365.00	366.00	365.00
Opening Normative Equity	342.12	409.95	614.75	648.67	682.59
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)	342.12	409.95	614.75	648.67	682.59
Add: Increase in Equity due to addition during the year / period	54.79	164.38	27.40	27.40	0.00
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	13.04	40.42	6.52	6.52	0.00
Closing Normative Equity	409.95	614.75	648.67	682.59	682.59
Average Normative Equity	376.04	512.35	631.71	665.63	682.59
Rate of return on Equity (%)	20.045	20.045	20.045	20.045	20.045
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	15.00	15.00	15.00	15.00	15.00
MAT/Corporate Rate	25.17	25.17	25.17	25.17	25.17
Grossed up rate of ROE	20.045	20.045	20.045	20.045	20.045
Return on Equity	75.38	102.70	126.63	133.43	136.83
Pro rata return on Equity	13.01	102.70	126.63	133.43	136.83

(Petitioner)





# **Calculation of WAR of interest on actual loan**

Form No. - 9C

Name of the Transmission Licensee	Power Grid Bikaner Transmission System Ltd				
Project	Implementation of 1 No. 220kV Line Bay at 400/220 kV Bikaner-II PS for Interconnection of Solar Project (M/s. NHPC Ltd.)				
Element Description	1 No. 220kV line bay at 400/220kV Bikaner-II PS for interconnection of solar projects (NHPC Ltd.)				
Region	Corporate Centre	DOCO Date	Jan 28, 2025		

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
<b>Proposed Loan -ACCRUAL IDC LOAN</b>					
Gross Loan- Opening	0.00	0.00	3.03	3.03	3.03
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.00	0.00
Net loan-Opening	0.00	0.00	3.03	3.03	3.03
Add: Drawl(s) during the year	0.00	3.03	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	3.03	3.03	3.03	3.03
Average Net Loan	0.00	1.52	3.03	3.03	3.03
Rate of Interest on Loan on Annual Basis	8.21	8.21	8.21	8.21	8.21
Interest on loan	0.00	0.1248	0.2488	0.2488	0.2488

## **Loan 3 PBTSL (BOND-LXXIV) -DOCO LOAN**

Gross Loan- Opening	13.76	13.76	13.76	13.76	13.76
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.58	1.73
Net loan-Opening	13.76	13.76	13.76	13.18	12.03
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	0.58	1.15	1.15
Net Loan-Closing	13.76	13.76	13.18	12.03	10.88



Average Net Loan	13.76	13.76	13.47	12.61	11.46
Rate of Interest on Loan on Annual Basis	7.70	7.70	7.70	7.70	7.70
Interest on loan	1.0595	1.0595	1.0372	0.971	0.8824

#### PBTSL loan (BOND-LXXVI) -DOCO LOAN 3

Gross Loan- Opening	6.24	6.24	6.24	6.24	6.24
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.26	0.78
Net loan-Opening	6.24	6.24	6.24	5.98	5.46
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	0.26	0.52	0.52
Net Loan-Closing	6.24	6.24	5.98	5.46	4.94
Average Net Loan	6.24	6.24	6.11	5.72	5.20
Rate of Interest on Loan on Annual Basis	7.35	7.35	7.35	7.35	7.35
Interest on loan	0.4586	0.4586	0.4491	0.4204	0.3822

#### PBTSL loan (BOND-LXXVII) -DOCO LOAN 4

Gross Loan- Opening	295.95	295.95	295.95	295.95	295.95
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	12.37	37.11
Net loan-Opening	295.95	295.95	295.95	283.58	258.84
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	12.37	24.74	24.74
Net Loan-Closing	295.95	295.95	283.58	258.84	234.10
Average Net Loan	295.95	295.95	289.77	271.21	246.47
Rate of Interest on Loan on Annual Basis	7.55	7.55	7.55	7.55	7.55
Interest on loan	22.3442	22.3442	21.8776	20.4764	18.6085





