IN THE MATTER OF Approval under regulation-86 of CERC (Conduct of Business) Regulations'1999 and CERC (Terms and Conditions of Tariff) Regulations, 2009 and CERC (Terms and Conditions of Tariff) Regulations' 2014 for determination of

- (i) Truing up Transmission tariff for 2009-14 tariff block and
- (ii) Transmission tariff for 2014-19 tariff block

for 400/220 kV Khandwa S/S and LILO of 400 kV D/C Itrasi-Dhule transmission line at Khandwa in Western Region.

PETITIONER

Power Grid Corporation of India Ltd. (Govt. of India undertaking)

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

Corporate office: "Saudamini", Plot no.2, Sector-29, Gurgaon -122 001. (Haryana)

Power Grid Corporation of India Ltd., the petitioner in the matter, is filing petition under Regulation-86 of CERC (Conduct of Business) Regulations, 1999 for approval of transmission tariff for 400/220 kV Khandwa S/S and LILO of 400 kV D/C Itrasi-Dhule transmission line at Khandwa in Western Region.

In terms of Regulation 3(2) of the Central Electricity Regulatory Commission (Procedure for making of application for determination of tariff, publication of the application and other related matters) Regulations, 2004, copy of complete tariff application is hereby served to the respondents (beneficiaries of **Western Region**), for information and necessary action in the matter.

The tariff application is hereby served through the nodal officers of the respondents for CERC matters, on the addresses as mentioned below:

ADDRESSES OF NODAL OFFICERS

- 1. MADHYA PRADESH POWER MANAGEMENT COMPANY LTD. SHAKTI BHAWAN, RAMPUR JABALPUR 482 008 REPRESENTED BY ITS MD
- 2. MAHARASHTRA STATE ELECTRICITY DISTRIBUTION CO. LTD.

PRAKASHGAD, 4TH FLOOR ANDHERI (EAST), MUMBAI - 400 052 REPRESENTED BY ITS MD



- 3. GUJARAT URJA VIKAS NIGAM LTD. SARDAR PATEL VIDYUT BHAWAN, RACE COURSE ROAD VADODARA - 390 007 REPRESENTED BY ITS CHAIRMAN
- 4. ELECTRICITY DEPARTMENT
 GOVT. OF GOA
 VIDYUT BHAWAN, PANAJI,
 NEAR MANDVI HOTEL, GOA 403 001
 REPRESENTED BY ITS CHIEF ENGINEER (ELECTRICAL)
- 5. ELECTRICITY DEPARTMENT
 ADMINISTRATION OF DAMAN & DIU
 DAMAN 396 210
 REPRESENTED BY ITS SECRETARY (FIN.)
- 6. ELECTRICITY DEPARTMENT
 ADMINISTRATION OF DADRA NAGAR HAVELI
 U.T., SILVASSA 396 230
 REPRESENTED BY ITS SECRETARY (FIN.)
- 7. CHHATTISGARH STATE ELECTRICITY BOARD P.O.SUNDER NAGAR, DANGANIA, RAIPUR CHHATISGAARH-492013 REPRESENTED BY ITS CHAIRMAN
- MADHYAPRADESH AUDYOGIK KENDRA VIKAS NIGAM (INDORE) LTD.
 3/54, PRESS COMPLEX, AGRA-BOMBAY ROAD, INDORE-452 008

Kindly acknowledge the receipt.

PETITIONER
POWER GRID CORPORATION OF INDIA LTD.
REPRESENTED BY

्रा रहेश । क्षेत्र S. S. Raju

Dy. GENERAL MANAGER (COMMERCIAL)

GURGAON
DATED: 04.07.2014



BEFORE

THE CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

PETITION FOR

APPROVAL UNDER REGULATION-86 OF CERC (CONDUCT OF BUSINESS) REGULATIONS, 1999 AND CERC (TERMS AND CONDITIONS OF TARIFF) REGULATIONS, 2009 AND CERC (TERMS AND CONDITIONS OF TARIFF) REGULATIONS, 2014 FOR DETERMINATION OF

(i) TRUING UP TRANSMISSION TARIFF FOR 2009-14 TARIFF BLOCK AND (ii) TRANSMISSION TARIFF FOR 2014-19 TARIFF BLOCK 400/220 KV KHANDWA S/S AND LILO OF 400 KV D/C ITRASI-DHULE TRANSMISSION LINE AT KHANDWA IN WESTERN REGION

PETITION NO. :	
TARIFF BLOCK : 2014 - 2019	

POWER GRID CORPORATION OF INDIA LTD.

REGISTERED OFFICE
B-9, QUTAB INSTITUTIONAL AREA, KATWARIA SARAI,
NEW DELHI – 110 016

(SAUDAMINI", PLOT NO-2, SECTOR-29, GURGAON-122 001 (HARYANA)
EPABX: 0124-2571 700 TO 719, FAX: 0124-2571989



PETITION	NO.:
	110::::::::::::::::::::::::::::::::::::

IN THE MATTER OF

Approval under regulation-86 of CERC (Conduct of Business) Regulations'1999 and CERC (Terms and Conditions of Tariff) Regulations, 2009 and CERC (Terms and Conditions of Tariff) Regulations' 2014 for determination of

- Truing up Transmission tariff for 2009-14 tariff block and
- Transmission tariff for 2014-19 tariff block (ii)

for 400/220 kV Khandwa S/S and LILO of 400 kV D/C Itrasi-Dhule transmission line at Khandwa in Western Region.

Power Grid Corporation of India Ltd.

--- PETITIONER

Registered office: B-9, Qutab Institutional Area,

Katwaria Sarai, New Delhi. 110 016.

Tariff Filing Formats(2014-19)

Corporate Centre: 'SAUDAMINI', Plot No-2, Sector-29, Gurgaon-122 001 (Haryana).

Madhya Pradesh Power Management Company Ltd. ---- RESPONDENTS

Shakti Bhawan, Rampur Jabalpur - 482 008 Represented By Its MD And Others

SI. No.	Description	Enclosure No.	Page No.
1	Index	-	
2	Letter for registration	-	
3	Memo of Parties	-	
4	Affidavit	-	
5	Application for determination of Tariff	-	
6	CERC order dated 14.12.2010 In petition no	Encl 1	15-32
	80/2010 for block 2009-14		13-22
7	Tariff Filing Formats(2009-14)	Encl 2	33-44

Filed by Power Grid Corporation of India Ltd. Represented by

Encl.- 3

Encl.- 4

Sigs. US S S Raju

45-60

Dy. General Manager (Commercial)

Gurgaon

8 9

Dated: 23 a.06.2014

Check List



PETITION	NO.:	
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IN THE MATTER OF

Approval under regulation-86 of CERC (Conduct of Business) Regulations'1999 and CERC (Terms and Conditions of Tariff) Regulations, 2009 and CERC (Terms and Conditions of Tariff) Regulations' 2014 for determination of

- (i) Truing up Transmission tariff for 2009-14 tariff block and
- (ii) Transmission tariff for 2014-19 tariff block

for 400/220 kV Khandwa S/S and LILO of 400 kV D/C Itrasi-Dhule transmission line at Khandwa in Western Region.

Power Grid Corporation of India Ltd.

--- PETITIONER

Registered office: B-9, Qutab Institutional Area,

Katwaria Sarai, New Delhi. 110 016.

<u>Corporate Centre</u>: 'SAUDAMINI', Plot No-2, Sector-29, Gurgaon-122 001 (Haryana).

Madhya Pradesh Power Management Company Ltd. ----- RESPONDENTS

NPKRR Maaligai, 800, Anna Salai

Chennai – 600 002

Represented by its Chairman

And Others

To
The Secretary
Central Electricity Regulatory Commission
New Delhi 110001

Sir,

The application filed under Regulation 86 of CERC (Conduct of Business) Regulation, 1999 and Regulation -6 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 for determination of

- (i) Truing up Transmission tariff for 2009-14 tariff block and
- (ii) Transmission tariff for 2014-19 tariff block

may please be registered.

Filed by Power Grid Corporation of India Ltd. Represented by

Dy. General Manager (Commercial)

Gurgaon

Dated:23,06,2014

PETITION NO.:	
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IN THE MATTER OF

Approval under regulation-86 of CERC (Conduct of Business) Regulations'1999 and CERC (Terms and Conditions of Tariff) Regulations, 2009 and CERC (Terms and Conditions of Tariff) Regulations' 2014 for determination of

- (i) Truing up Transmission tariff for 2009-14 tariff block and
- (ii) Transmission tariff for 2014-19 tariff block

for 400/220 kV Khandwa S/S and LILO of 400 kV D/C Itrasi-Dhule transmission line at Khandwa in Western Region.

Power Grid Corporation of India Ltd.

--- PETITIONER

Registered office: B-9, Qutab Institutional Area,

Katwaria Sarai, New Delhi. 110 016.

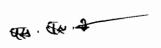
<u>Corporate Centre</u>: 'SAUDAMINI', Plot No-2, Sector-29, Gurgaon-122 001 (Haryana).

Madhya Pradesh Power Management Company Ltd. NPKRR Maaligai, 800, Anna Salai Chennai – 600 002 ---- RESPONDENTS

NPKRR Maaligai, 800, Anna S Chennai – 600 002 Represented by its Chairman And Others

MEMO OF PARTIES

- MADHYA PRADESH POWER MANAGEMENT COMPANY LTD. SHAKTI BHAWAN, RAMPUR JABALPUR - 482 008 REPRESENTED BY ITS MD
- 2. MAHARASHTRA STATE ELECTRICITY DISTRIBUTION CO. LTD. PRAKASHGAD, 4TH FLOOR ANDHERI (EAST), MUMBAI 400 052 REPRESENTED BY ITS MD
- 3. GUJARAT URJA VIKAS NIGAM LTD. SARDAR PATEL VIDYUT BHAWAN, RACE COURSE ROAD VADODARA - 390 007 REPRESENTED BY ITS CHAIRMAN
- ELECTRICITY DEPARTMENT GOVT. OF GOA





VIDYUT BHAWAN, PANAJI, NEAR MANDVI HOTEL, GOA - 403 001 REPRESENTED BY ITS CHIEF ENGINEER (ELECTRICAL)

- 5. **ELECTRICITY DEPARTMENT** ADMINISTRATION OF DAMAN & DIU DAMAN - 396 210 REPRESENTED BY ITS SECRETARY (FIN.)
- 6. **ELECTRICITY DEPARTMENT** ADMINISTRATION OF DADRA NAGAR HAVELI U.T., SILVASSA - 396 230 REPRESENTED BY ITS SECRETARY (FIN.)
- 7. CHHATTISGARH STATE ELECTRICITY BOARD P.O.SUNDER NAGAR, DANGANIA, RAIPUR CHHATISGAARH-492013 REPRESENTED BY ITS CHAIRMAN
- MADHYAPRADESH AUDYOGIK KENDRA 8. VIKAS NIGAM (INDORE) LTD. 3/54, PRESS COMPLEX, AGRA-BOMBAY ROAD, INDORE-452 008

POWER GRID CORPORATION OF INDIA LTD. **GURGAON** DATED:- 23.06.2014

REPRESENTED BY de and S. Š. RAJU

PETITIONER

Dy. General Manager (Commercial)





IN THE MATTER OF

Approval under regulation-86 of CERC (Conduct of Business) Regulations'1999 and CERC (Terms and Conditions of Tariff) Regulations, 2009 and CERC (Terms and Conditions of Tariff) Regulations' 2014 for determination of

NEW DELHI

- (i) Truing up Transmission tariff for 2009-14 tariff block and
- (ii) Transmission tariff for 2014-19 tariff block

for 400/220 kV Khandwa S/S and LILO of 400 kV D/C Itrasi-Dhule transmission line at Khandwa in Western Region.

Rower Grid Corporation of India Ltd.

--- PETITIONER

PETITION NO.:

Registered office: B-9, Qutab Institutional Area,

Katwaria Sarai, New Delhi. 110 016.

<u>Corporate Centre</u>: 'SAUDAMINI', Plot No-2, Sector-29, Gurgaon-122 001 (Haryana).

Madhya Pradesh Power Management Company

--- RESPONDENTS

Ľtd.

NPKRR Maaligai, 800, Anna Salai

Chennai – 600 002

Represented by its Chairman

And Others

Affidavit verifying the Petition

I, S S Raju, S/O Sh S B Raju, working as Dy. General Manager (Chammercial) in the Power

Sp. 4. 2

Grid 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 I am the Dy. General Manager (Commercial) of Power Grid Corporation of India Ltd., the representative of the Petitioner in the above matter, and am duly authorised to make this affidavit.
- That the enclosed tariff Petition is being filed for Truing up Transmission tariff for 2009-14 tariff block and determination of tariff for 2014-19 period for 400/220 kV Khandwa S/S and LILO of 400 kV D/C Itrasi-Dhule transmission line at Khandwa in Western Region.
- 3. That no other tariff Petition except this Petition has been filed directly or indirectly for Truing up of Transmission tariff for 2009-14 tariff block and determination of tariff for 2014-19 period for 400/220 kV Khandwa S/S and LILO of 400 kV D/C Itrasi-Dhule transmission line at Khandwa in Western Region.
- 4. That the statements made in the tariff Petition herein are based on petitioner company's official records maintained in the ordinary course of business and I believe them to be true and correct.
 - 5. The documents attached with the petition are legible copies and duly attested by me

(DEPONENT)

VERIFICATION

Solemnly affirmed at Gurgaon on this 23.... day of June 2014 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 the from

وي رييڪ (DEPONENT)

ATTESTED

SAJJAN GINGH ADVOCATE & NOTARY GURGAON (HARYANA)

DETITION	NO.:
	110

IN THE MATTER OF

Approval under regulation-86 of CERC (Conduct of Business) Regulations'1999 and CERC (Terms and Conditions of Tariff) Regulations, 2009 and CERC (Terms and Conditions of Tariff) Regulations' 2014 for determination of

- (i) Truing up Transmission tariff for 2009-14 tariff block and
- (ii) Transmission tariff for 2014-19 tariff block

for 400/220 kV Khandwa S/S and LILO of 400 kV D/C Itrasi-Dhule transmission line at Khandwa in Western Region.

Power Grid Corporation of India Ltd.

--- PETITIONER

Registered office: B-9, Qutab Institutional Area,

Katwaria Sarai, New Delhi. 110 016.

<u>Corporate Centre</u>: 'SAUDAMINI', Plot No-2, Sector-29, Gurgaon-122 001 (Haryana).

Madhya Pradesh Power Management Company Ltd.
NPKRR Maaligai, 800, Anna Salai
Chennai – 600 002
Represented by its Chairman
And Others

-- RESPONDENTS

To
The Hon'ble Chairman and
his Companion Members of The Hon'ble CERC
The humble application filed by the Petitioner

MOST RESPECTFULLY SHOWETH

- 1.0 That, Hon'ble Commission have made Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and issued vide notification dated 21.02.2014. These regulations shall remain in force for a period of 5 years w.e.f. 01.04.2014, unless reviewed earlier or extended by the Hon'ble Commission.
- 2.0 The Petitioner herein, Power Grid Corporation of India Ltd. is a Government Company within the meaning of Companies Act, 1956. In exercise of powers under sub-section (1) of section 38(1) the Electricity Act 2003, the Government of India has declared the Petitioner herein as the Central Transmission Utility (CTU). The petitioner being CTU is deemed to be a transmission licensee under section 14 of the Electricity Act' 2003.



- 3.0 That the petitioner has executed 400/220 kV Khandwa S/S and LILO of 400 kV D/C Itrasi-Dhule transmission line at Khandwa in Western Region and the same has been put under commercial operation from 01.02.2005.
- 4.0 That the final Transmission Tariff based on admitted capital cost of Rs 8990.09 Lakhs as on 31.03.2009 & as well as 31.03.2014 (in view of no add cap during 2009-14) for all the assets of the said transmission system covered under this petition for the tariff period 2009 2014 up to 31.03.2014 has been approved by the Hon'ble Commission vide its order dated 14.12.2010 in petition No.: 80/2010, a copy whereof is attached hereto as Encl.-1, page 5 to .25
- 5.0 That the Petitioner is required to adjust the yearly impact of MAT as per regulation 6(5) of the 2nd amendment to the tariff Regulation 2009-14 period dated 21.06.2011 in the truing up petition for 2009-14 tariff block.

Regulation 6(5) of the 2nd amendment to the tariff Regulation 2009-14: **Quote**

"Provided further that Annual Fixed Charge with respect to the tax rate applicable to the generating company or the transmission licensee, as the case may be, in line with the provisions of the relevant Finance Acts of the respective year during the tariff period shall be trued up in accordance with Regulation 6 of these regulations."

Unquote

The 2009-14 truing up exercise is to be done at the time of filing tariff petition for next block, i.e. 2014-19 period as per regulation 6(1) of Tariff Regulation 2009-14.

Regulation 6(1) of Tariff Regulation 2009-14:

Quote

"The Commission shall carry out truing up exercise along with the tariff petition filed for the next tariff period, with respect to the capital expenditure including additional capital expenditure incurred up to 31.3.2014, as admitted by the Commission after prudence check at the time of truing up."

Unquote

The MAT rate applicable to the petitioner for the various years as per the Finance Act of the relevant year and the revised grossed up ROE are as given below:

Year	MAT Rate	Grossed up ROE (Base rate/(1-t)
2009-10	16.995	18.674
2010-11	19.931	19.358
2011-12	20.008	19.377
2012-13	20.008	19.377 GURG
2013-14	20.961	19.610/8

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In line with above Regulation, the tariff for each year of the tariff period 2009-14 block w.r.t the actual tax rate applicable to the petitioner in line with provisions of the relevant Finance Acts has been trued up.

6.0 While filing Tariff petition for 2009-14 period, the petitioner had prayed for allowing the floating rate of Interest on Ioan adjustments. As per Hon'ble Commission order dated 08.06.2011 in petition no. 238/2010, it has been stated that interest on Ioan was calculated on basis of prevailing rates as on 01.04.2010 and any change in the rates of interest subsequent to 01.04.2010 will be considered at the time of truing up. Accordingly in the instant petition, the truing up on account of impact due to change in MAT rate as well as floating rate of interest is being carried out.

