BEFORE

THE CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

| Petition | No. | /TT/ | |
|----------|-----|------|--|
| | | | |

IN THE MATTER OF: Petition for truing up of Transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for combined asset under Missing Link Transmission System" in North-Eastern Region under Section 62 read with Section 79 (1) (d) of Electricity Act, 2003 and under the 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) 2019 and Central Electricity Regulatory Commission (Terms and Condition of Tariff Regulations) 2024.

Power Grid Corporation of India Ltd.

---Petitioner Name

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).

---Respondent Name

Assam Power Distribution Company Limited 04th Floor, Bijulee Bhawan, Paltan Bazar, Guwahati – 781001, Assam Represented by its Managing Director

And others

Place: Gurgaon

Petitioner

Date: 07.09.2024

Chief General Manager (Commercial/RC)

BEFORE

THE CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

| PETITI | ON | NO.: | |
|---------------|----|------|------|
| | | | |

IN THE MATTER OF: Petition for truing up of Transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for combined asset under Missing Link Transmission System" in North-Eastern Region under Section 62 read with Section 79 (1) (d) of Electricity Act, 2003 and under the 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) 2019 and Central Electricity Regulatory Commission (Terms and Condition of Tariff Regulations) 2024.

Power Grid Corporation of India Ltd.

--- PETITIONER

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).

Assam Power Distribution Company Limited 04th Floor, Bijulee Bhawan, Paltan Bazar, Guwahati – 781001, Assam

Represented by its Managing Director

---- RESPONDENTS

INDEX

| SI. No. | Description | Enclosure No. | Page No. |
|---------|---|---------------|----------|
| | Cover Page | - | 0) |
| 1 | Index | - | 02-03 |
| 2 | Letter for registration | - | 04-05 |
| 3 | Memo of Parties | - | 06-07 |
| 4 | Memo of appearance | | 08-09 |
| 5 | Petition for truing up of transmission tariff for | - | |
| | 2019-24 and determination of transmission | | 10-24 |
| | tariff for 2024-29 tariff block | | |
| 6 | Supporting Affidavit | - | 25-26 |
| 7 | Power of attorney | - (8 | 2.40 |

| | ANNEXURES: | | | | | | | |
|----|---|---------|-----------|--|--|--|--|--|
| 8 | CERC order dated 05.06.2020 in petition no.483/TT/2019 | Encl –1 | 28-70 | | | | | |
| 9 | Auditor Certificate & Form 10B | Encl –2 | 71-72 | | | | | |
| 10 | True up tariff forms for 2019-24 block | Encl –3 | 73-96 | | | | | |
| 11 | Tariff Forms for 2024-29 block along with loan interest proof | Encl –4 | 97-121 | | | | | |
| 12 | Checklist | Encl -5 | 122 - 123 | | | | | |

FILED BY

POWER GRID CORPORATION OF INDIA LTD.

GURGAON

DATED:07.09.2024

REPRESENTED BY

THERE

Chief General Manager (Commercial/R

BEFORE

THE CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

| PE1 | TIT! | 10 | J I | NO | - | | |
|-----|------|----------|-----|----|---|------|------|
| | | \sim 1 | ч і | | | | |

IN THE MATTER OF: Petition for truing up of Transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for combined asset under Missing Link Transmission System" in North-Eastern Region under Section 62 read with Section 79 (1) (d) of Electricity Act, 2003 and under the 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) 2019 and Central Electricity Regulatory Commission (Terms and Condition of Tariff Regulations) 2024.

Power Grid Corporation of India Ltd.

Registered office: B-9, Qutab Institutional Area,

--- PETITIONER

Katwaria Sarai, New Delhi. 110 016.

Corporate Centre: 'SAUDAMINI', Plot No-2,

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

Assam Power Distribution Company Limited

---- RESPONDENTS

04th Floor, Bijulee Bhawan, Paltan Bazar, Guwahati – 781001, Assam Represented by its Managing Director

To

The Secretary
Central Electricity Regulatory Commission
New Delhi 110006
Sir.

The present tariff Petition is filed under Section 62 read with Section 79 (1) (d) of Electricity Act, 2003 and under the 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) 2019 and Central Electricity Regulatory Commission (Terms and Condition of Tariff Regulations) 2024 and same may be pleased to be registered and taken on record by the Hon'ble Commission.

GURGAON

FILED BY

DATED:07.09.2024

POWER GRID CORPORATION OF INDIA LTD.

REPRESENTED BY

Mohd Mohsin

Chief General Manager (Commercial/RC)

BEFORE

THE CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

| PETI: | TIO | N | NO | .: | | | | | | |
|-------|-----|---|----|----|--|--|--|--|--|--|
|-------|-----|---|----|----|--|--|--|--|--|--|

IN THE MATTER OF: Petition for truing up of Transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for combined asset under Missing Link Transmission System" in North-Eastern Region under Section 62 read with Section 79 (1) (d) of Electricity Act, 2003 and under the 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) 2019 and Central Electricity Regulatory Commission (Terms and Condition of Tariff Regulations) 2024.

Power Grid Corporation of India Ltd.

---PETITIONER

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).

Assam Power Distribution Company Limited

---- RESPONDENTS

04th Floor, Bijulee Bhawan, Paltan Bazar, Guwahati – 781001, Assam

Represented by its Managing Director

MEMO OF PARTIES

Power Grid Corporation of India Ltd.

--- PETITIONER

VERSUS

North Eastern Region

--- RESPONDENTS

- Assam Power Distribution Company Limited 04th Floor, Bijulee Bhawan, Paltan Bazar, Guwahati – 781001, Assam Represented by its Managing Director
- 2. Meghalaya Energy Corporation Limited



Short Round Road, "Lumjingshai" Shillong – 793001, Meghalaya Represented by its Chairman & M. D.

- Government of Arunachal Pradesh
 Itanagar, Arunachal Pradesh
 Represented by its Secretary & Commissioner Power
- Power and Electricity Department
 Government of Mizoram
 Aizawl, Mizoram
 Represented by its Secretary Power
- Manipur State Power Distribution Corporation Limited Keishampat, Imphal Represented by its Chairman
- Department of Power
 Government of Nagaland
 Kohima, Nagaland
 Represented by its Commissioner and Secretary Power
- 7. Tripura State Electricity Corporation Limited Vidyut Bhawan, North Banamalipur, Agartala, Tripura (W) 799001, Tripura Represented by its Chairman

PETITIONER

POWER GRID CORPORATION OF INDIA LTD.

GURGAON

DATED:07.09.2024

REPRESENTED BY

Mond. Mohsin

Chief General Manager (Commercial/RC)

BEFORE

THE CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

Petition No. ----/TT/----

IN THE MATTER OF: Petition for truing up of Transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for combined asset under Missing Link Transmission System" in North-Eastern Region under Section 62 read with Section 79 (1) (d) of Electricity Act, 2003 and under the 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) 2019 and Central Electricity Regulatory Commission (Terms and Condition of Tariff Regulations) 2024.

Power Grid Corporation of India Ltd.

--- PETITIONER

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).

Assam Power Distribution Company Limited 04th Floor, Bijulee Bhawan, Paltan Bazar, Guwahati – 781001, Assam Represented by its Managing Director

--- RESPONDENT

MEMO OF APPEARANCE

POWER GRID CORPORATION OF INDIA LTD.

-- PETITIONER

- 1. Shri Dilip Nagesh Rozekar, ED (Commercial & RC), POWERGRID
- 2. Shri Mohd. Mohsin, Chief GM (Commercial / RC), POWERGRID
- 3. V.C. Sekhar, Sr. GM (Commercial-RC), POWERGRID
- 4. Shri Zafrul Hasan, GM (Comml- Petition), POWERGRID



I, Mohd. Mohsin, the Petitioner above 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 08th day of August' 2024.

PETITIONER

POWER GRID CORPORATION OF INDIA LTD.

GURGAON

DATED:07.09.2024

Mohd Mohsin

Chief General Manager (Commercial/RC)

BEFORE

THE CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

| PETITI | ON | NO.: | | |
|---------------|-----------|------|------|--|
| | \sim 11 | | | |

IN THE MATTER OF: Petition for truing up of Transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for combined asset under Missing Link Transmission System" in North-Eastern Region under Section 62 read with Section 79 (1) (d) of Electricity Act, 2003 and under the 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) 2019 and Central Electricity Regulatory Commission (Terms and Condition of Tariff Regulations) 2024.

Power Grid Corporation of India Ltd

--- PETITIONER

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).

Assam Power Distribution Company Limited 04th Floor, Bijulee Bhawan, Paltan Bazar, Guwahati – 781001, Assam Represented by its Managing Director

---- RESPONDENTS

- A. Executive Summary of the Petition:
- (i) Brief Background of the Petitioner
- 1. The Petitioner herein, Power Grid Corporation of India Ltd. (Hereinafter referred to as "POWERGRID/Petitioner") is a Government Company within the meaning of the Companies Act, 2013. POWERGRID is deemed transmission licensee in terms of Section 14 of the Electricity Act, 2003. POWERGRID by virtue of a transmission licensee is required to inter-alia build, maintain and operate an efficient, coordinated and economical interstate transmission system ("ISTS"). POWERGRID operates and functions within the regulatory control of this Hon'ble Central Electricity Regulatory Commission (hereinafter referred to as "Hon'ble Central Commission"). Tariff for the transmission system established by POWERGRID is required to be determined by

this Hon'ble Central Commission in accordance with the Tariff Regulations as notified by this Hon'ble Central Commission in exercise of its powers under Section 178 of the Electricity Act, 2003.

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

POWERGRID has impleaded distribution licensees and Government department of the respective states which are engaged in distribution of electricity in North eastern Region of India. The respondents are also 'Designated Inter State Transmission Customer' (hereinafter referred to as 'DICS') in terms of the 2020 Sharing Regulations from North eastern region.

(iii) Background of Transmission Assets:

2. POWERGRID has filed the present petition for truing up of transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for the following Assets which are implemented under "Missing Link transmission system" for the following:

| Asset No | Asset Name | DOCO | Remarks |
|-------------|--|------------|----------------------------------|
| Asset-I | 160 MVA, 220/132 kV, 3-Phase Auto Transformer at Kopili | 01.02.2010 | |
| Asset-II | 132 kV S/C Kopili-Khandong Transmission Line along with associated bays | 01.11.2010 | In 2014-19 all the assets merged |
| Asset-III | 100 MVA, 220/132 kV, 3-Phase Auto Transformer and associated bays at Dimapur Sub-station | 01.01.2011 | with Notional DOCO:01.04.2011 |
| Asset-IV | LILO of 132 kV Dimapur-Kohima Transmission Line | 01.04.2011 | |

(iv)Summary of Claims:

3. A. POWERGRID is seeking truing up of transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for aforesaid transmission assets on capital cost comprising of capital cost incurred/Admitted aupto

31.03.2019/DOCO and additional capital expenditure during 2019-24 & 2024-29 in accordance with terms of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 ("Tariff Regulations, 2019") and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024 ("Tariff Regulations, 2024").

4. The details of FR and RCE approved cost vis-a cis claimed capital cost as on 31.03.2019 and additional capital expenditure during 2019-24 and 2024-29 tariff block is as under:

Rs in lakhs

| Asset No. | Apportioned Approved Cost as per FR | Apportioned approved cost as per RCE | Expenditure Up to 31.03.2019 | 19- 20 | 20- 21 | ing 20 ock 22- 23 | 19-24 tariff 23-24 (De Cap) | Actual Cost as on 31.03.2024 |
|-----------------------|-------------------------------------|--|------------------------------------|-----------|-----------|----------------------------|-----------------------------------|------------------------------------|
| Comb ined Asset | 7313.26 | 8171.00 | 7350.86 | | | | (103.81) | 7247.35 |

Rs in lakhs

| | Apportioned | Apportioned | | Estimated expenditure | Estimated |
|-----------|-------------|---------------|----------------|-----------------------|------------|
| A 1 A l . | Approved | approved cost | Expenditure Up | during 2024-29 tariff | completion |
| Asset No. | Cost as per | as per RCE | to 31.03.2024 | block | Cost as on |
| | FR | | | 2024-29 | 31.03.2029 |
| Combined | | | | | |
| Asset | 7313.26 | 8171.00 | 7247.35 | No add cap | 7247.35 |
| | | | | | |

- 5. It is prayed to hon'ble commission to reimburse expenditure of petition filing fee, license fee, newspaper publication expanses and RLDC fee & charges etc.
- 6. Details of tariff claimed are as under:
 True up annual transmission tariff for 2019-24 tariff block:

Rs in Lakhs

| Name of the asset | Particular | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |
|-------------------|--------------|---------|---------|---------|---------|---------|
| Asset-1 | AFC approved | 1242.09 | 1211.69 | 1181.04 | 1150,51 | 823.98 |

| Revised AFC | 1230 75 | 1207.20 | 1175.05 | 1128 10 | 811 67 |
|--------------------|---------|---------|---------|---------|--------|
| based on truing up | 1239.73 | 1207.20 | 1173.03 | 1120.10 | 011.07 |

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 | 737.95 | 745.63 | 756.53 | 768.07 | 780.48 |

B. Detailed Petition:

MOST RESPECTFULLY SHOWETH:

Issue wise submission(s):

- 7. The Petitioner herein, Power Grid Corporation of India Ltd/ POWERGRID. is a Government Company within the meaning of the Companies Act, 1956. POWERGRID is a deemed transmission licensee under Section 14 of the Electricity Act 2003.
- 8. POWERGRID being transmission licensee is required to inter-alia build, maintain and operate an efficient, coordinated and economical interstate transmission system (ISTS). The tariff for the said transmission systems shall be determined by the Hon'ble Central Commission in accordance with the Tariff Regulations, 2019 and 2024.
- 9. That the subject project/petition covers approval of transmission tariff for following Asset:

| Asset No | Asset Name | DOCO | Remarks |
|-----------|--|------------|----------------------------------|
| Asset-I | 160 MVA, 220/132 kV, 3-Phase Auto Transformer at Kopili | 01.02.2010 | |
| Asset-II | 132 kV S/C Kopili-Khandong Transmission Line along with associated bays | 01.11.2010 | In 2014-19 all the assets merged |
| Asset-III | 100 MVA, 220/132 kV, 3-Phase Auto Transformer and associated bays at Dimapur Sub-station | 01.01.2011 | with Notional DOCO:01.04.2011 |
| Asset-IV | LILO of 132 kV Dimapur-Kohima Transmission Line | 01.04.2011 | OR PORATION OF |

10. Cost detail:

The capital cost of Rs. 7350.86 Lakhs for subject Asset has been admitted by Hon'ble commission vide order dated 05.06.2020 in petition no. 483/TT/2019 as on 31.03.2019. Copy of order is enclosed as **Encl-1**. In the current petition, no additional capital expenditure was incurred during the 2019-24 tariff block, and no additional capital expenditures are proposed during the 2024-29 tariff block, but decapitalization has been done during FY 2023-24. Cost detail is tabulated below:

Rs in Lakhs

| Cost allov | wed as per | r order in petit | ion no.4 | 83/TT/20 | 019 | | | | | | |
|---------------------------|--------------------------------------|------------------|-------------|--------------------|-------------|-------------|---------------|------------|--|--|--|
| Apportioned approved cost | | Capital cost | Add ca | Capital cost as on | | | | | | | |
| FR | RCE | as on 31.03.2019 | 2019- 20 | 2020- 21 | 2021- 22 | 2022- 23 | 2023-24 | 31.03.2024 | | | |
| 7313.26 | 8171.00 | 7350.86 | 5.85 | | | | | 7356.71 | | | |
| Cost clair | Cost claimed in the instant petition | | | | | | | | | | |
| 7313.26 | 8171.00 | 7350.86 | | | | | (103.81) | 7247.35 | | | |
| Variation | | 0 | (5.85) | | | | (103.81) # | (109.66) | | | |

*Earlier, Rs. 5.85 Lakhs was estimated during FY 2019-20, but as per actual no expenditure has been made. A copy of the auditor certificate is enclosed at **Encl-2**.

#The upgradation of the Kopili Substation was approved in the 15th NERPC/TCC meeting held on August 20th and 21st, 2015, in Guwahati. Accordingly, the upgradation of the 132 kV AIS bays to GIS bays at Kopili Substation (132 kV Bay for Kopili-Khandong Transmission Line and 132 kV bay for ICT) was completed on December 16th, 2023, as part of the NERSS III project. A tariff petition has been filed under diary no. 310/2024. Currently, this is being decapitalized under the instant petition. Therefore, the unrecovered depreciation of ₹22.62 lakhs, corresponding to the decapitalization, may be allowed as a one-time reimbursement since the modification of the Kopili Substation was done as approved by the NERPC.

Copy of form -10B is enclosed at Encl-2.

11. Transmission tariff:



The 2019-2024 truing up exercise is to be done at the time of filing tariff petition for next block, i.e. 2024-29 period as per regulation 13 of Tariff Regulation 2019-24.

Regulation 13 of Tariff Regulation 2019-24:

Quote

"The Commission shall carry out truing up exercise for the period 2019-24 along with the tariff petition filed for the next tariff period, for the following:"

Unquote

That the Petitioner is required to adjust the yearly impact of MAT as per regulation 31 (3) of the tariff Regulation 2019-24 period dated 07.03.2019 in the truing up petition for 2019-24 tariff block.

Regulation 31 (3) of the tariff Regulation 2019-24:

Quote

The generating company or the transmission licensee, as the case may be, shall true up the grossed up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand including interest thereon, duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2019-24 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee, as the case may be. Any under-recovery or over-recovery of grossed up rate on return on equity 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

Unquote

It is submitted that the Income Tax assessment of the Petitioner has been completed and Assessment Orders has been issued by the Income Tax Department for FY 2019-20 and 2020-21; and that the Income Tax returns have been filed with the Income Tax Department for FY 2021-22 & 2022-23. Further, it is submitted that the Income Tax Return for 2023-24 will be filed in due course.

As such, basis of year wise effective tax rate and Grossed up ROE trued up accordingly for the block period 2019-24 is summarized as under.

| Financial Year | Basis considered | Total Tax & Interest paid (Rs) | Assessed MAT Income under Sec 115 JB (Rs) | Effective Tax percentage | Grossed up ROE (Base rate/(1-t) |
|-------------------|---------------------|--------------------------------------|---|--------------------------------|---------------------------------|
| 2019-20 | Assessment Order | 24,52,62,76,991 | 1,40,37,47,53,855 | 17.472% | 18.782% |
| 2020-21 | Assessment Order | 26,08,93,59,008 | 1,49,32,09,65,036 | 17.472% | 18.782% |
| 2021-22 | Actual Tax paid | 31,81,46,40,406 | 1,82,08,92,88,030 | 17.472% | 18.782% |
| 2022-23 | Actual Tax paid | 30,42,88,20,993 | 1,74,15,76,29,306 | 17.472% | 18.782% |
| 2023-24 | Applicable Rate # | | # | 17.472% | 18.782% |

Based on the applicable rate of MAT @ 15 %, Surcharge @ 12% & Cess @ 4%

The above Effective Tax percentage shall be applied by the petitioner in arriving out the Grossed up ROE rate in all cases of truing up petitions to be filed for the period 2019-24. It is submitted that effective rate of tax considered for FY 2019-20 and 2020-21 are based on Assessment Order issued by Income-Tax authorities, for the purpose of grossing up of ROE rate and that the effective rate of tax considered for F/Y 2021-22 and F/Y 2022-23 are based on the Income-tax returns filed, for the purpose of grossing up of ROE rate of respective years. Further, for F/Y 2023-24, pending filing of ITR, effective tax rate is calculated based the applicable MAT rate (i.e. MAT 15% + Surcharge 12.00% + Cess 4%), for the purpose of grossing up of ROE rate.

The Hon'ble Commission is requested to allow the petitioner to claim the differential tariff on account of the trued-up ROE based on effective tax rate calculated on completion of Income-tax assessment/re-assessment for the F/Y 2019-20, 2020-21,2021-22,2022-23 and 2023-24 on receipt of the respective assessment orders, directly from the beneficiaries, on year to year basis as provided in the regulation.

In line with the above Regulation, the tariff for each year of the tariff period 2019-24 block has been trued up considering the above Effective Tax percentage to arrive at Grossed up ROE rate.

While filing Tariff petition for 2019-24 period, the petitioner had prayed for allowing the floating rate of Interest on loan adjustments. As per Hon'ble Commission order dated 18.04.2022 in petition no. 26/TT/2021, it has been stated that the weighted average rate of IoL has been considered on the basis of rate prevailing as on 1.4.2019 and accordingly, the floating rate of interest on actual, applicable from time to time, if any, during 2019-24 tariff shall be considered at the time of true up or next revision of tariff.

That in the present petition, truing up of transmission tariff for the tariff block 2019-24 is being carried out on account of actual additional capitalization during 2019-24 tariff block, change in MAT rate as well as floating rate of interest during 2019-24.

12. The trued up annual transmission tariff for the tariff period 2019-24 is summarized as below:

Rs in Lakh

| Project | | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |
|-------------|--------------------------------|---------|---------|---------|---------|---------|
| Combin | AFC approved | 1242.09 | 1211.69 | 1181.04 | 1150.51 | 823.98 |
| ed Asset | Revised AFC based on truing up | 1239.75 | 1207.20 | 1175.05 | 1128.10 | 811.67 |

O&M expenditure for 02 Nos of 132 kV bays at Kopili S/s has been stopped on 15.12.2023 and the same has been claimed as GIS bays w.e.f 16.12.2023 under NERSS-III project petition, having diary no. 310/2024.

Tariff Filing Formats along with the other relevant information and supporting documentation are attached hereto as **Encl-3**.

That in the subject petition, details are provided in various Tariff Forms with respect to Capital Cost as per books / Gross Block amount as per Books. It is submitted that the petitioner has opted for deemed cost exemption as per Para D7 AA of Ind AS 101 'First-time Adoption of Indian Accounting Standards'. Accordingly Carrying value i.e. Gross Block less Accumulated Depreciation is considered as deemed cost as on the date of transition i.e. 1st April 2015. As such, in case of assets commissioned before

17

01.04.2015, the accumulated depreciation as on 1st April 2015 is added back to the deemed Capital Cost as per books / Gross Block amount as per Books for arriving at the figures to be provided in various Tariff Forms.

13. The tariff for 2019-24 tariff block is summarized below:

Rs in Lakh

| Project | | 2024-25 | 2025-26 | 2026-27 | 2027-28 | 2028-29 |
|---------|-----|---------|---------|---------|---------|---------|
| Asset-1 | AFC | 737.95 | 745.63 | 756.53 | 768.07 | 780.48 |

Tariff Filing Formats along with the other relevant information and supporting documentation are attached hereto as **Encl-4**.

- 14. The asset will complete 12 Yrs during 2022-23 and thus depreciation till 2022-23 has been calculated based on the straight-line method and at rate specified in Appendix-I as per clause 33 (5) of the CERC Tariff regulations 2024. Depreciation for FY 2023-24 and for tariff block 2024-29 has been computed on the basis of remaining depreciable value to be recovered in the balance useful life as per clause 33(5) of the CERC Tariff Regulations 2024. The details have been computed and are provided in Form- 10 A.
- 15. That, it is submitted that the petitioner is currently liable to pay income tax at MAT rate specified in Income-tax Act,1961. Therefore, ROE has been calculated @ 18.782% after grossing up the ROE with MAT rate of 17.472% (Base Rate 15% + Surcharge 12% + Cess 4%) based on the formula given at regulation 31 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024 for 2024-29 period. That as per clause 31 (3) of the above regulation, the grossed up rate of ROE at the end of every financial year shall be trued up based on actual tax paid together with any additional tax demand including interest thereon duly adjusted for any refund of tax including interest received from the IT authorities pertaining to the tariff period 2024-29 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee, as the case may be. 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.

- 16. Under CGST Act, 2017 implemented w.e.f. 01.07.2017, the Govt. of India has exempted the charges of transmission of electricity vide notification no. 12/2017 Central Tax (Rate) dated 28.06.2017 at serial no. 25 under the heading 9969 "Transmission or distribution of electricity by an electric transmission or distribution utility" by giving applicable GST rate as NIL. Hence, the Transmission Charges as indicated at para 12 above 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.
- 17. In the tariff calculation for 2019-24 period, Interest on Loan has been calculated on the basis of actual rate of interest of various loans deployed for each year. In the tariff calculation for 2024-29 period, Interest on Loan has been calculated on the basis of interest rates prevailing as on 01.04.2024 for respective loans. The change in Interest rate due to 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.

For the purpose of the supporting documents for rate of interest, a compendium of floating rate of interest of various loans during the tariff period 2019-24 shall be shortly. These documents/details will be made available on our website www.powergrid.in shortly.

18. The transmission charges at para-12 & 13 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) of the tariff regulations for block 2024-29.



19. That as per Regulation 36(3)(d) of CERC Tariff Regulations, 2024, the Security Expenses, Insurance and Capital Spares more than Rs. 10 Lakh for transmission system shall be allowed separately after prudence check.

Security:

In this regard, it is submitted that a separate petition shall be filed for truing up of security expenses from 01.04.2019 to 31.03.2024 under the Regulation 35 (3) (C) of Central Electricity Regulatory Commission (Terms and Condition of Tariff Regulations) 2019 and recovery of security expenses from 01.04.2024 to 31.03.2029 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, the Petitioner has filed a separate Petition bearing No 45/MP/2024 for claiming the capital spares under Tariff Regulations 2019. Further, 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.

20. That as per Regulation 99 of CERC Tariff Regulations, 2024, the fees and charges of Central Transmission Utility of India Limited ('CTUIL') shall be allowed separately by the Commission through a separate regulation. Further, it provides that that until such regulation is issued by the Commission, the expenses of CTUIL shall be borne by

POWERGRID which shall be recovered by POWERGRID as additional O&M expenses through a separate petition.