**PBTSL loan (BOND-LXXVIII) -DOCO LOAN 5**

Gross Loan- Opening	124.12	124.12	124.12	124.12	124.12
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	5.19	15.56
Net loan-Opening	124.12	124.12	124.12	118.93	108.56
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	5.19	10.38	10.38
Net Loan-Closing	124.12	124.12	118.93	108.55	98.18
Average Net Loan	124.12	124.12	121.53	113.74	103.37
Rate of Interest on Loan on Annual Basis	7.38	7.38	7.38	7.38	7.38
Interest on loan	9.1601	9.1601	8.9689	8.394	7.6287

**PBTSL Loan (Bond LXXIX) -DOCO LOAN 2**

Gross Loan- Opening	358.22	358.22	358.22	358.22	358.22
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	14.93	44.78
Net loan-Opening	358.22	358.22	358.22	343.29	313.44
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	14.93	29.85	29.85
Net Loan-Closing	358.22	358.22	343.29	313.44	283.59
Average Net Loan	358.22	358.22	350.76	328.37	298.52
Rate of Interest on Loan on Annual Basis	7.08	7.08	7.08	7.08	7.08
Interest on loan	25.362	25.362	24.8338	23.2486	21.1352

**Summary**

Gross Loan- Opening	798.29	798.29	801.32	801.32	801.32
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	33.33	99.96





Net loan-Opening	798.29	798.29	801.32	767.99	701.36
Add: Drawl(s) during the year	0.00	3.03	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	33.33	66.64	66.64
Net Loan-Closing	798.29	801.32	767.99	701.35	634.72
Average Net Loan	798.29	799.81	784.67	734.68	668.05
Rate of Interest on Loan on Annual Basis	7.3137	7.3154	7.3171	7.3174	7.3177
Interest on loan	58.3844	58.5092	57.4154	53.7592	48.8858

(Petitioner)



**Calculation of interest on Normative loan**

Form No. - 9E

Name of the Transmission Licensee	Power Grid Bikaner Transmission System Ltd			
Project	Implementation of 1 No. 220kV Line Bay at 400/220 kV Bikaner-II PS for Interconnection of Solar Project (M/s. NHPC Ltd.)			
Element Description	1 No. 220kV line bay at 400/220kV Bikaner-II PS for interconnection of solar projects (NHPC Ltd.)			
Region	Corporate Centre	DOCO Date	Jan 28, 2025	

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
No. of Days in the Year	365.00	365.00	365.00	366.00	365.00
No. of days for which Tariff claimed	63.00	365.00	365.00	366.00	365.00
Gross normative loan-Opening	798.29	956.57	1,434.44	1,513.58	1,592.72
Cumulative repayments of Normative loan upto previous year	0.00	10.73	100.97	215.79	337.60
Net normative loan-Opening	798.29	945.84	1,333.47	1,297.79	1,255.12
Addition in normative loan towards the ACE	158.28	477.87	79.14	79.14	0.00
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	10.73	90.24	114.82	121.81	125.31
Adjustment of cumulative repayment pertaining to the decapitalised asset	0.00	0.00	0.00	0.00	0.00
Net normative loan - closing	945.84	1,333.47	1,297.79	1,255.12	1,129.81
Average normative loan	872.07	1,139.66	1,315.63	1,276.46	1,192.47
Weighted Average Rate of interest on actual loan	7.3137	7.3154	7.3171	7.3174	7.3177
Interest on normative loan	63.78	83.37	96.27	93.40	87.26
Pro rata interest on normative loan	11.01	83.37	96.27	93.40	87.26

(Petitioner)



# **Calculation of Depreciation Rate on Original Project Cost**

Form No. - 10

Name of the Transmission Licensee	Power Grid Bikaner Transmission System Ltd		
Project	Implementation of 1 No. 220kV Line Bay at 400/220 kV Bikaner-II PS for Interconnection of Solar Project (M/s. NH		
Element Description	1 No. 220kV line bay at 400/220kV Bikaner-II PS fo interconnection of solar projects (NHPC Ltd.)		
Region	Corporate Centre	DOCO Date	Jan 28, 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
<b>2024-25</b>						
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	1,075.04	184.89	1,259.93	1,167.49	4.22	8.50
Comm. Sys. excluding Fiber Optic	65.37	4.09	69.46	67.42	15.00	1.75
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSP/SCADA,etc	0.00	37.13	37.13	18.57	15.00	0.48
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
<b>TOTAL</b>	<b>1,140.41</b>	<b>226.11</b>	<b>1,366.52</b>	<b>1,253.48</b>	<b>0.00</b>	<b>10.73</b>
<b>Weighted Average Rate of Depreciation(%)</b>					<b>0.856017</b>	