7.0 TRANSMISSION TARIFF

7.1 Tariff for 2009-14 period

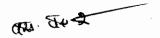
In line with the para 5 & 6 above the revised transmission tariff for 2009-14 block is worked out as follows:

						Ro in dost
Project		2009-10	2010 - 11	2011 -12	2012 – 13	
400/220 kV Khandwa S/S and LILO of 400 kV D/C	Annual Fixed Cost approved	1865.86	1863.00	1862.04	1863.08	1866.30
Itrasi-Dhule transmissio n line at Khandwa	Revised AFC based on truing up	1893.78	1907.08	1906.86	1907.84	1916.43

The tariff for block 2009-14 has been worked out as per Appendix-I, Part III of the tariff regulations for period 2009-14 and the Tariff Filing Formats along with the other relevant information and supporting documentation are attached hereto as Encl.- 2, page 32 to 114

7.2 Tariff for 2014-19 period

That as per regulation 6(1)(i), 20 (3) and regulation 21 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014, the tariff for transmission of electricity on ISTS shall comprise transmission charge for recovery of annual fixed cost consisting of (a) Return on Equity, (b) Interest on Loan, (c) Depreciation, (d) Interest on Working Capital and (e) Operation and maintenance expenses. The tariff for block 2014-19 has been worked out as per **Annexure 1** (Part III) of the tariff regulations for period 2014-19 and the Tariff Filing Formats along with the other relevant information and supporting documentation (if any) are attached hereto as Encl.-3, page (5) to



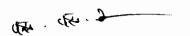
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The capital cost admitted by CERC as on 31.03.2014 is Rs 8990.09 lakhs and same has been considered for computation of tariff for 2014 -19 period.

The tariff from 01.04.2014 to 31.03.2019 is summarized below:

Period	Annual Fixed Charges (Rs. Lakh)#
2014 – 2015	1825.07
2015 – 2016	1810.47
2016 – 2017	1796.49
2017 – 2018	1493.70
2018 – 2019	1504.62

- # While calculating Annual fixed O&M charges, rates as specified in the Tariff Regulation'2014 have been considered. However, the petitioner is approaching the Hon'ble Commission through review petition for revision in the O&M rates. Thus the Annual Fixed Cost is subject to the outcome of the said review petition.
- 7.3 The asset shall complete 12 Yrs on 01.02.2017 and thus depreciation till 2016-17 has been calculated by straight line method and during 2017-18 and 2018-19 has been calculated based on the remaining depreciable value to be recovered in the balance useful life as per clause 5 Regulation 27 of the CERC Tariff regulations 2014. The details have been computed and are provided in Form-10A.
- 7.4 That, it is submitted that the petitioner being liable to pay income tax at MAT rate, the ROE has been calculated @ 19.610 % after grossing up the ROE with MAT rate of 20.961% based on the rate prescribed by the Hon'ble Commission as per illustration under regulation 25 (2) (i) of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 during 2014-19 period. That as per clause 25 (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 2014-15 to 2018-19 on actual gross income of any financial year. Any underrecovery or over-recovery of grossed up rate on ROE after truing up shall be recovered or refunded to beneficiaries 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 / after completion of income tax assessment of the financial year.
- 7.5 That as provided in clause 39 of the Tariff Regulations 2009 & clause 49 of the Tariff Regulations 2014, the deferred tax liability before 01.04.2009 shall be recovered from the beneficiaries or the long term customers /DICs as and when the same gets materialized.
- 7.6 Service tax on transmission has been put in the negative list w.e.f. 01.04.2012 and accordingly the Transmission Charges indicated at para 7.1 & 7.2 above, is exclusive of Service Tax 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 if at any time the transmission charges is withdrawn from the negative list. Further, any additional taxes 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.

7.7 In tariff calculation for 2009-14 period, Interest on Loan has been calculated based on actual interest rates for each year.

For the purpose of the supporting documents for rate of interest, kindly refer page 41 to 64 and 65 to 85 (Volume 1) of our affidavit dtd. 36.06.2014 which was filed before the Hon'ble Commission to avoid duplicacy/repeatative submission of voluminous documents in each petition. These documents/details are also available on our website www.powergridindia.com.

7.8 In the tariff calculation for 2014-19 period Interest on Loan has been calculated on the basis of rate prevailing as on 01.04.2014. The change in Interest rate due to floating rate of interest applicable, if any, during 2014-19 period for the project needs to be claimed / adjusted over the tariff block of 05 years directly from the beneficiaries.

However, In tariff calculation for 2009-14 period, Interest on Loan has been calculated based on actual interest rates for each year.

- 7.9 The transmission charges at para-7.1 above is inclusive of O&M expenses for the project derived based on the norms for O&M expenditure for Transmission System as specified under regulation 29 (3) (a) of the tariff regulations for block 2014-19. It is the understanding of the petitioner that these norms for O&M expenditure been arrived by the Hon'ble Commission after considering (i) normalized actual O&M expenses of the petitioner on its various projects in various regions during the year 2008-09, 2009-10, 2010-11, 2011-12 and 2012-13. It is submitted that the wage revision of the employees of the petitioner company is due during 2014-19 and actual impact of wage hike which will be effective from a future date has also not been factored in fixation of the normative O&M rates prescribed for the tariff block 2014-19. The scheme of wage revision applicable to CPSUs being binding on the petitioner, the petitioner reserves the right to approach the Hon'ble Commission for suitable revision in the norms for O&M expenditure for claiming the impact of wage hike, if any, during 2014-19 period.
- 7.10 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 52 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014. 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 52(2) (a).
- 7.11 The Transmission Charges and other related Charges indicated at para 7.1 & 7.2 above, is exclusive of incentive, late payment surcharge, FFR any statutory taxes, levies, duties, cess, filing fees, license fee, RLDC fees and charges or any other kind

A. W. D.

* पावरिप्रङ

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.

8 Sharing of Transmission Charges

Tariff for Transmission of Electricity (Annual Fixed Cost) as per para 7 above shall be recovered on monthly basis in accordance with Regulation 43 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and shall be shared by the beneficiaries long term transmission customers in Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations, 2010 dated 15.06.2010 and amendment to these Regulations issued vide order dated 30.11.2012 or as amended from to time.

However, the transmission charges for 2009-14 period upto 30.06.2011 shall be recovered on monthly basis in accordance with Regulation 23 and shall be shared by the respondents in accordance with regulation 33 of CERC (Terms and Conditions of Tariff) Regulations, 2009.

In the circumstances mentioned above it will be just and proper that the transmission tariff for the assets covered under this petition be allowed to be charged from the Respondents on the basis set out in para-5 above. The Petitioner submits that the Encl.-1 to Encl.-4 may please be treated as integral part of this petition.

PRAYER

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

- 1) Approve the revised Transmission Tariff for 2009-14 block and transmission tariff for 2014-19 block for the assets covered under this petition, as per para 7 above.
- 2) 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 under clause 25 of the Tariff regulations 2014.
- Allow the petitioner to recover the deferred tax liability before 01.04.2009 from the beneficiaries or the long term customers /DICs as and when the same gets materialized.
- 4) Allow the Petitioner to approach Hon'ble Commission of Suitable revision in the norms for O&M expenditure for claiming the impact of hike if any, during period 2014-19.



- 5) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 52 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014, and other expenditure (if any) in relation to the filing of petition.
- 6) Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the respondents in terms of Regulation 52 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014.
- 7) 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 2014-19 period, if any, from the respondents.
- 8) Allow the Petitioner to bill and recover Service tax on Transmission Charges separately from the respondents, if at any time service tax on transmission is withdrawn from negative list at any time in future. Further, any taxes 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 Power Grid Corporation of India Ltd.

Represented by

S S Raju

Dy. General Manager (Commercial)

Gurgaon

Dated:23.4.06.2014



Petition No. 80/2010

Coram: Dr. Pramod Deo, Chairperson

Shri S.Jayaraman, Member Shri V.S.Verma, Member

Shri M.Deena Dayalan, Member

DATE OF HEARING: 11.11.2010 DATE OF ORDER: 14.12.2010

In the matter of

Approval of transmission tariff for 400/220 kV Khandwa sub-station and LILO of 400 kV D/C Itrasi-Dhule transmission line at Khandwa in Western Region for the period from 1.4.2009 to 31.3.2014.

And In the matter of

Power Grid Corporation of India Limited, Gurgaon ...Petitioner

- 1. Madhya Pradesh Power Transmission Company Ltd., Jabalpur
- 2. Maharashtra State Electricity Distribution Co. Ltd., Mumbai
- Gujarat Urja Vikas Nigam Ltd., Vadodara
- 4. Electricity Deptt., Govt., of Goa, Panaji
- 5. Electricity Department, Administration of Daman and Diu, Daman
- 6. Electricity Department, Administration of Dadra Nagar Haveli, Silvassa
- 7. Chhattisgarh State Electricity Board, Raipur
- 8. Madhya Pradesh Audyogik Kendra Vikas Nigam (Indore) Ltd. Indore

.....Respondents

The following were present:

- 1. Shri U.K.Tyagi, PGCIL
- 2. Shri M.M. Mondal, PGCIL
- 3. Shri Rajiv Gupta, PGCIL

<u>ORDER</u>

The petition has been filed for approval of tariff for 400/220 kV Khandwa sub-station and LILO of 400 kV D/C Itrasi-Dhule transmission line (the transmission



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line) at Khandwa in Western Region for the period 1.4.2009 to 31.3.2014, based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as "the 2009 regulations"). The petitioner has further prayed for the reimbursement of expenditure from the beneficiaries towards publication of notices in newspapers and petition filing fee be approved. The petitioner has made the following additional prayers:-

- (a) To invoke the provision of Regulation 44 of the 2009 regulations for relaxation of regulations 15 (3) of the 2009 regulations so that grossing up the base rate shall be considering the revised rate of MAT as per the Finance Act, 2009 for the year 2009-10 and as per the Finance Act, 2010 for the year 2010-11 and subsequent years and allow consequential impact on tariff for 2009-14 period accordingly;
- (b) To approve reimbursement of petition filing fee and publication of notices in the newspaper as per the 2009 regulations;
- (c) Allow to bill and adjust impact on interest on loan due to change in interest rate on account of floating rate of interest applicable during 2009-14 period, if any from the respondents;
- (d) Allow to recover the service tax on transmission charges separately from the respondents, if the petitioner is subjected to such service tax; and
- (e) Allow reimbursement of licence fee separately from the respondents.



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- 2. Investment approval of the transmission line was accorded by the Board of Directors of the petitioner company as per Memorandum dated 21.1.2002 at an estimated cost of ₹10977.00 lakh, including IDC of ₹1060.00 lakh. The transmission line was declared under commercial operation w.e.f.1.2.2005.
- 3. The annual transmission charges for the period from 1.4.2004 to 31.3.2009 were approved by the Commission in its order dated 22.7.2009 in Petition No. 88/2009 including additional capital expenditure up to 31.3.21009 and thereafter, no projected additional capital expenditure is involved for the transmission line.
- 4. The petitioner has claimed the transmission charges as under:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	456.20	456.20	456.20	456.20	456.20
Interest on Loan	383.20	346.79	310.36	273.90	237.42
Return on Equity	401.68	401.68	401.68	401.68	401.68
Interest on Working Capital	54.40	55.27	56.24	57.30	58.47
O & M Expenses	570.39	603.06	637.57	674.00	712.53
Total	1865.87	1863.00	1862.05	1863.08	1866.30

5. The details submitted by the petitioner in support of its claim for interest on working capital are given hereunder:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	85.56	90.46	95.64	101.10	106.88
O & M expenses	47.53	50.26	53.13	56.17	59.38
Receivables	310.98	310.50	310.34	310.51	311.05
Total	444.07	451.22	459.11	467.78	477.31
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	54.40	55.27	56.24	57.30	58.47



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6. No reply has been filed by any respondents. No comments or suggestions have been received from the general public in response to the notices published by the petitioner under section 64 of the Electricity Act, 2003.

CAPITAL COST

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- 7. As per clause (2) of Regulation 7 of the 2009 regulations, the project cost admitted by the Commission for determination of tariff prior to 1.4.2009 shall form the basis for determination of tariff.
- 8. The petitioner has claimed the capital expenditure of ₹8990.00 lakh, which was admitted vide order dated 22.7.2009 in Petition No. 88/2009. The petitioner has not claimed any projected additional capitalization.
- 9. Accordingly, gross block of ₹8990.00 lakh as on 31.3.2009 has been considered for the purpose of tariff.

DEBT- EQUITY RATIO

- Clause (2) of Regulation 12 of the 2009 regulations inter alia provides that,-10.
 - "(2) In case of the generating station and the transmission system declared under commercial operation prior to 1.4.2009, debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2009 shall be considered."
- 11. The petitioner has claimed tariff based on debt-equity ratio of 74.44:25.26 as admitted on 31.3.2009. The same debt-equity ratio has been considered for the purpose of tariff.



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RETURN ON EQUITY

- 12. Regulation 15 of the 2009 regulations provides that,-
 - "15. (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 12.
 - (2) Return on equity shall be computed on pre-tax basis at the base rate of 15.5% to be grossed up as per clause (3) of this regulation:

Provided that in case of projects commissioned on or after 1st April, 2009, an additional return of 0.5% shall be allowed if such projects are completed within the timeline specified in **Appendix-II**:

Provided further that the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever.

(3) The rate of return on equity shall be computed by grossing up the base rate with the normal tax rate for the year 2008-09 applicable to the concerned generating company or the transmission licensee, as the case may be:

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

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

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

Where t is the applicable tax rate in accordance with clause (3) of this regulation.

Illustration.-

(i) In case of the generating company or the transmission licensee paying Minimum Alternate Tax (MAT) @ 11.33% including surcharge and cess:

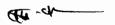
Rate of return on equity = 15.50/(1-0.1133) = 17.481%

(ii) In case of generating company or the transmission licensee paying normal corporate tax @ 33.99% including surcharge and cess:

Rate of return on equity = 15.50/(1-0.3399) = 23.481%."



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- 13. The petitioner has computed return on equity on pre-tax basis on 11.33% MAT in accordance with tax rate applicable for the year 2008-09 and claimed return on equity of ₹401.68 lakh each year during the tariff period @ 17.481% against the equity base of ₹2297.81 lakh. This has been found to be in order. Accordingly, the petitioner shall be entitled to return on equity @ ₹401.68 lakh each year during the tariff period, as claimed.
- 14. The Commission vide its order dated 3.8.2010 in Petition No. 17/2010 has already taken a decision to amend the 2009 regulations and directed the staff to initiate the process accordingly. The draft regulations have already been published. The Commission is in the process of finalizing the amendment to 2009 regulations after considering the responses to the draft amendments. It is however, clarified that the existing provision of the 2009 regulation will be applicable with regard to the MAT rate till the regulations are amended.

INTEREST ON LOAN

- 15. Regulation 16 of the 2009 regulations provides that,-
 - "16. (1) The loans arrived at in the manner indicated in regulation 12 shall be considered as gross normative loan for calculation of interest on loan.
 - (2) The normative loan outstanding as on 1.4.2009 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2009 from the gross normative loan.
 - (3) The repayment for the year of the tariff period 2009-14 shall be deemed to be equal to the depreciation allowed for that year:
 - (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



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considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed,.

(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each year applicable to the project:

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

Provided further that if the 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 generating company or the transmission licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the generating company or the transmission licensee, as the case may be, in the ratio of 2:1.
- (8) The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing.
- (9) In case of dispute, any of the parties may make an application in accordance with the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, as amended from time to time, including statutory reenactment thereof for settlement of the dispute:

Provided that the beneficiary or the transmission customers shall not withhold any payment on account of the interest claimed by the generating company or the transmission licensee during the pendency of any dispute arising out of refinancing of loan."

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- 16. In our calculation, the interest on loan has been worked out as detailed below:
 - (i) Gross amount of loan, repayment of instalments and rate of interest and weighted average rate of interest on actual average loan have been considered as per the petition;
 - (ii) The repayment for the tariff period 2009-14 shall be deemed to be equal to the depreciation allowed for that period;
 - As per the Regulation 16(4), moratorium period availed by the transmission licensee, if any, shall be ignored and the repayment of the loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed;
 - (iv) Weighted average rate of interest on actual loan worked out as per(i) above has been applied on the average loan during the year to arrive at the interest on loan;
 - (v) The interest on loan has been calculated on the basis of rate prevailing as on 1.4.2009. The weighted average rate of interest as on 1.4.2009 shall be basis for the purpose of calculation of interest as per the 2009 regulations. Therefore, interest of loan has been calculated based on the floating rate as on 1.4.2009. Any charge in

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rate of interest subsequent to 1.4.2009 will be considered at the time of truing up.

17. Based on the above, the year-wise details of interest worked out are given hereunder:

(₹ in lakh)

					T III I I I I I I		
Details of Ioan	Up to 31.3.2009	2009-10	2010-11	2011-12	2012-13	2013-14	
Gross Normative Loan	6692.29	6692.29	6692.29	6692.29	6692.29	6692.29	
Cumulative Repayment up to Previous Year		1626.67	2082.87	2539.07	2995.26	3451.46	
Net Loan-Opening		5065.61	4609.41	4153.22	3697.02	3240.83	
Addition due to Additional Capitalisation		0.00	0.00	0.00	0.00	0.00	
Repayment during the year		456.20	456.20	456.20	456.20	456.20	
Net Loan-Closing		4609.41	4153.22	3697.02	3240.83	2784.63	
Average Loan		4837.51	4381.32	3925.12	3468.93	3012.73	
Weighted Average Rate of Interest on Loan		7.9214%	7.9151%	7.9069%	7.8959%	7.8806%	
Interest		383.20	346.79	310.36	273.90	237.42	

18. The detailed calculations in support of the weighted revised average rate of interest are contained in **Annexure** attached.