Accordingly, the expenses of CTUIL borne by POWERGRID shall be claimed through a separate petition.

- 21. The application filing fee, expenses incurred on publication of Notices in News papers 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.
- 22. The Transmission Charges and other related Charges indicated at para 12 & 13 above, is exclusive of incentive, late payment surcharge, FERV, any statutory taxes, levies, duties, cess, filing fees, license fee, RLDC fees and charges, capital spares, security expenses, insurance expenses 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.

23. Sharing of Transmission Charges

Truing up tariff for Transmission of Electricity (Annual Fixed Cost) for 2019-24 as per para 12 above shall be recovered on monthly basis in accordance with Regulation 57 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 and shall be shared by the beneficiaries and long-term transmission customers in terms of Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations, 2010 and Central Electricity

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

Tariff for Transmission of Electricity (Annual Fixed Cost) for 2024-29 as per para 13 above 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 in terms of Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations, 2020, as amended from to time.

24. 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 Encl.-1 to Encl.-6 may please be treated as integral part of this petition.

A. PRAYER

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

- a) Approve the trued-up Transmission Tariff for 2019-24 block and transmission tariff for 2024-29 block for the assets covered under this petition, as per para 12 and 13 above.
- b) Allowed the petitioner to recover unrecovered depreciation corresponding to decapitalization.
- c) 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 Regulation 2019 and Tariff regulations 2024 as per para 12 and 13 above for respective block.
- d) 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 Regulation 2019 and Tariff regulations 2024 as per para 12 and 13 above for respective block.

- e) 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.
- f) Allow the petitioner to bill and recover Licensee fee and RLDC fees & charges, separately from the respondents in terms of Regulation 94 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024.
- g) 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.
- h) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 19 above.
- i) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall insurance expenses and consequential IOWC on that insurance expenses as mentioned at para 19 above.
- j) 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 as mentioned at Para 19 above.
- k) Allow the petitioner to claim expenses of CTUIL borne by POWERGRID through a separate petition on year to year/ at the end of tariff block as mentioned at para 20 above.
- l) 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.

and 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

GURGAON

POWER GRID CORPORATION OF INDIA LTD.

DATED:07.09.2024

REPRESENTED BY

Mond. Mohsir

Chief General Manager (COMMERCIAL/RO

BEFORE

THE CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

| P | E. | Г | IT | ľ | O | ı | ď | P | d | O | _ | _ | _ | _ | _ | _ | _ | _ | _ | _ | |
|---|----|---|----|---|--------------|---|----|------|---|---------------|---|-----|---|---|---|---|---|----|---|---|---|
| в | _ | | | ш | $\mathbf{-}$ | | ₩. | - 10 | W | $\overline{}$ | 8 | - 0 | ш | | ш | | | 10 | - | | = |

IN THE MATTER OF: Petition for truing up of Transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for combined asset under Missing Link Transmission System" in North-Eastern Region under Section 62 read with Section 79 (1) (d) of Electricity Act, 2003 and under the 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) 2019 and Central Electricity Regulatory Commission (Terms and Condition of Tariff Regulations) 2024.

Power Grid Corporation of India Ltd.

---PETITIONER

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).

Assam Power Distribution Company Limited

--- RESPONDENT

04th Floor, Bijulee Bhawan, Paltan Bazar, Guwahati – 781001, Assam Represented by its Managing Director

AFFIDAVIT VERIFYING THE PETITION

I, Mohd. Mohsin, S/O Late Sh Akhtar Hasan, working as Chief General Manager (Commercial/RC) in the Powergrid Corporation of India Ltd., having its registered Office at B-9, Institutional Area, Katwaria Sarai, New Delhi-110 016, do hereby solemnly affirm and state as under: -

1. That the deponent is the Chief General Manager of Petitioner and is well conversant with the facts and the circumstances of the case and therefore competent to swear this affidavit.

- 2. 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. That the contents of Para 01 to 24 of the facts as mentioned in the Petition are true and correct based on the my personal knowledge, belief and records maintained in the office and the contents of Para 01 to 24 of the Petition are believed to be true on the basis of the legal advice received.
- 4. That the annexures annexed to the Petition are correct and true copies of the respective originals.
- 5. That the Deponent has not filed any other Petition or Appeal before any other forum or court of law with respect to the subject matter of the dispute

(DEPONENT)

VERIFICATION

Solemnly affirmed at Gurgaon on this 07th day of Sept' 2024 that 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.

(DEPONENT)

ATTESTED

MAHENDER S. PUNIA
ADVOCATE & NOTARY
Distr. Gueneram (Haryana) | Indian







पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड

(भारत सरकार का उद्यम)

POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise)

Ref: CC/Commercial/2024

Date: 28.08.2024

LETTER OF AUTHORIZATION

In reference to the POWER OF ATTORNEY dated 14.08.2024 and in supersession of letter of authorization dated 13.12.2022 I hereby authorize following executives to sign Petitions. Appeals, Vakalatnama, Affidavits, etc. and to represent POWERGRID before various forums/ courts / tribunals i.e Central Electricity Regulatory Commission, State Electricity Regulatory Commission, Appellate Tribunal for Electricity, High courts and Supreme Court etc.:

- 1. Sh. Mohd. Mohsin, Chief General Manager
- 2. Sh. V. C. Sekhar, Senior General Manager
- 3. Sh. Zafrul Hasan, General Manager

Further, following executives are authorised to represent cases before Central Electricity Regulatory Commission and Appellate Tribunal for Electricity

- 1. Sh. Angaru Naresh Kumar, Deputy General Manager
- 2. Smt. Suchitra Gautam, Deputy General Manager
- 3. Sh. Vishal Sagar, Deputy General Manager
- 4. Sh. G. Vijay, Deputy General Manager
- 5. Sh. Vivek Kumar Singh, Deputy General Manager
- 6. Sh. Amit Kumar Chachan, Deputy General Manager
- 7. Smt. Supriya Singh, Chief Manager (Law)
- 8. Sh. Arjun Malhotra, Manager (Law)
- 9. Smt. Tanushree Rao, Deputy Manager (Law)

Dilip Nagesh Rozekar

Executive Director (Commercial & RC)

दिलीप रोजेकर / DILIPROZEKAR Executive Director (Commercial & Regulatery Cell) पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड Power Grid Corporation of India Ltd. (भारत सरकार का उद्यम)/(A Govt. of India Enterprise) Plot No.-2, Sector-29, Gurgaon-122 001 (Haryana)

केन्द्रीय कार्यालय : "सौदामिनी" प्लॉट सं. २, सैक्टर--२८, गुरुग्राम-122001, (हरियाणा), दूरभाष : 0124-257100778 Corporate Office : "Saudamini", Plot No. 2, Sector-29, Gurugram-122001, (Haryana) Tel. : 0124-257100778

पंजीकृत कार्यालय : बी-9, कुतुब इस्टीट्यूशनल एरिया, कटवारिया सराय, नई दिल्ली-110016 021-26560112, 26564812, 26564812, 26564892, सांबाहण : L40101DL1989G0I038121 Registered Office : B-9, Qutab Institution Area, Katweria Sarai, New Delhi-110016. Tel-011-26560112, 26564812, 26564812, 26564892, CIN : L40101DL1989G0I038121 Website: www.powergridindia.com

CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 483/TT/2019

Coram:

Shri P.K. Pujari, Chairperson Shri I. S. Jha, Member

Date of Order : 05.06.2020

In the Matter of:

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations 1999 and truing up of transmission tariff of 2014-19 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2014 and determination of transmission tariff of 2019-24 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2019 of Combined Asset consisting of Asset-I: 160 MVA, 220/132 kV, 3-Phase Auto Transformer at Kopili, Asset-II: 132 kV S/C Kopili-Khandong Transmission Line along with associated bays, Asset-III: 100 MVA, 220/132 kV, 3-Phase Auto Transformer and associated bays at Dimapur Sub-station, Asset-IV: LILO of 132 kV Dimapur-Kohima Transmission Line in North Eastern Region.

And in the Matter of:

Power Grid Corporation of India Ltd. SAUDAMINI, Plot No-2, Sector-29, Gurgaon-122 001 (Haryana).

Versus

- Assam Electricity Grid Corporation Limited Bijulee Bhawan, Paltan Bazar, Guwahati - 781001, Assam
- Meghalaya Energy Corporation Limited Short Round Road, "Lumjingshai" Shillong - 793001, Meghalaya

Order in Petition No.483/TT/2019

ATTESTED TRUE COPY
Authorised Signatory
Authorised Signatory
Power Grid Corporation of India Ltd.
Plot No. 2, Sector-29, Gurgaon-122001 (MARYANA)



- 3. Government of Arunachal Pradesh Itanagar, Arunachal Pradesh
- 4. Power and Electricity Department Government of Mizoram Aizawl, Mizoram
- 5. Manipur State Electricity Distribution Company Limited Keishampat, Imphal
- Department of Power Government of Nagaland Kohima, Nagaland
- 7. Tripura State Electricity Corporation Limited Vidyut Bhawan, North Banamalipur, Agartala, Tripura (W) 799001, Tripura

....Respondent(s)

Parties present:

For Petitioner:

Shri Shri S.S. Raju, PGCIL Shri Zafrul Hasan, PGCIL

Shri Anshul Garg, PGCIL Shri V.K. Singh, PGCIL Shri Amit K. Jain, PGCIL

For Respondent: None

<u>ORDER</u>

The present petition has been filed by Power Grid Corporation of India Limited (hereinafter referred to as "the Petitioner"), a deemed transmission licensee, for truing-up of tariff under Regulation 8 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations") for the period from 1.4.2014 to 31.3.2019 and for determination of tariff under Regulation 8 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as "the



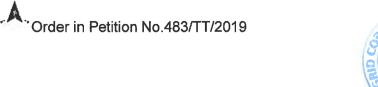


Page 2 of 43

2019 Tariff Regulations") for the period from 1.4.2019 to 31.3.2024 in respect of the Combined Asset consisting of Asset-I: 160 MVA, 220/132 kV, 3-Phase Auto Transformer at Kopili, Asset-II: 132 kV S/C Kopili-Khandong Transmission Line along with associated bays, Asset-III: 100 MVA, 220/132 kV, 3-Phase Auto Transformer and associated bays at Dimapur Sub-station, Asset-IV: LILO of 132 kV Dimapur-Kohima Transmission Line in the North Eastern Region.

2. The Petitioner has made the following prayers:

- "i. Approve the trued-up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition.
- ii. Allow the claimed Capital Cost, actual additional capitalization during 2014-19 and projected additional capitalisation during 2019-24.
- iii. 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 Regulation 2014 and Tariff regulations 2019.
- iv. Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 70 (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019, and other expenditure (if any) in relation to the filing of petition.
- v. Allow the Petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the respondents in terms of Regulation 70 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.
- vi. 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 2019-24 period, if any, from the respondents.
- vii. 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.
- viii. Allow the Petitioner to claim the capital spares at the end of tariff block as per actual.





Page 3 of 43

ix. 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 imposed by any including GST and duties including cess etc. statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.

and pass such other relief as the Commission deems fit and appropriate under the circumstances of the case and in the interest of justice."

Background

- 3. The brief facts of the case are as follows:
 - a) The administrative/Investment Approval and expenditure sanction to the transmission project was accorded by the Board of Directors of PGCIL vide their letter C/CP/MisLink-NER dated 29.5.2006 at an estimated cost of ₹5893 lakh including IDC of ₹222 lakh based on 2nd Quarter 2005 price level. The Revised Cost Estimate (RCE) was approved in the Board meeting of PGCIL held on 7.7.2011. The RCE of the project, based on 3rd quarter 2010 price level, works out to ₹8171 lakh (including IDC of ₹519 lakh). The scope of work covered broadly includes:

Transmission line

- i. Kopili-Khandong 132 kV, S/C (second circuit) (Zebra Conductor)
- LILO of 132 kV Dimapur (Nagaland)-Kohima (Nagaland) S/C line ii. at Dimapur (Powergrid)
- Augmentation of 220/132 kV transformer capacity at Kopili by iii. addition of 160 MVA, (single phase units of 53.3 MVA) transformer
- Augmentation of transformer capacity at Dimapur Sub-station iv. (Powergrid) by 1X100 MVA, 220/132 kV transformer
- b) The date of commercial operation of the assets along with time over-run covered in the instant petition are as follows:

| Asset | Name of Assets | COD | Time over-run | Time over-run condoned |
|----------|---|-----------|------------------|------------------------------|
| Asset I | 160 MVA, 220/132 kV, 3-Phase Auto Transformer at Kopili | 1.2.2010 | 4 months | 4 months |
| Asset II | 132 kV S/C Kopili-Khandong Transmission Line along with associated bays | 1.11.2010 | 13 months | 13 months |



Order in Petition No.483/TT/2019



Page 4 of 43

| Asset | Name of Assets | COD | Time over-run | Time over-run condoned |
|------------|--|----------|------------------|------------------------------|
| Asset III | 100 MVA, 220/132 kV, 3-Phase Auto Transformer and associated bays | 1.1.2011 | 15 months | 8 months |
| Combined A | sset-A (Assets-I+II+III) | | | |
| Asset IV | LILO of 132 kV Dimapur-Kohima Transmission Line | 1.4.2011 | 18 months | 18 months |
| Combined A | sset-B (Combined Asset-A + Asset-IV) | | | |

c) The Commission vide its order dated 28.12.2011 in Petition No. 347/2010 and order dated 9.7.2012 in Petition No. 31/TT/2011 had approved the capital cost of the transmission assets as on date of commercial operation as mentioned below:-

| Admitted as on date of commercial operation | Amount (₹ in lakh) | Percentage (%) | | | | | | | |
|---|--------------------------------|----------------|--|--|--|--|--|--|--|
| | Asset I | | | | | | | | |
| Debt | 1293.87 | 70.00 | | | | | | | |
| Equity | 554.51 | 30.00 | | | | | | | |
| Capital Cost | 1848.38 | 100.00 | | | | | | | |
| | Combined Asset I & II | | | | | | | | |
| Debt | 2359.80 | 70.00 | | | | | | | |
| Equity | 1011.34 | 30.00 | | | | | | | |
| Capital Cost | 3371.14 | 100.00 | | | | | | | |
| C | ombined Asset I, II & III | | | | | | | | |
| Debt | 3968.55 | 70.00 | | | | | | | |
| Equity | .1700.81 | 30.00 | | | | | | | |
| Capital Cost | 5669.36 | 100.00 | | | | | | | |
| Con | Combined Asset I, II, III & IV | | | | | | | | |
| Debt | 4747.76 | , 70.00 | | | | | | | |
| Equity | 2034.75 | 30.00 | | | | | | | |
| Capital Cost | 6782.51 | 100.00 | | | | | | | |

d) The Commission had allowed additional capital expenditure of ₹58.58 lakh in 2009-10, ₹131.93 lakh in 2010-11, ₹78.38 lakh in 2011-12 and ₹98.09 lakh in 2012-13 for Asset I; ₹274.00 lakh in 2010-11, ₹354.01 lakh in 2011-12 and ₹98.09 lakh in 2012-13 for Combined Asset I and Asset II in order in Petition No. 347/2010.





- e) The Commission vide its order dated 9.7.2012 in Petition No. 31/TT/2011 had allowed an additional capital expenditure of ₹245.07 lakh in 2010-11 for Combined Asset A, and ₹571.50 lakh in 2011-12 and ₹148.09 lakh in 2012-13 for Combined Asset B. The tariff determined by the Commission are as follows:
 - a. By order dated 28.12.2011 in Petition No. 347/2010:

(₹ in lakh)

| Asset I | | | | | | | | |
|-----------------------------|---|--|--|--|--|--|--|--|
| Particulars | 2009-10 (pro-rata: 1.2.2010 to 31.3.2010) | 2010-11 (pro-rata: 1.4.2010 to 31.10.2011) | | | | | | |
| Depreciation | 16.52 | 60.77 | | | | | | |
| Interest on Loan | 19.76 | 70.57 | | | | | | |
| Return on Equity | 16.41 | 60.35 | | | | | | |
| Interest on Working Capital | 1.62 | 5.94 | | | | | | |
| O & M Expenses | 10.48 | 38.78 | | | | | | |
| Total | 64.79 | 236.41 | | | | | | |

(₹ in lakh)

| Combined Asset I and Asset II | | | | | | | | | | |
|-------------------------------|---------|---------|---------|---------|--|--|--|--|--|--|
| Particulars | 2010-11 | 2011-12 | 2012-13 | 2013-14 | | | | | | |
| Depreciation | 77.36 | 202.24 | 214.19 | 216.78 | | | | | | |
| Interest on Loan | 88.20 | 218.93 | 214.30 | 197.81 | | | | | | |
| Return on Equity | 76.66 | 200.44 | 212.30 | 214.87 | | | | | | |
| Interest on Working Capital | . 7.36 | 18.80 | 19.57 | 19.79 | | | | | | |
| O & M Expenses | 63.24 | 160.43 | 169.63 | 179.33 | | | | | | |
| Total | 312.82 | 800.84 | 829.99 | 828.58 | | | | | | |

b. By order dated 9.7.2012 in Petition No. 31/TT/2011:

(₹ in lakh)

| Combined Asset A | | | |
|------------------|--|--|--|
| Particulars | 2010-11 (pro-rata: 1.1.2011 to 31.3.2011) | | |
| Depreciation | 76.56 | | |
| Interest on Loan | 88.09 | | |





Page 6 of 43

| Combined Asset A | | | | |
|-----------------------------|--|--|--|--|
| Particulars | 2010-11 (pro-rata: 1.1.2011 to 31.3.2011) | | | |
| Return on Equity | 75.94 | | | |
| Interest on Working Capital | 7.42 | | | |
| O & M Expenses | 54.56 | | | |
| Total | 302.56 | | | |

(₹ in lakh)

| | | | C III IMIXII) | | | |
|-----------------------------|---------|---------|---------------|--|--|--|
| Combined Asset B | | | | | | |
| Particulars | 2011-12 | 2012-13 | 2013-14 | | | |
| Depreciation | 374.07 | 393.11 | 397.02 | | | |
| Interest on Loan | 413.07 | 400.98 | 369.74 | | | |
| Return on Equity | 370.68 | 389.55 | 393.43 | | | |
| Interest on Working Capital | 37.00 | 38.31 | 38.68 | | | |
| O & M Expenses | 289.38 | 305.96 | 323.46 | | | |
| Total | 1484.2 | 1527.91 | 1522.33 | | | |

f) The transmission tariff was allowed for the instant assets for 2014-19 period vide order dated 15.2.2016 in Petition No. 529/TT/2014. The trued-up tariff claimed by the Petitioner is as follows:

(₹ in lakh)

| Asset | Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|---------------------|---|---------|---------|---------|---------|---------|
| Combined Asset-B | AFC approved vide order dated 15.2.2016 | 1489.48 | 1469.57 | 1444.12 | 1419.05 | 1394.40 |
| ASSEC-D | AFC claimed based on truing up | 1522.61 | 1497.75 | 1468.79 | 1440.42 | 1414.94 |

4. The instant petition is filed for truing up of transmission tariff of the 2014-19 period under Regulation 8 of the 2014 Tariff Regulations and determination of transmission tariff of 2019-24 period under Regulation 8 the 2019 Tariff Regulations.





- 5. The respondents are distribution licensees and power departments, who are procuring transmission service from the Petitioner, mainly beneficiaries of the North Eastern Region.
- 6. The Petitioner has served the petition on the respondents and notice of this petition has been published in the newspaper in accordance with Section 64 of the Electricity Act 2003. No comments/objections have been received from the public in response to the notice in the newspaper. None of the respondents have filed any reply to the petition.
- 7. The hearing in this matter was held on 26.2.2020 and the Commission reserved its Order in the Petition.
- 8. This order is issued considering the submissions made by the Petitioner in the petition dated 3.10.2019 and the Petitioner's affidavit dated 25.2.2020.

Having heard the representatives of the Petitioner and perused the material on record, we proceed to dispose of the petition.

TRUING UP OF ANNUAL FIXED CHARGES FOR 2014-19 TARIFF PERIOD

- 9. The Petitioner has submitted the information as required under the 2014 Tariff Regulations for truing up of annual fixed charges for the 2014-19 period.
- 10. The details of the transmission charges claimed by the Petitioner are as under:-

(₹ in lakh)

| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|-----------------------------|---------|---------|---------|---------|---------|
| Depreciation | 424.62 | 425.22 | 425.22 | 425.22 | 425.62 |
| Interest on Loan | 325.19 | 287.44 | 248.84 | 210.22 | 172.01 |
| Return on Equity | 431.24 | 433.89 | 433.67 | 433.67 | 435.28 |
| Interest on Working Capital | 43.64 | 43.40 | 43.07 | 42.76 | 42.53 |



Order in Petition No.483/TT/2019



| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|--------------|---------|---------|---------|---------|---------|
| O&M Expenses | 297.92 | 307.80 | 317.99 | 328.55 | 339.50 |
| Total | 1522.61 | 1497.75 | 1468.79 | 1440.42 | 1414.94 |

11. The details of the Interest on Working Capital claimed by the Petitioner are as under:

(₹ in lakh)

| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|-----------------------------|---------|--------------------|---------|---------|---------|
| O&M Expenses | 24.83 | 25.65 | 26.50 | 27.38 | 28.29 |
| Maintenance Spares | 44.69 | 46.17 [.] | 47.70 | 49.28 | 50.93 |
| Receivables | 253.77 | 249.63 | 244.80 | 240.07 | 235.82 |
| Total Working Capital | 323.29 | 321.45 | 319.00 | 316.73 | 315.04 |
| Rate of Interest (%) | 13.50 | 13.50 | 13.50 | 13.50 | 13.50 |
| Interest on working capital | 43.64 | 43.40 | 43.07 | 42.76 | 42.53 |

12. The tariff for 2014-19 period has been trued up as discussed in the subsequent paragraphs.

Weighted Average Life (WAL) of the Assets

13. The Petitioner has submitted that the Capital Cost of the sub-station approved as on the date of commercial operation and thereafter for the 2014-19 period included the cost of IT equipment. However, the IT equipment cost has been separated from the sub-station cost while filing the petition for truing-up of tariff for the 2014-19 period. This issue is discussed in paragraphs 25 to 27 of this order. Since the Weighted Average Life (WAL) has to be determined considering the cost as on date of commercial operation, the same has to be revisited in this case. Hence, the Capital Cost of IT equipment, as submitted by the Petitioner, is considered and adjusted from the sub-station cost as approved on the date of commercial operation vide order dated 28.12.2011 in Petition No. 347/2010 and order dated 9.7.2012 in Petition No.





Page 9 of 43

31/TT/2011. The WAL has been determined based on the admitted capital cost of individual elements as on the date of commercial operation, after adjusting the Capital Cost of IT equipment from sub-station, and their respective useful life as stipulated in the 2009 Tariff Regulations. Accordingly, the WAL of all the assets has been worked out as 26 years as shown below:-

| Particulars | Combined Asset admitted capital cost (₹ in lakh) | Useful Life (in years) | Combined capital cost as admitted on COD (₹ in lakh) | Weighted cost (₹ in lakh) |
|-------------------------------|---|------------------------------|--|------------------------------|
| Building Civil Works & Colony | 0.00 | 25 | 0.00 | 0.00 |
| Transmission Line | 1391.45 | 35 | 1391.45 | 48700.75 |
| Sub Station | 4931.38 | 25 | 4931.38 | 123284.50 |
| PLCC | 78.96 | 15 | 78.96 | 1184.40 |
| IT Equipment (Incl. Software) | 380.72 | 6 | 380.72 | 2284.32 |
| Total | 6782.51 | | 6782.51 | 175453.97 |
| | 26 | | | |

Capital Cost as on 1.4.2014

- 14. The Commission vide order dated 15.2.2016 in Petition No. 529/TT/2014 had approved capital cost of ₹7313.26 lakh as opening capital cost as on 1.4.2014 for determination of tariff for the 2014-19 period.
- 15. The Petitioner vide Auditor Certificate dated 31.7.2019 has claimed capital cost of ₹7313.26 lakh as on 31.3.2014. Therefore, the same has been allowed and considered as opening admitted capital cost as on 1.4.2014 in accordance with Regulation 9(3) of the 2014 Tariff Regulations.