**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	1,259.93	558.76	1,818.69	1,539.31	4.22	64.96
Comm. Sys. excluding Fiber Optic	69.46	12.51	81.97	75.72	15.00	11.36
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDMS/SCADA,etc	37.13	111.40	148.53	92.83	15.00	13.92
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
<b>TOTAL</b>	<b>1,366.52</b>	<b>682.67</b>	<b>2,049.19</b>	<b>1,707.86</b>	<b>0.00</b>	<b>90.24</b>
<b>Weighted Average Rate of Depreciation(%)</b>					<b>5.283805</b>	

#### 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	1,818.69	92.45	1,911.14	1,864.92	4.22	78.70
Comm. Sys. excluding Fiber Optic	81.97	2.04	84.01	82.99	15.00	12.45
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDMS/SCADA,etc	148.53	18.57	167.10	157.82	15.00	23.67
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
<b>TOTAL</b>	<b>2,049.19</b>	<b>113.06</b>	<b>2,162.25</b>	<b>2,105.73</b>	<b>0.00</b>	<b>114.82</b>
<b>Weighted Average Rate of Depreciation(%)</b>					<b>5.452741</b>	

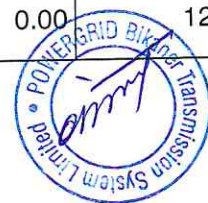


**2027-28**

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	1,911.14	92.45	2,003.59	1,957.37	4.22	82.60
Comm. Sys. excluding Fiber Optic	84.01	2.04	86.05	85.03	15.00	12.75
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDMS/SCADA,etc	167.10	18.57	185.67	176.39	15.00	26.46
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
<b>TOTAL</b>	<b>2,162.25</b>	<b>113.06</b>	<b>2,275.31</b>	<b>2,218.79</b>	<b>0.00</b>	<b>121.81</b>
<b>Weighted Average Rate of Depreciation(%)</b>					<b>5.489929</b>	

**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	2,003.59	0.00	2,003.59	2,003.59	4.22	84.55
Comm. Sys. excluding Fiber Optic	86.05	0.00	86.05	86.05	15.00	12.91
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDMS/SCADA,etc	185.67	0.00	185.67	185.67	15.00	27.85
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
<b>TOTAL</b>	<b>2,275.31</b>	<b>0.00</b>	<b>2,275.31</b>	<b>2,275.31</b>	<b>0.00</b>	<b>125.31</b>



Weighted Average Rate of Depreciation(%)					5.507381	
--	--	--	--	--	----------	--

(Petitioner)





# Statement of Depreciation

Form No. - 10A

Name of the Transmission Licensee	Power Grid Bikaner Transmission System Ltd			
Project	Implementation of 1 No. 220kV Line Bay at 400/220 kV Bikaner-II PS for Interconnection of Solar Project (M/s. NH			
Element Description	1 No. 220kV line bay at 400/220kV Bikaner-II PS fo interconnection of solar projects (NHPC Ltd.)			
Region	Corporate Centre	DOCO Date	Jan 28, 2025	

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
No of Days in the year	365.00	365.00	365.00	366.00	365.00
No of days for which tariff claimed	63.00	365.00	365.00	366.00	365.00
<b>Life at the beginning of the year</b>					
1.1 Weighted Average useful life of the Asset/ Project	24.00	24.00	24.00	24.00	24.00
1.2 Lapsed Weighted Average useful life of the Asset/Project(in completed no. of year)	0.00	0.00	1.00	2.00	3.00
1.3 Balance Weighted Average useful life of the Asset/Project(in completed no. of year)	24.00	24.00	23.00	22.00	21.00
<b>Capital Base</b>					
1.4 Opening capital cost	1,140.41	1,366.52	2,049.19	2,162.25	2,275.31
1.5 Additional Capital Expenditure dr. the year	226.11	682.67	113.06	113.06	0.00
1.6 De-Capitalisation During the year	0.00	0.00	0.00	0.00	0.00
1.7 Closing capital cost	1,366.52	2,049.19	2,162.25	2,275.31	2,275.31
1.8 Average capital cost	1,253.48	1,707.86	2,105.73	2,218.79	2,275.31
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	18.57	92.83	157.82	176.39	185.67
1.11 Asset having 10% salvage value included in 1.8	1,234.91	1,615.03	1,947.91	2,042.40	2,089.64
1.12 Depreciable Value(1.10+90% of 1.11)	1,129.99	1,546.36	1,910.94	2,014.55	2,066.35
<b>Depreciation for the period and Cum. Depreciation</b>					
1.13 Weighted Average Rate of depreciation	0.856017	5.283805	5.452741	5.489929	5.507381