DEPRECIATION

- 19. Regulation 17 of the 2009 regulations provides for computation of depreciation in the following manner, namely:
 - "17. (1) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission.
 - (2) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset.

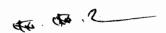
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(3) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.



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(4) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-III 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 date of commercial operation shall be spread over the balance useful life of the assets.

- (5) In case of the existing projects, the balance depreciable value as on 1.4.2009 shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to 31.3.2009 from the gross depreciable value of the assets.
- (6) 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."
- 20. The transmission system was declared under commercial operation on 1.2.2005 and accordingly, it will complete 12 years on 2013-14. Thus, depreciation has been calculated annually based on straight line method and rates specified in **Appendix-III** of the 2009 regulations.
- 21. For the period 1.4.2009 to 31.3.2014 the depreciation works out to ₹456.20 lakh each year by applying rate of depreciation of 5.0744% as shown below:

							(₹in lakh)
Details of Depreciation		Up to 31.3.2009	2009-10	2010-11	2011-12	2012-13	2013-14
Gross block as per order dated 22.7.2009		8990.09	8990.09	8990.09	8990.09	8990.09	8990.09
Addition during 2009-14 due to projected Additional Capitalisation			0.00	0.00	0.00	0.00	0.00
Gross block as on 31.3.2009			8990.09	8990.09	8990.09	8990.09	8990.09
Average gross block			8990.09	8990.09	8990.09	8990.09	8990.09
Rate of Depreciation			5.0744%	5.0744%	5.0744%	5.0744%	5.0744%
Depreciable Value	90%		8039.74	8039.74	8039.74	8039.74	8039.74
Remaining Depreciable Value			6415.81	5959.62	5503.42	5047.22	4591.03
Depreciation			456.20	456.20	456.20	456.20	456.20

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OPERATION & MAINTENANCE EXPENSES

22. In accordance with clause (g) of Regulation 19 the 2009 regulations, the following norms for 400 kV D/C Twin conductor transmission line, 400 kV and 220 kV bays are prescribed for O & M expenses:

(₹ in lakh)

	Year				
	2009-10	2010-11	2011-12	2012-13	2013-14
400 kV D/C twin conductor transmission line (₹ in lakh /km)	0.627	0.663	0.701	0.741	0.783
400 kV bays (₹ in lakh per bay)	52.40	55.40	58.57	61.92	65.46
220 kV bays (₹ in lakh per bay)	36.68	38.78	41.00	43.34	45.82

23. The petitioner has claimed O & M expenses for 57.28 ckt.km. and 12 bays which have been allowed. Accordingly, the petitioner's entitlement to O & M expenses has been worked out as given hereunder:

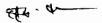
(₹ in lakh)

	Year					
	2009-10	2010-11	2011-12	2012-13	2013-14	
400 kV D/C Twin conductor transmission line (57.28 Ckt.km)	35.91	37.98	40.15	42.44	44.85	
400 kV bays (6 bays)	314.40	332.40	351.42	371.52	392.76	
220 kV bays (6 bays)	220.08	232.68	246.00	260.04	274.92	
Total	570.39	603.06	637.57	674.00	712.53	

24. The petitioner has submitted that O & M expenditure for the year 2009-14 had been arrived at on the basis of normalized actual O & M expenses during the year 2003-04 to 2007-08. The wage hike of 50% on account of pay revision of the employees of public sector undertaking has also been considered while calculating the O & M charges for the tariff period 2009-14. The petitioner has further submitted that it reserves the right to approach the Commission for suitable revision in the norms for O & M expenditure in case the impact of wage



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hike w.e.f 1.1.2007 is more then 50%. The petitioner has further submitted that in O & M norms for the period 2009-14, the cost associated with license fees had not been captured and therefore licence fee be allowed to be recovered separately from the respondents.

25. The issues have been raised by the petitioner in other petitions also. A view is yet to be taken by the Commission on reimbursement of the cost of wage hike and reimbursement of licence fees. The decision as and when thane will be applicable to the present case also.

INTEREST ON WORKING CAPITAL

26. The components of the working capital and the interest thereon are discussed hereunder:

(i) **Receivables**

As per Regulation 18(1)(c)(i) of the 2009 regulations, receivables will be equivalent to two months average billing calculated on target availability level. The petitioner has claimed the receivables on the basis 2 months' transmission charges claimed in the petition. In the tariff being allowed, receivables have been worked out on the basis 2 months' transmission charges.

(ii) Maintenance spares

Regulation 18(1)(c)(ii) of the 2009 regulations provides for maintenance spares @ 15% per annum of the O & M expenses from

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1.4.2009. The value of maintenance spares works out to ₹85.56 lakh as on 1.4.2009.

(iii) O & M expenses

Regulation 18(1) (c) (iii) of the 2009 regulations provides for operation and maintenance expenses for one month as a component of working capital. The petitioner has claimed O&M expenses for 1 month of O&M expenses of the respective year as claimed in the petition. This has been considered in the working capital.

(iv) Rate of interest on working capital

As per Regulation 18(3) of the 2009 regulations, rate of interest on working capital shall be on normative basis and shall be equal to the short-term Prime Lending Rate of State Bank of India as on 1.4.2009 or on 1st April of the year in which the project or part thereof (as the case may be) is declared under commercial operation, whichever is later. The interest on working capital is payable on normative basis notwithstanding that the transmission licensee has not taken working capital loan from any outside agency. The petitioner has claimed interest on working capital @ 12.25% based on SBI PLR as on 1.4.2009, which is in accordance with the 2009 regulations and has been allowed.

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27. The necessary computations in support of interest on working capital are appended hereinbelow:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	85.56	90.46	95.64	101.10	106.88
O & M expenses	47.53	50.26	53.13	56.17	59.38
Receivables	310.98	310.50	310.34	310.51	311.05
Total	444.07	451.21	459.11	467.78	477.31
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	54.40	55.27	56.24	57.30	58.47

TRANSMISSION CHARGES

28. The transmission charges being allowed for the transmission asset are summarised below:

(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	456.20	456.20	456.20	456.20	456.20
Interest on Loan	383.20	346.79	310.36	273.90	237.42
Return on Equity	401.68	401.68	401.68	401.68	401.68
Interest on Working Capital	54.40	55.27	56.24	57.30	58.47
O & M Expenses	570.39	603.06	637.57	674.00	712.53
Total	1865.86	1863.00	1862.04	1863.08	1866.30

Application fee and the publication expenses

29. The petitioner has sought approval for the reimbursement of fee paid by it for filing the petition. In accordance with our decision in order dated 11.1.2010 in Petition No. 109/2009, the petitioner shall be entitled to recover the filing fee from the beneficiaries.



Order in Petition No. 80/2010





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30. Accordingly, expenses incurred by the petitioner on application filing fees and publication of notices in connection with the present petition shall be directly recovered from the beneficiary on pro rata basis.

Service Tax

31. Presently, service tax on transmission service has been exempted by Government of India vide its notification No. 20/2010 dated 27.2.2010 read with notification No. 45/2010 dated 20.7.2010. Therefore, prayer made by the petitioner to recovery of the service tax on transmission charges from the beneficiaries has become infructuous.

Licence fee

- 32. The petitioner has prayed to allow reimbursement of licence fee separately from the respondents. A view in the matter is yet to be taken by the Commission.
- 33. The transmission charges allowed shall be recovered on monthly basis in accordance with Regulation 23 and shall be shared by the respondent in accordance with Regulation 33 of the 2009 regulations.
- 34. This order disposes of Petition No. 80/2010.

sd/-¶ Deena Davalar sd/-

sd/-

sd/-

(M.Deena Dayalan) Member (V.S.Verma) Member

(S.Jayaraman) Member (Dr. Pramod Deo) Chairperson

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CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN

			<u> </u>			(₹ in lakh)
	Details of Loan	2009-10	2010-11	2011-12	2012-13	2013-14
1	Bond X					
	Gross loan opening	33.00	33.00	33.00	33.00	33.00
	Cumulative Repayment up to	13.75	16.50	19.25	22.00	24.75
	the date of commercial					
	operation/previous year					
	Net Loan-Opening	19.25	16.50	13.75	11.00	8.25
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	2.75	2.75	2.75	2.75	2.75
	Net Loan-Closing	16.50	13.75	11.00	8.25	5.50
	Average Loan	17.88	15.13	12.38	9.63	6.88
	Rate of Interest	10.90%	10.90%	10.90%	10.90%	10.90%
	Interest	1.95	1.65	1.35	1.05	0.75
	Rep Schedule	1	12 Annual I	nstalment fro	m 21.6.2004	
2	Bond XI Option -I					
	Gross loan opening	35.00	35.00	35.00	35.00	35.00
	Cumulative Repayment up to	11.67	14.58	17.50	20.42	23.33
	the date of commercial					
	operation/previous year					
	Net Loan-Opening	23.33	20.42	17.50	14.58	11.67
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	2.92	2.92	2.92	2.92	2.92
	Net Loan-Closing	20.42	17.50	14.58	11.67	8.75
	Average Loan	21.88	18.96	16.04	13.13	10.21
	Rate of Interest	9.80%	9.80%	9.80%	9.80%	9.80%
	Interest	2.14	1.86	1.57	1.29	1.00
	Rep Schedule		12 Annual I	nstalment from	m 7.12.2005	
3	Bond XII					
	Gross loan opening	35.00	35.00	35.00	35.00	35.00
	Cumulative Repayment up to	11.67	14.58	17.50	20.42	23.33
	the date of commercial					
	operation /previous year					
	Net Loan-Opening	23.33	20.42	17.50	14.58	11.67
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	2.92	2.92	2.92	2.92	2.92
	Net Loan-Closing	20.42	17.50	14.58	11.67	8.75
	Average Loan	21.88	18.96	16.04	13.13	10.21
	Rate of Interest	9.70%	9.70%	9.70%	9.70%	9.70%
	Interest	2.12	1.84	1.56	1.27	0.99
	Rep Schedule			nstalment from		
4	Bond XIII Option I					
-	Gross loan opening	3750.00	3750.00	3750.00	3750.00	3750.00

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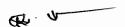
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i I	Cumulative Repayment up to	937.50	1250.00	1562.50	1875.00	2187.50
	the date of commercial					
	operation /previous year					
	Net Loan-Opening	2812.50	2500.00	2187.50	1875.00	1562.50
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	312.50	312.50	312.50	312.50	312.50
	Net Loan-Closing	2500.00	2187.50	1875.00	1562.50	1250.00
	Average Loan	2656.25	2343.75	2031.25	1718.75	1406.25
	Rate of Interest	8.63%	8.63%	8.63%	8.63%	8.63%
	Interest	229.23	202.27	175.30	148.33	121.36
	Rep Schedule		12 Annual Ir	nstalment from	m 31.7.2006	
5	Bond XV	-				
	Gross loan opening	2183.00	2183.00	2183.00	2183.00	2183.00
	Cumulative Repayment up to	363.83	545.75	727.67	909.58	1091.50
	the date of commercial					
	operation /previous year					
	Net Loan-Opening	1819.17	1637.25	1455.33	1273.42	1091.50
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	181.92	181.92	181.92	181.92	181.92
	Net Loan-Closing	1637.25	1455.33	1273.42	1091.50	909.58
	Average Loan	1728.21	1546.29	1364.38	1182.46	1000.54
	Rate of Interest	6.68%	6.68%	6.68%	6.68%	6.68%
	Interest	115.44	103.29	91.14	78.99	66.84
1	Rep Schedule		12 Annual Ir	nstalment from	n 23.2.2008	
6	PNB-II					
	Gross loan opening	19.00	19.00	19.00	19.00	19.00
	Cumulative Repayment up to	7.92	9.50	11.08	12.67	14.25
	the date of commercial					
	operation /previous year					
			0.50	7.00		
	Net Loan-Opening	11.08	9.50	7.92	6.33	4.75
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Additions during the year Repayment during the year	0.00 1.58	0.00 1.58	0.00 1.58	0.00 1.58	0.00 1.58
	Additions during the year	0.00 1.58 9.50	0.00 1.58 7.92	0.00 1.58 6.33	0.00 1.58 4.75	0.00 1.58 3.17
	Additions during the year Repayment during the year Net Loan-Closing Average Loan	0.00 1.58 9.50 10.29	0.00 1.58 7.92 8.71	0.00 1.58 6.33 7.13	0.00 1.58 4.75 5.54	0.00 1.58 3.17 3.96
	Additions during the year Repayment during the year Net Loan-Closing Average Loan Rate of Interest	0.00 1.58 9.50 10.29 9.35%	0.00 1.58 7.92 8.71 9.35%	0.00 1.58 6.33 7.13 9.35%	0.00 1.58 4.75 5.54 9.35%	0.00 1.58 3.17 3.96 9.35%
	Additions during the year Repayment during the year Net Loan-Closing Average Loan Rate of Interest Interest	0.00 1.58 9.50 10.29	0.00 1.58 7.92 8.71 9.35% 0.81	0.00 1.58 6.33 7.13 9.35% 0.67	0.00 1.58 4.75 5.54 9.35% 0.52	0.00 1.58 3.17 3.96
	Additions during the year Repayment during the year Net Loan-Closing Average Loan Rate of Interest	0.00 1.58 9.50 10.29 9.35%	0.00 1.58 7.92 8.71 9.35% 0.81	0.00 1.58 6.33 7.13 9.35%	0.00 1.58 4.75 5.54 9.35% 0.52	0.00 1.58 3.17 3.96 9.35%
7	Additions during the year Repayment during the year Net Loan-Closing Average Loan Rate of Interest Interest	0.00 1.58 9.50 10.29 9.35%	0.00 1.58 7.92 8.71 9.35% 0.81 12 Annual	0.00 1.58 6.33 7.13 9.35% 0.67 nstalment fro	0.00 1.58 4.75 5.54 9.35% 0.52 m 8.3.2005	0.00 1.58 3.17 3.96 9.35% 0.37
7	Additions during the year Repayment during the year Net Loan-Closing Average Loan Rate of Interest Interest Rep Schedule OBC Gross loan opening	0.00 1.58 9.50 10.29 9.35% 0.96	0.00 1.58 7.92 8.71 9.35% 0.81 12 Annual	0.00 1.58 6.33 7.13 9.35% 0.67 nstalment fro	0.00 1.58 4.75 5.54 9.35% 0.52 m 8.3.2005	0.00 1.58 3.17 3.96 9.35% 0.37
7	Additions during the year Repayment during the year Net Loan-Closing Average Loan Rate of Interest Interest Rep Schedule OBC Gross loan opening Cumulative Repayment upto	0.00 1.58 9.50 10.29 9.35% 0.96	0.00 1.58 7.92 8.71 9.35% 0.81 12 Annual	0.00 1.58 6.33 7.13 9.35% 0.67 nstalment fro	0.00 1.58 4.75 5.54 9.35% 0.52 m 8.3.2005	0.00 1.58 3.17 3.96 9.35% 0.37
7	Additions during the year Repayment during the year Net Loan-Closing Average Loan Rate of Interest Interest Rep Schedule OBC Gross loan opening Cumulative Repayment upto DOCO/previous year	0.00 1.58 9.50 10.29 9.35% 0.96	0.00 1.58 7.92 8.71 9.35% 0.81 12 Annual	0.00 1.58 6.33 7.13 9.35% 0.67 nstalment fro 16.00 9.33	0.00 1.58 4.75 5.54 9.35% 0.52 m 8.3.2005 16.00 10.67	0.00 1.58 3.17 3.96 9.35% 0.37 16.00 12.00
7	Additions during the year Repayment during the year Net Loan-Closing Average Loan Rate of Interest Interest Rep Schedule OBC Gross loan opening Cumulative Repayment upto DOCO/previous year Net Loan-Opening	0.00 1.58 9.50 10.29 9.35% 0.96 16.00 6.67	0.00 1.58 7.92 8.71 9.35% 0.81 12 Annual 16.00 8.00	0.00 1.58 6.33 7.13 9.35% 0.67 nstalment fro 16.00 9.33	0.00 1.58 4.75 5.54 9.35% 0.52 m 8.3.2005 16.00 10.67	0.00 1.58 3.17 3.96 9.35% 0.37 16.00 12.00
7	Additions during the year Repayment during the year Net Loan-Closing Average Loan Rate of Interest Interest Rep Schedule OBC Gross loan opening Cumulative Repayment upto DOCO/previous year Net Loan-Opening Additions during the year	0.00 1.58 9.50 10.29 9.35% 0.96 16.00 6.67	0.00 1.58 7.92 8.71 9.35% 0.81 12 Annual 16.00 8.00 8.00	0.00 1.58 6.33 7.13 9.35% 0.67 nstalment fro 16.00 9.33 6.67	0.00 1.58 4.75 5.54 9.35% 0.52 m 8.3.2005 16.00 10.67 5.33	0.00 1.58 3.17 3.96 9.35% 0.37 16.00 12.00
7	Additions during the year Repayment during the year Net Loan-Closing Average Loan Rate of Interest Interest Rep Schedule OBC Gross loan opening Cumulative Repayment upto DOCO/previous year Net Loan-Opening Additions during the year Repayment during the year	0.00 1.58 9.50 10.29 9.35% 0.96 16.00 6.67 9.33 0.00	0.00 1.58 7.92 8.71 9.35% 0.81 12 Annual 16.00 8.00 0.00 1.33	0.00 1.58 6.33 7.13 9.35% 0.67 nstalment fro 16.00 9.33 6.67 0.00 1.33	0.00 1.58 4.75 5.54 9.35% 0.52 m 8.3.2005 16.00 10.67 5.33 0.00 1.33	0.00 1.58 3.17 3.96 9.35% 0.37 16.00 12.00 4.00 0.00 1.33
7	Additions during the year Repayment during the year Net Loan-Closing Average Loan Rate of Interest Interest Rep Schedule OBC Gross loan opening Cumulative Repayment upto DOCO/previous year Net Loan-Opening Additions during the year Repayment during the year Net Loan-Closing	0.00 1.58 9.50 10.29 9.35% 0.96 16.00 6.67 9.33 0.00 1.33 8.00	0.00 1.58 7.92 8.71 9.35% 0.81 12 Annual 16.00 8.00 0.00 1.33 6.67	0.00 1.58 6.33 7.13 9.35% 0.67 nstalment fro 16.00 9.33 6.67 0.00 1.33 5.33	0.00 1.58 4.75 5.54 9.35% 0.52 m 8.3.2005 16.00 10.67 5.33 0.00 1.33 4.00	0.00 1.58 3.17 3.96 9.35% 0.37 16.00 12.00 4.00 0.00 1.33 2.67
7	Additions during the year Repayment during the year Net Loan-Closing Average Loan Rate of Interest Interest Rep Schedule OBC Gross loan opening Cumulative Repayment upto DOCO/previous year Net Loan-Opening Additions during the year Repayment during the year Net Loan-Closing Average Loan	0.00 1.58 9.50 10.29 9.35% 0.96 16.00 6.67 9.33 0.00 1.33 8.00 8.67	0.00 1.58 7.92 8.71 9.35% 0.81 12 Annual 16.00 8.00 0.00 1.33 6.67 7.33	0.00 1.58 6.33 7.13 9.35% 0.67 nstalment fro 16.00 9.33 6.67 0.00 1.33 5.33 6.00	0.00 1.58 4.75 5.54 9.35% 0.52 m 8.3.2005 16.00 10.67 5.33 0.00 1.33 4.00 4.67	0.00 1.58 3.17 3.96 9.35% 0.37 16.00 12.00 4.00 0.00 1.33 2.67 3.33
7	Additions during the year Repayment during the year Net Loan-Closing Average Loan Rate of Interest Interest Rep Schedule OBC Gross Ioan opening Cumulative Repayment upto DOCO/previous year Net Loan-Opening Additions during the year Repayment during the year Net Loan-Closing Average Loan Rate of Interest	0.00 1.58 9.50 10.29 9.35% 0.96 16.00 6.67 9.33 0.00 1.33 8.00 8.67 9.60%	0.00 1.58 7.92 8.71 9.35% 0.81 12 Annual 16.00 8.00 0.00 1.33 6.67 7.33 9.60%	0.00 1.58 6.33 7.13 9.35% 0.67 nstalment fro 16.00 9.33 6.67 0.00 1.33 5.33 6.00 9.60%	0.00 1.58 4.75 5.54 9.35% 0.52 m 8.3.2005 16.00 10.67 5.33 0.00 1.33 4.00 4.67 9.60%	0.00 1.58 3.17 3.96 9.35% 0.37 16.00 12.00 4.00 0.00 1.33 2.67 3.33 9.60%
7	Additions during the year Repayment during the year Net Loan-Closing Average Loan Rate of Interest Interest Rep Schedule OBC Gross Ioan opening Cumulative Repayment upto DOCO/previous year Net Loan-Opening Additions during the year Repayment during the year Net Loan-Closing Average Loan Rate of Interest Interest	0.00 1.58 9.50 10.29 9.35% 0.96 16.00 6.67 9.33 0.00 1.33 8.00 8.67	0.00 1.58 7.92 8.71 9.35% 0.81 12 Annual 16.00 8.00 0.00 1.33 6.67 7.33 9.60% 0.70	0.00 1.58 6.33 7.13 9.35% 0.67 nstalment fro 16.00 9.33 6.67 0.00 1.33 5.33 6.00 9.60% 0.58	0.00 1.58 4.75 5.54 9.35% 0.52 m 8.3.2005 16.00 10.67 5.33 0.00 1.33 4.00 4.67 9.60% 0.45	0.00 1.58 3.17 3.96 9.35% 0.37 16.00 12.00 4.00 0.00 1.33 2.67 3.33
7	Additions during the year Repayment during the year Net Loan-Closing Average Loan Rate of Interest Interest Rep Schedule OBC Gross Ioan opening Cumulative Repayment upto DOCO/previous year Net Loan-Opening Additions during the year Repayment during the year Net Loan-Closing Average Loan Rate of Interest	0.00 1.58 9.50 10.29 9.35% 0.96 16.00 6.67 9.33 0.00 1.33 8.00 8.67 9.60%	0.00 1.58 7.92 8.71 9.35% 0.81 12 Annual 16.00 8.00 0.00 1.33 6.67 7.33 9.60% 0.70	0.00 1.58 6.33 7.13 9.35% 0.67 nstalment fro 16.00 9.33 6.67 0.00 1.33 5.33 6.00 9.60%	0.00 1.58 4.75 5.54 9.35% 0.52 m 8.3.2005 16.00 10.67 5.33 0.00 1.33 4.00 4.67 9.60% 0.45	0.00 1.58 3.17 3.96 9.35% 0.37 16.00 12.00 4.00 0.00 1.33 2.67 3.33 9.60%