Additional Capital Expenditure

16. The Commission had allowed additional capital expenditure of ₹63.96 lakh for Combined Asset B in 2014-15 towards balance and retention payments as under vide order dated 15.2.2016:

(₹ in lakh)

| Assets | Apportioned Approved Capital Cost | Admitted Capital Cost as on 1.4.2014 | Additional Capitalisation 2014-19* | Total Capital Cost as on 31.3.2019 |
|---------------------|-----------------------------------|--|--|--|
| Combined Asset-B | 7313.26 | 7313.26 | 63.96 | 7377.22 |

(*Approved by the Commission vide order dated 15.2.2016 in Petition No. 529/TT/2014)

17. The Petitioner has claimed the following additional capital expenditure based on actual expenditure vide Auditor Certificate dated 31.7.2019 for Combined Asset-B:-

(₹ in lakh)

| | Apportioned | Capital | Actual Additional Capital Expenditure | | | | | Total |
|---------------------|--|----------------------------|---------------------------------------|-------------|-------------|-------------|-------------|-----------------|
| Asset | Approved Capital Cost as per RCE | Cost as on 31.3.2014 | 2014- 15 | 2015- 16 | 2016- 17 | 2017- 18 | 2018- 19 | Capital Cost |
| Combined Asset-B | 8171.00 | 7313.26 | 22.82 | 0.00 | 0.00 | 0.00 | 14.78 | 7350.86 |

- 18. The Petitioner has claimed the additional capital expenditure towards undischarged liabilities for works executed within the cut-off date for Combined Asset-B under Regulation 14(3)(v) of the 2014 Tariff Regulations. Therefore, the additional capital expenditure claimed by the Petitioner has been allowed.
- 19. The additional capital expenditure during 2014-19 and capital cost as on 31.3.2019 as approved by the Commission is as follows:





Page 11 of 43

(₹ in lakh)

| _ | Apportioned Approved | Capital | Act | Actual Additional Capital Cost Expenditure during | | Expenditure during | | Total Capital |
|---------------------|----------------------------|----------------------|-------------|--|-------------|--------------------|-------------|----------------------------|
| Asset | Capital Cost as per RCE | Cost as on 31.3.2014 | 2014- 15 | 2015- 16 | 2016- 17 | 2017- 18 | 2018- 19 | Cost as on 31.3.2019 |
| Combined Asset-B | 8171.00 | 7313.26 | 22.82 | 0.00 | 0.00 | 0.00 | 14.78 | 7350.86 |

Debt-Equity ratio

20. The debt-equity ratio has been considered in accordance with Regulation 19 (1), (3) and (5) of the 2014 Tariff Regulations. The debt and equity allowed for individual assets for determination of tariff for the period ending 31.3.2014 has been combined and considered for deciding opening debt and equity of the project as on 1.4.2014. The debt-equity ratio of 70:30 has been considered for the additional capital expenditure allowed during 2014-19 in accordance with Regulation 19(3) of the 2014 Tariff Regulations. The details of the debt and equity as on 1.4.2014 and 31.3.2019 for Combined Asset-B considered for the purpose of tariff for the 2014-19 tariff period as follows:

| Funding | Capital Cost as on 1.4.2014 (₹ in lakh) | (%) | Additional Capital Expenditure during 2014-19 (₹ in lakh) | (%) | Total Capital Cost as on 31.3.2019 (₹ in lakh) | (%) |
|---------|--|--------|---|--------|--|--------|
| Debt | 5119.28 | 70.00 | 26.32 | 70.00 | 5145.60 | 70.00 |
| Equity | 2193.98 | 30.00 | 11.28 | 30.00 | 2205.26 | 30.00 |
| Total | 7313.26 | 100.00 | 37.60 | 100.00 | 7350.86 | 100.00 |



Interest on Loan (IoL)

21. The Petitioner has claimed the weighted average rate of IoL based on its actual loan portfolio and rate of interest. Accordingly, IoL has been calculated based on actual interest rate submitted by the Petitioner, in accordance with Regulation 26 of the 2014 Tariff Regulations. The details of weighted average rate of interest are placed in Annexure-1. The IoL worked out is as follows:-

| /= | Z in | | _ 1 - | E- 1 |
|----|------|------|-------|------|
| | | 7 I: | эк | п |
| | | | | |

| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | |
|---|---------|---------|---------|---------|---------|--|
| Gross Normative Loan | 5119.28 | 5135.26 | 5135.26 | 5135.26 | 5135.26 | |
| Cumulative Repayments upto Previous Year | 1329.25 | 1716.87 | 2105.09 | 2493.30 | 2881.52 | |
| Net Loan-Opening | 3790.03 | 3418.39 | 3030.17 | 2641.95 | 2253.73 | |
| Additions | 15.97 | 0.00 | 0.00 | 0.00 | 10.35 | |
| Repayment during the year | 387.62 | 388.22 | 388.22 | 388.22 | 388.61 | |
| Net Loan-Closing | 3418.39 | 3030.17 | 2641.95 | 2253.73 | 1875.47 | |
| Average Loan | 3604.21 | 3224.28 | 2836.06 | 2447.84 | 2064.60 | |
| Weighted Average Rate of Interest on Loan (%) | 9.0719 | 9.0743 | 9.0737 | 9.0721 | 9.0679 | |
| Interest on Loan | 326.97 | 292.58 | 257.33 | 222.07 | 187.21 | |

(₹ in lakh)

| Particular | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|---|---------|---------|---------|---------|---------|
| Approved vide order dated 15.2.2016 in Petition No. 529/TT/2014 | 327.84 | 294.62 | 259.22 | 223.83 | 188.43 |
| Claimed by the Petitioner | 325.19 | 287.44 | 248.84 | 210.22 | 172.01 |
| Allowed after true-up in this order | 326.97 | 292.58 | 257.33 | 222.07 | 187.21 |

The difference in the IoL approved vide order dated 15.2.2016 in Petition No. 529/TT/2014 and that allowed after truing up in this Petition is on account of lower additional capital expenditure, depreciation/ repayment of loan, and change in the weighted average rate of interest which is computed based on actual loan portfolio and rate of interest.





Return on Equity (RoE)

22. The Petitioner is entitled to RoE for the instant assets in terms of Regulation 24 and 25 of the 2014 Tariff Regulations. The Petitioner has submitted that they are liable to pay income tax at MAT rates and has claimed the following effective tax rates for the 2014-19 tariff period:

| Year | Claimed effective tax rate (in %) | Grossed up RoE (Base Rate/1-t) (in %) |
|---------|-----------------------------------|---|
| 2014-15 | 21.018 | 19.624 |
| 2015-16 | 21.382 | 19.715 |
| 2016-17 | 21.338 | 19.704 |
| 2017-18 | 21.337 | 19.704 |
| 2018-19 | 21.549 | 19.757 |

23. We have considered the submissions of the Petitioner. The Commission in order dated 27.4.2020 in Petition No. 274/TT/2019 has arrived at the effective tax rate based on the notified MAT rates for the Petitioner and the same is given in the table below. The same MAT rates are considered for the purpose of grossing up of rate of RoE for truing up of the tariff of the 2014-19 tariff period in terms of the provisions of the 2014 Tariff Regulations.

| Year | Notified MAT rates (inclusive of surcharge & cess) (in %) | Base rate of RoE (in %) | Grossed up RoE (Base Rate/1-t) (in %) |
|---------|---|-------------------------------|---|
| 2014-15 | 20.9605 | 15.50 | 19.611 |
| 2015-16 | 21.3416 | 15.50 | 19.705 |
| 2016-17 | 21.3416 | 15.50 | 19.705 |
| 2017-18 | 21.3416 | 15.50 | 19.705 |
| 2018-19 | 21.5488 | 15.50 | 19.758 |

24. The Petitioner has claimed RoE for the 2014-19 period after grossing up the RoE of 15.50% with Effective Tax rates (based on MAT rates) each year as per the





above said Regulation. The RoE is trued up basis the MAT rate applicable in the respective years and is allowed as follows:-

(₹ in lakh)

| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|----------------------------------|---------|---------|---------|---------|---------|
| Return on Equity | | | | | |
| Opening Equity | 2193.98 | 2200.82 | 2200.82 | 2200.82 | 2200.82 |
| Additions | 6.85 | 0.00 | 0.00 | 0.00 | 4.43 |
| Closing Equity | 2200.82 | 2200.82 | 2200.82 | 2200.82 | 2205.26 |
| Average Equity | 2197.40 | 2200.82 | 2200.82 | 2200.82 | 2203.04 |
| Return on Equity (Base Rate) (%) | 15.500 | 15.500 | 15.500 | 15.500 | 15.500 |
| MAT Rate for respective year (%) | 20.961 | 21.342 | 21.342 | 21.342 | 21.549 |
| Rate of Return on Equity (%) | 19.610 | 19.705 | 19.705 | 19.705 | 19.758 |
| Return on Equity | 430.92 | 433.68 | 433.68 | 433.68 | 435.27 |

(₹ in lakh)

| Particular | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|-------------------------------------|---------|---------|---------|---------|---------|
| Approved vide order dated | | | | | |
| 15.2.2016 in Petition No. | 432.13 | 434.01 | 434.01 | 434.01 | 434.01 |
| 529/TT/2014 | | | | | |
| Claimed by Petitioner | 431.24 | 433.89 | 433.67 | 433.67 | 435.28 |
| Allowed after true-up in this order | 430.92 | 433.68 | 433.68 | 433.68 | 435.27 |

The difference in the RoE approved vide order dated 15.2.2016 in Petition No. 529/TT/2014 and that allowed after truing up in this Petition is on account of lower additional capitalisation expenditure and consideration of applicable MAT rate for computation of RoE.

Depreciation

25. The Petitioner's claim towards depreciation in this petition was found to be higher than the depreciation allowed for the instant assets in order dated 15.2.2016 in Petition No. 529/TT/2014. The Petitioner has neither given any justification for claiming higher depreciation than that allowed earlier in order dated 15.2.2016 nor





made any specific prayer for allowing higher depreciation in this petition. Therefore, the Petitioner was directed as follows:-

"Submit the working of depreciation considered for IT Equipment & Software. Also clarify the useful life considered by the Petitioner for the same".

26. In response, the Petitioner vide affidavit dated 25.2.2020 submitted as follows:-

"...., it is submitted that the depreciation @ 15% on account of IT equipment has been provided under Appendix-II of the Tariff Regulations, 2014. Further, clause 3 of the Regulation 27 of Tariff Regulations 2014 provides NIL salvage value for IT equipment. Similar provisions have been provided in Tariff Regulations, 2019.

It is submitted that during the truing up for 2009-14 block in petition 529/TT/2014, capital cost of IT equipment was included in the substation cost inadvertently and therefore depreciation for IT equipment was allowed based on substation cost inadvertently and therefore depreciation for IT equipment upto 31.3.2014 has been considered @ 5.28% of corresponding capital cost in line with earlier approved order. Thus, calculation of depreciation of IT equipment upto 31.3.2014 is as given below;

| Asset | COD | IT equipment cost (₹ in lakh) (2014-15) | Depreciation upto 31.3.2014 @5.28% (₹ in lakh) |
|---------|----------|---|--|
| Asset-I | 1.4.2011 | 380.72 | 69.26 |

The Petitioner has submitted that during the truing up of the tariff of the 2009-14 period, the capital cost of the IT equipment was considered as part of the sub-station cost inadvertently and to avoid revision of tariff of the 2009-14 block, requested to consider depreciation of IT Equipment upto 31.3.2014 as 5.28%. The Petitioner has further submitted that the depreciation rate for IT Equipment in the 2014 Tariff Regulations and the 2019 Tariff Regulations is 15% and the salvage value for IT Equipment is NIL.

27. We have considered the submissions of the Petitioner. The instant assets were put into commercial operation during the 2009-14 period and the tariff from the respective dates of commercial operation to 31.3.2014 was allowed vide order dated





Page 16 of 43

28.12.2011 in Petition No. 347/2010 and order dated 9.7.2012 in Petition No. 31/TT/2011. Further, the tariff of the 2009-14 period was trued up and tariff for the 2014-19 period was allowed vide order dated 15.2.2016 in Petition No.529/TT/2014. The Petitioner did not claim any capital expenditure towards "IT Equipment" in the above said three petitions where tariff for the instant assets for the 2009-14 period was allowed, tariff of the 2009-14 period was trued up and tariff for the 2014-19 period was allowed even though there was a clear provision in the 2009 Tariff Regulations and the 2014 Tariff Regulations providing depreciation @ 15% for IT Equipment. Having failed to make a claim as per the 2009 Tariff Regulations (the period during which COD of the assets was achieved), the Petitioner has now, at the time of truing up of the tariff for the 2014-19 period, apportioned a part of the capital expenditure to "IT Equipment". The Petitioner has adopted similar methodology not only in the instant petition but in some of the other petitions listed along with the instant petition on 26.2.2020. It is observed that the Petitioner has for the first time apportioned a part of the capital expenditure towards IT Equipment and has claimed depreciation under the head "IT Equipment" @ of 15% at the time of truing up of the tariff of the 2014-19 period. Regulation 8(1) of the 2014 Tariff Regulations provides for truing up of the capital expenditure including the additional capital expenditure, incurred upto 31.3.2019, admitted by the Commission after prudence check. We are of the view that scope of truing up exercise is restricted to truing up of the capital expenditure already admitted and apportionment or reapportionment of the capital expenditure cannot be allowed at the time of truing up. Therefore, we are not inclined to consider the Petitioner's prayer for apportionment of capital expenditure towards IT Equipment and





Page 17 of 43

allowing depreciation @ 15% from 1.4.2014 onwards. Accordingly, the depreciation @ 5.28% has been considered for IT Equipment as part of the sub-station upto 31.3.2019 while truing up the capital expenditure for the 2014-19 period. During the 2019-24 tariff period, the IT Equipment has been considered separately and depreciation has been allowed @ 15% for the balance depreciable value of IT Equipment in accordance with Regulation 33 read with Sr. No. (p) of the Appendix-I (Depreciation Schedule) of the 2019 Tariff Regulations.

28. The depreciation for the 2014-19 period is trued up for the instant assets as per the methodology provided in Regulation 27 of the 2014 Tariff Regulations, as follows:-

(₹ in lakh)

| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|---|---------|---------|---------|---------|---------|
| Depreciation | | | | | |
| Opening Gross Block | 7313.26 | 7336.08 | 7336.08 | 7336.08 | 7336.08 |
| Additional Capitalisation | 22.82 | 0.00 | 0.00 | 0.00 | 14.78 |
| Closing Gross Block | 7336.08 | 7336.08 | 7336.08 | 7336.08 | 7350.86 |
| Average Gross Block | 7324.67 | 7336.08 | 7336.08 | 7336.08 | 7343.47 |
| Average Gross Block (90% depreciable assets) | 6943.95 | 6955.36 | 6955.36 | 6955.36 | 6962.75 |
| Average Gross Block (100% depreciable assets) | 380.72 | 380.72 | 380.72 | 380.72 | 380.72 |
| Freehold Land | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rate of Depreciation | 5.29% | 5.29% | 5.29% | 5.29% | 5.29% |
| Balance useful life of the asset | 23 | 22 | 21 | 20 | 19 |
| Elapsed life | 3 | 4 | 5 | 6 | 7 |
| Depreciable Value (excluding IT equipment and software) - 90% | 6249.56 | 6259.82 | 6259.82 | 6259.82 | 6266.48 |
| Depreciable value of IT equipment and software - 100% | 380.72 | 380.72 | 380.72 | 380.72 | 380.72 |
| Depreciation during the year | 387.62 | 388.22 | 388.22 | 388.22 | 388.61 |
| Cumulative Depreciation upto PY | 1329.25 | 1716.87 | 2105.09 | 2493.30 | 2881.52 |
| Total Cumulative Depreciation | 1716.87 | 2105.09 | 2493.30 | 2881.52 | 3270.13 |
| Remaining Depreciable Value Total | 4913.41 | 4535.46 | 4147.24 | 3759.02 | 3377.06 |





Page 18 of 43

(₹ in lakh)

| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|---|---------|---------|---------|---------|---------|
| Approved vide order dated 15.2.2016 in Petition No. 529/TT/2014 | 388.70 | 390.39 | 390.39 | 390.39 | 390.39 |
| Claimed by Petitioner | 424.62 | 425.22 | 425.22 | 425.22 | 425.62 |
| Allowed after true-up in this order | 387.62 | 388.22 | 388.22 | 388.22 | 388.61 |

The variation in depreciation approved vide order dated 15.2.2016 in Petition No. 529/TT/2014 and now trued up for the 2014-19 period is due to lower additional capital expenditure.

Operation & Maintenance Expenses (O&M Expenses)

29. Regulation 29(3) of the 2014 Tariff Regulations specifies the norms for O&M Expenses for the transmission system. The total O&M Expenses for the instant assets claimed by the Petitioner are as follows:-

(₹ in lakh)

| O&M Expenses | | | | | |
|-------------------------------|--------|--------|--------|--------|--------|
| Sub-station Bays | | | | | |
| 132 kV and below | | | | | |
| No. of bays | 7 | 7 | 7 | 7 | 7 |
| Norms (₹ lakh/Bay) | 30.15 | 31.15 | 32.18 | 33.25 | 34.36 |
| 220 kV | | | | | |
| No. of bays | 2 | 2 | 2 | 2 | 2 |
| Norms (₹ lakh/Bay) | 42.21 | 43.61 | 45.06 | 46.55 | 48.10 |
| Transmission line | | | | | |
| S/C (Single Conductor) (kms) | 11.56 | 11.56 | 11.56 | 11.56 | 11.56 |
| Norms (₹ lakh/km) | 0.202 | 0.209 | 0.216 | 0.223 | 0.23 |
| D/C Single Conductor (kms) | 0.347 | 0.347 | 0.347 | 0.347 | 0.347 |
| Norms (₹ lakh/km) | 0.303 | 0.313 | 0.324 | 0.334 | 0.346 |
| Total O&M Expense (₹ in lakh) | 297.91 | 307.79 | 317.99 | 328.54 | 339.50 |

The O&M Expenses claimed by the Petitioner are as per the norms specified in the 2014 Tariff Regulations and hence, they are allowed as claimed.





Page 19 of 43

(₹ in lakh)

| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|---|---------|---------|---------|---------|---------|
| Approved vide order dated 15.2.2016 in Petition No. 529/TT/2014 | 297.91 | 307.79 | 317.99 | 328.54 | 339.50 |
| Claimed by Petitioner | 297.92 | 307.80 | 317.99 | 328.55 | 339.50 |
| Allowed after true-up in this order | 297.91 | 307.79 | 317.99 | 328.54 | 339.50 |

The O&M Expenses trued-up for the 2014-19 period are the same as approved vide order dated 15.2.2016 in Petition No. 529/TT/2014.

Interest on Working Capital (IWC)

30. The IWC has been worked out as per the methodology provided in the Regulation 28 of the 2014 Tariff Regulations and is allowed as under:-

(₹ in lakh)

| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|-----------------------------|---------|---------|---------|---------|---------|
| O & M Expenses | 24.83 | 25.65 | 26.50 | 27.38 | 28.29 |
| Maintenance Spares | 44.69 | 46.17 | 47.70 | 49.28 | 50.92 |
| Receivables | 247.71 | 244.16 | 239.94 | 235.78 | 232.10 |
| Total Working Capital | 317.22 | 315.97 | 314.14 | 312.44 | 311.32 |
| Rate of Interest (%) | 13.50 | 13.50 | 13.50 | 13.50 | 13.50 |
| Interest on working capital | 42.82 | 42.66 | 42.41 | 42.18 | 42.03 |

(₹ in lakh)

| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | | | |
|---|---------|---------|---------|---------|---------|--|--|--|
| Approved vide order dated 15.2.2016 in Petition No. 529/TT/2014 | 42.90 | 42.76 | 42.51 | 42.28 | 42.07 | | | |
| Claimed by the Petitioner | 43.64 | 43.40 | 43.07 | 42.76 | 42.53 | | | |
| Allowed after true-up in this order | 42.82 | 42.66 | 42.41 | 42.18 | 42.03 | | | |

The difference in the IWC approved vide order dated 15.2.2016 and that allowed after truing up is on account of change in the receivables pursuant to variation in depreciation.





APPROVED ANNUAL FIXED CHARGES FOR 2014-19 TARIFF PERIOD

31. The detailed computation of the various components of the trued up annual fixed charges for the instant transmission assets for the tariff period 2014-19 is summarised below:-

(₹ in lakh)

| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|------------------------------------|---------|---------|---------|---------|---------|
| Annual Transmission Charges | | | | | |
| Depreciation - | 387.62 | 388.22 | 388.22 | 388.22 | 388.61 |
| Interest on Loan | 326.97 | 292.58 | 257.33 | 222.07 | 187.21 |
| Return on Equity | 430.92 | 433.68 | 433.68 | 433.68 | 435.27 |
| Interest on Working Capital | 42.82 | 42.66 | 42.41 | 42.18 | 42.03 |
| O&M Expenses | 297.91 | 307.79 | 317.99 | 328.54 | 339.50 |
| Total | 1486.24 | 1464.93 | 1439.63 | 1414.70 | 1392.62 |

<u>DETERMINATION OF ANNUAL FIXED CHARGES FOR THE 2019-24 TARIFF</u> <u>PERIOD</u>

32. The Petitioner has claimed the following tariff charges for the 2019-24 period: -

(₹ in lakh)

| | | | | | (THE POLICE) |
|-----------------------------|---------|---------|---------|---------|----------------|
| Particulars | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |
| Depreciation | 394.96 | 369.20 | 369.20 | 369.20 | 121.45 |
| Interest on Loan | 135.39 | 100.91 | 67.43 | 33.97 | 11.75 |
| Return on Equity | 414.36 | 414.52 | 414.52 | 414.52 | 414.52 |
| Interest on Working Capital | 24.05 | 23.54 | 23.40 | 23.26 | 19.54 |
| O&M Expenses | 225.98 | 233.93 | 242.15 | 250.49 | 259.37 |
| Total | 1194.74 | 1142.10 | 1116.70 | 1091.44 | 826.63 |

33. The Petitioner has claimed the following Interest on Working Capital for the 2019-24 period: -

| Particulars | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |
|-----------------------------|---------|---------|---------|---------|---------|
| O&M Expenses | 18.83 | 19.49 | 20.18 | 20.87 | 21.61 |
| Maintenance Spares | 33.90 | 35.09 | 36.32 | 37.57 | 38.91 |
| Receivables | 146.89 | 140.81 | 137.68 | 134.56 | 101.63 |
| Total Working Capital | 199.62 | 195.39 | 194.18 | 193.00 | 162.15 |
| Rate of Interest (%) | 12.05 | 12.05 | 12.05 | 12.05 | 12.05 |
| Interest on working capital | 24.05 | 23.54 | 23.40 | 23.26 | 19.54 |





34. The tariff for the 2019-24 period is allowed as discussed in the subsequent paragraphs.

Capital Cost

- 35. Regulation 19 of the 2019 Tariff Regulations provides as follows:-
 - "19. (1) The Capital cost of the generating station or the transmission system, as the case may be, as determined by the Commission after prudence check in accordance with these regulations shall form the basis for determination of tariff for existing and new projects.
 - (2) The Capital Cost of a new project shall include the following:
 - (a) The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;
 - (b) Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed:
 - (c) Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;
 - (d) Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;
 - (e) Capitalised initial spares subject to the ceiling rates in accordance with these regulations:
 - (f) Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;
 - (g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;
 - (h) Adjustment of revenue earned by the transmission licensee by using the assets before the date of commercial operation;
 - (i) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
 - (j) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway:
 - (k) Capital expenditure on account of biomass handling equipment and facilities, for
 - (I) Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;
 - (m) Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;
 - (n) Expenditure on account of change in law and force majeure events; and
 - (o) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT)





scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.

- (3) The Capital cost of an existing project shall include the following:
- (a) Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;
- (b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;
- (c) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
- (d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
- (e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal up to the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and
- (f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.
- (4) The capital cost in case of existing or new hydro generating station shall also include:
- (a) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and
- (b) cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.
- (5) The following shall be excluded from the capital cost of the existing and new projects:
- (a) The assets forming part of the project, but not in use, as declared in the tariff petition;
- (b) De-capitalised Assets after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:

Provided that in case replacement of transmission asset is recommended by Regional Power Committee, such asset shall be decapitalised only after its redeployment;

Provided further that unless shifting of an asset from one project to another is of permanent nature, there shall be no de-capitalization of the concerned assets.

- (c) In case of hydro generating stations, any expenditure incurred or committed to be incurred by a project developer for getting the project site allotted by the State Government by following a transparent process;
- (d) Proportionate cost of land of the existing project which is being used for generating power from generating station based on renewable energy; and





Page 23 of 43

- (e) Any grant received from the Central or State Government or any statutory body or authority for the execution of the project which does not carry any liability of repayment."
- 36. The Petitioner vide Auditor Certificate dated 31.7.2019 has claimed capital cost of ₹7350.86 lakh as on 31.3.2019 for Combined Asset-B. The capital cost of ₹7350.86 lakh as on 31.3.2019 for Combined Asset-B has already been approved by the Commission and the same has been considered as opening capital cost as on 1.4.2019 for determination of tariff in accordance with Regulation 19 of the 2019 Tariff Regulations.

Additional Capital Expenditure

- 37. Regulation 25(1) of the 2019 Tariff Regulations provides as under:-
 - "25 (1) The additional capital expenditure incurred or projected to be incurred in respect of an existing project or a new project on the following counts within the original scope of work and after the cut-off date may be admitted by the Commission, subject to prudence check:
 - (a) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law;
 - (b) Change in law or compliance of any existing law,
 - (c) Deferred works relating to ash pond or ash handling system in the original scope of work;
 - (d) Liability for works executed prior to the cut-off date;
 - (e) Force Majeure events;
 - (f) Liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments; and
 - (g) Raising of ash dyke as a part of ash disposal system."