1.14 Depreciation(for the period)	10.73	90.24	114.82	121.81	125.31
1.15 Depreciation(Annualised)	10.73	90.24	114.82	121.81	125.31
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	10.73	100.97	215.79	337.60
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	10.73	100.97	215.79	337.60	462.91

(Petitioner)



**Calculation of interest on working Capital**

Form No. - 11

Name of the Transmission Licensee	Power Grid Bikaner Transmission System Ltd			
Project	Implementation of 1 No. 220kV Line Bay at 400/220 kV Bikaner-II PS for Interconnection of Solar Project (M/s. NH			
Element Description	1 No. 220kV line bay at 400/220kV Bikaner-II PS fo interconnection of solar projects (NHPC Ltd.)			
Region	Corporate Centre	DOC Date	Jan 28, 2025	

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
No of Days in the year	365.00	365.00	365.00	366.00	365.00
No of days for which tariff claimed	63.00	365.00	365.00	366.00	365.00
O&M Expenses-one month	1.72	1.81	1.91	2.01	2.11
Maintenance spares 15% of O&M Expenses	3.10	3.26	3.44	3.62	3.80
Receivables equivalent to 45 days of AFC	27.85	37.37	45.20	46.59	46.98
Total Working capital	32.67	42.44	50.55	52.22	52.89
Bank Rate as on 01.04.2024 or as on 01st April of the COD year, whichever is later.	11.90	11.90	11.90	11.90	11.90
Interest on working capital	3.89	5.05	6.02	6.21	6.29
Pro rata interest on working capital	0.67	5.05	6.02	6.21	6.29

(Petitioner)





## Name of the Transmission Asset:

1 NO. OF 220 KV LINE BAY AT 400/220KV BIKANER-II PS FOR INTERCONNECTION OF SOLAR PROJECT (M/S NHPCL LTD.)

DOCO: 28.01.25 (Proposed)