Order in Petition No. 80/2010

Page 17 of 18

	Gross loan opening	369.00	369.00	369.00	369.00	369.00
	Cumulative Repayment up to	0.00	30.75	61.50	92.25	123.00
	the date of commercial	ĺ				
<u> </u>	operation /previous year					
	Net Loan-Opening	369.00	338.25	307.50	276.75	246.00
L	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	30.75	30.75	30.75	30.75	30.75
	Net Loan-Closing	338.25	307.50	276.75	246.00	215.25
	Average Loan	353.63	322.88	292.13	261.38	230.63
	Rate of Interest	8.15%	8.15%	8.15%	8.15%	8.15%
	Interest	28.82	26.31	23.81	21.30	18.80
	Rep Schedule		12 Annual	Instalment fro	om 9.3.2010	
9	Bond XXII					
	Gross loan opening	26.00	26.00	26.00	26.00	26.00
	Cumulative Repayment up to	0.00	0.00	2.17	4.33	6.50
<u></u>	DOCO/previous year					
	Net Loan-Opening	26.00	26.00	23.83	21.67	19.50
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	2.17	2.17	2.17	2.17
	Net Loan-Closing	26.00	23.83	21.67	19.50	17.33
	Average Loan	26.00	24.92	22.75	20.58	18.42
	Rate of Interest	8.68%	8.68%	8.68%	8.68%	8.68%
	Interest	2.26	2.16	1.97	1.79	1.60
	Rep Schedule		12 Annual I	nstalment fro	m 7.12.2010	
	Total Loan					
	Gross loan opening	6466.00	6466.00	6466.00	6466.00	6466.00
	Cumulative Repayment up to	1353.00	1889.67	2428.50	2967.33	3506.17
	the date of commercial					
	operation /previous year					
	Net Loan-Opening	5113.00	4576.33	4037.50	3498.67	2959.83
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	536.67	538.83	538.83	538.83	538.83
	Net Loan-Closing	4576.33	4037.50	3498.67	2959.83	2421.00
	Average Loan	4844.67	4306.92	3768.08	3229.25	2690.42
	Rate of Interest	7.9214%	7.9151%	7.9069%	7.8959%	7.8806%
	Interest	383.76	340.90	297.94	254.98	212.02





TARIFF 2009-14

Form I **Summary Sheet** Name of the Transmission Licensee: Power Grid Corporation of India Limited Name of the Region: WESTERN REGION Name of the Project: 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV D/C ITARSI-DHULE T/L AT KHANDWA Name of the Transmission Element: 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV D/C ITARSI-DHULE T/L AT KHANDWA Date of Commercial Operation: 01-Feb-2005 Rs. in Lacs 2013-14 **Particulars** 2009-10 2010-11 2011-12 2012-13 456.18 456.18 456.18 456.18 456.18 Depreciation 274.2 237.63 Interest on Loan 383.15 346.86 310.71 429.09 444.81 445.24 445.24 450.6 **Return on Equity** 59.49 54.97 57.16 58.22 Int. on Working Capital 56.17 603.06 637.57 674 712.53 Op. and Maintenance 570.39 1916.43 Total 1893.78 1907.08 1906.86 1907.84

E. B. 2



Calculation	of Return or	Fauity	

Name of the Transmission Licensee: Power Grid Corporation of India Limited

Name of the Region: WESTERN REGION

Name of the Project: 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV D/C ITARSI-

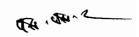
DHULE T/L AT KHANDWA

Name of the Transmission Element: 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV

D/C ITARSI-DHULE T/L AT KHANDWA

Date of Commercial Operation: 01-Feb-2005

					Rs. in Lacs
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Opening Equity	2297.8	2297.8	2297.8	2297.8	2297.8
Notional Equity on Add Cap	0	0	0	0	0
Total Equity	2297.8	2297.8	2297.8	2297.8	2297.8
Average Equity	2297.8	2297.8	2297.8	2297.8	2297.8
Rate of Return on Equity (%)	18.674	19.358	19.377	19.377	19.61
Return on Equity	429.09	444.81	445.24	445.24	450.6
Pro rata Return on Equity	429.09	444.81	445.24	445.24	450.6
Calculation of Grossed up Rate of ROE					
Rate of ROE	15.5	15.5	15.5	15.5	15.5
Time Line Incentive	0	0	0	0	0
Communication Dis-incentive	0	0	0	0	0
Effective Rate of ROE	15.5	15.5	15.5	15.5	15.5
MAT Rate	17	19.93	20.01	20.01	20.96
Grossed up Rate of ROE	18.674	19.358	19.377	19.377	19.61



Form IA



Name of the Petitioner Details of Transmission lines and Substations, Communication System Name of the Petitioner Deverdaid Corporation of India Limited Name of the Petitioner Stower Grid Corporation of India Limited Name of the Project: 400/220 KV KHANIDWA SUBSTATION AND LILO OF 400 KV D/C ITARSI-DHULE T/L AT KHANIDWA Name of the Project: 400/220 KV KHANIDWA SUBSTATION AND LILO OF 400 KV D/C ITARSI-DHULE T/L AT KHANIDWA Date of Commercial Operation: 0.1-feb-2005 Transmission Lines: SI.No. Name of Line Type of S/C or D/C S/C or D/C Conductor level KV Length length Commercial Petition No. Substations: SI.No. Name of Type of Voltage No. of Conductor Reacotts S/C or D/C Conductor Reacotts S/C or D/C S												
of the Petitioner: Power Grid Corporation of India Limited of the Region: WESTERN REGION of the Project 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV D/C TARSI-DHULE T/L AT KHANDWA ET/L AT KHANDWA Interest of the Foliate of time Interest of time Interest of time Interest of time Interest of time Covered in Commercial Coverage of time Interest of time Covered in Commercial Coverage of time Interest of Commercial Coverage of time Interest of Commercial Coverage of Covered in Coverage of Coverage of Covered in Coverage of Cover			Ŏ	etails of Tra	nsmission	Lines and S	ubstations,	Communic	ation Syster	_		
of the Region: WESTERN REGION of the Project: 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV D/C ITARSI-DHULE T/I AT KHANDWA of the Project: 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV D/C TARKHANDWA inission Lines: Name of Line Type of Type of Voltage Vo	Name of the	e Petitione	r: Power Gri	d Corporati	ion of India	Limited						
of the Project: 400/220 KV KHANDWA SUBSTATION AND LILO of 400 KV D/C ITARSI-DHULE T/L AT KHANDWA of the Transmission element or Communication system: 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV D/C ITARSION LILOS FIT AT KHANDWA ITA AT KHANDWA ITA AT KHANDWA-ILTA AT COMMUNICATION OF SUB-VOITING CONDUCTOR INTO ITARSION LINES: Name of Line Type of Line Line Line Date of Commercial Covered in Commercial Communication System: 400 KV D/C ITARSION AC/HVDC AC/HVDC <t< td=""><td>Name of the</td><td>ne Region: V</td><td>VESTERN RE</td><td>NOIS</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	Name of the	ne Region: V	VESTERN RE	NOIS								
The transmission element or Communication system: 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV D	Name of th	ne Project: 4	00/220 KV	HANDWA	SUBSTATIO	N AND LILC	OF 400 KV	D/C ITARS	I-DHULE T/L	AT KHAND	WA	
### STATE HANDWA-ICT-IT 220 CM CM CM CM CM CM CM C	Name of the	ne Transmis	sion elemen	t or Comm	unication s	/stem: 400/	220 KV KH	ANDWA SU	BSTATION A	ND LILO OF	400 KV D/	C ITARSI-
Name of Line Type of Line Line Conductor level KV Length Length Length Commerci Conductor level KV Length Length Length Line Conductor level KV Length Lengt	DHULE T/L	AT KHAND	WA									
Name of Line Line Conductor level KV Length length length Commerci Line Conductor level KV Length length Leb-05 Voltage Line Conductor level KV Length length Leb-05 Voltage Line Conductor level KV Length Leb-05 Voltage Line Conductor level KV Length Leb-05 Voltage Line Conductor level KV Length Leb-05 Voltage Line Leb-05 Voltage Length Leb-05 Voltage Leb-05 Voltage	Date of Co	mmercial O		-Feb-2005								
Name of Line Type of S/C or D/C No. of Sub Voltage Line Line Date of Conductor Evel KV Length Ength Commerci	Transmissi	on Lines:										
Line	SI.No.	Name of Lin		Type of	S/C or D/C	No. of Sub-	Voltage	Line	Line	Date of	Covered in	the
AC/HVDC				Line		Conductor	level KV	Length	length	Commerci		If No,
Name of Type of Yoltage No. of ANDINA-Nepanagar 220 No. of ANDINA-Nepanagar 220 No. of ANDINA-Irasi-II 400 No. of ANDINA-Phule-II 400 No. of ANDINA-Phule-II 400 No. of Bays Date of Cowered in Commercial ANDINA-Phule-II 400 No. of Bays Date of Cowered in Commercial ANDINA-Nepanagar 220 No. of Bays Date of Cowered in Commercial ANDINA-Nepanagar 220 No. of Bays Date of Cowered in Commercial ANDINA-Nepanagar 220 No. of Bays Date of Cowered in Commercial ANDINA-Nepanagar 220 No. of Bays Date of Cowered in Cowered in Commercial ANDINA-Nepanagar 220 No. of Bays Date of Cowered in Cowered in Cowered in Cowered in Commercial ANDINA-Nepanagar 220 No. of Bays No. of Bays <t< td=""><td></td><td></td><td></td><td>AC/HVDC</td><td></td><td>S</td><td></td><td>CKt. KM</td><td></td><td>al</td><td></td><td>petition</td></t<>				AC/HVDC		S		CKt. KM		al		petition
ILO OF 400 KV D/C IT/AC DC 2 400 KV 114.56 57.28 1-Feb-05 Y Name of Sub- station station Level KV Transform ers / Station Reacotrs/ Transform ers / Station No. of Bays 132 KV & all Commercial all Sub- Station Commercial Commercial all Sub- Station Yes/No KHANDWA-ICT-II 220 Reacotrs/ Total 765 KV 400 KV 220 KV below (all below) all below) all below (below) all below) all below (below) all below) all below (below) all below) all below) all below (below) all below) all below) all below) all below) all below) all below) all below (below) all below) all below										operation	Yes/No	No.
Name of Sub- Sub- Station Type of Voltage No. of Station No. of Bays Date of Covered in Commercial Commercial Commercial Commercial Station No. of Bays Date of Covered in Commercial Commer	1	LILO OF 40	0 KV D/C ITA	AC	DC	2	400 KV	114.56	57.28	1-Feb-05	٨	
SI. No. Name of Sub- station station Voltage No. of ers / Sub- station No. of Reacotrs/ ransform No. of R	Substation	S:										
Substation ers / ers	SI. No.	Name of	Type of	Voltage	No. of		No. c	of Bays		Date of	Covered in	the
station ers / Reacotrs/ Reacotrs/ 765 KV 400 KV 220 KV below 4 operation Yes/No KHANDWA-ICT-II 220 1 1 1-Feb-05 Y KHANDWA-Nepanagar 220 1 1-Feb-05 Y KHANDWA-Barwaha-II 220 1 1-Feb-05 Y KHANDWA-Barwaha-II 220 1 1-Feb-05 Y KHANDWA-Irasi-II 400 1 1-Feb-05 Y KHANDWA-Irasi-II 400 1 1-Feb-05 Y KHANDWA-Dhule-II 400 1 1-Feb-05 Y KHANDWA-CT-II 400 1 1-Feb-05 Y KHANDWA-ICT-II 400 1 1-Feb-05 Y LAGARARA IT-T-II 400 1 1-Feb-05 Y		-qns	Substation	level KV	Transform					Commerci		If No,
KHANDWA-Nepanagar 220 Reacotrs/ 765 KV 400 KV 220 KV below loperation Yes/No KHANDWA-Nepanagar 220 1 1-Feb-05 Y KHANDWA-Nepanagar 220 1 1-Feb-05 Y KHANDWA-Barwaha-II 220 1 1-Feb-05 Y KHANDWA-Itrasi-I 400 1 1-Feb-05 Y KHANDWA-Dhule-I 400 1 1-Feb-05 Y KHANDWA-Dhule-II 400 1 1-Feb-05 Y KHANDWA-Dhule-II 400 1 1-Feb-05 Y KHANDWA-CT-I 400 1 1-Feb-05 Y KHANDWA-CT-II 400 1 1-Feb-05 Y KHANDWA-CT-II 400 1 1-Feb-05 Y Lotal 220 1 1-Feb-05 Y Lotal 6 6 1 1-Feb-05 Y		station			ers /				132 KV &	е		petition
KHANDWA-ICT-II 220 1 1-Feb-05 Y KHANDWA-Nepanagar 220 1 1-Feb-05 Y KHANDWA-Nepanagar 220 1 1-Feb-05 Y KHANDWA-Barwaha-II 220 1 1-Feb-05 Y KHANDWA-Irasi-II 400 1 1-Feb-05 Y KHANDWA-Dhule-II 400 1 1-Feb-05 Y KHANDWA-CT-II 400 1 1-Feb-05 Y KHANDWA-ICT-II 400 1 1-Feb-05 Y L KHANDWA-ICT-II 400 1 1-Feb-05 Y L 5 - 1-Feb-05 Y L 400 1 1-Feb-05 Y L - 1 1-Feb-05 Y L -					Reacotrs/	765 KV	400 KV	220 KV	pelow (Yes/No	No.
KHANDWA-Nepanagar 220 1 1-Feb-05 Y KHANDWA-Barwaha-II 220 1 1-Feb-05 Y KHANDWA-Barwaha-II 220 1 1-Feb-05 Y KHANDWA-Itrasi-II 400 1 1-Feb-05 Y KHANDWA-Itrasi-II 400 1 1-Feb-05 Y KHANDWA-Dhule-II 400 1 1-Feb-05 Y O KHANDWA-ICT-I 400 1 1-Feb-05 Y 1 KHANDWA-ICT-II 400 1 1-Feb-05 Y 2 - 220 6 6 6 6	1	KHANDWA		220				1		1-Feb-05	>	
KHANDWA-Nepanagar 220 1 1-Feb-05 Y KHANDWA-Barwaha-II 220 1 1-Feb-05 Y KHANDWA-Itrasi-II 400 1 1-Feb-05 Y KHANDWA-Itrasi-II 400 1 1-Feb-05 Y KHANDWA-Dhule-II 400 1 1-Feb-05 Y KHANDWA-ICT-II 400 1 1-Feb-05 Y 1 KHANDWA-ICT-II 400 1 1-Feb-05 Y 2 - 220 6 6 1-Feb-05 Y	2	KHANDWA	-Nepanagar	220				1		1-Feb-05	\	
KHANDWA-Barwaha-I 220 1 1-Feb-05 Y KHANDWA-Barwaha-II 220 1 1-Feb-05 Y KHANDWA-Itrasi-II 400 1 1-Feb-05 Y KHANDWA-Dhule-II 400 1 1-Feb-05 Y 0 KHANDWA-ICT-I 400 1 1-Feb-05 Y 0 KHANDWA-ICT-II 400 1 1-Feb-05 Y 1 KHANDWA-ICT-II 400 1 1-Feb-05 Y 2 - 220 6 6 6 I-Feb-05 Y Total 1 6 6 6 I-Feb-05 Y	3	KHANDWA	-Nepanagar	220				1		1-Feb-05	\	
KHANDWA-Barwaha-II 220 1 1-Feb-05 Y KHANDWA-Itrasi-II 400 1 1-Feb-05 Y KHANDWA-Dhule-II 400 1 1-Feb-05 Y 0 KHANDWA-ICT-I 400 1 1-Feb-05 Y 1 KHANDWA-ICT-II 400 1 1-Feb-05 Y 2 - 220 1 1-Feb-05 Y 2 - 6 6 1-Feb-05 Y	4	KHANDWA	-Barwaha-I	220				1		1-Feb-05	>	
KHANDWA-Itrasi-II 400 1 1-Feb-05 Y KHANDWA-Dhule-II 400 1 1-Feb-05 Y MANDWA-Dhule-II 400 1 1-Feb-05 Y 0 KHANDWA-ICT-II 400 1 1-Feb-05 Y 1 KHANDWA-ICT-II 400 1 1-Feb-05 Y 2 - 220 1 1-Feb-05 Y Total 6 6 1 1-Feb-05 Y	5	KHANDWA	v-Barwaha-II	220				1		1-Feb-05	٨	
KHANDWA-Itrasi-II 400 1 1-Feb-05 Y KHANDWA-Dhule-II 400 1 1-Feb-05 Y 0 KHANDWA-ICT-II 400 1 1-Feb-05 Y 1 KHANDWA-ICT-II 400 1 1-Feb-05 Y 2 - 2 1 1-Feb-05 Y Total 6 6 6 1-Feb-05 Y	9	KHANDWA		400			1			1-Feb-05	>	
KHANDWA-Dhule-II 400 1 1-Feb-05 Y 0 KHANDWA-ICT-II 400 1 1-Feb-05 Y 1 KHANDWA-ICT-II 400 1 1-Feb-05 Y 2 - 220 1-Feb-05 Y Total 6 6 1-Feb-05 Y	7	KHANDWA	v-Itrasi-II	400			1			1-Feb-05	>	
KHANDWA-ICT-I 400 1 1-Feb-05 Y KHANDWA-ICT-II 400 1 1-Feb-05 Y - 220 1 1-Feb-05 Y Total 6 6 6 1-Feb-05 Y	∞	KHANDWA	-Dhule-I	400			1			1-Feb-05	٨	
KHANDWA-ICT-I 400 1 1-Feb-05 Y KHANDWA-ICT-II 400 1 1-Feb-05 Y - 220 1 1-Feb-05 Y Total 6 6 Feb-05 Y	6	KHANDWA	۱-Dhule-۱۱	400			1			1-Feb-05	٨	
KHANDWA-ICT-II 400 1 1-Feb-05 Y - 220 1 1-Feb-05 Y Total 6 6 6 6	10	KHANDWA	\-ICT-I	400			1			1-Feb-05	٨	
- 220 1 1-Feb-05 Y Total 6 6	11	KHANDWA	√-ICT-II	400			1			1-Feb-05	٨	
9 9	12	_		220				1		1-Feb-05	\	
•		Total					9	9				
												A. CASA