The Petitioner vide affidavit dated 31.7.2019 has claimed additional capital expenditure of ₹5.85 lakh for 2019-20 for Combined Asset-B under Regulation 25(1)(d) of the 2019 Tariff Regulations. The Petitioner has claimed additional capital expenditure on account of undischarged liability towards final payment for works executed within cut-off date as follows:





Page 24 of 43

(₹ in lakh)

| | Capital | А | Capital cost as | | | | |
|---------------------|------------------------|---|-----------------|------|------|------|-----------------|
| Asset | cost as on 1.4.2019 | 119 2019-20 2020-21 2021-22 2022-23 2023-24 | | | | | on 31.4.2024 |
| Combined Asset-B | 7350.86 | 5.85 | 0.00 | 0.00 | 0.00 | 0.00 | 7356.71 |

- 38. The Petitioner has claimed the additional capital expenditure as undischarged liabilities for works executed within the cut-off date for Combined Asset-B under Regulation (25)(1)(d) of the 2019 Tariff Regulations. The total capital expenditure as on 31.3.2024 is within the apportioned approved capital cost of ₹8171.00 lakh. Therefore, additional capital expenditure claimed by the Petitioner has been allowed for the purpose of determination of transmission tariff for the 2019-24 period.
- 39. The details of the approved additional capital expenditure and the capital cost as on 31.3.2024 is as follows:

(₹ in lakh)

| Asset | Capital cost as on | Actı | Actual Additional Capitalisation during | | | | | |
|---------------------|--------------------|---------|---|---------|---------|---------|----------------------|--|
| Asset | 1.4.2019 | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 | cost as on 31.3.2024 | |
| Combined Asset-B | 7350.86 | 5.85 | 0.00 | 0.00 | 0.00 | 0.00 | 7356.71 | |

Debt-Equity ratio

40. Regulation 18 of the 2019 Tariff Regulations provides as under:-

"18. Debt-Equity Ratio: (1) For new projects, the debt-equity ratio of 70:30 as on date of commercial operation shall be considered. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

Provided that:

- i. where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:
- ii. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:

Order in Petition No.483/TT/2019



- any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt: equity
- (2) The generating company or the transmission licensee, as the case may be. shall submit the resolution of the Board of the company or approval of the competent authority in other cases regarding infusion of funds from internal resources in support of the utilization made or proposed to be made to meet the capital expenditure of the generating station or the transmission system including communication system, as the case may be.
- (3) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4,2019. debt: equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2019 shall be considered:

Provided that in case of a generating station or a transmission system including communication system which has completed its useful life as on or after 1.4.2019, if the equity actually deployed as on 1.4.2019 is more than 30% of the capital cost, equity in excess of 30% shall not be taken into account for tariff computation;

Provided further that in case of projects owned by Damodar Valley Corporation, the debt: equity ratio shall be governed as per sub-clause (ii) of clause (2) of Regulation 72 of these regulations.

- (4) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4,2019. but where debt: equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.3.2019, the Commission shall approve the debt: equity ratio in accordance with clause (1) of this Regulation.
- (5) Any expenditure incurred or projected to be incurred on or after 1.4.2019 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this Regulation."
- 41 The details of the debt and equity considered for the purpose of tariff for the 2019-24 period are as follows:-

| Particulars | Capital cost as on 1.4.2019 (₹ in lakh) | % | Additional Capitalisation druing 2019-24 (₹ in lakh) | % | Capital cost as on 31.3.2024 (₹ in lakh) | % |
|-------------|--|--------|---|--------|---|--------|
| Debt | 5145.60 | 70.00 | 4.10 | 70.00 | 5149.70 | 70.00 |
| Equity | 2205.26 | 30.00 | 1.76 | 30.00 | 2207.01 | 30.00 |
| Total | 7350.86 | 100.00 | 5.85 | 100.00 | 7356.71 | 100.00 |



Order in Petition No.483/TT/2019



Return on Equity (RoE)

- 42. Regulations 30 and 31 of the 2019 Tariff Regulations specify as under:-
 - "30. Return on Equity: (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with Regulation 18 of these regulations. (2) Return on equity shall be computed at the base rate of 15.50% for thermal generating station, transmission system including communication system and runof river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run-of river generating station with pondage:

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

Provided further that:

- i. In case of a new project, the rate of return on equity shall be reduced by 1.00% for such period as may be decided by the Commission, if the generating station or transmission system is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO) or Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system based on the report submitted by the respective RLDC;
- ii. in case of existing generating station, as and when any of the requirements under (i) above of this Regulation are found lacking based on the report submitted by the concerned RLDC, rate of return on equity shall be reduced by 1.00% for the period for which the deficiency continues;
- iii. in case of a thermal generating station, with effect from 1.4.2020:
 - a) rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate of 1% per minute;
 - b) an additional rate of return on equity of 0.25% shall be allowed for every incremental ramp rate of 1% per minute achieved over and above the ramp rate of 1% per minute, subject to ceiling of additional rate of return on equity of 1.00%:

Provided that the detailed guidelines in this regard shall be issued by National Load Dispatch Centre by 30.6.2019.

31. Tax on Return on Equity: (1) The base rate of return on equity as allowed by the Commission under Regulation 30 of these regulations shall be grossed up with the effective tax rate of the respective financial year. For this purpose, the effective tax rate shall be considered on the basis of actual tax paid in respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned generating company or the transmission licensee, as the case may be. The actual tax paid on income from other businesses including deferred tax liability





Page 27 of 43

- (i.e. income from business other than business of generation or transmission, as the case may be) shall be excluded for the calculation of effective tax rate.
- (2) Rate of return on equity shall be rounded off to three decimal places and shall be computed as per the formula given below:

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

Where "t" is the effective tax rate in accordance with clause (1) of this Regulation and shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the relevant Finance Act applicable for that financial year to the company on pro-rata basis by excluding the income of non-generation or non-transmission business, as the case may be, and the corresponding tax thereon. In case of generating company or transmission licensee paying Minimum Alternate Tax (MAT), "t" shall be considered as MAT rate including surcharge and cess.

- (3) The generating company or the transmission licensee, as the case may be. shall true up the grossed up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand including interest thereon, duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2019-24 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee, as the case may be. Any under-recovery or over-recovery of grossed up rate on return on equity 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."
- 43. The Petitioner has submitted that MAT rate is applicable to the Petitioner's company. Accordingly, the MAT rate applicable in 2019-20 has been considered for the purpose of RoE, which shall be trued up with actual tax rate in accordance with Regulation 31(3) of the 2019 Tariff Regulations. The RoE has been worked out and allowed as follows:-

(₹ in lakh)

| | | | | | · III Idikiij |
|----------------------------------|---------|---------|---------|---------|---------------|
| Particulars | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |
| Opening Equity | 2205.26 | 2207.01 | 2207.01 | 2207.01 | 2207.01 |
| Additions | 1.76 | 0.00 | 0.00 | 0.00 | 0.00 |
| Closing Equity | 2207.01 | 2207.01 | 2207.01 | 2207.01 | 2207.01 |
| Average Equity | 2206.14 | 2207.01 | 2207.01 | 2207.01 | 2207.01 |
| Return on Equity (Base Rate) (%) | 15.500 | 15.500 | 15.500 | 15.500 | 15.500 |
| MAT Rate for respective year (%) | 17.472 | 17.472 | 17.472 | 17.472 | 17.472 |
| Rate of Return on Equity (%) | 18.782 | 18.782 | 18.782 | 18.782 | 18.782 |
| Return on Equity | 414.35 | 414.51 | 414.51 | 414.51 | 414.51 |



Order in Petition No.483/TT/2019



Page 28 of 43

Interest on Loan (IoL)

- 44. Regulation 32 of the 2019 Tariff Regulations provides as under:-
 - "32. Interest on loan capital: (1) The loans arrived at in the manner indicated in regulation 18 of these regulations shall be considered as gross normative loan for calculation of interest on loan.
 - (2) The normative loan outstanding as on 1.4.2019 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2019 from the gross normative loan.
 - (3) The repayment for each of the year of the tariff period 2019-24 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of de-capitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of de-capitalisation of such asset.
 - (4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year.
 - (5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized:

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

Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.

- (6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.
- (7) The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing."
- 45. The weighted average rate of IoL has been considered on the basis of rate prevailing as on 1.4.2019. The Petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during the 2019-24 tariff period will be





Page 29 of 43

adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true up. Therefore, the IoL has been worked out in accordance with Regulation 32 of the 2019 Tariff Regulations. The details of weighted average rate of interest for the 2019-24 tariff period are placed in Annexure-2 and the IoL has been worked out and allowed as follows:-

(₹ in lakh)

| Particulars | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |
|---|---------|---------|---------|---------|---------|
| Gross Normative Loan | 5145.60 | 5149.70 | 5149.70 | 5149.70 | 5149.70 |
| Cumulative Repayments upto Previous Year | 3270.13 | 3696.29 | 4122.61 | 4548.92 | 4975.24 |
| Net Loan-Opening | 1875.47 | 1453.40 | 1027.09 | 600.78 | 174.46 |
| Additions | 4.10 | 0.00 | 0.00 | 0.00 | 0.00 |
| Repayment during the year | 426.16 | 426.31 | 426.31 | 426.31 | 120.28 |
| Net Loan-Closing | 1453.40 | 1027.09 | 600.78 | 174.46 | 54.18 |
| Average Loan | 1664.44 | 1240.25 | 813.93 | 387.62 | 114.32 |
| Weighted Average Rate of Interest on Loan (%) | 9.0627 | 9.0597 | 9.0554 | 9.0474 | 9.0281 |
| Interest on Loan | 150.84 | 112.36 | 73.70 | 35.07 | 10.32 |

Depreciation

46. Regulation 33 of the 2019 Tariff Regulations provides as under:-

"33. Depreciation: (1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system or element there of including communication system. In case of the tariff of all the units of a generating station or all elements of a transmission system including communication system for which a single tariff needs to be determined, the depreciation shall be computed from the effective date of commercial operation of the generating station or the transmission system taking into consideration the depreciation of individual units:

Provided that effective date of commercial operation shall be worked out by considering the actual date of commercial operation and installed capacity of all the units of the generating station or capital cost of all elements of the transmission system, for which single tariff needs to be determined.

(2) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station or multiple elements of a transmission system, weighted average life for





Page 30 of 43

the generating station of the transmission system shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.

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

Provided that the salvage value for IT equipment and software shall be considered as NIL and 100% value of the assets shall be considered depreciable;

Provided further that in case of hydro generating stations, the salvage value shall be as provided in the agreement, if any, signed by the developers with the State Government for development of the generating station:

Provided also that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciated value shall correspond to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff:

Provided also that any depreciation disallowed on account of lower availability of the generating station or unit or transmission system as the case may be, shall not be allowed to be recovered at a later stage during the useful life or the extended life.

- (4) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.
- (5) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-I to these regulations for the assets of the generating station and transmission system:

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

- (6) In case of the existing projects, the balance depreciable value as on 1.4.2019 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2019 from the gross depreciable value of the assets.
- (7) The generating company or the transmission licensee, as the case may be, shall submit the details of proposed capital expenditure five years before the completion of useful life of the project along with justification and proposed life





extension. The Commission based on prudence check of such submissions shall approve the depreciation on capital expenditure.

(8) In case of de-capitalization of assets in respect of generating station or unit thereof or transmission system or element thereof, the cumulative depreciation shall be adjusted by taking into account the depreciation recovered in tariff by the decapitalized asset during its useful services."

47. IT equipment has been taken as a part of the Gross Block and depreciated using weighted average rate of depreciation (WAROD). The salvage value of IT equipment has been considered nil, i.e. IT asset has been considered as 100% depreciable. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. The detailed calculation for depreciation for the transmission asset is worked out and allowed as follows:-

(₹ in lakh)

| Particulars | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |
|---|---------|---------|---------|---------|-----------|
| Depreciation | | | | | |
| Opening Gross Block | 7350.86 | 7356.71 | 7356.71 | 7356.71 | 7356.71 |
| Additional Capitalisation | 5.85 | 0.00 | 0.00 | 0.00 | 0.00 |
| Closing Gross Block | 7356.71 | 7356.71 | 7356.71 | 7356.71 | 7356.71 |
| Average Gross Block | 7353.79 | 7356.71 | 7356.71 | 7356.71 | 7356.71 |
| Average Gross Block (90% depreciable assets) | 6973.07 | 6975.99 | 6975.99 | 6975.99 | 6975.99 |
| Average Gross Block (100% depreciable assets) | 380.72 | 380.72 | 380.72 | 380.72 | 380.72 |
| | | | | | |
| Freehold Land | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rate of Depreciation | 5.80% | 5.79% | 5.79% | 5.79% | Spreading |
| Balance useful life of the asset | 18 | 17 | 16 | 15 | 14 |
| Elapsed life | 8 | 9 | 10 | 11 | 12 |
| Depreciable Value (excluding IT equipment and software) - 90% | 6275.76 | 6278.39 | 6278.39 | 6278.39 | 6278.39 |
| Depreciable value of IT equipment and software - 100% | 380.72 | 380.72 | 380.72 | 380.72 | 380.72 |
| Depreciation during the year | 426.16 | 426.31 | 426.31 | 426.31 | 120.28 |
| Cumulative Depreciation upto PY | 3270.13 | 3696.29 | 4122.61 | 4548.92 | 4975.24 |





Page 32 of 43

| Particulars | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |
|-----------------------------------|---------|---------|---------|---------|---------|
| Depreciation | | | | | |
| Total Cumulative Depreciation | 3696.29 | 4122.61 | 4548.92 | 4975.24 | 5095.51 |
| Remaining Depreciable Value Total | 2960.19 | 2536.50 | 2110.19 | 1683.88 | 1563.60 |

Operation & Maintenance Expenses (O&M Expenses)

48. Regulation 35(3)(a) of the 2019 Tariff Regulations provides as under:

"35. (3) Transmission system: (a) The following normative operation and maintenance expenses shall be admissible for the transmission system:

| Particulars | 2019-20 | 2020- 21 | 2021- 22 | 2022- 23 | 2023- 24 |
|--|---------|-------------|-------------|-------------|-------------|
| Norms for sub-station Bays (₹ lakh per bay) | | | | | J |
| 765 kV | 45.01 | 46.60 | 48.23 | 49.93 | 51.68 |
| 400 kV | 32.15 | 33.28 | 34.45 | 35.66 | 36.91 |
| 220 kV | 22.51 | 23.30 | 24.12 | 24.96 | 25.84 |
| 132 kV and below | 16.08 | 16.64 | 17.23 | 17.83 | 18.46 |
| Norms for Transformers (₹ lakh per MVA) | | | | | |
| 765 kV | 0.491 | 0.508 | 0.526 | 0.545 | 0.564 |
| 400 kV | 0.358 | 0.371 | 0.384 | | 0.411 |
| 220 kV | 0.245 | 0.254 | 0.263 | 0.272 | 0.282 |
| 132 kV and below | 0.245 | 0.254 | 0.263 | 0.272 | 0.282 |
| Norms for AC and HVDC lines (₹ lakh per ki | n) | | | | |
| Single Circuit (Bundled Conductor with six or more sub-conductors) | 0.881 | 0.912 | 0.944 | 0.977 | 1.011 |
| Single Circuit (Bundled conductor with four sub-conductors) | 0.755 | 0.781 | 0.809 | 0.837 | 0.867 |
| Single Circuit (Twin & Triple Conductor) | 0.503 | 0.521 | 0.539 | 0.558 | 0.578 |
| Single Circuit (Single Conductor) | 0.252 | 0.260 | 0.270 | 0.279 | 0.289 |
| Double Circuit (Bundled conductor with four or more sub-conductors) | 1.322 | 1.368 | 1.416 | 1.466 | 1.517 |
| Double Circuit (Twin & Triple Conductor) | 0.881 | 0.912 | 0.944 | 0.977 | 1.011 |
| Double Circuit (Single Conductor) | 0.377 | 0.391 | 0.404 | 0.419 | 0.433 |
| Multi Circuit (Bundled Conductor with four or more sub-conductor) | 2.319 | 2.401 | 2.485 | 2.572 | 2.662 |
| Multi Circuit (Twin & Triple Conductor) | 1.544 | 1.598 | 1.654 | 1.713 | 1.773 |
| Norms for HVDC stations | | | | | |
| HVDC Back-to-Back stations (Rs lakh per 500 MW) (Except Gazuwaka BTB) | 834 | 864 | 894 | 925 | 958 |
| Gazuwaka HVDC Back-to-Back station (₹ lakh per 500 MW) | 1,666 | 1,725 | 1,785 | 1,848 | 1,913 |





| Particulars | 2019-20 | 2020- 21 | 2021- 22 | 2022- 23 | 2023- 24 |
|---|---------|-------------|-------------|-------------|-------------|
| 500 kV Rihand-Dadri HVDC bipole scheme (₹ lakh) (1500 MW) | 2,252 | 2,331 | 2,413 | 2,498 | 2,586 |
| ±500 kV Talcher- Kolar HVDC bipole scheme (₹ lakh) (2000 MW) | 2,468 | 2,555 | 2,645 | 2,738 | 2,834 |
| ±500 kV Bhiwadi-Balia HVDC bipole scheme (₹ lakh) (2500 MW) | 1,696 | 1,756 | 1,817 | 1,881 | 1,947 |
| ±800 kV, Bishwanath-Agra HVDC bipole scheme (₹ lakh) (3000 MW) | 2,563 | 2,653 | 2,746 | 2,842 | 2,942 |

Provided that the O&M expenses for the GIS bays shall be allowed as worked out by multiplying 0.70 of the O&M expenses of the normative O&M expenses for bays;

Provided further that:

- i. the operation and maintenance expenses for new HVDC bi-pole schemes commissioned after 1.4.2019 for a particular year shall be allowed pro-rata on the basis of normative rate of operation and maintenance expenses of similar HVDC bi-pole scheme for the corresponding year of the tariff period;
- ii. the O&M expenses norms for HVDC bi-pole line shall be considered as Double Circuit quad AC line;
- iii. the O&M expenses of ±500 kV Mundra-Mohindergarh HVDC bipole scheme (2000 MW)shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±500 kV Talchar-Kolar HVDC bi-pole scheme (2000 MW);
- iv. the O&M expenses of ±800 kV Champa-Kurukshetra HVDC bi-pole scheme (3000 MW) shall be on the basis of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme;
- v. the O&M expenses of ±800 kV, Alipurduar-Agra HVDC bi-pole scheme (3000 MW)shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme; and
- vi. the O&M expenses of Static Synchronous Compensator and Static Var Compensator shall be worked at 1.5% of original project cost as on commercial operation which shall be escalated at the rate of 3.51% to work out the O&M expenses during the tariff period. The O&M expenses of Static Synchronous Compensator and Static Var Compensator, if required, may be reviewed after three years.
- (b) The total allowable operation and maintenance expenses for the transmission system shall be calculated by multiplying the number of sub-station bays, transformer capacity of the transformer (in MVA) and km of line length with the applicable norms for the operation and maintenance expenses per bay, per MVA and per km respectively.
- (c) The Security Expenses and Capital Spares for transmission system shall be

Order in Petition No.483/TT/2019

ORATION OF THE PRINT OF THE PRI

Page 34 of 43

allowed separately after prudence check:

Provided that the transmission licensee shall submit the assessment of the security requirement and estimated security expenses, the details of year-wise actual capital spares consumed at the time of truing up with appropriate justification.

- (4) Communication system: The operation and maintenance expenses for the communication system shall be worked out at 2.0% of the original project cost related to such communication system. The transmission licensee shall submit the actual operation and maintenance expenses for truing up."
- 49. The total O&M Expenses claimed by the Petitioner for the instant assets are as follows:-

| 00115 | | | | | (₹ in lakh) |
|-------------------------------|--------|--------|--------|--------|-------------|
| O&M Expenses | | | | | |
| Sub-station Bays | | | | | |
| 132 kV and below | | | | | |
| No. of bays | 7 | 7 | 7 | 7 | 7 |
| Norms (₹ lakh/Bay) | 30.15 | 31.15 | 32.18 | 33.25 | 34.36 |
| 220 kV | | | | 1 | |
| No. of bays | 2 | 2 | 2 | 2 | 2 |
| Norms (₹ lakh/Bay) | 42.21 | 43.61 | 45.06 | 46.55 | 48.10 |
| Transmission line | | | | • | |
| S/C (Single Conductor) (kms) | 11.56 | 11.56 | 11.56 | 11.56 | 11.56 |
| Norms (₹ lakh/km) | 0.202 | 0.209 | 0.216 | 0.223 | 0.23 |
| D/C Single Conductor (kms) | 0.347 | 0.347 | 0.347 | 0.347 | 0.347 |
| Norms (₹ lakh/km) | 0.303 | 0.313 | 0.324 | 0.334 | 0.346 |
| Transformers | | | | | |
| 220 kV | | | | | |
| MVA | 260 | 260 | 260 | 260 | 260 |
| Norms (₹ lakh per MVA) | 0.245 | 0.254 | 0.263 | 0.272 | 0.282 |
| Total O&M Expense (₹ in lakh) | 225.99 | 233.93 | 242.16 | 250.49 | 259.38 |

50. The total O&M Expenses for the instant assets allowed are as follows:-

 Particulars
 2019-20
 2020-21
 2021-22
 2022-23
 2023-24

 Combined Asset B
 225.99
 233.93
 242.16
 250.49
 259.38





Interest on Working Capital (IWC)

- 51. Regulation 34(1)(c), Regulation 34(3), Regulation 34(4) and Regulation 3(7) of the 2019 Tariff Regulations specifies as follows:
 - "34. Interest on Working Capital
 - (1) ...
 - (c) For Hydro Generating Station (including Pumped Storage Hydro Generating Station) and Transmission System:
 - i. Receivables equivalent to 45 days of fixed cost:
 - ii. Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and
 - iii. Operation and maintenance expenses, including security expenses for one month"
 - "(3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2019 or as on 1st April of the year during the tariff period 2019-24 in which the generating station or a unit thereof or the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later:

Provided that in case of truing-up, the rate of interest on working capital shall be considered at bank rate as on 1st April of each of the financial year during the tariff period 2019-24.

- (4) Interest on working capital shall be payable on normative basis notwithstanding that the generating company or the transmission licensee has not taken loan for working capital from any outside agency."
- "3.Definitions ...
- (7) 'Bank Rate' means the one year marginal cost of lending rate (MCLR) of the State Bank of India issued from time to time plus 350 basis points;"
- 52. The Petitioner has submitted that it has computed interest on working capital for the 2019-24 period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The rate of IWC considered is 12.05%.
- 53. The IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The rate of IWC considered is 12.05% (SBI Base Rate of 8.55% plus 350





Page 36 of 43

basis points). The components of the working capital and interest thereon have been worked as follows:-

(₹ in lakh)

| Particulars | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |
|-----------------------------|---------|---------|---------|---------|---------|
| O&M Expenses | 18.83 | 19.49 | 20.18 | 20.87 | 21.61 |
| Maintenance Spares | 33.90 | 35.09 | 36.32 | 37.57 | 38.91 |
| Receivables | 152.72 | 149.39 | 145.61 | 141.84 | 101.31 |
| Total Working Capital | 205.45 | 203.97 | 202.11 | 200.29 | 161.83 |
| Rate of Interest (%) | 12.05 | 12.05 | 12.05 | 12.05 | 12.05 |
| Interest on Working Capital | 24.76 | 24.58 | 24.35 | 24.14 | 19.50 |

ANNUAL FIXED CHARGES FOR THE 2019-24 TARIFF PERIOD

54. The transmission charges allowed for the instant transmission assets for the 2019-24 tariff period are summarised below:-

(₹ in lakh)

| Particulars | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 | |
|-----------------------------|---------|---------|---------|---------|---------|--|
| Annual Transmission Charges | | | | | | |
| Depreciation | 426.16 | 426.31 | 426.31 | 426.31 | 120.28 | |
| Interest on Loan | 150.84 | 112.36 | 73.70 | 35.07 | 10.32 | |
| Return on Equity | 414.35 | 414.51 | 414.51 | 414.51 | 414.51 | |
| Interest on Working Capital | 24.76 | 24.58 | 24.35 | 24.14 | 19.50 | |
| O & M Expenses | 225.99 | 233.93 | 242.16 | 250.49 | 259.38 | |
| Total | 1242.09 | 1211.69 | 1181.04 | 1150.51 | 823.98 | |

Filing Fee and the Publication Expenses

The Petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. The Petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries on pro-rata basis in accordance with Regulation 70(1) of the 2019 Tariff Regulations.





Page 37 of 43

Licence Fee and RLDC Fees and Charges

The Petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 70(4) of the 2019 Tariff Regulations for the 2019-24 tariff period. The Petitioner shall also be entitled for recovery of RLDC fee & charges in accordance with Regulations 70(3) of the 2019 Tariff Regulations for the 2019-24 period.

Security Expenses

- 57. The Petitioner has submitted that security expenses for the instant assets are not claimed in the instant petition and it would file a separate petition for claiming the overall security expenses and the consequential Interest on Working Capital. The Petitioner has requested to consider the actual security expenses incurred during 2018-19 for claiming estimated security expenses for 2019-20 which shall be subject to true up at the end of the year based on the actuals. The Petitioner has submitted that similar petition for security expenses for 2020-21, 2021-22, 2022-23 and 2023-24 shall be filed on a yearly basis on the basis of the actual expenses of previous year subject to true up at the end of the year on actual expenses. The Petitioner has submitted that the difference, if any, between the estimated security expenses and actual security expenses as per the audited accounts may be allowed to be recovered from the beneficiaries on a yearly basis.
- 58. We have considered the submissions of the Petitioner. Any application filed by the Petitioner in this regard shall be dealt with in accordance with the appropriate provisions of the 2019 Tariff Regulations.





Goods and Services Tax

59. The Petitioner has prayed for reimbursement of tax, if any, on account of implementation of GST. GST is not levied on transmission service at present and we are of the view that the Petitioner's prayer is premature.

Capital Spares

60. The Petitioner has sought reimbursement of capital spares at the end of tariff block. The Petitioner's claim, if any, shall be dealt with in accordance with the provisions of the 2019 Tariff Regulations.