S. No. (1)	Particulars (2)	Unit	As per Original Estimates (3)			Actual Capital Expenditure (Gross Block) as on COD as per Books of Account (4)			The portion Capital cost included in col.5 which is not eligible for transmission tariff (eg. Grant, other business etc.) (6)	Projected/actual cost of Deferred work to be capitalised after COD but before cut-off date (7)	Variation between actual cost and LARCE cost as on COD (8 = (5-7) (3 or 4))	Reasons for Variation (9)	Un- Discharge Liabilities included in Col. 5 (10)	Admitted cost (11)	Capital Work in Progress as per Books of Account as on COD (12)
			Quantity	Rate	Estimated Cost	Quantity	Rate	Gross Block of the asset							
5.00	Civil Works														
5.10	Control Room & Office Building including HVAC	LS													
5.20	Township & Colony	LS													
5.30	Floods and Drainage	LS													
5.40	Foundation for structures	LS			20.00			0.00		0.00	20.00				
5.50	Misc. civil works	LS			20.00			0.00		0.00	20.00				
5.60	Total Civil Works (5.1+5.2+5.3+5.4+5.5)														
6.00	Substation Equipment														
6.10	Switchgear (C/T, P, Circuit Breaker, Isolator etc)	No.			302.36			178.42		70.18	53.77		31.60	146.82	
6.20	Transformers	No.			0.00			0.00		0.00	0.00		0.00	0.00	
6.30	Compensating Equipment (Reactor, SVCs etc)	No.			0.00			0.00		0.00			0.00	0.00	
6.40	Control, Relay & Protection Panel	LS			91.37			0.00		97.83	-6.46		0.00	49.40	
6.50	PLCC	No.			51.82			58.64		7.47			9.24		
6.60	HVDC package									0.00					
6.70	Bus Bars/ conductors / Insulators									0.00					
6.80	Outdoor Lighting	LS			12.55			0.00		7.53	5.02		0.00	0.00	
6.90	Emergency D.C. Set	No.			83.74			97.50		0.00	-26.72		15.67	76.83	
6.10	Power & Control cable	LS			898.63			724.87		348.75	-175.00		158.43	566.44	
6.11	Structure for switchyard	LS						1054.43		549.74	-149.40		214.94	839.49	
6.12	Total Substation Equipment (Sum of 6.1 to 6.11)				1440.48			14.02		95.46	-40.92		2.38	11.64	
7.00	Spares	LS			68.56										
8.00	Taxes and Duties														
8.10	Custom Duty							188.27		170.16	-43.87		0.00	188.27	
8.20	Other Taxes & Duties				314.56			188.27		170.16	-43.87		0.00	188.27	
8.30	Total Taxes & Duties (8.1+8.2+8.3)														
8.40	Total (Sub-station) (4.4+5.6+6.12+7+8.3)				1843.60			1256.72		815.36	-214.19		217.32	1039.40	
C	Communication System														
9.10	Preliminary Works														
9.20	IT				68.14			0.00		80.62	-12.48		0.00	0.00	
9.30	Taxes and Duties				14.98			0.00		17.26			0.00	0.00	
9.40	Total (Communication System) (9.1+9.2+9.3)				83.12			0.00		97.88	-12.48		0.00	0.00	
10.00	Cost of Plant & Machinery (3.4+8.4+9.4)				1926.72			1256.72		913.24	-243.24		217.32	1039.40	
11.00	Construction and pre-commissioning expenses														
11.10	Site supervision & site administration				207.12			78.98			128.14				
11.20	Tools & Plant							0.00							
11.30	Construction Insurance														
11.40	Total Construction and pre-commissioning expenses (11.1+11.2+11.3)				207.12			78.98		0.00	128.14		0.00	78.98	



S. No. (1)	Particulars (2)	Unit	As per Original Estimates (3)				Actual Capital Expenditure (Gross Block) as on COD as per Books of Account <sup>3A.5</sup> (3)			The portion Capital cost included in col. 5 which is not eligible for transmission tariff (eg. Grant, other business etc.) (4)	Projected/actual cost of Deferred work to be capitalised after COD but before cut-off date (7)	Variation between actual Cost and IA/RCE cost as on COD (8-(5+7)-(3 or 4))	Reasons for Variation 1 (9)	Un- Discharge Liabilities included in Col. 5 (10)	Admitted cost <sup>7</sup> (11)	Capital Work in Progress as per Books of Account as on COD (12)
			Quantity	Rate	Estimated Cost		Quantity	Rate	Gross Block of the asset							
12.00	Over heads															
12.10	Establishment															
12.20	Audit & Accounts															
12.30	Contingency				57.80							57.80				
12.40	Other overheads															
12.50	Total Overheads (12.1+12.2+12.3+12.4)				57.80							57.80				
13.00	IDC, FC, FERV & Hedging Cost															
13.10	Interest During Construction (IDC)				53.85				26.36		0.00	27.49			26.36	
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)				53.85				26.36		0.00	27.49		0.00	26.36	
14.00	Capital cost including IDC, FC, FERV & Hedging Cost (10+11.4+12.5+13.5)				2245.49				1362.06	0.00	913.24			217.32	1144.74	



B) Summary of Capital Cost as on COD		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 01.04.2019 (after deductions)	Un-discharged liability included in 8	Capital Cost on Cash basis for tariff as on COD / as on 01-04-2019	CHECK
Particular												
Land (Freehold Land)		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 (Leasehold)		0.00					0.00		0.00	0.00	0.00	0.00
Building & Civil Works		0.00								0.00		
Transmission Line		0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
Sub-Station		1198.08	14.02	64.27	24.85	0.00	1287.20		1287.20	208.08	1079.12	0.00
PLCC		58.64		14.71	1.51	0.00	74.86		74.86	9.24	65.62	-65.62
IT		0.00		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
Total Capital Cost as per Books of Account		1256.72	14.02	78.98	26.36	0.00	1362.06	NIL	1362.06	217.32	1144.74	
Less: Un-discharged liabilities							0.00					

Note:

1. In case of cost variation, a detailed note giving reasons of such variation should be submitted clearly indicating whether such cost over-run was beyond the control of the transmission licensee.