					Form 11
Calculation of Dep	reciation Rate	e			
Name of the Transmission Licensee: Power Grid Corporation	of India Limit	ed			
Name of the Region: WESTERN REGION					-
Name of the Project: 400/220 KV KHANDWA SUBSTATION AN	ND LILO OF 40	0 KV D/C 11	ARSI-DHUL	E T/L AT KI	HANDWA
Name of the Transmission Element: 400/220 KV KHANDWA S	UBSTATION A	AND LILO O	F 400 KV D	C ITARSI-D	HULE T/L
AT KHANDWA					
Date of Commercial Operation: 01-Feb-2005					
					Rs. in Lacs
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciable Value	8039.74	8039.74	8039.74	8039.74	8039.74
Balance useful life of the asset (at the beginning of year)	24	23	22	21	20
Elapsed life of the asset (at the beginning of the year)	5	6	7	8	9
Remaining Depreciable Value	6415.81	5959.63	5503.45	5047.27	4591.09
Depreciation during the year	456.18	456.18	456.18	456.18	456.18
Depreciation upto previous year	1623.93	2080.11	2536.29	2992.47	3448.65
Cumulative depreciation (incl. of AAD)	2080.11	2536.29	2992.47	3448.65	3904.83
Average Net Normative Loan	0	0	0	0	(

Eth. 84.2



Calculation of Depreciation Rate

Name of the Transmission Licensee: Power Grid Corporation of India Limited

Name of the Region: WESTERN REGION

Name of the Project: 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV D/C ITARSI-DHULE T/L AT KHANDWA Name of the Transmission Element: 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV D/C ITARSI-DHULE T/L AT KHANDWA

Dute o.	Commercial Operation: 01-Feb-2003	1				· · · · · · · · · · · · · · · · · · ·	Rs. in Lacs
Sl. No.	Particulars	Gross	Add Cap	Gross	Average	Dep. Rate	
			during the	1			
		the	_	the end of			
		beginning	1	the year			
	 	of the		, ,			
		year		ļ			
	2009-2010						
1	FREEHOLD LAND	57.05	0	57.05	57.05	0	0
2	BUILDING	863.57	0		863.57	3.34	28.84
3	TR LINE	2933.79	0		2933.79	5.28	154.9
4	SUB STATION	5013.34	0	5013.34	5013.34	5.28	264.7
5	PLCC	122.34	0		122.34	6.33	7.74
6	LEASEHOLD LAND	0	0	0	0	3.34	0
	Total	8990.09	0	8990.09	8990.09		456.18
	Weighted Average Rate of Depreciation						5.07
	Lapsed life						6
	2010-2011						
1	FREEHOLD LAND	57.05	0	57.05	57.05	0	0
2	BUILDING	863.57	0	863.57	863.57	3.34	28.84
3	TR LINE	2933.79	0	2933.79	2933.79	5.28	154.9
4	SUB STATION	5013.34	0	5013.34	5013.34	5.28	264.7
5	PLCC	122.34	0	122.34	122.34	6.33	7.74
6	LEASEHOLD LAND	0	0	0	0	3.34	0
	Total	8990.09	0	8990.09	8990.09		456.18
	Weighted Average Rate of Depreciation						5.07
	Lapsed life						7
	2011-2012						
1	FREEHOLD LAND	57.05	0	57.05	57.05	0	0
2	BUILDING	863.57	0	863.57	863.57	3.34	28.84
3	TR LINE	2933.79	0	2933.79	2933.79	5.28	154.9
4	SUB STATION	5013.34	0	5013.34	5013.34	5.28	264.7
5	PLCC	122.34	0	122.34	122.34	6.33	7.74
6	LEASEHOLD LAND	0	0		0	3.34	0
	Total	8990.09	0	8990.09	8990.09		456.18
	Weighted Average Rate of Depreciation				150/		5.07

Form 11

Calculation of Depreciation Rate

Name of the Transmission Licensee: Power Grid Corporation of India Limited

Name of the Region: WESTERN REGION

Name of the Project: 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV D/C ITARSI-DHULE T/L AT KHANDWA
Name of the Transmission Element: 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV D/C ITARSI-DHULE T/L
AT KHANDWA

Date o	f Commercial Operation: 01-Feb-2005						
							Rs. in Lacs
SI. No.	Particulars	Gross	Add Cap	Gross	Average	Dep. Rate	Amount
1		block at	during the	block at	Gross		
		the	year	the end of	Block		
		beginning		the year			
		of the					
		year					
	Lapsed life						8
	2012-2013						
1	FREEHOLD LAND	57.05	0	57.05	57.05	0	0
2	BUILDING	863.57	0	863.57	863.57	3.34	28.84
3	TR LINE	2933.79	0	2933.79	2933.79	5.28	154.9
4	SUB STATION	5013.34	0	5013.34	5013.34	5.28	264.7
5	PLCC	122.34	0	122.34	122.34	6.33	7.74
6	LEASEHOLD LAND	0	0	0	0	3.34	0
	Total	8990.09	0	8990.09	8990.09		456.18
	Weighted Average Rate of Depreciation						5.07
	Lapsed life						9
	2013-2014						
1	FREEHOLD LAND	57.05	0	57.05	57.05	0	0
2	BUILDING	863.57	0	863.57	863.57	3.34	28.84
3	TR LINE	2933.79	0	2933.79	2933.79	5.28	154.9
4	SUB STATION	5013.34	0	5013.34	5013.34	5.28	264.7
5	PLCC	122.34	0	122.34	122.34	6.33	7.74
6	LEASEHOLD LAND	0	0	0	0	3.34	0
	Total	8990.09	0	8990.09	8990.09		456.18
	Weighted Average Rate of Depreciation						5.07
	Lapsed life						10

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Calculation of Weighted Average Rate of Interest on Loans

Name of the Transmission Licensee: Power Grid Corporation of India Limited

Name of the Region: WESTERN REGION

Name of the Project: 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV D/C ITARSI-DHULE T/L AT

KHANDWA

Name of the Transmission Element: 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV D/C ITARSI-DHULE T/L AT KHANDWA

Particulars 2009-10 2010-11 2011-12 2012-13 2013-14 2010-15 2013-14 2010-15 2013-14 2010-15 2013-14 2010-15 2013-14 2010-15 2013-14	Date of Commercial Operation: 01-Feb-2005					
BOND X-DOCO- 33 33 33 33 33 33 33						Rs. in Lacs
Gross Opening Loan Cumulative Repayments of Loans upto Previous Year Net Loans Opening Net Closing Loan Net Loans Opening Net Closing Loan Net Closing Loan Net Loans Opening Net Loans Opening Net Loans Opening Net Loans Opening Loan Net Closing L		2009-10	2010-11	2011-12	2012-13	2013-14
Cumulative Repayments of Loans upto Previous Year 13.75 16.5 19.25 22 24.75 Net Loans Opening 19.25 16.5 13.75 11 8.25 Add: Drawl(s) during the year 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0						
Net Loans Opening Add: Drawl(s) during the year 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0						
Add: Drawl(s) during the year Less: Repayment(s) of Loan during the year 2.75 2.75 2.75 2.75 2.75 2.75 2.75 2.75		+				
Less: Repayment(s) of Loan during the year Net Closing Loan Alexage Net Loan Ret Loans Opening Add: Drawl(s) during the year Net Closing Loan Average Net Loan Average Net Loan BOND XI-option- I-DOCO- Gross Opening Loan Average Net Loan BOND XI-option- I-DOCO- BOND XII- Option - I-DOCO- BOND XIII - Option XIII - XII	Net Loans Opening	19.25	16.5	13.75	11	8.25
Net Closing Loan 16.5 13.75 11 8.25 5.5 Average Net Loan 17.88 15.13 12.38 9.63 6.88 Rate of Interest on Loan 10.9 10.	Add: Drawl(s) during the year	0	0	0		0
Average Net Loan 17.88 15.13 12.38 9.63 6.88	Less: Repayment(s) of Loan during the year	2.75	2.75	2.75	2.75	2.75
Rate of Interest on Loan 10.9 1	Net Closing Loan	16.5	13.75	11	8.25	5.5
Interest on Loan	Average Net Loan	17.88	15.13	12.38	9.63	6.88
BOND XI-option- I-DOCO- Gross Opening Loan 35 35 35 35 35 Cumulative Repayments of Loans upto Previous Year 11.67 14.59 17.51 20.43 23.35 Net Loans Opening 23.33 20.41 17.49 14.57 11.65 Less: Repayment(s) of Loan during the year 2.92 2.92 2.92 2.92 2.92 Net Closing Loan 20.41 17.49 14.57 11.65 8.73 Average Net Loan 21.87 18.95 16.03 13.11 10.19 Rate of Interest on Loan 21.87 18.95 16.03 13.11 10.19 BOND XII-DOCO- Gross Opening Loan 35 35 35 35 35 Cumulative Repayments of Loans upto Previous Year 11.67 14.59 17.51 20.43 23.35 Net Loans Opening 23.33 20.41 17.49 14.57 11.65 Add: Drawl(s) during the year 0 0 0 0 0 0 Less: Repayment(s) of Loan during the year 29.2 2.92 2.	Rate of Interest on Loan	10.9	10.9	10.9	10.9	10.9
Gross Opening Loan 35 35 35 35 35 35 35 35 35 35 35 35 35	Interest on Loan	1.95	1.65	1.35	1.05	0.75
Gross Opening Loan 35 35 35 35 35 35 35 35 35 35 35 35 35						
Cumulative Repayments of Loans upto Previous Year 11.67 14.59 17.51 20.43 23.35 Net Loans Opening 23.33 20.41 17.49 14.57 11.65 Add: Drawl(s) during the year 0 0 0 0 0 Less: Repayment(s) of Loan during the year 2.92 2.92 2.92 2.92 2.92 Net Closing Loan 20.41 17.49 14.57 11.65 8.73 Average Net Loan 21.87 18.95 16.03 13.11 10.19 Rate of Interest on Loan 9.8 9.8 9.8 9.8 9.8 Interest on Loan 21.4 1.86 1.57 1.28 1 BOND XII-DOCO- 35 35 35 35 35 Cumulative Repayments of Loans upto Previous Year 11.67 14.59 17.51 20.43 23.35 Net Loans Opening 23.33 20.41 17.49 14.57 11.65 Add: Drawl(s) during the year 0 0 0 0 0 Less: Repayment(s) of Loan during the year 2.92 2.92 <t< td=""><td>BOND XI-option- I-DOCO-</td><td></td><td></td><td></td><td></td><td></td></t<>	BOND XI-option- I-DOCO-					
Net Loans Opening 23.33 20.41 17.49 14.57 11.65 11.65 Add: Drawl(s) during the year 0 0 0 0 0 0 0 0 0	Gross Opening Loan	35	35	35	35	35
Add: Drawl(s) during the year 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Cumulative Repayments of Loans upto Previous Year	11.67	14.59	17.51	20.43	23.35
Less: Repayment(s) of Loan during the year 2.92 <	Net Loans Opening	23.33	20.41	17.49	14.57	11.65
Net Closing Loan 20.41 17.49 14.57 11.65 8.73 Average Net Loan 21.87 18.95 16.03 13.11 10.19 Rate of Interest on Loan 9.8 9.8 9.8 9.8 9.8 Interest on Loan 2.14 1.86 1.57 1.28 1 BOND XII-DOCO-	Add: Drawl(s) during the year	0	0	0	0	0
Average Net Loan Rate of Interest on Loan Part of Interest on Loan	Less: Repayment(s) of Loan during the year	2.92	2.92	2.92	2.92	2.92
Rate of Interest on Loan 9.8 9.8 9.8 9.8 9.8 9.8 Interest on Loan 2.14 1.86 1.57 1.28 1 BOND XII-DOCO- Gross Opening Loan 35 35 35 35 35 35 35 35 35 35 35 35	Net Closing Loan	20.41	17.49	14.57	11.65	8.73
Interest on Loan 2.14 1.86 1.57 1.28 1	Average Net Loan	21.87	18.95	16.03	13.11	10.19
BOND XII-DOCO- Gross Opening Loan Gross Opening Loan State of Interest on Loan BOND XIII - Option - I-DOCO- Gross Opening Loan State of Interest on Loan BOND XIII - Option - I-DOCO- Gross Opening Loan BOND XIII - Option - I-DOCO- Gross Opening Loan State of Loans upto Previous Year BOND - XIII - Option - I-DOCO- Gross Opening Loan State of Loans upto Previous Year	Rate of Interest on Loan	9.8	9.8	9.8	9.8	9.8
Gross Opening Loan 35 35 35 35 35 35 35 Cumulative Repayments of Loans upto Previous Year 11.67 14.59 17.51 20.43 23.35 Net Loans Opening 23.33 20.41 17.49 14.57 11.65 Add: Drawl(s) during the year 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Interest on Loan	2.14	1.86	1.57	1.28	1
Gross Opening Loan 35 35 35 35 35 35 35 Cumulative Repayments of Loans upto Previous Year 11.67 14.59 17.51 20.43 23.35 Net Loans Opening 23.33 20.41 17.49 14.57 11.65 Add: Drawl(s) during the year 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0						
Cumulative Repayments of Loans upto Previous Year 11.67 14.59 17.51 20.43 23.35 Net Loans Opening 23.33 20.41 17.49 14.57 11.65 Add: Drawl(s) during the year 0 0 0 0 0 Less: Repayment(s) of Loan during the year 2.92 2.92 2.92 2.92 2.92 Net Closing Loan 20.41 17.49 14.57 11.65 8.73 Average Net Loan 21.87 18.95 16.03 13.11 10.19 Rate of Interest on Loan 9.7 9.7 9.7 9.7 9.7 Interest on Loan 2.12 1.84 1.55 1.27 0.99 BOND - XIII - Option - I-DOCO- 3750 3750 3750 3750 3750 Cumulative Repayments of Loans upto Previous Year 937.5 1562.5 1875 2187.5	BOND XII-DOCO-					
Net Loans Opening 23.33 20.41 17.49 14.57 11.65 Add: Drawl(s) during the year 0 0 0 0 0 Less: Repayment(s) of Loan during the year 2.92 2.92 2.92 2.92 2.92 Net Closing Loan 20.41 17.49 14.57 11.65 8.73 Average Net Loan 21.87 18.95 16.03 13.11 10.19 Rate of Interest on Loan 9.7 9.7 9.7 9.7 9.7 Interest on Loan 2.12 1.84 1.55 1.27 0.99 BOND - XIII - Option - I-DOCO- 3750 3750 3750 3750 3750 Cumulative Repayments of Loans upto Previous Year 937.5 1250 1562.5 1875 2187.5	Gross Opening Loan	35	35	35	35	35
Add: Drawl(s) during the year 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Cumulative Repayments of Loans upto Previous Year	11.67	14.59	17.51	20.43	23.35
Less: Repayment(s) of Loan during the year 2.92 2.92 2.92 2.92 Net Closing Loan 20.41 17.49 14.57 11.65 8.73 Average Net Loan 21.87 18.95 16.03 13.11 10.19 Rate of Interest on Loan 9.7 9.7 9.7 9.7 9.7 Interest on Loan 2.12 1.84 1.55 1.27 0.99 BOND - XIII - Option - I-DOCO- 3750 3750 3750 3750 Cumulative Repayments of Loans upto Previous Year 937.5 1250 (7) 1562.5 1875 2187.5	Net Loans Opening	23.33	20.41	17.49	14.57	11.65
Net Closing Loan 20.41 17.49 14.57 11.65 8.73 Average Net Loan 21.87 18.95 16.03 13.11 10.19 Rate of Interest on Loan 9.7 9.7 9.7 9.7 9.7 Interest on Loan 2.12 1.84 1.55 1.27 0.99 BOND - XIII - Option - I-DOCO- 3750 3750 3750 3750 3750 Cumulative Repayments of Loans upto Previous Year 937.5 1250 1562.5 1875 2187.5	Add: Drawl(s) during the year	0	0	0	0	0
Average Net Loan 21.87 18.95 16.03 13.11 10.19 Rate of Interest on Loan 9.7 9.9 9.9 9.9 9.7 9.7 9.7 9.7 9.7 9.7 9.9 9.7 9.7 9.7 9.9 9.9 9.8 9.8 9.8	Less: Repayment(s) of Loan during the year	2.92	2.92	2.92	2.92	2.92
Rate of Interest on Loan 9.7 9.7 9.7 9.7 9.7 9.7 1nterest on Loan 2.12 1.84 1.55 1.27 0.99 BOND - XIII - Option - I-DOCO- Gross Opening Loan 3750 3750 3750 3750 3750 Cumulative Repayments of Loans upto Previous Year 937.5 1250 1562.5 1875 2187.5	Net Closing Loan	20.41	17.49	14.57	11.65	8.73
Interest on Loan 2.12 1.84 1.55 1.27 0.99	Average Net Loan	21.87	18.95	16.03	13.11	10.19
BOND - XIII - Option - I-DOCO- Gross Opening Loan 3750 3750 3750 3750 3750 Cumulative Repayments of Loans upto Previous Year 937.5 1250 1562.5 1875 2187.5	Rate of Interest on Loan	9.7	9.7	9.7	9.7	9.7
Gross Opening Loan 3750 <td>Interest on Loan</td> <td>2.12</td> <td>1.84</td> <td>1.55</td> <td>1.27</td> <td>0.99</td>	Interest on Loan	2.12	1.84	1.55	1.27	0.99
Gross Opening Loan 3750 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
Gross Opening Loan 3750 <td>BOND - XIII - Option - I-DOCO-</td> <td></td> <td></td> <td></td> <td></td> <td></td>	BOND - XIII - Option - I-DOCO-					
Cumulative Repayments of Loans upto Previous Year 937.5 1250 1562.5 1875 2187.5	Gross Opening Loan	3750	3750	3750	3750	3750
	Cumulative Repayments of Loans upto Previous Year	937.5	1250	R 1562.5	1875	2187.5