Sharing of Transmission Charges

- 61. The billing, collection and disbursement of the transmission charges approved shall be governed by the provisions of Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010, as amended from time to time as provided in Regulation 57 of the 2019 Tariff Regulations.
- 62. This order disposes of Petition No. 483/TT/2019.

sd/-(I. S. Jha) Member sd/-(P. K. Pujari) Chairperson





ANNEXURE-1

DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO FOR 2014-19

(₹ in lakh)

| | | | · | | | ₹ in lakn) |
|----------|--------------------------------------|----------------------|--|-------------------------------------|---------------|------------|
| SL No | Particulars | Interest Rate (%) | Loan deploye d as on 1.4.2014 | Addition s during the tariff period | Repaym ent | Total |
| 1 | BOND XXVIII -DOCO DRAWL ON 01-APR | 9.33 | 400.00 | 0.00 | 166.65 | 400.00 |
| 2 | BOND XXIX -DOCO DRAWL ON 01-APR | 9.20 | 2040.00 | 0.00 | 850.00 | 2040.00 |
| 3 | BOND XXX -DOCO DRAWL ON 01-APR | 8.80 | 1195.00 | 0.00 | 497.90 | 1195.00 |
| 4 | BOND XXXI -DOCO DRAWL ON 01-APR | 8.90 | 194.00 | 0.00 | 80.85 | 194.00 |
| 5 | BOND XXXIII -DOCO DRAWL ON 01-APR | 8.64 | 175.00 | 0.00 | 72.90 | 175.00 |
| 6 | BOND-XXXIV -DOCO DRAWL ON 01-APR | 8.84 | 593.00 | 0.00 | 247.10 | 593.00 |
| 7 | BOND-XXXV -ADDCAP FOR ADDCAP F | 9.64 | 184.94 | 0.00 | 61.64 | 184.94 |
| 8 | BOND-XXXV -DOCO FUNDING | 9.64 | 154.50 | 0.00 | 51.52 | 154.50 |
| 9 | BOND XXXVII -ADDCAP FOR ADDCAP F | 9.25 | 182.84 | 0.00 | 60.96 | 182.84 |
| 10 | SBI (2014-15) -ADD CAP 14- 15 | 10.25 | 0.00 | 4.08 | 0.00 | 4.08 |
| 11 | BOND XLVI -ADD CAP 14- 15 | 9.30 | 0.00 | 11.89 | 0.00 | 11.89 |
| 12 | BOND 59 -ADD CAP 2018- 19 | 7.30 | 0.00 | 10.35 | 0.00 | 10.35 |
| | Total | | 5119.28 | 26.32 | 2089.52 | 5145.60 |

WEIGHTED AVERAGE RATE OF INTEREST ON LOAN DURING 2014-19 TARIFF PERIOD

(₹ in lakh)

| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | | | | | |
|--|---------|---------|---------|---------|---------|--|--|--|--|--|
| Gross opening loan | 5119.28 | 5135.25 | 5135.25 | 5135.25 | 5135.25 | | | | | |
| Cumulative repayments of loans up to previous year | 522.42 | 905.50 | 1332.11 | 1758.72 | 2185.33 | | | | | |
| Net loans opening | 4596.86 | 4229.75 | 3803.14 | 3376.53 | 2949.92 | | | | | |
| Add: drawl(s) during the year | 15.97 | 0.00 | 0.00 | 0.00 | 10.35 | | | | | |
| Less: repayment(s) of loan during the year | 383.08 | 426.61 | 426.61 | 426.61 | 426.61 | | | | | |



Order in Petition No.483/TT/2019



Page 40 of 43

| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|--------------------------|---------|---------|---------|---------|---------|
| Net closing loan | 4229.75 | 3803.14 | 3376.53 | 2949.92 | 2533.66 |
| Average net loan | 4413.31 | 4016.45 | 3589.84 | 3163.23 | 2741.79 |
| Rate of interest on loan | 9.0719% | 9.0743% | 9.0737% | 9.0721% | 9.0679% |
| Interest on loan | 400.37 | 364.47 | 325.73 | 286.97 | 248.62 |





ANNEXURE-2

DETAILS OF LOAN PORTFOLIO FOR 2019-24

(₹ in lakh)

| SL No | Particulars | Interest Rate (%) | Loan deploye d as on 1.4.2019 | Addition s during the tariff period | Repaym ent | Total | | |
|----------|--------------------------------------|----------------------|--|--|---------------|---------|--|--|
| 1 | BOND XXVIII -DOCO DRAWL ON 01-APR | 9.33 | 400.00 | 0.00 | 166.65 | 400.00 | | |
| 2 | BOND XXIX -DOCO DRAWL ON 01-APR | 9.20 | 2040.00 | 0.00 | 850.00 | 2040.00 | | |
| 3 | BOND XXX -DOCO DRAWL ON 01-APR | 8.80 | 1195.00 | 0.00 | 497.90 | 1195.00 | | |
| 4 | BOND XXXI -DOCO DRAWL ON 01-APR | 8.90 | 194.00 | 0.00 | 80.85 | 194.00 | | |
| 5 | BOND XXXIII -DOCO DRAWL ON 01-APR | 8.64 | 175.00 | 0.00 | 72.90 | 175.00 | | |
| 6 | BOND-XXXIV -DOCO DRAWL ON 01-APR | 8.84 | 593.00 | 0.00 | 247.10 | 593.00 | | |
| 7 | BOND-XXXV -ADDCAP FOR ADDCAP F | 9.64 | 184.94 | 0.00 | 77.05 | 184.94 | | |
| 8 | BOND-XXXV -DOCO FUNDING | 9.64 | 154.50 | 0.00 | 64.40 | 154.50 | | |
| 9 | BOND XXXVII -ADDCAP FOR ADDCAP F | 9.25 | 182.84 | 0.00 | 76.20 | 182.84 | | |
| 10 | SBI (2014-15) -ADD CAP 14- 15 | 8.25 | 4.08 | 0.00 | 2.05 | 4.08 | | |
| 11 | BOND XLVI -ADD CAP 14- 15 | 9.30 | 11.89 | 0.00 | 3.96 | 11.89 | | |
| 12 | BOND 59 -ADD CAP 2018- 19 | 7.30 | 10.35 | 0.00 | 0.00 | 10.35 | | |
| | Total | | 5145.60 | 0.00 | 2139.06 | 5145.60 | | |





WEIGHTED AVERAGE RATE OF INTEREST ON LOAN DURING 2019-24 TARIFF PERIOD

| | | | | | (in lakh |
|--|---------|----------|---------|---------|-----------|
| Particulars | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |
| Gross opening loan | 5145.60 | 5145.60 | 5145.60 | 5145.60 | 5145.60 |
| Cumulative repayments of loans up to previous year | 2611.93 | 3,042.91 | 3469.93 | 3896.95 | 4323.97 |
| Net loans opening | 2533.67 | 2102.69 | 1675.67 | 1248.65 | 821.63 |
| Add: drawl(s) during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Less: repayment(s) of loan during the year | 430.98 | 427.02 | 427.02 | 427.02 | 427.02 |
| Net closing loan | 2102.69 | 1675.67 | 1248.65 | 821.63 | 394.61 |
| Average net loan | 2318.18 | 1889.18 | 1462.16 | 1035.14 | 608.12 |
| Rate of interest on loan | 9.0627% | 9.0597% | 9.0554% | 9.0474% | 9.0281% |
| Interest on loan | 210.09 | 171.15 | 132.40 | 93.65 | 54.90 |

ATTESTED TRUE COPY

Authorised Signatory

Au





Suresh Surana & Associates LLP **Chartered Accountants**

Suresh Surana & Associates LLP

JK Millennium Centre, 5th Floor 46-D. J L Nehru Road Kolkata-700071,India T:+91(33)22880099 kolkata@ss-associates.com, www.ss-associates.com LLP Identity No. AAB-7509

CERTIFICATE OF CAPITAL COST FOR TRANSMISSION TARIFF

This is to certify that we have verified the relevant records and other documents of Power Grid Corporation Of India Limited having its Registered Office at B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi-110016 and on the basis of our verification, we certify that Capital Cost for i) 160 MVA, 220/132KV, 3 - Phase Auto Transformer at Kopili (DOCO 01.02.2010), ii) 132KV S/C Kopili-Khandong Transmission Line alongwith associated bays (DOCO 01.11.2010), iii) 100MVA, 220/132KV, 3 Phase Auto Transformer and associated bays at Dimapur Sub-Station (DOCO 01.01.2011) and iv) LILO of 132KV Dimapur-Kohima S/C Transmission Line (DOCO 01.04.2011), the combined assets DOCO being 01.04.2011 under "Missing Link Transmission System" in North-Eastern Region of Power Grid Corporation of India Limited, which is under commercial operation w.e.f. 01.04.2011 is detailed as under:

(₹ in Lakhs)

| SI. No. | Particulars | Tr. Line | Sub- Station | Communication system excl. OPGW | IT Equipment incl. software, UNMS, URTDSM, EMS, Cyber Security System, REMC, WAMS, SCADA System | Total |
|---------|---|----------|-----------------|---------------------------------|--|----------|
| 1 | Expenditure upto 31.03.2019 | 1,537.18 | 5,349.72 | 83.24 | 380.72 | 7,350.86 |
| 2 | Expenditure from 01.04.2019 to 31.03.2020 | - | - | - | - | _ |
| 3 | Expenditure from 01.04.2020 to 31.03.2021 | - | - | - | - | - |
| 4 | Expenditure from 01.04.2021 to 31.03.2022 | - | • | - | - | - |
| 5 | Expenditure from 01.04.2022 to 31.03.2023 | - | - | - | - | |
| 6 | Expenditure from 01.04.2023 to 31.03.2024 | - | - | - | - | - |
| 7 | Decapitalization [refer note (b) below] | - | -103.51 | - | - | -103.51 |
| | Total | 1,537.18 | 5,246.21 | 83.24 | 380.72 | 7,247.35 |

- a. We certify that we have verified the expenditure up to 31.03.2024 as referred above on the basis of the information extracted from the Audited Financial Statements of Power Grid Corporation of India Limited for Northeast Region.
- b. Rs. 103.51 Lakhs has been decapitalized as per of The Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019, due to conversion of 132 kV AIS bays into GIS bays under North Eastern Region Strengthening Scheme-III.

For Suresh Surana & Associates LLP **Chartered Accountants**

Firm Registration No. 121750WW100010

Avilas Agarwal Partner Membership No.: 062668 Place: Kolkata

Date: August 20th, 2024 UDIN: 24062668BKBIYX8796





Head Office

8th Floor, Bakhtawar. 229. Nariman Point Mumbai 400021IndiaT+91(22) 61214444

Statement of De-capitalisation

Name of the petitione Powergrid Corporation of India Ltd

Name of the Region NER

NER System Strengthening Scheme-I(Missing Link Transmission System in NER) Kopili HEP

Name of the Project Name of the

COD

| | | Rs in Lakh | | | | | | | |
|----|-----|---------------------------------|---|---|--|--|--|--|---|
| S. | No. | Year of Decapitali sation | Work/Equipment proposed to be de-capitalised | Year of capitalisation of asset/equipment being decapitalised | Original book value of asset being de capitalised(In Rs) | Debt Equity ratio at the time of capitalisation | Cumulative(In Rs) Depreciation corresponding to decapitalisation | Cumulative Repayment of Loan corresponding to decapitalisation | Justification |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (9) | (10) |
| | 1 | 2023-24 | 132kV ICT-2 BAY | 01.04.2011(Combined) | 103.51 | 70:30:00 | 70.54 | 70.54 | 132kV are converted to GIS bays under NERSS-III project as approved in 15th NERPC |
| | 2 | (15.12.2023) | 132kV Kopli Khandong Bay | | | | | | |



Summary of Tariff

Form No. - 1

| Name of the Transmission Licensee: Power Grid Corporation of India Limited | | | | | | | | |
|---|----------------------|-----|--------|-------------|--|--|--|--|
| Project Missing Link Transmission System | | | | | | | | |
| Element Description Combined Asset of 160 MVA 220/132 kV 3 phase Auto Transformer at Kopili and 132 kV S/C Kopili-Khandong TL alongwith associated b | | | | | | | | |
| Region | North Eastern Region | DOC | O Date | Apr 1, 2011 | | | | |

| 2040.20 | 2020.24 | 2024 22 | | 2002 04 | |
|----------|---|---|--|---|--|
| 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 | |
| 366.00 | 365.00 | 365.00 | 365.00 | 366.00 | |
| 366.00 | 365.00 | 365.00 | 365.00 | 366.00 | |
| 426.01 | 426.01 | 426.01 | 408.94 | 122.89 | |
| 150.56 | 111.89 | 73.26 | 35.44 | 11.24 | |
| 414.19 | 414.19 | 414.19 | 414.19 | 411.28 | |
| 24.67 | 22.84 | 21.10 | 20.70 | 19.35 | |
| 224.32 | 232.27 | 240.49 | 248.83 | 246.91 | |
| 1,239.75 | 1,207.20 | 1,175.05 | 1,128.10 | 811.67 | |
| | 366.00 426.01 150.56 414.19 24.67 224.32 | 366.00 365.00 366.00 365.00 426.01 426.01 150.56 111.89 414.19 414.19 24.67 22.84 224.32 232.27 | 366.00 365.00 366.00 365.00 426.01 426.01 426.01 426.01 150.56 111.89 73.26 414.19 414.19 24.67 22.84 21.10 224.32 232.27 240.49 | 366.00 365.00 365.00 365.00 366.00 365.00 365.00 365.00 426.01 426.01 426.01 408.94 150.56 111.89 73.26 35.44 414.19 414.19 414.19 414.19 24.67 22.84 21.10 20.70 224.32 232.27 240.49 248.83 | |



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

| Name of the Transmission Licensee Power Grid Corporation of India Limited | | | | | | | | |
|---|---|-------------|-----------|-------------|--|--|--|--|
| Project | Missing Link Transmiss | sion System | | | | | | |
| Element Description | 1/ OMONIOON 0.0000 OF 1/2/1 NN/N 990/199 IN/9 wheen Nute Transferrance at March 100 13/10/0 IV 2 19 1/1 1 THE 1 1/2 1/2 1/2 | | | | | | | |
| Region | North Eastern Region | | DOCO Date | Apr 1, 2011 | | | | |

1. Transmission Lines

(Amount in Rs. Lakh)

| Name of Line | Type of Line AC/ HVDC | S/C or D/C | No of Sub- Conductors | | Line Bays | Line Reactor (Including Switchable Reactor) | Line Length Km | Date of Commercial operation | pre | ed in the sent ition If No, Petition No. |
|--|-----------------------------|---------------|--------------------------|--------|--------------|--|----------------------|------------------------------------|-----|---|
| 132KV KOPILI-KHANDONG-2 T/L | AC | sc | 1 | 132 KV | 0.000 | 0.000 | 11.560 | Apr 1, 2011 | Υ | |
| LILO OF 132KV D/C DIMAPUR - KOHIMA TL AT DIMPAUR (PG) S/S | AC | DC | 1 | 132 KV | 0.000 | 0.000 | 0.347 | Apr 1, 2011 | Y | |

Summary:

| O&M Expenses For the Transmission Lines Covered in the instant petition | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |
|---|---------|---------|---------|---------|---------|
| SINGLE CIRCUIT (SINGLE CONDUCTOR) | | | | , | |
| Normative Rate of O&M as per Regulation | 0.252 | 0.26 | 0.27 | 0.279 | 0.289 |
| No. of Units - (Length in KM) | 11.56 | 11.56 | 11.56 | 11.56 | 11.56 |

| O&M Claimed | 2.91 | 3.01 | 3.12 | 3.23 | 3.34 |
|---|-------|-------|-------|-------|-------|
| DOUBLE CIRCUIT (SINGLE CONDUCTOR) | | | | | |
| Normative Rate of O&M as per Regulation | 0.377 | 0.391 | 0.404 | 0.419 | 0.433 |
| No. of Units - (Length in KM) | 0.347 | 0.347 | 0.347 | 0.347 | 0.347 |
| O&M Claimed | 0.13 | 0.14 | 0.14 | 0.15 | 0.15 |



2. Sub Station

| | Type of \Substation | Voltage Level KV | | No. of Bays | | | MVA/MVAR Capacity | | | Date of | Covered in the present petition | | | |
|---|---------------------|------------------------|-------|-------------|-----------|-----------|-------------------|-----------|-----------|-----------|---------------------------------|-----------------|----|----------------------------|
| Name of Sub-station | | | | 765 KV | 400 KV | 220 KV | 132 KV | 765 KV | 400 KV | 220 KV | 132 KV | Comm. operation | s/ | If No, Petitio n No. |
| Kopili:220/132 KV, 160MVA ICT | Conventio nal | 220 KV | | | | 1.000 | | | | | | Apr 1, 2011 | Υ | |
| Kopili:132 KV BAYS OF KOPILI-KHANDONG TL | | 132 KV | | | | | 2.000 | | | | | Apr 1, 2011 | Υ | |
| Kopili:132 KV BAYS OF KOPILI-KHANDONG TL | Conventio nal | 132 KV | | | | | 1.000 | | | | | Apr 1, 2011 | Υ | |
| Kopili:220/132 KV, 160MVA ICT | Conventio nal | 132 KV | | | | | 1.000 | | | | | Apr 1, 2011 | Υ | |
| Kopili:220/132 KV, 100MVA ICT-II BAY | Conventio nal | 220 KV | | | | 1.000 | | | | | | Apr 1, 2011 | Υ | |
| Kopili:220/132 KV, 100MVA ICT-II BAY | Conventio nal | 132 KV | | | | | 1.000 | | | | | Apr 1, 2011 | Υ | |
| Dimapur:LILO BAYS FOR 132KV D/C DIMAPUR - KOHIMA TL AT DIMPAUR (PG) S/S | Conventio nal | 132 KV | | | | | 2.000 | | | | | Apr 1, 2011 | Υ | |
| Kopili:ICT II AT KOPILI | Conventio nal | 220 KV | 1.000 | | | | | | | 160.00 | | Apr 1, 2011 | Υ | |
| Dimapur:ICT II AT DIMAPUR | Conventio nal | 220 KV | 1.000 | | | | | | | 100.00 | | Apr 1, 2011 | Υ | |

Summary:

| O&M Expenses For Substations Covered in the instant petition | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |
|--|---------|---------|---------|---------|---------|
| 220KV SUB-STATION | | , | 1 | | |
| Normative Rate of O&M as per Regulation | 22.51 | 23.30 | 24.12 | 24.96 | 25.84 |
| No. of Units | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| O&M Claimed | 45.02 | 46.60 | 48.24 | 49.92 | 51.68 |
| 132KV SUB-STATION AND BELOW | | 1 | ' | ' | |
| Normative Rate of O&M as per Regulation | 16.08 | 16.64 | 17.23 | 17.83 | 18.46 |
| No. of Units | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 |
| O&M Claimed | 112.56 | 116.48 | 120.61 | 124.81 | 118.42 |
| 220KV SUB-STATION ICT | 18.5] | | | | |
| Normative Rate of O&M as per Regulation | 0.245 | 0.254 | 0.263 | 0.272 | 0.282 |
| No. of Units | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| O&M Claimed | 63.70 | 66.04 | 68.38 | 70.72 | 73.32 |

| Particular | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |
|---|---------|---------|---------|---------|---------|
| A) Normative O&M | | | | | |
| Transmission Line | 3.04 | 3.15 | 3.26 | 3.38 | 3.49 |
| Substation | 221.28 | 229.12 | 237.23 | 245.45 | 243.42 |
| Communication System | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total Normative O&M | 224.32 | 232.27 | 240.49 | 248.83 | 246.91 |
| B) O&M Claimed under Regulation 35 (3)(C) (* The same is not being claimed and will be claimed through separate Petition) | 1 | | | , | |
| *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 | 224.32 | 232.27 | 240.49 | 248.83 | 246.91 |



Normative parameters considered for tariff computations

| Name of the | Transmission Licensee | Power Grid Corporation of India Limited | | | | | | |
|---|-------------------------|---|-----------|-------------|--|--|--|--|
| Project | Missing Link Transmissi | on System | | | | | | |
| Element Combined Asset of 160 MVA 220/132 kV 3 phase Auto Transformer at Kopili and 132 kV S/C Kopili-Khand TL alongwith associated b | | | | | | | | |
| Region | North Eastern Region | | DOCO Date | Apr 1, 2011 | | | | |

(Amount in Rs. Lakh) 2020-21 **Particulars** 2018-19 2019-20 2021-22 2022-23 2023-24 Base Rate of Return of Equity (in %) 21.55 17.472 17.472 17.472 17.472 17.472 Tax Rate (in %) Effective tax rate (in %) 19.758 18.782 18.782 18.782 18.782 Grossed up Rate of ROE (in %) 18.782 Target availability - AC System (in %) 98.00 98.00 98.00 98.00 98.00 98.00 Target availability - HVDC System (in %) 96.00 96.00 96.00 96.00 96.00 96.00 Norms for sub-station Bays (Rs Lakh per bay) 96.20 45.01 46.60 48.23 765 kV 49.93 51.68 400 kV 68.71 32.15 33.28 34.45 35.66 36.91 22.51 23.30 220 kV 48.10 24.12 24.96 25.84 132 kV and below 34.36 16.08 16.64 17.23 17.83 18.46 Norms for Transformers (Rs Lakh per MVA) 0.508 765 kV 0.00 0.491 0.526 0.545 0.564 0.00 0.358 0.371 0.384 0.398 400 kV 0.411 220 kV 0.00 0.245 0.254 0.263 0.272 0.282 132 kV and below 0.00 0.245 0.254 0.263 0.272 0.282 Norms for AC and HVDC lines (Rs Lakh per Single Circuit (Bundled Conductor with six or 0.806 0.881 0.912 0.944 0.977 1.011 more sub-conductors) Single Circuit (Bundled conductor with four sub-0.755 0.781 0.691 0.809 0.837 0.867 conductors) 0.503 0.521 0.461 0.539 0.558 0.578 Single Circuit (Twin & Triple Conductor)

| 0.23 1.21 0.806 | 0.252 1.322 | 0.26 1.368 | 0.27 | 0.279 | 0.289 |
|-----------------------|--|--|--|---|--|
| | 1.322 | 1.368 | 4 440 | | |
| 0.806 | | | 1.416 | 1.466 | 1.517 |
| 0.000 | 0.881 | 0.912 | 0.944 | 0.977 | 1.011 |
| 0.346 | 0.377 | 0.391 | 0.404 | 0.419 | 0.433 |
| 2.123 | 2.319 | 2.401 | 2.485 | 2.572 | 2.662 |
| 1.413 | 1.544 | 1.598 | 1.654 | 1.713 | 1.773 |
| | | • | | | |
| 0.00 | 834.00 | 864.00 | 894.00 | 925.00 | 958.00 |
| 0.00 | 1,666.00 | 1,725.00 | 1,785.00 | 1,848.00 | 1,913.00 |
| 0.00 | 2,252.00 | 2,331.00 | 2,413.00 | 2,498.00 | 2,586.00 |
| 0.00 | 2,468.00 | 2,555.00 | 2,645.00 | 2,738.00 | 2,834.00 |
| 0.00 | 1,696.00 | 1,756.00 | 1,817.00 | 1,881.00 | 1,947.00 |
| 0.00 | 2,563.00 | 2,653.00 | 2,746.00 | 2,842.00 | 2,942.00 |
| | 2.123 1.413 0.00 0.00 0.00 0.00 | 2.123 2.319 1.413 1.544 0.00 834.00 0.00 1,666.00 0.00 2,252.00 0.00 2,468.00 0.00 1,696.00 | 2.123 2.319 2.401 1.413 1.544 1.598 0.00 834.00 864.00 0.00 1,666.00 1,725.00 0.00 2,252.00 2,331.00 0.00 2,468.00 2,555.00 0.00 1,696.00 1,756.00 | 2.123 2.319 2.401 2.485 1.413 1.544 1.598 1.654 0.00 834.00 864.00 894.00 0.00 1,666.00 1,725.00 1,785.00 0.00 2,252.00 2,331.00 2,413.00 0.00 2,468.00 2,555.00 2,645.00 0.00 1,696.00 1,756.00 1,817.00 | 2.123 2.319 2.401 2.485 2.572 1.413 1.544 1.598 1.654 1.713 0.00 834.00 864.00 894.00 925.00 0.00 1,666.00 1,725.00 1,785.00 1,848.00 0.00 2,252.00 2,331.00 2,413.00 2,498.00 0.00 2,468.00 2,555.00 2,645.00 2,738.00 0.00 1,696.00 1,756.00 1,817.00 1,881.00 |

Calculation of ROE

| Name of the 1 | Fransmission Licensee | Power Grid Corporation of India Limited | | | | | | |
|--|-----------------------|---|----------|-------------|--|--|--|--|
| Project Missing Link Transmission System | | | | | | | | |
| Element Description | | | | | | | | |
| Region | North Eastern Region | DC | OCO Date | Apr 1, 2011 | | | | |

| Particulars | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |
|--|----------|----------|----------|----------|----------|
| No. of Days in the year | 366.00 | 365.00 | 365.00 | 365.00 | 366.00 |
| No. of days for which tariff claimed | 366.00 | 365.00 | 365.00 | 365.00 | 366.00 |
| Opening Normative Equity | 2,205.26 | 2,205.26 | 2,205.26 | 2,205.26 | 2,205.26 |
| 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) | 2,205.26 | 2,205.26 | 2,205.26 | 2,205.26 | 2,205.26 |
| Add: Increase in Equity due to addition during the year / period | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Less: Decrease due to de-capitalisation during the year / period | 0.00 | 0.00 | 0.00 | 0.00 | 31.05 |
| Add: Increase due to discharge during the year / period | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Closing Normative Equity | 2,205.26 | 2,205.26 | 2,205.26 | 2,205.26 | 2,174.21 |
| Average Normative Equity | 2,205.26 | 2,205.26 | 2,205.26 | 2,205.26 | 2,189.74 |
| Rate of return on Equity (%) | 18.782 | 18.782 | 18.782 | 18.782 | 18.782 |
| 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 | 15.50 | 15.50 | 15.50 | 15.50 | 15.50 |
| MAT/Corporate Rate | 17.472 | 17.472 | 17.472 | 17.472 | 17.472 |
| Grossed up rate of ROE | 18.782 | 18.782 | 18.782 | 18.782 | 18.782 |
| Return on Equity | 414.19 | 414.19 | 414.19 | 414.19 | 411.28 |
| Pro rata return on Equity | 414.19 | 414.19 | 414.19 | 414.19 | 411.28 |