2. Separate details of free hold/lease hold land should be submitted.

3. Deduction from Gross Block includes the Grant Received as on COD, Gross block as on COD which pertains to other business, Adjustment of excess initial spare etc.





## Details of Initial Spares

Details of Transmission Assets		
Name of the petitioner	POWERGRID Bikaner Transmission System Limited	
Claimed / Admitted COD	28.01.2025	Cut-off Date of the Asset: 31.03.2028
Name of Transmission Asset: Combined Asset:- 1 NO. OF 220 KV LINE BAY AT 400/220KV BIKANER-II PS FOR INTERCONNECTION OF SOLAR PROJECT (M/S NHPC LTD.) [TB-202223]		

DOCO: 28.01.2025

## A) Determination of Excess initial spare and its adjustment from Capital cost

Particulars	Plant and machinery cost as on cut-off Date <sup>1</sup>	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 <sup>3</sup>				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	1.00%	0	0				
Substation Green field							4.00%	0.00	0.00				
Substation Brown Field	2036.81	14.02	39.71	39.71	39.71	133.15	6.00%	122.21	10.94				
Series Compensation devices and HVDC Station							4.00%						
GIS/S- Green field							5.00%						
GIS/S-Brown field	0.00	0.00	0	0	0	0	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													

Note: 1) Plant and machinery cost as on cut-off Date for the purpose of initial spare (As computed in Col.L of the below table)

2) The column 10 has to be shown as nil in case the claimed initial spare is with in the ceiling limit.

3) Total cost should be excluding IDC and IEDC.

## B) Determination of Plant &amp; Machinery Cost for ceiling of initial spare.

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	
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	1287.20	0.00	0.00	74.45	24.85	14.02	1173.88	604.05	172.59	86.29	2036.81
Series Compensation devices and HVDC Station											
Gas Insulated Substation-Green field											
Gas Insulated Substation-Brown field	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Communication System											
Static Synchronous Compensator											

Note: The Cost details for the year in which Cut-off date falls has to be provide only up to the cut-off date.

(Petitioner)

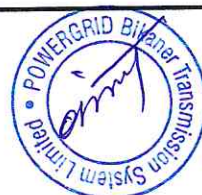


## Summary of issue involved in the petition

PART-III  
FORM- 15

1. Name of the Petitioner	POWERGRID Bikaner Transmission System Limited
2. Petition Category	Transmission
3. Tariff Period	2024-29
4. Name of the Project	Implementation of 1 No. 220kV Line Bay at 400/220 kV Bikaner-II PS for Interconnection of Solar Project (M/s. NHPC Ltd.)
5. Investment Approval date	06.06.2023
6. SCOD of the Project	28.02.2024
7. Actual COD of the project	28.01.2025 (Proposed)
8. Whether entire scope is covered in the present petition.	Yes
9. No. of Assets covered in instant petition	1
10. No. of Assets having time over run	1
11. Estimated Project Cost as per IA	Rs.25.45 Cr
12. Is there any REC? if so, provide the date	No
13. Revised Estimated Project Cost (if any)	
14. Completion cost for all the assets covered in the instant petition.	Rs. 22.75 Cr
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	AJMER VIDYUT VITRAN NIGAM LTD
3	JAIPUR VIDYUT VITRAN NIGAM LTD
4	JODHPUR VIDYUT VITRAN NIGAM LTD
5	HIMACHAL PRADESH STATE ELECTRICITY BOARD
6	PUNJAB STATE POWER CORPORATION LIMITED
7	HARYANA POWER PURCHASE CENTRE
8	JAMMU KASHMIR POWER CORPORATION LIMITED
9	BSES YAMUNA POWER Ltd
10	BSES RAJDHANI POWER Ltd
11	TATA POWER DELHI DISTRIBUTION LTD
12	CHANDIGARH ELECTRICITY DEPTT
13	UTTARAKHAND POWER CORPORATION LTD
14	NORTH CENTRAL RAILWAY
15	NEW DELHI MUNICIPAL COUNCIL
16.	CENTRAL TRANSMISSION ULITY OF INDIA LTD (CTUIL)
17.	NHPC Limited