Calculation of Weighted Average Rate of Interest on Loans

Name of the Transmission Licensee: Power Grid Corporation of India Limited

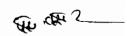
Name of the Region: WESTERN REGION

Name of the Project: 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV D/C ITARSI-DHULE T/L AT KHANDWA

Name of the Transmission Element: 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV D/C ITARSI-DHULE T/L AT KHANDWA

Cumulative Repayments of Loans upto Previous Year 363.84 545.76 727.68 909.6 1091.52 Net Loans Opening 1819.16 1637.24 1455.32 1273.4 1091.48 Add: Drawl(s) during the year 0 0 0 0 0 Less: Repayment(s) of Loan during the year 181.92						
Net Loans Opening	D-V-1	2000.40	2040.44	2044 42		
Add: Drawl(s) during the year Less: Repayment(s) of Loan during the year Net Closing Loan 2500 2187.5 Net Closing Loan 2656.25 2343.75 2312.5 Rate of Interest on Loan Rate of Interest on Loa						
Less: Repayment(s) of Loan during the year 312.5 312.5 312.5 312.5 312.5 312.5 312.5 312.5 1875 156.5 1250 2187.5 1875 156.5 1250 2187.5 1875 156.5 1250 1250 2031.25 1718.75 1406.25 1406.25 8.63						1562.5
Net Closing Loan 2500 2187.5 1875 1562.5 1250 Average Net Loan 2656.25 2343.75 2031.25 1718.75 1406.25 Rate of Interest on Loan 8.63 8.63 8.63 8.63 8.63 Interest on Loan 229.23 202.27 175.3 148.33 121.36 BOND XV-DOCO- 2183 2183 2183 2183 2183 2183 2183 Cumulative Repayments of Loans upto Previous Year 363.84 545.76 727.68 909.6 1091.52 Net Loans Opening 1819.16 1637.24 1455.32 1273.4 1091.48 Add: Drawl(s) during the year 0 0 0 0 0 Less: Repayment(s) of Loan during the year 181.92 181.92 181.92 181.92 Net Closing Loan 1637.24 1455.32 1273.4 1091.48 Average Net Loan 1728.2 1546.28 1364.36 1182.44 1000.52 Rate of Interest on Loan 16.68 6.68 6.68 6.68 Interest on Loan 115.44 103.29 91.14 78.99 66.83 Interest on Loan 369 369 369 369 369 Cumulative Repayments of Loans upto Previous Year 0 30.75 61.5 92.25 123 Net Loans Opening 369 338.25 307.5 276.75 246 Add: Drawl(s) during the year 0 0 0 0 0 O		+				0
Average Net Loan Rate of Interest on Loan						
Rate of Interest on Loan 8.63 8						
Interest on Loan 229.23 202.27 175.3 148.33 121.36						
BOND XV-DOCO- Gross Opening Loan Cumulative Repayments of Loans upto Previous Year Add: Drawl(s) during the year Acticosing Loan Cess: Repayment(s) of Loan during the year Net Closing Loan 1637.24 1455.32 1273.4 1091.48 1637.24 1455.32 1273.4 1091.48 1637.24 1455.32 1273.4 1091.48 1090.56 Average Net Loan 1728.2 1546.28 1364.36 1182.44 1000.52 Rate of Interest on Loan 115.44 103.29 115.44 103.29 116.32 116.32 116.32 116.32 116.34 116.32 116.32 116.34 116.32 116.34 116.32 116.34 116.32 1	Rate of Interest on Loan					
Gross Opening Loan 2183 21819	Interest on Loan	229.23	202.27	175.3	148.33	121.36
Gross Opening Loan 2183 21819						
Cumulative Repayments of Loans upto Previous Year 363.84 545.76 727.68 909.6 1091.52 Net Loans Opening 1819.16 1637.24 1455.32 1273.4 1091.48 Add: Drawl(s) during the year 0 0 0 0 0 Less: Repayment(s) of Loan during the year 181.92	BOND XV-DOCO-					
Net Loans Opening 1819.16 1637.24 1455.32 1273.4 1091.48 Add: Drawl(s) during the year 0 0 0 0 0 Less: Repayment(s) of Loan during the year 181.92	Gross Opening Loan	2183	2183	2183	2183	2183
Add: Drawl(s) during the year 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Cumulative Repayments of Loans upto Previous Year	363.84	545.76	727.68	909.6	1091.52
Less: Repayment(s) of Loan during the year 181.92 191.48 909.56 309.56 181.92 181.92 181.92 181.92 181.92 181.92 191.48 909.56 309.56 181.92 181.92 181.92 181.92 181.92 181.92 181.92 181.92 193.44 1000.52 181.92 182.44 1000.52 182.82 183.93 183.93 <	Net Loans Opening	1819.16	1637.24	1455.32	1273.4	1091.48
Net Closing Loan 1637.24 1455.32 1273.4 1091.48 909.56 Average Net Loan 1728.2 1546.28 1364.36 1182.44 1000.52 Rate of Interest on Loan 6.68 6.68 6.68 6.68 6.68 Interest on Loan 115.44 103.29 91.14 78.99 66.83 BOND XVIII-ADDCAP FOR 2005-2006- 369 369 369 369 369 369 369 Cumulative Repayments of Loans upto Previous Year 0 30.75 61.5 92.25 123 Net Loans Opening 369 338.25 307.5 276.75 246 Add: Drawl(s) during the year 0 0 0 0 0 Less: Repayment(s) of Loan during the year 30.75	Add: Drawl(s) during the year	0	0	0	0	0
Average Net Loan	Less: Repayment(s) of Loan during the year	181.92	181.92	181.92	181.92	181.92
Rate of Interest on Loan 6.68	Net Closing Loan	1637.24	1455.32	1273.4	1091.48	909.56
Interest on Loan	Average Net Loan	1728.2	1546.28	1364.36	1182.44	1000.52
BOND XVIII-ADDCAP FOR 2005-2006- Gross Opening Loan Cumulative Repayments of Loans upto Previous Year Net Loans Opening Add: Drawl(s) during the year O O O O Less: Repayment(s) of Loan during the year O Solved Closing Loan Average Net Loan Rate of Interest on Loan BOND XXII-ADDCAP FOR 2006-2007- Gross Opening Loan BOND XXII-ADDCAP FOR 2006-2007- Gross Opening Loan Cumulative Repayments of Loans upto Previous Year O O O O O O O O O O O O O	Rate of Interest on Loan	6.68	6.68	6.68	6.68	6.68
Gross Opening Loan 369 369 369 369 369 Cumulative Repayments of Loans upto Previous Year 0 30.75 61.5 92.25 123 Net Loans Opening 369 338.25 307.5 276.75 246 Add: Drawl(s) during the year 0 0 0 0 0 0 Less: Repayment(s) of Loan during the year 30.75 30.75 30.75 30.75 30.75 30.75 30.75 30.75 246 215.25 Net Closing Loan 338.25 307.5 276.75 246 215.25 246 213.25 213.25 213.25 213.25 213.25	Interest on Loan	115.44	103.29	91.14	78.99	66.83
Gross Opening Loan 369 369 369 369 369 Cumulative Repayments of Loans upto Previous Year 0 30.75 61.5 92.25 123 Net Loans Opening 369 338.25 307.5 276.75 246 Add: Drawl(s) during the year 0 0 0 0 0 0 Less: Repayment(s) of Loan during the year 30.75 30.75 30.75 30.75 30.75 30.75 30.75 30.75 246 215.25 Net Closing Loan 338.25 307.5 276.75 246 215.25 246 213.25 213.25 213.25 213.25 213.25						
Cumulative Repayments of Loans upto Previous Year 0 30.75 61.5 92.25 123 Net Loans Opening 369 338.25 307.5 276.75 246 Add: Drawl(s) during the year 0 0 0 0 0 Less: Repayment(s) of Loan during the year 30.75 30.75 30.75 30.75 30.75 30.75 30.75 30.75 246 215.25 Net Closing Loan 338.25 307.5 276.75 246 215.25 Average Net Loan 353.63 322.88 292.13 261.38 230.63 Rate of Interest on Loan 8.15 8.15 8.15 8.15 8.15 Interest on Loan 28.82 26.31 23.81 21.3 18.8 BOND XXII-ADDCAP FOR 2006-2007- 26 26 26 26 26 26 26 26 Gross Opening Loan 26	BOND XVIII-ADDCAP FOR 2005-2006-					
Net Loans Opening 369 338.25 307.5 276.75 246 Add: Drawl(s) during the year 0 0 0 0 0 0 Less: Repayment(s) of Loan during the year 30.75 30.75 30.75 30.75 30.75 30.75 30.75 30.75 30.75 276.75 246 215.25 Average Net Loan 353.63 322.88 292.13 261.38 230.63 Rate of Interest on Loan 8.15 8.15 8.15 8.15 8.15 Interest on Loan 28.82 26.31 23.81 21.3 18.8 BOND XXII-ADDCAP FOR 2006-2007- 26 26 26 26 26 26 26 Cumulative Repayments of Loans upto Previous Year 0 0 2.17 4.34 6.51 Net Loans Opening 26 26 23.83 21.66 19.49 Add: Drawl(s) during the year 0 0 0 0 0	Gross Opening Loan	369	369	369	369	369
Add: Drawl(s) during the year 0 0 0 0 0 Less: Repayment(s) of Loan during the year 30.75 30.75 30.75 30.75 30.75 Net Closing Loan 338.25 307.5 276.75 246 215.25 Average Net Loan 353.63 322.88 292.13 261.38 230.63 Rate of Interest on Loan 8.15 8.15 8.15 8.15 Interest on Loan 28.82 26.31 23.81 21.3 18.8 BOND XXII-ADDCAP FOR 2006-2007- 26 26 26 26 26 Cumulative Repayments of Loans upto Previous Year 0 0 2.17 4.34 6.51 Net Loans Opening 26 26 23.83 21.66 19.49 Add: Drawl(s) during the year 0 0 0 0 0	Cumulative Repayments of Loans upto Previous Year	0	30.75	61.5	92.25	123
Less: Repayment(s) of Loan during the year 30.75 30.75 30.75 30.75 Net Closing Loan 338.25 307.5 276.75 246 215.25 Average Net Loan 353.63 322.88 292.13 261.38 230.63 Rate of Interest on Loan 8.15 8.15 8.15 8.15 Interest on Loan 28.82 26.31 23.81 21.3 18.8 BOND XXII-ADDCAP FOR 2006-2007- 26 26 26 26 26 26 Cumulative Repayments of Loans upto Previous Year 0 0 2.17 4.34 6.51 Net Loans Opening 26 26 23.83 21.66 19.49 Add: Drawl(s) during the year 0 0 0 0 0	Net Loans Opening	369	338.25	307.5	276.75	246
Net Closing Loan 338.25 307.5 276.75 246 215.25 Average Net Loan 353.63 322.88 292.13 261.38 230.63 Rate of Interest on Loan 8.15 8.15 8.15 8.15 8.15 Interest on Loan 28.82 26.31 23.81 21.3 18.8 BOND XXII-ADDCAP FOR 2006-2007- 26 26 26 26 26 26 Gross Opening Loan 26 26 26 26 26 26 Cumulative Repayments of Loans upto Previous Year 0 0 2.17 4.34 6.51 Net Loans Opening 26 26 23.83 21.66 19.49 Add: Drawl(s) during the year 0 0 0 0 0	Add: Drawl(s) during the year	0	0	0	0	0
Average Net Loan 353.63 322.88 292.13 261.38 230.63 Rate of Interest on Loan 8.15 8.15 8.15 8.15 8.15 8.15 Interest on Loan 28.82 26.31 23.81 21.3 18.8 BOND XXII-ADDCAP FOR 2006-2007- 26 26 26 26 26 Cumulative Repayments of Loans upto Previous Year 0 0 2.17 4.34 6.51 Net Loans Opening 26 26 23.83 21.66 19.49 Add: Drawl(s) during the year 0 0 0 0	Less: Repayment(s) of Loan during the year	30.75	30.75	30.75	30.75	30.75
Rate of Interest on Loan 8.15 8.15 8.15 8.15 Interest on Loan 28.82 26.31 23.81 21.3 18.8 BOND XXII-ADDCAP FOR 2006-2007- Company to the second suppose the second	Net Closing Loan	338.25	307.5	276.75	246	215.25
Interest on Loan 28.82 26.31 23.81 21.3 18.8	Average Net Loan	353.63	322.88	292.13	261.38	230.63
BOND XXII-ADDCAP FOR 2006-2007- Gross Opening Loan Cumulative Repayments of Loans upto Previous Year Net Loans Opening Add: Drawl(s) during the year Description 26	Rate of Interest on Loan	8.15	8.15	8.15	8.15	8.15
Gross Opening Loan 26 26 26 26 26 Cumulative Repayments of Loans upto Previous Year 0 0 2.17 4.34 6.51 Net Loans Opening 26 26 23.83 21.66 19.49 Add: Drawl(s) during the year 0 0 0 0 0	Interest on Loan	28.82	26.31	23.81	21.3	18.8
Gross Opening Loan 26 26 26 26 26 Cumulative Repayments of Loans upto Previous Year 0 0 2.17 4.34 6.51 Net Loans Opening 26 26 23.83 21.66 19.49 Add: Drawl(s) during the year 0 0 0 0 0						
Cumulative Repayments of Loans upto Previous Year 0 0 2.17 4.34 6.51 Net Loans Opening 26 26 23.83 21.66 19.49 Add: Drawl(s) during the year 0 0 0 0 0	BOND XXII-ADDCAP FOR 2006-2007-					
Cumulative Repayments of Loans upto Previous Year 0 0 2.17 4.34 6.51 Net Loans Opening 26 26 23.83 21.66 19.49 Add: Drawl(s) during the year 0 0 0 0 0	Gross Opening Loan	26	26	26	26	26
Net Loans Opening 26 26 23.83 21.66 19.49 Add: Drawl(s) during the year 0 0 0 0 0 0		0	0	2.17	4.34	6.51
Add: Drawl(s) during the year 0 0 0 0 0		26	26	23.83	21.66	19.49
		0	0	0	0	0
	Less: Repayment(s) of Loan during the year	0	2.17	2.17	2.17	2.17