Calculation of WAR of interest on actual loan

| Name of the Transmission Licensee Power Grid Corporation of India Limited | | | | | | | | | |
|---|--|-------------|-----------|-------------|--|--|--|--|--|
| Project | Missing Link Transmis | sion System | | | | | | | |
| Element Description | Combined Asset of 160 MVA 220/132 kV 3 phase Auto Transformer at Kopili and 132 kV S/C Kopili-Khandong TL alongwith associated b | | | | | | | | |
| Region | North Eastern Region | | DOCO Date | Apr 1, 2011 | | | | | |

| | | | | (Amount in Ns. Lakin) | |
|---|---------|---------|---------|-----------------------|---------|
| Particulars | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |
| BOND XXVIII -DOCO DRAWL ON 01-APR | | | | | |
| Gross Loan- Opening | 400.00 | 400.00 | 400.00 | 400.00 | 400.00 |
| Cumulative repayments of Loans upto previous year | 233.33 | 266.67 | 300.00 | 333.33 | 366.67 |
| Net loan-Opening | 166.67 | 133.33 | 100.00 | 66.67 | 33.33 |
| Add: Drawl(s) during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Less: Repayment(s) of loan during the year | 33.33 | 33.33 | 33.33 | 33.33 | 33.33 |
| Net Loan-Closing | 133.34 | 100.00 | 66.67 | 33.34 | 0.00 |
| Average Net Loan | 150.01 | 116.67 | 83.34 | 50.01 | 16.67 |
| Rate of Interest on Loan on Annual Basis | 9.33 | 9.33 | 9.33 | 9.33 | 9.33 |
| Interest on loan | 13.9959 | 10.8853 | 7.7756 | 4.6659 | 1.5553 |

| BOND XXIX -DOCO DRAWL ON 01-APR | | | | | |
|---|----------|----------|----------|----------|-------------|
| Gross Loan- Opening | 2,040.00 | 2,040.00 | 2,040.00 | 2,040.00 | 2,040.00 |
| Cumulative repayments of Loans upto previous year | 1,190.00 | 1,360.00 | 1,530.00 | 1,700.00 | 1,870.00 |
| Net loan-Opening | 850.00 | 680.00 | 510.00 | 340.00 | 170.00 |
| Add: Drawl(s) during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Less: Repayment(s) of loan during the year | 170.00 | 170.00 | 170.00 | 170.00 | 170.00 |
| Net Loan-Closing | 680.00 | 510.00 | 340.00 | 170.00 | RATION Q.00 |

| Average Net Loan | 765.00 | 595.00 | 425.00 | 255.00 | 85.00 |
|--|--------|--------|--------|--------|-------|
| Rate of Interest on Loan on Annual Basis | 9.20 | 9.20 | 9.20 | 9.20 | 9.20 |
| Interest on loan | 70.38 | 54.74 | 39.10 | 23.46 | 7.82 |

| BOND XXX -DOCO DRAWL ON 01-APR | | | | | |
|---|----------|----------|----------|----------|----------|
| Gross Loan- Opening | 1,195.00 | 1,195.00 | 1,195.00 | 1,195.00 | 1,195.00 |
| Cumulative repayments of Loans upto previous year | 597.50 | 697.08 | 796.67 | 896.25 | 995.83 |
| Net loan-Opening | 597.50 | 497.92 | 398.33 | 298.75 | 199.17 |
| Add: Drawl(s) during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Less: Repayment(s) of loan during the year | 99.58 | 99.58 | 99.58 | 99.58 | 99.58 |
| Net Loan-Closing | 497.92 | 398.34 | 298.75 | 199.17 | 99.59 |
| Average Net Loan | 547.71 | 448.13 | 348.54 | 248.96 | 149.38 |
| Rate of Interest on Loan on Annual Basis | 8.80 | 8.80 | 8.80 | 8.80 | 8.80 |
| Interest on loan | 48.1985 | 39.4354 | 30.6715 | 21.9085 | 13.1454 |

| BOND XXXI -DOCO DRAWL ON 01-APR | | | | | |
|---|--------|--------|--------|--------|-------------|
| Gross Loan- Opening | 194.00 | 194.00 | 194.00 | 194.00 | 194.00 |
| Cumulative repayments of Loans upto previous year | 97.00 | 113.17 | 129.33 | 145.50 | 161.67 |
| Net loan-Opening | 97.00 | 80.83 | 64.67 | 48.50 | 32.33 |
| Add: Drawl(s) during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Less: Repayment(s) of loan during the year | 16.17 | 16.17 | 16.17 | 16.17 | 16.17 |
| Net Loan-Closing | 80.83 | 64.66 | 48.50 | 32.33 | 16.16 |
| Average Net Loan | 88.92 | 72.75 | 56.59 | 40.42 | 24.25 |
| Rate of Interest on Loan on Annual Basis | 8.90 | 8.90 | 8.90 | 8.90 | 8.90 |
| Interest on loan | 7.9139 | 6.4748 | 5.0365 | 3.5974 | ATIO/2.1583 |

| BOND XXXIII -DOCO DRAWL ON 01-APR | | | | | |
|---|--------|--------|--------|--------|--------|
| Gross Loan- Opening | 175.00 | 175.00 | 175.00 | 175.00 | 175.00 |
| Cumulative repayments of Loans upto previous year | 72.92 | 87.50 | 102.08 | 116.67 | 131.25 |
| Net loan-Opening | 102.08 | 87.50 | 72.92 | 58.33 | 43.75 |
| Add: Drawl(s) during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Less: Repayment(s) of loan during the year | 14.58 | 14.58 | 14.58 | 14.58 | 14.58 |
| Net Loan-Closing | 87.50 | 72.92 | 58.34 | 43.75 | 29.17 |
| Average Net Loan | 94.79 | 80.21 | 65.63 | 51.04 | 36.46 |
| Rate of Interest on Loan on Annual Basis | 8.64 | 8.64 | 8.64 | 8.64 | 8.64 |
| Interest on loan | 8.1899 | 6.9301 | 5.6704 | 4.4099 | 3.1501 |
| | | | | | |

| BOND-XXXIV -DOCO DRAWL ON 01-APR | | | | | |
|---|--------|---------|---------|---------|---------|
| Gross Loan- Opening | 593.00 | 593.00 | 593.00 | 593.00 | 593.00 |
| Cumulative repayments of Loans upto previous year | 247.08 | 296.50 | 345.92 | 395.33 | 444.75 |
| Net loan-Opening | 345.92 | 296.50 | 247.08 | 197.67 | 148.25 |
| Add: Drawl(s) during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Less: Repayment(s) of loan during the year | 49.42 | 49.42 | 49.42 | 49.42 | 49.42 |
| Net Loan-Closing | 296.50 | 247.08 | 197.66 | 148.25 | 98.83 |
| Average Net Loan · | 321.21 | 271.79 | 222.37 | 172.96 | 123.54 |
| Rate of Interest on Loan on Annual Basis | 8.84 | 8.84 | 8.84 | 8.84 | 8.84 |
| Interest on loan | 28.395 | 24.0262 | 19.6575 | 15.2897 | 10.9209 |

| BOND-XXXV -ADDCAP FOR ADDCAP F | | | | | |
|---|--------|--------|--------|--------|--------|
| Gross Loan- Opening | 184.94 | 184.94 | 184.94 | 184.94 | 184.94 |
| Cumulative repayments of Loans upto previous year | 61.65 | 77.06 | 92.47 | 107.88 | 123.29 |
| Net loan-Opening | 123.29 | 107.88 | 92.47 | 77.06 | 61.65 |

| Add: Drawl(s) during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
|--|---------|--------|--------|--------|--------|
| Less: Repayment(s) of loan during the year | 15.41 | 15.41 | 15.41 | 15.41 | 15.41 |
| Net Loan-Closing | 107.88 | 92.47 | 77.06 | 61.65 | 46.24 |
| Average Net Loan | 115.59 | 100.18 | 84.77 | 69.36 | 53.95 |
| Rate of Interest on Loan on Annual Basis | 9.64 | 9.64 | 9.64 | 9.64 | 9.64 |
| Interest on loan | 11.1429 | 9.6574 | 8.1718 | 6.6863 | 5.2008 |

| BOND-XXXV -DECAP LOAN | | | | | |
|---|------|------|------|------|---------|
| Gross Loan- Opening | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Cumulative repayments of Loans upto previous year | 0.00 | 0.00 | 0.00 | 0.00 | -48.31 |
| Net loan-Opening | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Add: Drawl(s) during the year | 0.00 | 0.00 | 0.00 | 0.00 | -72.46 |
| Less: Repayment(s) of loan during the year | 0.00 | 0.00 | 0.00 | 0.00 | -6.04 |
| Net Loan-Closing | 0.00 | 0.00 | 0.00 | 0.00 | -66.42 |
| Average Net Loan | 0.00 | 0.00 | 0.00 | 0.00 | -33.21 |
| Rate of Interest on Loan on Annual Basis | 9.64 | 9.64 | 9.64 | 9.64 | 9.64 |
| Interest on loan | 0.00 | 0.00 | 0.00 | 0.00 | -3.2014 |

| BOND-XXXV -DOCO FUNDING | | | | | |
|---|--------|--------|--------|--------|--------|
| Gross Loan- Opening | 154.50 | 154.50 | 154.50 | 154.50 | 154.50 |
| Cumulative repayments of Loans upto previous year | 51.50 | 64.38 | 77.25 | 90.13 | 103.00 |
| Net loan-Opening | 103.00 | 90.12 | 77.25 | 64.37 | 51.50 |
| Add: Drawl(s) during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Less: Repayment(s) of loan during the year | 12.88 | 12.88 | 12.88 | 12.88 | 12.88 |
| Net Loan-Closing | 90.12 | 77.24 | 64.37 | 51.49 | 38.62 |
| Average Net Loan | 96.56 | 83.68 | 70.81 | 57.93 | 45.06 |

| Rate of Interest on Loan on Annual Basis | 9.64 | 9.64 | 9.64 | 9.64 | 9.64 |
|--|--------|--------|--------|--------|--------|
| Interest on loan | 9.3084 | 8.0668 | 6.8261 | 5.5845 | 4.3438 |

| BOND XXXVII -ADDCAP FOR ADDCAP F | | | | | |
|---|--------|--------|--------|--------|--------|
| Gross Loan- Opening | 182.84 | 182.84 | 182.84 | 182.84 | 182.84 |
| Cumulative repayments of Loans upto previous year | 60.95 | 76.18 | 91.42 | 106.66 | 121.89 |
| Net loan-Opening | 121.89 | 106.66 | 91.42 | 76.18 | 60.95 |
| Add: Drawl(s) during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Less: Repayment(s) of loan during the year | 15.24 | 15.24 | 15.24 | 15.24 | 15.24 |
| Net Loan-Closing | 106.65 | 91.42 | 76.18 | 60.94 | 45.71 |
| Average Net Loan | 114.27 | 99.04 | 83.80 | 68.56 | 53.33 |
| Rate of Interest on Loan on Annual Basis | 9.25 | 9.25 | 9.25 | 9.25 | 9.25 |
| Interest on loan | 10.57 | 9.1612 | 7.7515 | 6.3418 | 4.933 |

| SBI (2014-15) -ADD CAP 14-15 | | | | | |
|---|----------|----------|--------|----------|------------|
| Gross Loan- Opening | 4.08 | 4.08 | 4.08 | 4.08 | 4.08 |
| Cumulative repayments of Loans upto previous year | 0.00 | 0.41 | 0.82 | 1.22 | 1.63 |
| Net loan-Opening | 4.08 | 3.67 | 3.26 | 2.86 | 2.45 |
| Add: Drawl(s) during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Less: Repayment(s) of loan during the year | 0.41 | 0.41 | 0.41 | 0.41 | 0.41 |
| Net Loan-Closing | 3.67 | 3.26 | 2.85 | 2.45 | 2.04 |
| Average Net Loan | 3.88 | 3.47 | 3.06 | 2.66 | 2.25 |
| Rate of Interest on Loan on Annual Basis | 7.993319 | 6.894349 | 6.65 | 7.243625 | 8.135644 |
| Interest on loan | 0.3101 | 0.2392 | 0.2035 | 0.1927 | RATIO 1831 |

| Gross Loan- Opening | 11.89 | 11.89 | 11.89 | 11.89 | 11.89 |
|---|--------|--------|--------|--------|--------|
| Cumulative repayments of Loans upto previous year | 0.00 | 3.96 | 3.96 | 3.96 | 3.96 |
| Net loan-Opening | 11.89 | 7.93 | 7.93 | 7.93 | 7.93 |
| Add: Drawl(s) during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Less: Repayment(s) of loan during the year | 3.96 | 0.00 | 0.00 | 0.00 | 0.00 |
| Net Loan-Closing | 7.93 | 7.93 | 7.93 | 7.93 | 7.93 |
| Average Net Loan | 9.91 | 7.93 | 7.93 | 7.93 | 7.93 |
| Rate of Interest on Loan on Annual Basis | 9.30 | 9.30 | 9.30 | 9.30 | 9.30 |
| Interest on loan | 0.9216 | 0.7375 | 0.7375 | 0.7375 | 0.7375 |

| BOND 59 -ADD CAP 2018-19 | | | | | |
|---|--------|--------|--------|--------|--------|
| Gross Loan- Opening | 10.35 | 10.35 | 10.35 | 10.35 | 10.35 |
| Cumulative repayments of Loans upto previous year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Net loan-Opening | 10.35 | 10.35 | 10.35 | 10.35 | 10.35 |
| 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 | 0.00 | 0.00 | 0.00 |
| Net Loan-Closing | 10.35 | 10.35 | 10.35 | 10.35 | 10.35 |
| Average Net Loan | 10.35 | 10.35 | 10.35 | 10.35 | 10.35 |
| Rate of Interest on Loan on Annual Basis | 7.30 | 7.30 | 7.30 | 7.30 | 7.30 |
| Interest on loan | 0.7556 | 0.7556 | 0.7556 | 0.7556 | 0.7556 |

Summary

| Gross Loan- Opening | 5,145.60 | 5,145.60 | 5,145.60 | 5,145.60 | 5,145.60 |
|---|----------|----------|----------|----------|----------|
| Cumulative repayments of Loans upto previous year | 2,611.93 | 3,042.91 | 3,469.92 | 3,896.93 | 4,275.63 |
| Net loan-Opening | 2,533.67 | 2,102.69 | 1,675.68 | 1,248.67 | 821.66 |

| Add: Drawl(s) during the year | 0.00 | 0.00 | 0.00 | 0.00 | -72.46 |
|--|----------|----------|----------|----------|---------|
| Less: Repayment(s) of loan during the year | 430.98 | 427.02 | 427.02 | 427.02 | 420.98 |
| Net Loan-Closing | 2,102.69 | 1,675.67 | 1,248.66 | 821.65 | 328.22 |
| Average Net Loan | 2,318.20 | 1,889.20 | 1,462.19 | 1,035.18 | 574.96 |
| Rate of Interest on Loan on Annual Basis | 9.0623 | 9.0572 | 9.052 | 9.0448 | 8.9923 |
| Interest on loan | 210.0818 | 171.1095 | 132.3575 | 93.6298 | 51.7024 |



| Name of the 1 | Fransmission Licensee | Power Grid Corporation | on of India Limite | d | | | | | |
|------------------------|--|------------------------|--------------------|-------------|--|--|--|--|--|
| Project | Missing Link Transmiss | ion System | | | | | | | |
| Element Description | Combined Asset of 160 MVA 220/132 kV 3 phase Auto Transformer at Kopili and 132 kV S/C Kopili-Khandong TL alongwith associated b | | | | | | | | |
| Region | North Eastern Region | | DOCO Date | Apr 1, 2011 | | | | | |

| Particulars | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |
|--|----------|----------|----------|----------|----------|
| No. of Days in the Year | 366.00 | 365.00 | 365.00 | 365.00 | 366.00 |
| No. of days for which Tariff claimed | 366.00 | 365.00 | 365.00 | 365.00 | 366.00 |
| Gross normative loan-Opening | 5,145.60 | 5,145.60 | 5,145.60 | 5,145.60 | 5,145.60 |
| Cumulative repayments of Normative loan upto previous year | 3,271.23 | 3,697.24 | 4,123.25 | 4,549.26 | 4,958.20 |
| Net normative loan-Opening | 1,874.37 | 1,448.36 | 1,022.35 | 596.34 | 187.40 |
| Addition in normative loan towards the ACE | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Adjustment of normative gross loan pertaining to the decapitalised asset | 0.00 | 0.00 | 0.00 | 0.00 | 72.46 |
| Normative repayments of normative loan during the year | 426.01 | 426.01 | 426.01 | 408.94 | 122.89 |
| Adjustment of cumulative repayment pertaining to the decapitalised asset | 0.00 | 0.00 | 0.00 | 0.00 | 70.54 |
| Net normative loan - closing | 1,448.36 | 1,022.35 | 596.34 | 187.40 | 62.59 |
| Average normative loan | 1,661.37 | 1,235.36 | 809.35 | 391.87 | 125.00 |
| Weighted Average Rate of interest on actual loan | 9.0623 | 9.0572 | 9.052 | 9.0448 | 8.9923 |
| Interest on normative loan | 150.56 | 111.89 | 73.26 | 35.44 | 11.24 |
| Pro rata interest on normative loan | 150.56 | 111.89 | 73.26 | 35.44 | 11.24 |

Calculation of Depreciation Rate on Original Project Cost

Form No. - 10

| Name of the | Transmission Licensee | Power Grid Corpora | tion of India Limite | ed |
|------------------------|---------------------------|--------------------|----------------------|---|
| Project | Missing Link Transmission | n System | | |
| Element Description | Combined Asset of 160 M | | ase Auto Transfor | rmer at Kopili and 132 kV S/C Kopili-Khandong |
| Region | North Eastern Region | | DOCO Date | Apr 1, 2011 |

| 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 31.03.2024 |
|--|---|-------------------------------|---|---------------------------|--|--|
| 2019-20 | rī- | | | | | |
| 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 | 1,537.18 | 0.00 | 1,537.18 | 1,537.18 | 5.28 | 81.16 |
| Sub Station | 5,349.72 | 0.00 | 5,349.72 | 5,349.72 | 5.28 | 282.47 |
| Comm. Sys. excluding Fiber Optic | 83.24 | 0.00 | 83.24 | 83.24 | 6.33 | 5.27 |
| Leasehold Land | 0.00 | 0.00 | 0.00 | 0.00 | 3.34 | 0.00 |
| IT/Software/UNMS/URTDSM/ SCADA,etc | 380.72 | 0.00 | 380.72 | 380.72 | 15.00 | 57.11 |
| Batteries | 0.00 | 0.00 | 0.00 | 0.00 | 5.28 | 0.00 |
| Fiber Optic/OPGW | 0.00 | 0.00 | 0.00 | 0.00 | 6.33 | 0.00 |
| TOTAL | 7,350.86 | 0.00 | 7,350.86 | 7,350.86 | 0.00 | 426.01 |
| Weighted Average Rate of Depreciation(%) | | | | | 5.795376 | |

| 2020-21 | | | | | |
|----------------|------|------|------|------|-------------------|
| Land(Freehold) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 ORATION 0.00 |

| Weighted Average Rate of Depreciation(%) | | | | | 5.795376 | |
|--|----------|------|----------|----------|----------|--------|
| TOTAL | 7,350.86 | 0.00 | 7,350.86 | 7,350.86 | 0.00 | 426.01 |
| Fiber Optic/OPGW | 0.00 | 0.00 | 0.00 | 0.00 | 6.33 | 0.00 |
| Batteries | 0.00 | 0.00 | 0.00 | 0.00 | 5.28 | 0.00 |
| IT/Software/UNMS/URTDSM/ SCADA,etc | 380.72 | 0.00 | 380.72 | 380.72 | 15.00 | 57.11 |
| Leasehold Land | 0.00 | 0.00 | 0.00 | 0.00 | 3.34 | 0.00 |
| Comm. Sys. excluding Fiber Optic | 83.24 | 0.00 | 83.24 | 83.24 | 6.33 | 5.27 |
| Sub Station | 5,349.72 | 0.00 | 5,349.72 | 5,349.72 | 5.28 | 282.47 |
| Transmission Line | 1,537.18 | 0.00 | 1,537.18 | 1,537.18 | 5.28 | 81.16 |
| Civil & Building | 0.00 | 0.00 | 0.00 | 0.00 | 3.34 | 0.00 |

| 2021-22 | | | | | | |
|--|----------|------|----------|----------|----------|--|
| 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 | 1,537.18 | 0.00 | 1,537.18 | 1,537.18 | 5.28 | 81.16 |
| Sub Station | 5,349.72 | 0.00 | 5,349.72 | 5,349.72 | 5.28 | 282.47 |
| Comm. Sys. excluding Fiber Optic | 83.24 | 0.00 | 83.24 | 83.24 | 6.33 | 5.27 |
| Leasehold Land | 0.00 | 0.00 | 0.00 | 0.00 | 3.34 | 0.00 |
| IT/Software/UNMS/URTDSM/ SCADA,etc | 380.72 | 0.00 | 380.72 | 380.72 | 15.00 | 57.11 |
| Batteries | 0.00 | 0.00 | 0.00 | 0.00 | 5.28 | 0.00 |
| Fiber Optic/OPGW | 0.00 | 0.00 | 0.00 | 0.00 | 6.33 | 0.00 |
| TOTAL | 7,350.86 | 0.00 | 7,350.86 | 7,350.86 | 0.00 | 426.01 |
| Weighted Average Rate of Depreciation(%) | | | | | 5.795376 | E CONTRACTOR OF THE PARTY OF TH |

| 2022-23 | | | | | | |
|--|----------|------|----------|----------|----------|--------|
| 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 | 1,537.18 | 0.00 | 1,537.18 | 1,537.18 | 5.28 | 81.16 |
| Sub Station | 5,349.72 | 0.00 | 5,349.72 | 5,349.72 | 5.28 | 282.47 |
| Comm. Sys. excluding Fiber Optic | 83.24 | 0.00 | 83.24 | 83.24 | 6.33 | 5.27 |
| Leasehold Land | 0.00 | 0.00 | 0.00 | 0.00 | 3.34 | 0.00 |
| IT/Software/UNMS/URTDSM/ SCADA,etc | 380.72 | 0.00 | 380.72 | 380.72 | 15.00 | 40.04 |
| Batteries | 0.00 | 0.00 | 0.00 | 0.00 | 5.28 | 0.00 |
| Fiber Optic/OPGW | 0.00 | 0.00 | 0.00 | 0.00 | 6.33 | 0.00 |
| TOTAL | 7,350.86 | 0.00 | 7,350.86 | 7,350.86 | 0.00 | 408.94 |
| Weighted Average Rate of Depreciation(%) | | | | | 5.563159 | |

| 2023-24 | | | | | | |
|---------------------------------------|----------|---------|---------------|----------|-------|--------|
| 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 | 1,537.18 | 0.00 | 1,537.18 | 1,537.18 | 5.28 | 26.76 |
| Sub Station | 5,349.72 | -103.51 | 5,246.21 | 5,297.97 | 5.28 | 94.93 |
| Comm. Sys. excluding Fiber Optic | 83.24 | 0.00 | 83.24 | 83.24 | 6.33 | 1.20 |
| Leasehold Land | 0.00 | 0.00 | 0.00 | 0.00 | 3.34 | 0.00 |
| IT/Software/UNMS/URTDSM/ SCADA,etc | 380.72 | 0.00 | 380.72 | 380.72 | 15.00 | 0.00 |
| Batteries | 0.00 | 0.00 | 0.00 | 0.00 | 5.28 | 0.00 |
| Fiber Optic/OPGW | 0.00 | 0.00 | 0.00 | 0.00 | 6.33 | 0.00 |
| TOTAL | 7,350.86 | -103.51 | 7,247.35 2 | 7,299.11 | 0.00 | 122.89 |

Page 3 of 4

0250005 : Truing Up: Combined Asset of 160 MVA 220/132 kV 3 phase Auto Transform at Kepffi and 32 kV S/C Kopili-Khandong TL alongwith associated b



Statement of Depreciation

| Name of the | Transmission Licensee | Power Grid Corporation of India Limited | | | | | |
|------------------------|--|---|-----------|-------------|--|--|--|
| Project | Missing Link Transmiss | ion System | | | | | |
| Element Description | Combined Asset of 160 MVA 220/132 kV 3 phase Auto Transformer at Kopili and 132 kV S/C Kopili-Khandong TL alongwith associated b | | | | | | |
| Region | North Eastern Region | | DOCO Date | Apr 1, 2011 | | | |