(Petitioner)



Summary of Capital Cost & Annual Fixed Cost (AFC) Claimed for ALL the assets covered in the present petition.	
Name of the Petitioner	POWERGRID Bikaner Transmission System Limited
Tariff Period	2024-29
Name of the Transmission Project	Implementation of 1 No. 220kV Line Bay at 400/220 kV Bikaner-II PS for Interconnection of Solar Project (M/s. NHPC Ltd.)
COD of the Project (if entire scope of project is completed)	28.01.2025 (Proposed)

Rupees in lakh

A) Summary of Capital Cost as on COD and Additional Capital Expenditure claimed for all the assets Covered in the instant petition.												
					ii) Summary of Actual / Projected Capital Cost							
S. No.	Asset No.	COD	Cut-off Date	i) Apportioned		As on COD	2024-25	2025-26	2026-27	2027-28	Capital Cost as on 31.03.2029	Total Completion Cost
				Approved Cost	As per Investment approval							
1	Asset-1	1	2		3	5	6	7	8	9	10=(5+6+7+8+9)	11
		28.01.2025	31.03.2028		2245.49	1,144.74	226.11	678.34	113.06	113.06	2275.31	2275.31
		(Proposed)										
Total Capital Cost Claimed				2245.49		1144.74	226.11	678.34	113.06	113.06	2275.31	2275.31

B) Summary of Annual Fixed Cost (AFC) claimed for all the assets covered in the instant petition.												
S. No.		Asset No.	Asset Name and its location	2024-25	2025-26	2026-27	2027-28	2028-29				
1		Asset-1	1 No. 220kV line bay at 400/220kV Bikaner-II PS for interconnection of solar projects (NHPC Ltd.)	38.99	303.11	366.64	378.95	381.05				
Total AFC for all the Assets				38.99	303.11	366.64	378.95	381.05				
Note: 1) The purpose of this form is to summarise the Capital cost & AFC claimed for all the assets covered in the instant petition.												

Note: 1) The purpose of this form is to summarise the Capital cost & AFC claimed for all the assets covered in the instant petition.

(Petitioner)





INDEX

PART-III

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	✓
FORM- 4A	Statement of Capital cost	✓
FORM- 4B	Statement of Capital Works in Progress	NA
FORM- 4C	Abstract of Capital Cost Estimates and Schedule of Commissioning for the New Project/Element	NA
FORM-5	Element wise Break-up of Project/ Asset/Element Cost for	NA
FORM-5A	Break-up of Construction/Supply/Service packages	NA
FORM-5B	Details of all the assets covered in the project	NA
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.	NA
FORM- 8	Calculation of Return on Equity	✓
FORM-8A	Details of Foreign Equity	NA
FORM-9	Details of Allocation of corporate loans to various transmission	NA
FORM-9A	Details of Project Specific Loans	NA
FORM-9B	Details of Foreign loans	NA
FORM-9C	Calculation of Weighted Average Rate of Interest on Actual Loans	✓
FORM-9D	Loans in Foreign Currency	✓
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	NA
FORM- 11	Calculation of Interest on Working Capital	✓
FORM- 12	Details of time over run	NA
FORM- 12A	Incidental Expenditure during Construction	NA
FORM- 12B	Calculation of IDC & Financing Charges	NA
FORM- 13	Details of Initial spares	NA
FORM- 14	Non-Tariff Income	NA
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		Tick
S. No.	Information/Document	
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)	NA
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.	NA
3	Copies of relevant loan Agreements	NA



4	Copies of the approval of Competent Authority for the Capital Cost and Financial package.	NA
5	Copies of the Equity participation agreements and necessary approval for the foreign equity.	NA
6	Copies of the BPTA/TSA/PPA with the beneficiaries, if any	NA
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	NA
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.	NA
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.	NA
10.	Any other relevant information, (Please specify)	NA
<b>Note 1:</b> 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.		

(Petitioner)