Calculation of Weighted Average Rate of Interest on Loans

Name of the Transmission Licensee: Power Grid Corporation of India Limited

Name of the Region: WESTERN REGION

Name of the Project: 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV D/C ITARSI-DHULE T/L AT

Name of the Transmission Element: 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV D/C ITARSI-DHULE T/L AT KHANDWA

I/LAI KHANDWA					
Date of Commercial Operation: 01-Feb-2005					
Double Land	2000.40	2010.11	2044 42		Rs. in Lacs
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Net Closing Loan	26	23.83	21.66	19.49	17.32
Average Net Loan	26	24.92	22.75	20.58	18.41
Rate of Interest on Loan	8.68	8.68	8.68	8.68	8.68
Interest on Loan	2.26	2.16	1.97	1.79	1.6
Oriental Bank of commerce-DOCO-					
Gross Opening Loan	16	16	16	16	16
Cumulative Repayments of Loans upto Previous Year	6.66	7.99	9.32	10.65	11.98
Net Loans Opening	9.34	8.01	6.68	5.35	4.02
Add: Drawl(s) during the year	0	0	0	0	0
Less: Repayment(s) of Loan during the year	1.33	1.33	1.33	1.33	1.33
Net Closing Loan	8.01	6.68	5.35	4.02	2.69
Average Net Loan	8.68	7.35	6.02	4.69	3.36
Rate of Interest on Loan	9.6	10.22	12.32	12.37	12.35
Interest on Loan	0.83	0.75	0.74	0.58	0.42
Punjab National Bank- II-DOCO-					
Gross Opening Loan	19	19	19	19	19
Cumulative Repayments of Loans upto Previous Year	7.91	9.49	11.07	12.65	14.23
Net Loans Opening	11.09	9.51	7.93	6.35	4.77
Add: Drawl(s) during the year	0	0	0	0	0
Less: Repayment(s) of Loan during the year	1.58	1.58	1.58	1.58	1.58
Net Closing Loan	9.51	7.93	6.35	4.77	3.19
Average Net Loan	10.3	8.72	7.14	5.56	3.98
Rate of Interest on Loan	8.89	9.65	11.8	11.84	11.6
Interest on Loan	0.92	0.84	0.84	0.66	0.46
Summary					
Gross Opening Loan	6466	6466	6466	6466	6466
Cumulative Repayments of Loans upto Previous Year	1353	1889.67	2428.51	2967.35	
Net Loans Opening	5113	4576.33	4037.49	3498.65	2959.81
Add: Drawl(s) during the year	0	0	0	0	0
Less: Repayment(s) of Loan during the year	536.67	538.84	538.84	538.84	538.84
Net Closing Loan	4576.33	4037.49	3498.65	2959.81	2420.97
Average Net Loan	4844.68	4306.93	3768.09	3229.25	2690.41
Rate of Interest on Loan	7.92	7.92	7.92	7.9	7.89
nate of interest on Loan					, .05



QU. 402

					Form 13
Calculation of Weighted Avera	ge Rate of I	nterest on L	oans.		
Name of the Transmission Licensee: Power Grid Corporati	on of India L	imited			
Name of the Region: WESTERN REGION					
Name of the Project: 400/220 KV KHANDWA SUBSTATION	AND LILO C	F 400 KV D	/C ITARSI-D	HULE T/L A	١T
KHANDWA					
Name of the Transmission Element: 400/220 KV KHANDW	A SUBSTATI	ON AND LIL	O OF 400 K	V D/C ITAR	SI-DHULE
T/L AT KHANDWA					
Date of Commercial Operation: 01-Feb-2005					
					Rs. in Lacs
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Interest on Loan	383.72	340.97	298.28	255.25	212.2

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					Form 13A
Calculation of Interest on No	rmative Loar	1			
Name of the Transmission Licensee: Power Grid Corporation of India	Limited				
Name of the Region: WESTERN REGION					
Name of the Project: 400/220 KV KHANDWA SUBSTATION AND LILO	OF 400 KV D	/C ITARSI	-DHULE T	L AT KHA	NDWA
Name of the Transmission Element: 400/220 KV KHANDWA SUBSTA KHANDWA	TION AND LI	LO OF 400	KV D/C I	TARSI-DHU	JLE T/L AT
Date of Commercial Operation: 01-Feb-2005					
					Rs. in Lacs
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Normative Loan Opening	6692.29	6692.29	6692.29	6692.29	6692.29
Cumulative Repayments of Normative Loans upto Previous Year	1626.67	2082.85	2539.03	2995.21	3451.39
Net Normative Loans Opening	5065.62	4609.44	4153.26	3697.08	3240.9
Increate/Decrease due to ACE during the year	0	0	0	0	0
Less: Repayment(s) of Normative Loan during the year	456.18	456.18	456.18	456.18	456.18
Net Closing Normative Loan	4609.44	4153.26	3697.08	3240.9	2784.72
Average Net Normative Loan	4837.53	4381.35	3925.17	3468.99	3012.81
Rate of Interest on Loan	7.92	7.92	7.92	7.9	7.89
Interest on Normative Loan	383.15	346.86	310.71	274.2	237.63
Pro rata Interest on Normative Loan	383.15	346.86	310.71	274.2	237.63

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					Form 13B
Calculation of Ir	iterest on V	Vorking Cap	ital (IWC)		
Name of the Transmission Licensee: Po	wer Grid Co	orporation	of India Lim	nited	
Name of the Region: WESTERN REGION	1				
Name of the Project: 400/220 KV KHAN	NDWA SUBS	TATION AN	D LILO OF	400 KV D/C	ITARSI-
DHULE T/L AT KHANDWA					
Name of the Transmission Element: 40	0/220 KV KI	HANDWA S	UBSTATION	AND LILO	OF 400 KV
D/C ITARSI-DHULE T/L AT KHANDWA					
Date of Commercial Operation: 01-Feb	-2005				
					Rs. in Lacs
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Op. and Maintenance	47.53	50.26	53.13	56.17	59.38
Maintenance Spares	85.56	90.46	95.64	101.1	106.88
Receivables	315.63	317.85	317.81	317.97	319.41
Total working capital	448.72	458.57	466.58	475.24	485.67
Rate of Interest	12.25	12.25	12.25	12.25	12.25
Interest on working capital	54.97	56.17	57.16	58.22	59.49
Pro rata Interest on working capital	54.97	56.17	57.16	58.22	59.49

NOTE: proof to Rate of Interest to 2009-10 Bubmitted to . The . The cold Page I of Volume-20 of alleback de 26.06.14



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					Form
	Summary She	eet			
Name of the Transmission Licensee: Power	er Grid Corpor	ation of Inc	dia Limited		
Name of the Region: WESTERN REGION				-	
Name of the Project: 400/220 KV KHAND\	WA SUBSTATI	ON AND LIL	O OF 400 K	V D/C ITAR	SI-DHULE
T/L AT KHANDWA					
Name of the Transmission Element or Cor	nmunication	System: 40	0/220 KV KI	HANDWA	
SUBSTATION AND LILO OF 400 KV D/C ITA	RSI-DHULE T	LAT KHAN	DWA		
Date of Commercial operation: 01-Feb-20	005				
					Rs. in Lacs
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation-(Form No. 10A)	456.18	456.18	456.18	162.72	162.73
Interest on Loan-(Form No. 9E)	201.02	164.28	127.41	100.96	86.88
Return on Equity-(Form No. 8)	450.6	450.6	450.6	450.6	450.6
Int. on Working Capital-(Form NO. 11)	61.71	62.07	62.47	56.38	57.38
Op. and Maintenance-(Form No. 2)	655.56	677.33	699.83	723.04	747.03
Total	1825.07	1810.46	1796.49	1493.7	1504.62
					A · de
				(Petitioner)



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		۵	etails of Tra	noission	Lines and S	ubstations,	Communic	Details of Transmission Lines and Substations, Communication System	E		
lame of t	Name of the Petitioner: Power Gr	r: Power Gri	id Corporation of India Limited	ion of India	Limited						
ame of t	Name of the Region: WESTERN REGION	VESTERN RE	GION								
lame of t	Name of the Project: 400/220 KV	00/220 KV	KHANDWA	SUBSTATIC	IN AND LILC) OF 400 KV	/ D/C ITARS	KHANDWA SUBSTATION AND LILO OF 400 KV D/C ITARSI-DHULE T/L AT KHANDWA	L AT KHAND	WA	
lame of t	Name of the Transmission element or Communication system: 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV D/C ITARSI-	sion elemen	t or Comm	unication s	ystem: 400/	/220 KV KH,	ANDWA SU	BSTATION A	AND LILO OF	- 400 KV D/	C ITARSI-
HULE T/I	DHULE T/L AT KHANDWA	WA									
ate of Co	Date of Commercial Operation: 01	peration: 01	L-Feb-2005								
ransmiss	Transmission Lines:										
SI.No.	Name of Line		Type of	S/C or D/C	S/C or D/C No. of Sub-Voltage	Voltage	Line	Line	Date of	Covered in the	the
			Line		Conductor level KV	level KV	Length	length	Commerci		If No,
			AC/HVDC		s		CKt. KM		а		petition
									operation	Yes/No	No.
	LILO OF 400 KV D/C IT	H	AC	DC	2	400 KV	114.56	57.28	1-Feb-05	٨	
Substations:	ıs:										
SI. No.	Name of	Type of	Voltage	No. of		No. o	No. of Bays		Date of	Covered in the	the
	-qnS	Substation	level KV	Transform					Commerci		If No,
	station			ers /				132 KV &	-B		petition
				Reacotrs/	765 KV	400 KV	220 KV	below	operation	Yes/No	No.
	KHANDWA-ICT-II		220				1		1-Feb-05	٨	
2	KHANDWA	KHANDWA-Nepanagar	220				1		1-Feb-05	٨	
3	KHANDWA	KHANDWA-Nepanagar	220				1		1-Feb-05	٨	
4	KHANDWA	KHANDWA-Barwaha-I	220				1		1-Feb-05	٨	
5	KHANDWA	KHANDWA-Barwaha-II	220				1		1-Feb-05	٨	
9	KHANDWA-Itrasi-I		400			1			1-Feb-05	٨	
	KHANDWA-Itrasi-II		400			1			1-Feb-05	٨	
8	KHANDWA-Dhule-I		400			1			1-Feb-05	٨	
6	KHANDWA-Dhule-II		400			1			1-Feb-05	٨	
10	KHANDWA-ICT-I		400			1			1-Feb-05	٨	
11	KHANDWA-ICT-II		400			1			1-Feb-05	٨	
12	-		220				1		1-Feb-05	>	
	Total					9	9				
										\ 	0 1



Normative parameters considered for tariff computations

Name of the Petitioner :: Power Grid Corporation of India Limited

Name of the Region :: WESTERN REGION

Name of the Project :: 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV D/C ITARSI-DHULE T/L AT KHANDWA

Name of the Transmission Element or Communication System :: 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV

D/C ITARSI-DHULE T/L AT KHANDWA

Date of Commercial Operation: 01-Feb-2005

Date of Commercial Operation: 01-reb-2005							
Particulars	Unit	Existing 20	2014-15	2015-16	2016-17	2017-18	2018-19
Base Rate of Return of Equity	%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
Tax Rate	%	11.33%	20.96%	20.96%	20.96%	20.96%	20.96%
Effective tax rate	%						
Grossed up Rate of ROE	%	17.48%	19.61%	19.61%	19.61%	19.61%	19.61%
Target availability - AC System	%		98%	98%	98%	98%	98%
Target availability - HVDC System	%		96%	96%	96%	96%	96%
Normative O&M per KM	Rs. Lakh						
Double Circuit (Bundle conductor with four	Rs. Lakh	1.174	1.062	1.097	1.133	1.171	1.21
sub-conductors)							
Double Circuit (Single Conductor)	Rs. Lakh	0.336	0.303	0.313	0.324	0.334	0.346
Double Circuit (Two and Three Conductor)	Rs. Lakh	0.783	0.707	0.731	0.755	0.78	0.806
Multicircuit with four or more conductors	Rs. Lakh		1.863	1.925	1.989	2.055	2.123
Multicircuit with two or three conductors	Rs. Lakh		1.24	1.282	1.324	1.368	1.413
Single Circuit (Bundled conductor with four	Rs. Lakh						
sub-conductors)		0.671	0.606	0.627	0.647	0.669	0.691
Single Circuit (Single Conductor)	Rs. Lakh	0.224	0.202	0.209	0.216	0.223	0.23
Single Circuit (Six conductor)	Rs. Lakh	0.671	0.707	0.731	0.755	0.78	0.806
Single Circuit (Twin and Three conductor)	Rs. Lakh	0.447	0.404	0.418	0.432	0.446	0.461
Normative O&M per bay							
132KV Sub-station and below	Rs. Lakh	32.73	30.15	31.15	32.18	33.25	34.36
220KV Sub-station	Rs. Lakh	45.82	42.21	43.61	45.06	46.55	48.1
400 KV GIS Substation	Rs. Lakh		51.54	53.25	55.02	56.84	58.73
400KV Sub-station	Rs. Lakh	65.46	60.3	62.3	64.37	66.51	68.71
765KV Sub-station	Rs. Lakh	91.64	84.42	87.22	90.12	93.11	96.2
Balia-Bhiwadi HVDC Bipole Scheme	Rs. Lakh	1326.25	1537	1666	1805	1955	2119
HVDC Back-to Back Stations	Rs. Lakh	553	578	627	679	736	797
Rihand-Dadri HVDC Bipole Scheme	Rs. Lakh	1811	1511	1637	1774	1922	2082
Talcher-Kolar HVDC Bipole Scheme	Rs. Lakh	2122	1173	1271	1378	1493	1617
Spares for WC as % of O&M	%	15	15	15	15	15	15
Receivables in Months for WC	Months	2	2	2	2	2	2
Bank Rate as on 1st April, 2014	%	13.2	13.5	13.5	13.5	13.5	13.5

(Petitioner)



Form-4

Page 1 of 1

Abstract of admitted parameters for the existing transmission assets/elements under project.