(Amount in Rs. Lakh) **Particulars** 2019-20 2020-21 2021-22 2022-23 2023-24 No of Days in the year 366.00 365.00 365.00 365.00 366.00 366.00 365.00 No of days for which tariff claimed 365.00 365.00 366.00 Life at the beginning of the year 1.1 Weighted Average useful life of the Asset/ 26.00 26.00 26.00 26.00 26.00 **Project** 1.2 Lapsed Weighted Average useful life of the 8.00 9.00 10.00 11.00 12.00 Asset/Project(in completed no. of year) 1.3 Balance Weighted Average useful life of 18.00 17.00 16.00 15.00 14.00 the Asset/Project(in completed no. of year) **Capital Base** 1.4 Opening capital cost 7.350.86 7.350.86 7.350.86 7.350.86 7.350.86 0.00 0.00 1.5 Additional Capital Expenditure dr. the year 0.00 0.00 0.00 0.00 0.00 1.6 De-Capitalisation During the year 0.00 0.00 103.51 1.7 Closing capital cost 7,350.86 7,350.86 7.350.86 7.350.86 7,247.35 1.8 Average capital cost 7,350.86 7,350.86 7,350.86 7,350.86 7,299.11 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 380.72 380.72 380.72 380.72 380.72 in 1.8 1.11 Asset having 10% salvage value included 6,970.14 6,970.14 6,970.14 6,970.14 6,918.39 in 1.8 1.12 Depreciable Value(1.10+90% of 1.11) 6,653.85 6,653.85 6,653.85 6,653.85 6,607.27 Depreciation for the period and Cum. Depreciation 1.13 Weighted Average Rate of depreciation 5.795376 5.795376 5.795376 5.563159 1.68363

| 1.14 Depreciation(for the period) | 426.01 | 426.01 | 426.01 | 408.94 | 122.89 |
|---|----------|----------|----------|----------|----------|
| 1.15 Depreciation(Annualised) | 426.01 | 426.01 | 426.01 | 408.94 | 122.89 |
| 1.16 Cumulative depreciation at the beginning of the period | 3,270.34 | 3,696.35 | 4,122.36 | 4,548.37 | 4,957.31 |
| 1.17 Less:Adj of Cum. Dep pertaining to decapitalised Asset | 0.00 | 0.00 | 0.00 | 0.00 | 70.54 |
| 1.18 Cumulative depreciation at the end of the period | 3,696.35 | 4,122.36 | 4,548.37 | 4,957.31 | 5,009.66 |
| Unrecovered Depreciation for DECAP | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| Name of the | Transmission Licensee | Power Grid Corporation of India Limited | | | | | |
|------------------------|--|---|--|--|--|--|--|
| Project | Missing Link Transmissio | ı System | | | | | |
| Element Description | Combined Asset of 160 MVA 220/132 kV 3 phase Auto Transformer at Kopili and 132 kV S/C Kopili-Khandong TL alongwith associated b | | | | | | |
| Region | North Eastern Region | DOCO Date Apr 1, 2011 | | | | | |

| Particulars | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |
|---|---------|---------|---------|---------|---------|
| No of Days in the year | 366.00 | 365.00 | 365.00 | 365.00 | 366.00 |
| No of days for which tariff claimed | 366.00 | 365.00 | 365.00 | 365.00 | 366.00 |
| O&M Expenses-one month | 18.69 | 19.36 | 20.04 | 20.74 | 21.48 |
| Maintenance spares 15% of O&M Expenses | 33.65 | 34.84 | 36.07 | 37.32 | 38.66 |
| Receivables equivalent to 45 days of AFC | 152.43 | 148.83 | 144.87 | 139.08 | 101.12 |
| Total Working capital | 204.77 | 203.03 | 200.98 | 197.14 | 161.26 |
| Bank Rate as on 01.04.2019 or as on 01st April of the COD year,whichever is later. | 12.05 | 11.25 | 10.50 | 10,50 | 12.00 |
| Interest on working capital | 24.67 | 22.84 | 21.10 | 20.70 | 19.35 |
| Pro rata interest on working capital | 24.67 | 22.84 | 21.10 | 20.70 | 19.35 |

| Name of the 1 | Fransmission Licensee: | Power Grid Corporation | on of India Limited | i | | | |
|------------------------|--|------------------------|---------------------|-------------|--|--|--|
| Project | Project Missing Link Transmission System | | | | | | |
| Element Description | Combined Asset of 160 MVA 220/132 kV 3 phase Auto Transformer at Kopili and 132 kV S/C Kopili-Khandong TL alongwith associated b | | | | | | |
| Region | North Eastern Region | | DOCO Date | Apr 1, 2011 | | | |

| 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 | 365.00 | 365.00 | 365.00 | 366.00 | 365.00 |
| Depreciation-Form No. 10A | 119.31 | 119.31 | 119.31 | 119.31 | 119.31 |
| Interest on Loan-Form No. 9E | 2.81 | 0.00 | 0.00 | 0.00 | 0.00 |
| Return on Equity-Form No. 8 | 408.36 | 408.36 | 408.36 | 408.36 | 408.36 |
| Int. on Working capital-Form No.11 | 16.14 | 16.53 | 16.98 | 17.43 | 17.97 |
| Op. and maintenance-Form No.2 | 191.33 | 201.43 | 211.88 | 222.97 | 234.84 |
| Total AFC | 737.95 | 745.63 | 756.53 | 768.07 | 780.48 |



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

| Name of the T | Name of the Transmission Licensee | Power Grid Corporation of India Limited | | |
|------------------------|-----------------------------------|---|---------------------|--|
| Project | Missing Link Transmission System | on System | | |
| Element Description | Combined Asset of 160 | MVA 220/132 kV 3 phase Auto Transformer | at Kopili and 132 k | Combined Asset of 160 MVA 220/132 kV 3 phase Auto Transformer at Kopili and 132 kV S/C Kopili-Khandong TL alongwith associated b |
| Region | North Eastern Region | | DOCO Date. | Apr 1, 2011 |

1. Transmission Lines

| I. Iransmission Lines | | | | | | | | (Amount in Rs. Lakh) | Rs. Lakh | |
|--|------------------|--------|--------------------------------|---------|--------------------|--------------------------------------|--------------|----------------------|-----------------------|---------------------------------|
| | Type of | S/C or | S/C or No of Sub- Voltage Line | Voltage | Line | Line Reactor | Line | Date of | Covere pre peti | Covered in the present petition |
| Name of Line | Line AC/ HVDC | D/C | Conductors Level KV | Level | Bays | (Including Switchable Reactor) | Length Km | ů° | Yes/No | If No, Petition No. |
| 132KV KOPILI-KHANDONG-2 T/L | AC | SC | _ | 132 KV | 132 KV 0.000 0.000 | 0.000 | 11.560 | 11.560 Apr 1, 2011 | > | |
| LILO OF 132KV D/C DIMAPUR - KOHIMA TL AT AC DIMPAUR (PG) S/S | AC | DC | - | 132 KV | 132 KV 0.000 0.000 | 0.000 | 0.347 | 0.347 Apr 1, 2011 | > | |

Summary:

| O&M Expenses For the Transmission Lines Covered in the instant petition | 2024-25 | 2025-26 | 2026-27 | 2027-28 | 2028-29 |
|---|---------|----------|---------|---------|---------|
| SINGLE CIRCUIT (SINGLE CONDUCTOR) | | | | | |
| Normative Rate of O&M as per Regulation | 0.246 | 0.259 | 0.272 | 0.287 | 0.302 |
| No. of Units - (Length in KM) | 11.56 | 6810 £88 | 11.56 | 11.56 | 11.56 |

Page 98 of 6 ozsoos:combin

Auto Transformer at Kopili and 132 kV S/C Kopili-Khandong TL alongwith associated b

| O&M Claimed | 2.84 | 2.99 | 3.14 | 3.32 |
|---|-------|-------|-------|-------|
| DOUBLE CIRCUIT (SINGLE CONDUCTOR) | | | | |
| Normative Rate of O&M as per Regulation | 0.369 | 0.388 | 0.409 | 0.43 |
| No. of Units - (Length in KM) | 0.347 | 0.347 | 0.347 | 0.347 |
| O&M Claimed | 0.13 | 0.13 | 0.14 | 0.15 |

3.49

0.453

0.347



0.16

| | Type of | Voltage | No. of Transfor ms/ | | Š. | No. of Bays | | 2 | VA/MV, | MVA/MVAR Capacity | acity | Date of | Covered in the present |
|---|------------------|---------|---------------------------|-----------|-----------|-------------|-----------|-----------|--------|-------------------|------------------|-------------|------------------------|
| Name of Sub-station | _ | Level | R W R | 765 KV | 400 KV | 220 KV | 132 KV | 765 KV | 0 ≥ X | 220 KV | 132 KV | Comm. | Ye If No, s/ Petitio |
| Kopili:220/132 KV, 160MVA ICT | Conventio | 220 KV | | | | 1.000 | | | | | | Apr 1, 2011 | · > |
| Kopili:132 KV BAYS OF KOPILI-KHANDONG TL | | 132 KV | | | | | 2.000 | | | | | Apr 1, 2011 | > |
| Kopili:132 KV BAYS OF KOPILI-KHANDONG TL | Conventio | 132 KV | | | | | 1.000 | | | | | Apr 1, 2011 | > |
| Kopili:220/132 KV, 160MVA ICT | Conventio nal | 132 KV | | | | | 1.000 | | | | | Apr 1, 2011 | > |
| Kopili:220/132 KV, 100MVA ICT-II BAY | Conventio nal | 220 KV | | | | 1.000 | | | | | | Apr 1, 2011 | > |
| Kopili:220/132 KV, 100MVA ICT-II BAY | Conventio | 132 KV | | | | | 1.000 | | | | | Apr 1, 2011 | >- |
| Dimapur:LILO BAYS FOR 132KV D/C DIMAPUR - KOHIMA TL AT DIMPAUR (PG) S/S | Conventio | 132 KV | | | | | 2.000 | | | | | Apr 1, 2011 | > |
| Kopili:ICT II AT KOPILI | Conventio | 220 KV | 1.000 | | | | | | | 160.00 | | Apr 1, 2011 | > |
| Dimapur:ICT II AT DIMAPUR | Conventio | 220 KV | 1.000 | | | | | | (Fig. | 00.00 | ORATIO ORATIO | Apr 1, 2011 | > |
| | | | | | | | | | N | X | N | | |

Page 190 f 6 0250005: Combined Asset of 160 MVA 220/132 kV 3 phase Auto

N S/C Kopili-Khandong TL alongwith associated b

| O&M Expenses For Substations Covered in the instant petition | 2024-25 | 2025-26 | 2026-27 | 2027-28 | 2028-29 |
|--|---------|---------|---------|---------|---------|
| 220KV SUB-STATION | | | | | |
| Normative Rate of O&M as per Regulation | 20.67 | 21.75 | 22.90 | 24.10 | 25.36 |
| No. of Units | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| O&M Claimed | 41.34 | 43.50 | 45.80 | 48.20 | 50.72 |
| 132KV SUB-STATION AND BELOW | | | | | |
| Normative Rate of O&M as per Regulation | 15.78 | 16.61 | 17.48 | 18.40 | 19.35 |
| No. of Units | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 |
| O&M Claimed | 78.90 | 83.05 | 87.40 | 92.00 | 96.75 |
| 220KV SUB-STATION ICT | | | | | |
| Normative Rate of O&M as per Regulation | 0.262 | 0.276 | 0.29 | 0.305 | 0.322 |
| No. of Units | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| O&M Claimed | 68.12 | 71.76 | 75.40 | 79.30 | 83.72 |

| Particular | 2024-25 | 2025-26 | 2026-27 | 2027-28 | 2028-29 |
|--|---------|---------|---------|---------|---------|
| A) Normative O&M | | | | | |
| Transmission Line | 2.97 | 3.12 | 3.28 | 3.47 | 3.65 |
| Substation | 188.36 | 198.31 | 208.60 | 219.50 | 231.19 |
| Communication System | 00.00 | 0.00 | 00.00 | 0.00 | 0.00 |
| Total Normative O&M | 191.33 | 201.43 | 211.88 | 222.97 | 234.84 |
| B) O&M Claimed under Regulation 35 (3)(C) (* The same is not being claimed and will be claimed through separate Petition) | | | | | |
| *Security Expenses | 00.0 | 00.00 | 0.00 | 0.00 | 0.00 |
| *Actual Capital Spare consumed | 00.00 | 00.00 | 00.00 | 0.00 | 0.00 |
| *Insurance Premium Paid | 00.00 | 00.00 | 00.00 | 0.00 | 0.00 |
| Total O&M | 191.33 | 201.43 | 211.88 | 222.97 | 234.84 |
| | | | | | |



Normative parameters considered for tariff computations

| Name of the 1 | ransmission Licensee | Power Grid Corporat | tion of India Limite | ed |
|------------------------|--|---------------------|----------------------|---|
| Project | Missing Link Transmissi | on System | | |
| Element Description | Combined Asset of 160 TL alongwith associated | | ase Auto Transfo | rmer at Kopili and 132 kV S/C Kopili-Khandong |
| Region | North Eastern Region | | DOCO Date | Apr 1, 2011 |

(Amount in Rs. Lakh) 2023-24 2024-25 2025-26 2026-27 2027-28 2028-29 **Particulars** Base Rate of Return of Equity (in %) 17.472 17.472 17.472 17,472 17.472 Tax Rate (in %) 17.472 Effective tax rate (in %) Grossed up Rate for ROE of 15.5% (in %) 18.782 18.782 18.782 18.782 18.782 18.782 Grossed up Rate for ROE of 15.0% (in %) 18.176 18.176 18.176 18.176 18.176 18.176 98.00 98.00 98.00 98.00 98.00 Target availability - AC System (in %) 98.00 96.00 96.00 96.00 96.00 96.00 Target availability - HVDC System (in %) 96.00 Norms for sub-station Bays (Rs Lakh per bay) 51.68 43.51 765 kV 41.34 45.79 48.20 50.73 400 kV 36.91 29.53 31.08 32.71 34.43 36.23 220 kV 25.84 20.67 21.75 22.90 24.10 25.36 132 kV and below 18.46 15.78 16.61 17.48 18.40 19.35 Norms for Transformers (Rs Lakh per MVA) 765 kV 0.564 0.262 0.276 0.29 0.305 0.322 0.262 0.276 400 kV 0.411 0.29 0.305 0.322 220 kV 0.282 0.262 0.276 0.29 0.305 0.322 132 kV and below 0.282 0.262 0.276 0.29 0.305 0.322 Norms for Reactor (Rs Lakh per MVAR) 765 kV 0.00 0.262 0.276 0.29 0.305 0.322 0305 0.262 0.276 400 kV 0.00 0.29

| 220 kV | 0.00 | 0.262 | 0.276 | 0.29 | 0.305 | 0.322 |
|---|-------|-------|-------|-------|-------|-------|
| 132 kV and below | 0.00 | 0.262 | 0.276 | 0.29 | 0.305 | 0.322 |
| Norms for AC and HVDC lines (Rs Lakh per km) | | | | | | |
| Single Circuit (Bundled Conductor with six or more sub-conductors) | 1.011 | 0.861 | 0.906 | 0.953 | 1.003 | 1.056 |
| Single Circuit (Bundled conductor with four subconductors) | 0.867 | 0.738 | 0.776 | 0.817 | 0.86 | 0.905 |
| Single Circuit (Twin & Triple Conductor) | 0.578 | 0.492 | 0.518 | 0.545 | 0.573 | 0.603 |
| Single Circuit (Single Conductor) | 0.289 | 0.246 | 0.259 | 0.272 | 0.287 | 0.302 |
| Double Circuit (Bundled conductor with four or more sub-conductors) | 1.517 | 1.291 | 1.359 | 1.43 | 1.506 | 1.585 |
| Double Circuit (Twin & Triple Conductor) | 1.011 | 0.861 | 0.906 | 0.953 | 1.003 | 1.056 |
| Double Circuit (Single Conductor) | 0.433 | 0.369 | 0.388 | 0.409 | 0.43 | 0.453 |
| Multi Circuit (Bundled Conductor with four or more sub-conductor) | 2.662 | 2.266 | 2.385 | 2.51 | 2.642 | 2.781 |
| Multi Circuit (Twin & Triple Conductor) | 1.773 | 1.509 | 1.588 | 1.671 | 1.759 | 1.851 |
| Norms for HVDC stations (Rs Lakh/MW) | ' | | | | | |
| HVDC bipole scheme (Rs Lakh/MW) | 0.00 | 1.04 | 1.10 | 1,16 | 1.22 | 1.28 |
| HVDC Back-to-Back stations (Rs Lakh/MW) (Except Gazuwaka BTB) | 0.00 | 2.07 | 2.18 | 2.30 | 2.42 | 2.55 |
| Gazuwaka HVDC Back-to-Back station (Rs Lakh/ MW) | 0.00 | 1.83 | 1.92 | 2.03 | 2.13 | 2.24 |



Calculation of ROE

| Name of the | Transmission Licensee | Power Grid Corpora | ation of India Limite | d |
|------------------------|--|--------------------|-----------------------|--|
| Project | Missing Link Transmis | sion System | | |
| Element Description | Combined Asset of 16 TL alongwith associate | | phase Auto Transf | ormer at Kopili and 132 kV S/C Kopili-Khandong |
| Region | North Eastern Region | | DOCO Date | Apr 1, 2011 |

| 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 | 365.00 | 365.00 | 365.00 | 366.00 | 365.00 |
| Opening Normative Equity | 2,174.21 | 2,174.21 | 2,174.21 | 2,174.21 | 2,174.21 |
| 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) | 2,174.21 | 2,174.21 | 2,174.21 | 2,174.21 | 2,174.21 |
| Add: Increase in Equity due to addition during the year / period | 0.00 | 0.00 | 0.00 | 0.00 | 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 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Closing Normative Equity | 2,174.21 | 2,174.21 | 2,174.21 | 2,174.21 | 2,174.21 |
| Average Normative Equity | 2,174.21 | 2,174.21 | 2,174.21 | 2,174.21 | 2,174.21 |
| Rate of return on Equity (%) | 18.782 | 18.782 | 18.782 | 18.782 | 18.782 |
| 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 | 15.50 | 15.50 | 15.50 | 15.50 | 15.50 |
| MAT/Corporate Rate | 17.472 | 17.472 | 17.472 | 17.472 | 17.472 |
| Grossed up rate of ROE | 18.782 | 18.782 | 18.782 | 18.782 | 18.782 |
| Pro rata return on Equity | 408.36 | 408.36 | 408.36 | 408.36 | 408.36 |
| Return on Equity | 408.36 | 408.36 | 408.36 | 408 36 | N OF 408.36 |

Calculation of WAR of interest on actual loan

| Name of the 1 | Fransmission Licensee | Power Grid Corporation | on of India Limited | |
|------------------------|---|------------------------|---------------------|--|
| Project | Missing Link Transmiss | sion System | | |
| Element Description | Combined Asset of 160 TL alongwith associate | | ase Auto Transfor | mer at Kopili and 132 kV S/C Kopili-Khandong |
| Region | North Eastern Region | | DOCO Date | Apr 1, 2011 |

| 2024-25 | 2025-26 | 2026-27 | 2027-28 | 2028-29 |
|---------|--|--|---|---|
| | | | | |
| 400.00 | 400.00 | 400.00 | 400.00 | 400.00 |
| 400.00 | 400.00 | 400.00 | 400.00 | 400.00 |
| 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 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9.33 | 9.33 | 9.33 | 9.33 | 9.33 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 400.00 400.00 0.00 0.00 0.00 0.00 9.33 | 400.00 400.00 400.00 400.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 9.33 9.33 | 400.00 400.00 400.00 400.00 400.00 400.00 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 9.33 9.33 9.33 | 2024-25 2025-26 2026-27 2027-28 400.00 400.00 400.00 400.00 400.00 400.00 400.00 400.00 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 0.00 0.00 9.33 9.33 9.33 9.33 |

| BOND XXIX -DOCO DRAWL ON 01-APR | | | | | |
|---|----------|----------|----------|----------|-----------|
| Gross Loan- Opening | 2,040.00 | 2,040.00 | 2,040.00 | 2,040.00 | 2,040.00 |
| Cumulative repayments of Loans upto previous year | 2,040.00 | 2,040.00 | 2,040.00 | 2,040.00 | 2,040.00 |
| Net loan-Opening | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 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 | 0.00 | 0.00 | 0.00 |
| Net Loan-Closing | 0.00 | 0.00 | 0.00 | 0.00 | DOON LOON |

| Average Net Loan | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
|--|------|------|------|------|------|
| Rate of Interest on Loan on Annual Basis | 9.20 | 9.20 | 9.20 | 9.20 | 9.20 |
| Interest on loan | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| BOND XXX -DOCO DRAWL ON 01-APR | | | | | |
|---|----------|----------|----------|----------|----------|
| Gross Loan- Opening | 1,195.00 | 1,195.00 | 1,195.00 | 1,195.00 | 1,195.00 |
| Cumulative repayments of Loans upto previous year | 1,095.42 | 1,195.00 | 1,195.00 | 1,195.00 | 1,195.00 |
| Net loan-Opening | 99.58 | 0.00 | 0.00 | 0.00 | 0.00 |
| Add: Drawl(s) during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Less: Repayment(s) of loan during the year | 99.58 | 0.00 | 0.00 | 0.00 | 0.00 |
| Net Loan-Closing | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Net Loan | 49.79 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rate of Interest on Loan on Annual Basis | 8.80 | 8.80 | 8.80 | 8.80 | 8.80 |
| Interest on loan | 4.3815 | 0.00 | 0.00 | 0.00 | 0.00 |

| BOND XXXI -DOCO DRAWL ON 01-APR | = | | | | |
|---|--------|--------|--------|--------|--------|
| Gross Loan- Opening | 194.00 | 194.00 | 194.00 | 194.00 | 194.00 |
| Cumulative repayments of Loans upto previous year | 177.83 | 194.00 | 194.00 | 194.00 | 194.00 |
| Net loan-Opening | 16.17 | 0.00 | 0.00 | 0.00 | 0.00 |
| Add: Drawl(s) during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Less: Repayment(s) of loan during the year | 16.17 | 0.00 | 0.00 | 0.00 | 0.00 |
| Net Loan-Closing | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Net Loan | 8.09 | 0.00 | 0.00 | 0.00 | 0.00 |
| Rate of Interest on Loan on Annual Basis | 8.90 | 8.90 | 8.90 | 8.90 | 8.90 |
| Interest on loan | 0.72 | 0.00 | 0.00 | 0.00 | 0.00 |

| BOND XXXIII -DOCO DRAWL ON 01-APR | | | | | |
|---|--------|--------|--------|--------|--------|
| Gross Loan- Opening | 175.00 | 175.00 | 175.00 | 175.00 | 175.00 |
| Cumulative repayments of Loans upto previous year | 145.83 | 160.42 | 175.00 | 175.00 | 175.00 |
| Net loan-Opening | 29.17 | 14.58 | 0.00 | 0.00 | 0.00 |
| Add: Drawl(s) during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Less: Repayment(s) of loan during the year | 14.58 | 14.58 | 0.00 | 0.00 | 0.00 |
| Net Loan-Closing | 14.59 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Net Loan | 21.88 | 7.29 | 0.00 | 0.00 | 0.00 |
| Rate of Interest on Loan on Annual Basis | 8.64 | 8.64 | 8.64 | 8.64 | 8.64 |
| Interest on loan | 1.8904 | 0.6299 | 0.00 | 0.00 | 0.00 |

| BOND-XXXIV -DOCO DRAWL ON 01-APR | | | | | |
|---|--------|--------|--------|--------|--------|
| Gross Loan- Opening | 593.00 | 593.00 | 593.00 | 593.00 | 593.00 |
| Cumulative repayments of Loans upto previous year | 494.17 | 543.58 | 593.00 | 593.00 | 593.00 |
| Net loan-Opening | 98.83 | 49.42 | 0.00 | 0.00 | 0.00 |
| Add: Drawl(s) during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Less: Repayment(s) of loan during the year | 49.42 | 49.42 | 0.00 | 0.00 | 0.00 |
| Net Loan-Closing | 49.41 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Net Loan | 74.12 | 24.71 | 0.00 | 0.00 | 0.00 |
| Rate of Interest on Loan on Annual Basis | 8.84 | 8.84 | 8.84 | 8.84 | 8.84 |
| Interest on loan | 6.5522 | 2.1844 | 0.00 | 0.00 | 0.00 |

| BOND-XXXV -ADDCAP FOR ADDCAP F | | | | | |
|---|--------|--------|--------|--------|--------|
| Gross Loan- Opening | 184.94 | 184.94 | 184.94 | 184.94 | 184,94 |
| Cumulative repayments of Loans upto previous year | 138.71 | 154.12 | 169.53 | 184.94 | 184.94 |
| Net loan-Opening | 46.23 | 30.82 | 15.41 | 0.00 | 0.00 |

| Add: Drawl(s) during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
|--|--------|--------|--------|------|------|
| Less: Repayment(s) of loan during the year | 15.41 | 15.41 | 15.41 | 0.00 | 0.00 |
| Net Loan-Closing | 30.82 | 15.41 | 0.00 | 0.00 | 0.00 |
| Average Net Loan | 38.53 | 23.12 | 7.71 | 0.00 | 0.00 |
| Rate of Interest on Loan on Annual Basis | 9.64 | 9.64 | 9.64 | 9.64 | 9.64 |
| Interest on loan | 3.7143 | 2.2288 | 0.7432 | 0.00 | 0.00 |

| BOND-XXXV -DECAP LOAN | | | | | |
|---|---------|---------|---------|--------|--------|
| Gross Loan- Opening | -72.46 | -72.46 | -72.46 | -72.46 | -72.46 |
| Cumulative repayments of Loans upto previous year | -54.35 | -60.38 | -66.42 | -72.46 | -72.46 |
| Net loan-Opening | -18.11 | -12.08 | -6.04 | 0.00 | 0.00 |
| Add: Drawl(s) during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Less: Repayment(s) of loan during the year | -6.04 | -6.04 | -6.04 | 0.00 | 0.00 |
| Net Loan-Closing | -12.07 | -6.04 | 0.00 | 0.00 | 0.00 |
| Average Net Loan | -15.09 | -9.06 | -3.02 | 0.00 | 0.00 |
| Rate of Interest on Loan on Annual Basis | 9.64 | 9.64 | 9.64 | 9.64 | 9.64 |
| Interest on loan | -1.4547 | -0.8734 | -0.2911 | 0.00 | 0.00 |

| BOND-XXXV -DOCO FUNDING | | | | | |
|---|--------|--------|--------|--------|--------|
| Gross Loan- Opening | 154.50 | 154.50 | 154.50 | 154.50 | 154.50 |
| Cumulative repayments of Loans upto previous year | 115.88 | 128.75 | 141.63 | 154.50 | 154.50 |
| Net loan-Opening | 38.62 | 25.75 | 12.87 | 0.00 | 0.00 |
| Add: Drawl(s) during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Less: Repayment(s) of loan during the year | 12.88 | 12.88 | 12.88 | 0.00 | 0.00 |
| Net Loan-Closing | 25.74 | 12.87 | -0.01 | 0.00 | 0.00 |
| Average Net Loan | 32.18 | 19.31 | 6.43 | 0.00 | 0.00 |

| Rate of Interest on Loan on Annual Basis | 9.64 | 9.64 | 9.64 | 9.64 | 9.64 |
|--|--------|--------|--------|------|------|
| Interest on loan | 3.1022 | 1.8615 | 0.6199 | 0.00 | 0.00 |

| BOND XXXVII -ADDCAP FOR ADDCAP F | | | | | |
|---|--------|--------|--------|--------|--------|
| Gross Loan- Opening | 182.84 | 182.84 | 182.84 | 182.84 | 182.84 |
| Cumulative repayments of Loans upto previous year | 137.13 | 152.37 | 167.60 | 182.84 | 182.84 |
| Net loan-Opening | 45.71 | 30.47 | 15.24 | 0.00 | 0.00 |
| Add: Drawl(s) during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Less: Repayment(s) of loan during the year | 15.24 | 15.24 | 15.24 | 0.00 | 0.00 |
| Net Loan-Closing | 30.47 | 15.23 | 0.00 | 0.00 | 0.00 |
| Average Net Loan | 38.09 | 22.85 | 7.62 | 0.00 | 0.00 |
| Rate of Interest on Loan on Annual Basis | 9.25 | 9.25 | 9.25 | 9.25 | 9.25 |
| Interest on loan | 3.5233 | 2.1136 | 0.7049 | 0.00 | 0.00 |

| SBI (2014-15) -ADD CAP 14-15 | | | | | |
|---|--------|--------|--------|--------|--------|
| Gross Loan- Opening | 4.08 | 4.08 | 4.08 | 4.08 | 4.08 |
| Cumulative repayments of Loans upto previous year | 2.04 | 2.45 | 2.86 | 3.26 | 3.67 |
| Net loan-Opening | 2.04 | 1.63 | 1.22 | 0.82 | 0.41 |
| Add: Drawl(s) during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Less: Repayment(s) of loan during the year | 0.41 | 0.41 | 0.41 | 0.41 | 0.41 |
| Net Loan-Closing | 1.63 | 1.22 | 0.81 | 0.41 | 0.00 |
| Average Net Loan | 1.84 | 1.43 | 1.02 | 0.62 | 0.21 |
| Rate of Interest on Loan on Annual Basis | 8.20 | 8.20 | 8.20 | 8.20 | 8.20 |
| Interest on loan | 0.1509 | 0.1173 | 0.0836 | 0.0508 | 0.0172 |

| Gross Loan- Opening | 11.89 | 11.89 | 11.89 | 11.89 | 11.89 |
|---|--------|--------|--------|--------|--------|
| Cumulative repayments of Loans upto previous year | 3.96 | 7.93 | 7.93 | 7.93 | 7.93 |
| Net loan-Opening | 7.93 | 3.96 | 3.96 | 3.96 | 3.96 |
| Add: Drawl(s) during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Less: Repayment(s) of loan during the year | 3.96 | 0.00 | 0.00 | 0.00 | 0.00 |
| Net Loan-Closing | 3.97 | 3.96 | 3.96 | 3.96 | 3.96 |
| Average Net Loan | 5.95 | 3.96 | 3.96 | 3.96 | 3.96 |
| Rate of Interest on Loan on Annual Basis | 9.30 | 9.30 | 9.30 | 9.30 | 9.30 |
| Interest on loan | 0.5534 | 0.3683 | 0.3683 | 0.3683 | 0.3683 |

| BOND 59 -ADD CAP 2018-19 | | | | | |
|---|--------|--------|--------|--------|-------|
| Gross Loan- Opening | 10.35 | 10.35 | 10.35 | 10.35 | 10.35 |
| Cumulative repayments of Loans upto previous year | 0.00 | 0.00 | 0.00 | 0.00 | 10.35 |
| Net loan-Opening | 10.35 | 10.35 | 10.35 | 10.35 | 0.00 |
| 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 | 0.00 | 10.35 | 0.00 |
| Net Loan-Closing | 10.35 | 10.35 | 10.35 | 0.00 | 0.00 |
| Average Net Loan | 10.35 | 10.35 | 10.35 | 5.18 | 0.00 |
| Rate of Interest on Loan on Annual Basis | 7.30 | 7.30 | 7.30 | 7.30 | 7.30 |
| Interest on loan | 0.7556 | 0.7556 | 0.7556 | 0.3781 | 0.00 |

Summary

| Gross Loan- Opening | 5,073.14 | 5,073.14 | 5,073.14 | 5,073.14 | 5,073.14 |
|---|----------|----------|----------|----------|------------|
| Cumulative repayments of Loans upto previous year | 4,696.62 | 4,918.24 | 5,020.13 | 5,058.01 | 5,068.77 |
| Net loan-Opening | 376.52 | 154.90 | 53.01 | 15.13 | ON U. 4.37 |

| Add: Drawl(s) during the year | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
|--|---------|--------|--------|--------|--------|
| Less: Repayment(s) of loan during the year | 221.61 | 101.90 | 37.90 | 10.76 | 0.41 |
| Net Loan-Closing | 154.91 | 53.00 | 15.11 | 4.37 | 3.96 |
| Average Net Loan | 265.73 | 103.96 | 34.07 | 9.76 | 4.17 |
| Rate of Interest on Loan on Annual Basis | 8.99 | 9.0285 | 8.7596 | 8.168 | 9.2446 |
| Interest on loan | 23.8891 | 9.386 | 2.9844 | 0.7972 | 0.3855 |



Calculation of interest on Normative loan

| Name of the | Transmission Licensee | Power Grid Corporati | on of India Limite | ed |
|------------------------|--|----------------------|--------------------|--|
| Project | Missing Link Transmiss | ion System | | |
| Element Description | Combined Asset of 160 TL alongwith associated | | nase Auto Transfo | ormer at Kopili and 132 kV S/C Kopili-Khandong |
| Region | North Eastern Region | | DOCO Date | Apr 1, 2011 |

(Amount in Rs. Lakh)

| 2024-25 | 2025-26 | 2026-27 | 2027-28 | 2028-29 |
|----------|---|--|--|--|
| 365.00 | 365.00 | 365.00 | 366.00 | 365.00 |
| 365.00 | 365.00 | 365.00 | 366.00 | 365.00 |
| 5,073.14 | 5,073.14 | 5,073.14 | 5,073.14 | 5,073.14 |
| 5,010.55 | 5,073.14 | 5,073.14 | 5,073.14 | 5,073.14 |
| 62.59 | 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 |
| 62.59 | 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 |
| 31.30 | 0.00 | 0.00 | 0.00 | . 0.00 |
| 8.99 | 9.0285 | 8.7596 | 8.168 | 9.2446 |
| 2.81 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2.81 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 365.00 365.00 5,073.14 5,010.55 62.59 0.00 0.00 62.59 0.00 0.00 31.30 8.99 2.81 | 365.00 365.00 365.00 365.00 5,073.14 5,073.14 5,010.55 5,073.14 62.59 0.00 0.00 0.00 62.59 0.00 0.00 0.00 0.00 0.00 31.30 0.00 8.99 9.0285 2.81 0.00 | 365.00 365.00 365.00 365.00 365.00 365.00 5,073.14 5,073.14 5,073.14 5,010.55 5,073.14 5,073.14 62.59 0.00 0.00 0.00 0.00 0.00 62.59 0.00 0.00 62.59 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 31.30 0.00 0.00 8.99 9.0285 8.7596 2.81 0.00 0.00 | 365.00 365.00 365.00 366.00 365.00 365.00 366.00 5,073.14 5,073.14 5,073.14 5,073.14 5,010.55 5,073.14 5,073.14 5,073.14 62.59 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 62.59 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 31.30 0.00 0.00 0.00 8.99 9.0285 8.7596 8.168 2.81 0.00 0.00 0.00 |



Calculation of Depreciation Rate on Original Project Cost

Form No. - 10

| Name of the T | Fransmission Licensee | Power Grid Corporation of India Limited | | | | | | |
|------------------------|----------------------------------|--|--|--|--|--|--|--|
| Project | Missing Link Transmission System | | | | | | | |
| Element Description | | Combined Asset of 160 MVA 220/132 kV 3 phase Auto Transformer at Kopili and 132 kV S/C Kopili-Khandong TL alongwith associated b | | | | | | |
| Region | North Eastern Region | DOCO Date Apr 1, 2011 | | | | | | |

(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 |
|--|---|-------------------------------|---|---------------------------|--|--|
| 2024-25 | | | | | | |
| 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 | 1,537.18 | 0.00 | 1,537.18 | 1,537.18 | 5.28 | 26.76 |
| Sub Station | 5,246.21 | 0.00 | 5,246.21 | 5,246.21 | 5.28 | 91.35 |
| Comm. Sys. excluding Fiber Optic | 83.24 | 0.00 | 83.24 | 83.24 | 15.00 | 1.20 |
| Leasehold Land | 0.00 | 0.00 | 0.00 | 0.00 | 3.34 | 0.00 |
| IT/Software/UNMS/URTDSM/ SCADA,etc | 380.72 | 0.00 | 380.72 | 380.72 | 15.00 | 0.00 |
| Batteries | 0.00 | 0.00 | 0.00 | 0.00 | 9.50 | 0.00 |
| Fiber Optic/OPGW | 0.00 | 0.00 | 0.00 | 0.00 | 6.33 | 0.00 |
| TOTAL | 7,247.35 | 0.00 | 7,247.35 | 7,247.35 | 0.00 | 119.31 |
| Weighted Average Rate of Depreciation(%) | | | | | 1.646257 | |

| 2025-26 | | | | | | |
|----------------|------|------|------|------|------|--------|
| Land(Freehold) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | N 0.00 |

| 0.00 | 0.00 | - | | | |
|----------|---|--|--|--|--|
| 0.00 | 0.00 | 0.00 | 0.00 | 3.34 | 0.00 |
| 1,537.18 | 0.00 | 1,537.18 | 1,537.18 | 5.28 | 26.76 |
| 5,246.21 | 0.00 | 5,246.21 | 5,246.21 | 5.28 | 91.35 |
| 83.24 | 0.00 | 83.24 | 83.24 | 15.00 | 1.20 |
| 0.00 | 0.00 | 0.00 | 0.00 | 3.34 | 0.00 |
| 380.72 | 0.00 | 380.72 | 380.72 | 15.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 9.50 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 6.33 | 0.00 |
| 7,247.35 | 0.00 | 7,247.35 | 7,247.35 | 0.00 | 119.31 |
| | | | | 1.646257 | |
| | 1,537.18 5,246.21 83.24 0.00 380.72 0.00 | 1,537.18 0.00 5,246.21 0.00 83.24 0.00 0.00 0.00 380.72 0.00 0.00 0.00 0.00 0.00 | 1,537.18 0.00 1,537.18 5,246.21 0.00 5,246.21 83.24 0.00 83.24 0.00 0.00 0.00 380.72 0.00 380.72 0.00 0.00 0.00 0.00 0.00 0.00 | 1,537.18 0.00 1,537.18 1,537.18 5,246.21 0.00 5,246.21 5,246.21 83.24 0.00 83.24 83.24 0.00 0.00 0.00 0.00 380.72 0.00 380.72 380.72 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 | 1,537.18 0.00 1,537.18 1,537.18 5.28 5,246.21 0.00 5,246.21 5,246.21 5.28 83.24 0.00 83.24 83.24 15.00 0.00 0.00 0.00 0.00 3.34 380.72 0.00 380.72 380.72 15.00 0.00 0.00 0.00 0.00 9.50 0.00 0.00 0.00 0.00 6.33 7,247.35 0.00 7,247.35 7,247.35 0.00 |

| 2026-27 | | | | | | |
|--|----------|------|----------|----------|----------|--|
| Sub Station | 5,246.21 | 0.00 | 5,246.21 | 5,246.21 | 5.28 | 91.35 |
| 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 | 1,537.18 | 0.00 | 1,537.18 | 1,537.18 | 5.28 | 26.76 |
| Batteries | 0.00 | 0.00 | 0.00 | 0.00 | 9.50 | 0.00 |
| Comm. Sys. excluding Fiber Optic | 83.24 | 0.00 | 83.24 | 83.24 | 15.00 | 1.20 |
| Leasehold Land | 0.00 | 0.00 | 0.00 | 0.00 | 3.34 | 0.00 |
| IT/Software/UNMS/URTDSM/ SCADA,etc | 380.72 | 0.00 | 380.72 | 380.72 | 15.00 | 0.00 |
| Fiber Optic/OPGW | 0.00 | 0.00 | 0.00 | 0.00 | 6.33 | 0.00 |
| TOTAL | 7,247.35 | 0.00 | 7,247.35 | 7,247.35 | 0.00 | 119.31 |
| Weighted Average Rate of Depreciation(%) | | | | | 1.646257 | A STATE OF THE PARTY OF THE PAR |

| 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 | 1,537.18 | 0.00 | 1,537.18 | 1,537.18 | 5.28 | 26.76 |
| Sub Station | 5,246.21 | 0.00 | 5,246.21 | 5,246.21 | 5.28 | 91.35 |
| Comm. Sys. excluding Fiber Optic | 83.24 | 0.00 | 83.24 | 83.24 | 15.00 | 1.20 |
| Leasehold Land | 0.00 | 0.00 | 0.00 | 0.00 | 3.34 | 0.00 |
| IT/Software/UNMS/URTDSM/ SCADA,etc | 380.72 | 0.00 | 380.72 | 380.72 | 15.00 | 0.00 |
| Batteries | 0.00 | 0.00 | 0.00 | 0.00 | 9.50 | 0.00 |
| Fiber Optic/OPGW | 0.00 | 0.00 | 0.00 | 0.00 | 6.33 | 0.00 |
| TOTAL | 7,247.35 | 0.00 | 7,247.35 | 7,247.35 | 0.00 | 119.31 |
| Weighted Average Rate of Depreciation(%) | | | | | 1.646257 | |

| 2028-29 | | | | | | |
|---------------------------------------|----------|------|----------|----------|-------|---------|
| Transmission Line | 1,537.18 | 0.00 | 1,537.18 | 1,537.18 | 5.28 | 26.76 |
| 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 |
| Sub Station | 5,246.21 | 0.00 | 5,246.21 | 5,246.21 | 5.28 | 91.35 |
| Comm. Sys. excluding Fiber Optic | 83.24 | 0.00 | 83.24 | 83.24 | 15.00 | 1.20 |
| Leasehold Land | 0.00 | 0.00 | 0.00 | 0.00 | 3.34 | 0.00 |
| Fiber Optic/OPGW | 0.00 | 0.00 | 0.00 | 0.00 | 6.33 | 0.00 |
| IT/Software/UNMS/URTDSM/ SCADA,etc | 380.72 | 0.00 | 380.72 | 380.72 | 15.00 | 0.00 |
| Batteries | 0.00 | 0.00 | 0.00 | 0.00 | 9.50 | 6N 0.00 |
| TOTAL | 7,247.35 | 0.00 | 7,247.35 | 7,247.35 | 900 | 19.31 |

Page 3 of 4

0250005 : Combined Asset of 160 MVA 220/132 kV 3 phase Auto Transformer at Kopili and 13 kV 3 ft. Kopili-Khandong TL alongwith associated b

| Weighted Average Rate of Depreciation(%) | 1.646257 |
|--|----------|
|--|----------|



Statement of Depreciation

| Name of the 1 | Fransmission Licensee | Power Grid Corporation of India Limited | | | | | |
|------------------------|--|---|--|--|--|--|--|
| Project | Missing Link Transmission System | | | | | | |
| Element Description | a transfer to the management of the property of the plantagement o | | | | | | |
| Region | North Eastern Region | DOCO Date Apr 1, 2011 | | | | | |

(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 365.00 365.00 365.00 366.00 365.00 Life at the beginning of the year 1.1 Weighted Average useful life of the Asset/ 26.00 26.00 26.00 26.00 26.00 Project 1.2 Lapsed Weighted Average useful life of the 13.00 14.00 15.00 16.00 17.00 Asset/Project(in completed no. of year) 1.3 Balance Weighted Average useful life of 13.00 12.00 11.00 10.00 9.00 the Asset/Project(in completed no. of year) **Capital Base** 7,247.35 7,247.35 1.4 Opening capital cost 7.247.35 7.247.35 7.247.35 1.5 Additional Capital Expenditure dr. the year 0.00 0.00 0.00 0.00 0.00 1.6 De-Capitalisation During the year 0.00 0.00 0.00 0.00 0.00 1.7 Closing capital cost 7,247.35 7,247.35 7,247.35 7,247.35 7,247.35 1.8 Average capital cost 7.247.35 7.247.35 7.247.35 7.247.35 7,247.35 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 380.72 380.72 380.72 380.72 380.72 1.11 Asset having 10% salvage value included 6.866.63 6,866.63 6,866.63 6,866.63 6,866.63 in 1.8 1.12 Depreciable Value(1.10+90% of 1.11) 6,560.69 6,560.69 6,560.69 6,560.69 6,560.69 Depreciation for the period and Cum. Depreciation 1.13 Weighted Average Rate of depreciation 1.646257 1.646257 1.646257 1.646257 1.646257

| 1.14 Depreciation(for the period) | 119.31 | 119.31 | 119.31 | 119.31 | 119.31 |
|---|----------|----------|----------|----------|----------|
| 1.15 Depreciation(Annualised) | 119.31 | 119.31 | 119.31 | 119.31 | 119.31 |
| Unrecovered Depreciation for DECAP | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1.16 Cumulative depreciation at the beginning of the period | 5,009.66 | 5,128.97 | 5,248.28 | 5,367.59 | 5,486.90 |
| 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 | 5,128.97 | 5,248.28 | 5,367.59 | 5,486.90 | 5,606.21 |



Calculation of interest on working Capital

| Name of the T | Fransmission Licensee | Power Grid Corporation of India Limited | | | | | |
|------------------------|--|---|-----------|-------------|--|--|--|
| Project | Missing Link Transmissio | n System | | | | | |
| Element Description | Combined Asset of 160 MVA 220/132 kV 3 phase Auto Transformer at Kopili and 132 kV S/C Kopili-Khandong TL alongwith associated b | | | | | | |
| Region | North Eastern Region | | DOCO Date | Apr 1, 2011 | | | |

(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 | 365.00 | 365.00 | 365.00 | 366.00 | 365.00 |
| O&M Expenses-one month | 15.94 | 16.79 | 17.66 | 18.58 | 19.57 |
| Maintenance spares 15% of O&M Expenses | 28.70 | 30.21 | 31.78 | 33.45 | 35.23 |
| Receivables equivalent to 45 days of AFC | 90.98 | 91.93 | 93.27 | 94.43 | 96.22 |
| Total Working capital | 135.62 | 138.93 | 142.71 | 146.46 | 151.02 |
| Bank Rate as on 01.04.2019 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 | 16.14 | 16.53 | 16.98 | 17.43 | 17.97 |
| Pro rata interest on working capital | 16.14 | 16.53 | 16.98 | 17.43 | 17.97 |

| | | Summary of issue involved in the p | PART-III petition FORM-15 | | |
|-----------------------------|---------------------|---|--|--|--|
| 1. Nan | ne of the Pe | etitioner | Powergrid Corporation of India Ltd | | |
| 2. Peti | tion Catego | ory | Transmission | | |
| 3. Tari | ff Period | | 2019-24 & 2024-29 | | |
| 4. Nan | ne of the Pr | roject | Missing Link Transmission System | | |
| 5. Investment Approval date | | | NA | | |
| 6. SCC | D of the Pr | roject | NA | | |
| 7. Actı | al COD of | the project | 01.04.2011 | | |
| 8. Whe | ther entire | scope is covered in the present petition. | Yes | | |
| 9. No. | of Assets co | overed in instant petition | 01 nos | | |
| 10. No | of Assets | having time over run | NA · | | |
| | | ject Cost as per IA | Rs. 7313.26 Lakhs | | |
| | | EC? if so, provide the date | Yes | | |
| 13. Rev | vised Estim | ated Project Cost (if any) | NA | | |
| 14. Co | mpletion co | ost for all the assets covered in the instant petition. | Rs.7247.35 Lakhs | | |
| 15. No | . of Assets | covered in instant petition and having cost overrun. | No | | |
| 16 | Prayer in | brief | | | |
| 17 | Key deta | ils and any Specific issue involved | | | |
| 18 | Respondents | | | | |
| | Name of Respondents | | | | |
| | 1 | APDCL | 2. MECL | | |
| | 3 | Government of Arunachal Pradesh | 4. Power and Electricity Department, Government of Mizoram | | |
| | 5 | MSPDCL | 6.Department of Power, Government of Nagaland | | |
| | 7 | TSECL | GRORATION | | |
| | | | | | |

INDEX Checklist of Forms and other information/ documents for tariff filing for Transmission System& Communication System

PART-III

| Form No. | Title of Tariff Filing Forms (Transmission& Communication System) | Tick | |
|----------|---|----------|--|
| FORM-1 | Summary of Tariff | 1 | |
| FORM-1A | Summary of Asset level cost | N.A. | |
| 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 | | |
| | Abstract of existing transmission assets/elements under project, | | |
| FORM-4 | Determination of Effective COD and Weighted Average Life for single AFC for the project as whole. | N.A. | |
| FORM-4A | Statement of Capital cost | N.A. | |
| FORM- 4B | Statement of Capital Works in Progress | N.A. | |
| FORM-4C | Abstract of Capital Cost Estimates and Schedule of Commissioning for | N.A. | |
| | the New Project/Element | | |
| FORM-5 | Element wise Break-up of Project/Asset/Element Cost for | | |
| | Transmission System or Communication System | | |
| FORM-5A | Break-up of Construction/Supply/Service packages | N.A. | |
| FORM-5B | Details of all the assets covered in the project | N.A. | |
| FORM-6 | Actual Cash Expenditure and Financial Package up to COD | | |
| FORM-7 | Statement of Additional Capitalisation after COD | | |
| ORM-7A | Financing of Additional Capitalisation | N.A. | |
| FORM- 7B | Statement of Additional Capitalisation during five year before the end | na. | |
| | of the useful life of the project. | N.A. | |
| FORM-8 | Calculation of Return on Equity | 1 | |
| ORM-8A | Details of Foreign Equity | N.A. | |
| FORM-9 | Details of Allocation of corporate loans to various transmission | | |
| | elements | N.A. | |
| FORM-9A | Details of Project Specific Loans | N.A. | |
| ORM-9B | Details of Foreign loans | | |
| FORM-9C | Calculation of Weighted Average Rate of Interest on Actual Loans | 1 | |
| FORM-9D | Loans in Foreign Currency | N.A. | |
| FORM-9E | Calculation of Interest on Normative Loan | | |
| FORM-10 | Calculation of Depreciation Rate on original project cost | | |
| ORM-10A | Statement of Depreciation | | |
| FORM-10B | Statement of De-capitalisation | | |
| FORM- 11 | Calculation of Interest on Working Capital | | |
| ORM-12 | Details of time over run | | |
| FORM-12A | Incidental Expenditure during Construction | | |
| ORM-12B | Calculation of IDC & Financing Charges | | |
| FORM-13 | Details of Initial spares | | |
| FORM-14 | Non-Tariff Income | | |
| FORM-15 | Summary of issue involved in the petition | | |
| FORM A | Summary of Capital Cost & Annual Fixed Cost (AFC) Claimed for ALL | N.A. | |

| . 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) | N.A. |
| 2 | Region wise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & Annexure for the new Transmission System & Communication System for the relevant years. | N.A. |
| 3 | Copies of relevant loan Agreements | N.A. |
| 4 | Copies of the approval of Competent Authority for the Capital Cost and Financial package. | N.A. |
| 5 | Copies of the Equity participation agreements and necessary approval for the foreign equity. | N.A. |
| 6 | Copies of the BPTA/TSA/PPA with the beneficiaries, if any | N.A. |
| 7 | Detailed note giving reasons of cost and time over run, if applicable. List of supporting documents to be submitted: a. Detailed Project Report b. CPM Analysis c. PERT Chart and Bar Chart d. Justification for cost and time Overrun | N.A. |
| 8 | Transmission Licensee shall submit copy of Cost Audit Report along with cost accounting records, cost details, statements, schedules etc. for the transmission system as submitted to the Govt. of India for first two years i.e. 2019-20 and 2020-21 at the time of mid-term true-up in 2021-22 and for balance period of tariff period 2019-24 at the time of final true-up in 2024-25. In case of initial tariff filing the latest available Cost Audit Report should be furnished. | N.A. |
| 9. | BBMB is maintaining the records as per the relevant applicable Acts. Formats specified herein may not be suitable to the available information with BBMB. BBMB may modify formats suitably as per available information to them for submission of required information for tariff purpose. | N.A. |
| 10. | Any other relevant information, (Please specify) | N.A. |

Note 1: Electronic copy of the petition (in words format) and detailed calculation as per these formats (in excel format) and any other information submitted has to be uploaded in the e-filing website and shall also be furnished in pen drive/flash drive.