Name of the Petitioner::Power Grid Corporation of India Limited

Name of the Region::WESTERN REGION

Name of the Project:: 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV D/C ITARSI-DHULE T/L AT

KHANDWA

Name of the Transmission Element or Communication system:: 400/220 KV KHANDWA SUBSTATION AND

LILO OF 400 KV D/C ITARSI-DHULE T/L AT KHANDWA

			Rs. In Lakhs
		Asset-1	
Name of the Assets DOCO Petition Number Tariff order Date Particulars	Balance brought forward	400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV D/C ITARSI-DHULE T/L AT KHANDWA 1-Feb-05 Capital Expenditure admitted	Total Capital Expenditure admitted
Apportioned approved Cost/Revised cost estima	tes, if any (wi	th reference and date of a	pproval)
FREEHOLD LAND	0	57.05	57.05
BUILDING	0	863.57	863.57
TR LINE	0	2933.79	2933.79
SUB STATION	0	5013.34	5013.34
PLCC	0	122.34	122.34
LEASEHOLD LAND	0	0	0
Total	0	8990.09	8990.09
Notional Loan	0	6692.29	6692.29
Notional Equity	0	2297.8	2297.8
Total	0	8990.09	8990.09
Debt-Equity Ratio			
Debt	0	6466	6466
Equity	0	2297.8	2297.8
Total	0	8763.8	8763.8
Cumulative amount of Depreciation	0	7809.66	7809.66
Cumulative Repayment of Loan	0	6902.78	6902.78
Initial Spares*	0		

(F) . OF



Form 4A **Statement of Capital Cost** Name of the Transmission Licensee: Power Grid Corporation of India Limited Name of the Region: WESTERN REGION Name of the Project: 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV D/C ITARSI-DHULE T/L AT KHANDWA Name of the Transmission Element: 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV D/C ITARSI-DHULE T/L AT KHANDWA Date of Commercial Operation: 01-Feb-2005 Rs. in Lacs Particulars Existing 2013-14 2014-15 2015-16 2016-17 2017-18 2018-19 A. a) Opening Gross Block Amount as per 8990.09 8990.09 8990.09 8990.09 8990.09 books b) Amount of capital liabilities in A(a) above c) Amount of IDC,FC,FERV and Hedging cost included in A(a) above d) Amount of IEDC (excluding IDC,FC,FERV and Hedging cost) included in A(a) above B. a) Addition in Gross Block Amount during the period b) Amount of capital liabilities in B(a) above c) Amount of IDC,FC,FERV and Hedging cost included in B(a) above d) Amount of IEDC (excluding IDC,FC,FERV and Hedging cost) included in B(a) above C. a) Closing Gross Block Amount as per 8990.09 8990.09 8990.09 8990.09 8990.09 Books b) Amount of capital liabilities in C(a) c) Amount of IDC,FC,FERV and Hedging cost included in C(a) above d) Amount of IEDC (excluding IDC,FC,FERV and Hedging cost) included in C(a) above

(Petitioner)



						Form-6
Financia	al Package	upto COD (Bl	ock Year-	2014-2019)		
Name of the Transn	nission Lice	nsee: Power	Grid Corp	oration of Inc	dia Limite	d
Name of the Region: WESTERN F	REGION					
Name of the Project: 400/220 KV	/ KHANDW	A SUBSTATIO	N AND LI	LO OF 400 KV	D/C ITAR	SI-DHULE T/I
AT KHANDWA						
Name of the Transmission Eleme	ent or Com	munication E	lement: 4	00/220 KV KH	IANDWA	SUBSTATION
AND LILO OF 400 KV D/C ITARSI-			Α			
Date of commercial Operation: 0	1-Feb-200	5				
						Rs. In Lakhs
Particulars	Financia	l Package as	1	il Package as	As Adm	itted by COD
	Ap	proved	0	n COD	/ 31	.03.2014
			İ			
	Currency	and Amoun	Currency	and Amount	Currency	and Amoun
Loans			<u> </u>			
Loans-Domestic						
Loans-Foreign	<u> </u>		<u> </u>		ļ	
Total Loans			L		INR	6692.29
		-				
Equity				<u> </u>		
Foreign						
Domestic						
Notional						
Total Equity	ļ				INR	2297.8
Debt Equity Ratio	<u> </u>					
Total Cost		-	 		INR	8990.09
Total cost				+		0550.05
	Debt	Equity	Total			
	IDEDL					
	Debt	1-4-1-7				



Form 8

Calculation of Return on Equity

Name of the Transmission Licensee: Power Grid Corporation of India Limited

Name of the Region: WESTERN REGION

Name of the Project: 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV D/C ITARSI-DHULE T/L AT KHANDWA

Name of the Transmission Element or Communication System: 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV D/C ITARSI-DHULE T/L AT KHANDWA

Date of Commercial operation: 01-Feb-2005

						Rs. in Lacs
Particulars	Existing 2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	2297.8	2297.8	2297.8	2297.8	2297.8	2297.8
Notional Equity on Add Cap	0	0	0	0	0	0
Total Equity	2297.8	2297.8	2297.8	2297.8	2297.8	2297.8
Average Equity	2297.8	2297.8	2297.8	2297.8	2297.8	2297.8
Rate of Return on Equity (%)	17.481	19.61	19.61	19.61	19.61	19.61
Return on Equity	401.68	450.6	450.6	450.6	450.6	450.6
Pro rata Return on Equity	401.68	450.6	450.6	450.6	450.6	450.6
Calculation of Grossed up Rate of ROE						
Rate of ROE	15.5	15.5	15.5	15.5	15.5	15.5
Time Line Incentive	0	0	0	0	0	0
Communication Dis-incentive	0	0	0	0	0	0
Effective Rate of ROE	15.5	15.5	15.5	15.5	15.5	15.5
MAT Rate	11.33	20.96	20.96	20.96	20.96	20.96
Grossed up Rate of ROE	17.481	19.61	19.61	19.61	19.61	19.61

(Petitioner)



Calculation of Weighted Average Rate of Interest on Actual Loans

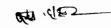
Name of the Transmission Licensee: Power Grid Corporation of India Limited

Name of the Region: WESTERN REGION

Name of the Project: 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV D/C ITARSI-DHULE T/L AT KHANDWA

Name of the Transmission Element or Communication System: 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV D/C ITARSI-DHULE T/L AT KHANDWA

Date of Commercial Operation. 01-1 eb-2005						
						Rs. in Lacs
Particulars	Existing	2014-15	2015-16	2016-17	2017-18	2018-19
	2013-14					
BOND X-DOCO-						
Gross Opening Loan	33	33	33	33	33	33
Cumulative Repayments of Loans upto Previous Year	24.75	27.5	30.25	33	33	33
Net Loans Opening	8.25	5.5	2.75	0	0	0
Add: Drawl(s) during the year	0	0	0	0	0	0
Less: Repayment(s) of Loan during the year	2.75	2.75	2.75	0	0	0
Net Closing Loan	5.5	2.75	0	0	0	0
Average Net Loan	6.88	4.13	1.38	0	0	0
Rate of Interest on Loan	10.9	10.9	10.9	10.9	10.9	10.9
Interest on Loan	0.75	0.45	0.15	0	0	0
BOND XI-option- I-DOCO-						
Gross Opening Loan	35	35	35	35	35	35
Cumulative Repayments of Loans upto Previous Year	23.35	26.27	29.19	32.11	35.03	35.03
Net Loans Opening	11.65	8.73	5.81	2.89	0	0
Add: Drawl(s) during the year	0	0	0	0	0	0
Less: Repayment(s) of Loan during the year	2.92	2.92	2.92	2.92	0	0
Net Closing Loan	8.73	5.81	2.89	0	0	0
Average Net Loan	10.19	7.27	4.35	1.45	0	0
Rate of Interest on Loan	9.8	9.8	9.8	9.8	9.8	9.8
Interest on Loan	1	0.71	0.43	0.14	0	0
BOND XII-DOCO-						
Gross Opening Loan	35	35	35	35	35	35
Cumulative Repayments of Loans upto Previous Year	23.35	26.27	29.19	32.11	35.03	35.03
Net Loans Opening	11.65	8.73	5.81	2.89	0	0
Add: Drawl(s) during the year	0	0	0	0	0	0
Less: Repayment(s) of Loan during the year	2.92	2.92	2.92	2.92	0	0
Net Closing Loan	8.73	5.81	2.89	0	0	0
Average Net Loan	10.19	7.27	4.35	1.45	0	0
Rate of Interest on Loan	9.7	9.7	9.7	9.7	9.7	9.7
Interest on Loan	0.99	0.71	0.42	0.14	0	0
BOND - XIII - Option - I-DOCO-						
Gross Opening Loan	3750	3750	D. 3/50	3750	3750	3750



Form 9C

Calculation of Weighted Average Rate of Interest on Actual Loans

Name of the Transmission Licensee: Power Grid Corporation of India Limited

Name of the Region: WESTERN REGION

Name of the Project: 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV D/C ITARSI-DHULE T/L AT KHANDWA

Name of the Transmission Element or Communication System: 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV D/C ITARSI-DHULE T/L AT KHANDWA

Date of Commercial Operation: 01-Feb-2005

Date of Commercial Operation, 01-rep-2005						
						Rs. in Lacs
Particulars	Existing	2014-15	2015-16	2016-17	2017-18	2018-19
	2013-14					
Cumulative Repayments of Loans upto Previous Year	2187.5	2500	2812.5	3125	3437.5	3750
Net Loans Opening	1562.5	1250	937.5	625	312.5	0
Add: Drawl(s) during the year	0	0	0	0	0	0
Less: Repayment(s) of Loan during the year	312.5	312.5	312.5	312.5	312.5	0
Net Closing Loan	1250	937.5	625	312.5	0	0
Average Net Loan	1406.25	1093.75	781.25	468.75	156.25	0
Rate of Interest on Loan	8.63	8.63	8.63	8.63	8.63	8.63
Interest on Loan	121.36	94.39	67.42	40.45	13.48	0
BOND XV-DOCO-						
Gross Opening Loan	2183	2183	2183	2183	2183	2183
Cumulative Repayments of Loans upto Previous Year	1091.52	1273.44			1819.2	2001.12
Net Loans Opening	1091.48	909.56	727.64	545.72	363.8	181.88
Add: Drawl(s) during the year	1031.48	909.30	727.04	0	303.8	101.00
Less: Repayment(s) of Loan during the year	181.92	181.92	181.92	181.92	181.92	181.92
	909.56	727.64	545.72	363.8	181.88	181.92
Net Closing Loan Average Net Loan	1000.52	818.6	636.68	454.76	272.84	90.94
Rate of Interest on Loan	6.68	6.68	6.68	6.68	6.68	6.68
					18.23	
Interest on Loan	66.83	54.68	42.53	30.38	18.23	6.07
BOND XVIII-ADDCAP FOR 2005-2006-						
Gross Opening Loan	369	369	369	369	369	369
Cumulative Repayments of Loans upto Previous Year	123	153.75	184.5	215.25	246	276.75
Net Loans Opening	246	215.25	184.5	153.75	123	92.25
Add: Drawl(s) during the year	0	0	0	0	0	0
Less: Repayment(s) of Loan during the year	30.75	30.75	30.75	30.75	30.75	30.75
Net Closing Loan	215.25	184.5	153.75	123	92.25	61.5
Average Net Loan	230.63	199.88	169.13	138.38	107.63	76.88
Rate of Interest on Loan	8.15	8.15	8.15	8.15	8.15	8.15
Interest on Loan	18.8	16.29	13.78	11.28	8.77	6.27
BOND XXII-ADDCAP FOR 2006-2007-						
Gross Opening Loan	26	26	26	26	26	26
Cumulative Repayments of Loans upto Previous Year	6.51	8.68	10.85	13.02	15.19	17.36
Net Loans Opening	19.49	17.32	33,15	^U ?42,98	10.81	8.64

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Form 9C

Calculation of Weighted Average Rate of Interest on Actual Loans

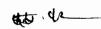
Name of the Transmission Licensee: Power Grid Corporation of India Limited

Name of the Region: WESTERN REGION

Name of the Project: 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV D/C ITARSI-DHULE T/L AT KHANDWA

Name of the Transmission Element or Communication System: 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV D/C ITARSI-DHULE T/L AT KHANDWA

Date of Commercial Operation: 01-reb-2005						
						Rs. in Lacs
Particulars	Existing	2014-15	2015-16	2016-17	2017-18	2018-19
	2013-14					
Add: Drawl(s) during the year	0	0	0	0		0
Less: Repayment(s) of Loan during the year	2.17	2.17	2.17	2.17	2.17	2.17
Net Closing Loan	17.32	15.15	12.98	10.81	8.64	6.47
Average Net Loan	18.41	16.24	14.07	11.9	9.73	7.56
Rate of Interest on Loan	8.68	8.68	8.68	8.68	8.68	8.68
Interest on Loan	1.6	1.41	1.22	1.03	0.84	0.66
Oriental Bank of commerce-DOCO-						
Gross Opening Loan	16	16	16	16	16	16
Cumulative Repayments of Loans upto Previous Year	11.98	13.31	14.64	15.97	15.97	15.97
Net Loans Opening	4.02	2.69	1.36	0.03	0.03	0.03
Add: Drawl(s) during the year	0	0	0	0	0	0
Less: Repayment(s) of Loan during the year	1.33	1.33	1.33	0	0	0
Net Closing Loan	2.69	1.36	0.03	0.03	0.03	0.03
Average Net Loan	3.36	2.03	0.7	0.03	0.03	0.03
Rate of Interest on Loan	9.6	12.35	12.35	12.35	12.35	12.35
Interest on Loan	0.32	0.25	0.09	0	0	0
Punjab National Bank- II-DOCO-						
Gross Opening Loan	19	19	19	19	19	19
Cumulative Repayments of Loans upto Previous Year	14.23	15.81	17.39	18.97	18.97	18.97
Net Loans Opening	4.77	3.19	1.61	0.03	0.03	0.03
Add: Drawl(s) during the year	0	0	0	0	0	0
Less: Repayment(s) of Loan during the year	1.58	1.58	1.58	0	0	0
Net Closing Loan	3.19	1.61	0.03	0.03	0.03	0.03
Average Net Loan	3.98	2.4	0.82	0.03	0.03	0.03
Rate of Interest on Loan	9.35	11.6	11.6	11.6	11.6	11.6
Interest on Loan	0.37	0.28	0.1	0	0	0
Summary						
Gross Opening Loan	6466	6466		6466		6466
Cumulative Repayments of Loans upto Previous Year	3506.19	4045.03		5122.71	5655.89	6183.23
Net Loans Opening	2959.81	2420.97	1882.13	1343.29	810.17	282.83
Add: Drawl(s) during the year	0	0	0	0	0	0
Less: Repayment(s) of Loan during the year	538.84	538.84	538.84	533.18	527.34	214.84



						Form 9C
Calculation of Weighte	d Average Rate of In	terest on	Actual Loa	ans		
Name of the Transmission Licensee: Power Grid Cor	poration of India Lir	nited				
Name of the Region: WESTERN REGION						
Name of the Project: 400/220 KV KHANDWA SUBST	ATION AND LILO OF	400 KV D	/C ITARSI-	DHULE T/	L AT KHAN	IDWA
Name of the Transmission Element or Communicati D/C ITARSI-DHULE T/L AT KHANDWA	on System: 400/220	KV KHAN	DWA SUB	STATION	AND LILO	OF 400 KV
Date of Commercial Operation: 01-Feb-2005						
						Rs. in Lacs
Particulars	Existing	2014-15	2015-16	2016-17	2017-18	2018-19
	2013-14					
Net Closing Loan	2420.97	1882.13	1343.29	810.17	282.83	68.03
Average Net Loan	2690.41	2151.57	1612.73	1076.75	546.51	175.44
Rate of Interest on Loan	7.88	7.86	7.82	7.75	7.56	7.41
Interest on Loan	212.02	169.17	126.14	83.43	41.33	13
					Q	1412
						(Petitioner)



(Petitioner)	_					
AR AR	*					
86.88	100.96	127.41	164.28	201.02	237.43	Pro rata Interest on Normative Loan
86.88	100.96	127.41	164.28	201.02	237.43	Interest on Normative Loan
7.41	7.56	7.75	7.82	7.86	7.88	Rate of Interest on Loan
1172.1	1334.82	1644.27	2100.45	2556.63	3012.81	Average Net Normative Loan
1090.73	1253.46	1416.18	1872.36	2328.54	2784.72	Net Closing Normative Loan
162.73	162.72	456.18	456.18	456.18	456.18	Less: Repayment(s) of Normative Loan during the year
0	0	0	0	0	0	Increate/Decrease due to ACE during the year
1253.46	1416.18	1872.36	2328.54	2784.72	3240.9	Net Normative Loans Opening
5438.83	5276.11	4819.93	4363.75	3907.57	3451.39	Cumulative Repayments of Normative Loans upto Previous Year
6692.29	6692.29	6692.29	6692.29	6692.29	6692.29	Gross Normative Loan Opening
					2013-14	
2018-19	2017-18	2016-17	2015-16	2014-15	Existing	Particulars
Rs. in Lacs						
						Date of Commercial Operation: 01-Feb-2005
						T/L AT KHANDWA
SI-DHULE	KV D/C ITAF	LO OF 400 I	ION AND LI	A SUBSTAT	V KHANDW	Name of the Transmission Element or Communication System: 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV D/C ITARSI-DHULE
		HANDWA	LE T/L AT KH	TARSI-DHUI	00 KV D/C I	Name of the Project: 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV D/C ITARSI-DHULE T/L AT KHANDWA
						Name of the Region: WESTERN REGION
					ited	Name of the Transmission Licensee: Power Grid Corporation of India Limited
				e Loan	n Normative	Calculation of Interest on Normative Loan
Form 9E						



Form 10

Calculation of Depreciation Rate

Name of the Transmission Licensee: Power Grid Corporation of India Limited

Name of the Region: WESTERN REGION

Name of the Project: 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV D/C ITARSI-DHULE T/L AT KHANDWA

Name of the Transmission Element or Communication System: 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV

D/C ITARSI-DHULE T/L AT KHANDWA

Date of Commercial Operation: 01-Feb-2005

	Commercial Operation. 01-Feb-2003						Rs. in Lacs
SI. No.	Particulars	Gross	Add Cap	Gross	Average	Dep. Rate	Amount
		block at	during the	block at	Gross		
		the	year	the end of	Block		
		beginning		the year			
		of the					
		year					
	2014-2015						
1	FREEHOLD LAND	57.05	0	57.05	57.05	0	0
2	BUILDING	863.57	0	863.57	863.57	3.34	28.84
3	TR LINE	2933.79	0	2933.79	2933.79	5.28	154.9
4	SUB STATION	5013.34	0	5013.34	5013.34	5.28	264.7
5	PLCC	122.34	0	122.34	122.34	6.33	7.74
6	LEASEHOLD LAND	0	0	0	0	3.34	0
	Total	8990.09	0	8990.09	8990.09		456.18
	Weighted Average Rate of Depreciation						5.07
	Lapsed life						10
	2015-2016						
1	FREEHOLD LAND	57.05	0	57.05	57.05	0	0
2	BUILDING	863.57	0	863.57	863.57	3.34	28.84
3	TR LINE	2933.79	0	2933.79	2933.79	5.28	154.9
4	SUB STATION	5013.34	0	5013.34	5013.34	5.28	264.7
5	PLCC	122.34	0	122.34	122.34	6.33	7.74
6	LEASEHOLD LAND	0	0	0	0	3.34	0
	Total	8990.09	0	8990.09	8990.09		456.18
	Weighted Average Rate of Depreciation						5.07
	Lapsed life						11
	2016-2017					· · · · · · · · · · · · · · · · · · ·	
1	FREEHOLD LAND	57.05	0	57.05	57.05	0	0
2	BUILDING	863.57	0	863.57	863.57	3.34	28.84
3	TR LINE	2933.79	0	2933.79	2933.79	5.28	154.9
4	SUB STATION	5013.34	0	5013.34	5013.34	5.28	264.7
5	PLCC	122.34	0	122.34	122.34	6.33	7.74
6	LEASEHOLD LAND	0	0	0	0	3.34	0
	Total	8990.09	0	8990.09	8990.09		456.18
	Weighted Average Rate of Depreciation			GU			5.07
	Lapsed life			21D, GU,	(CA)		12

Ju- do

				Form 1
	Calcul	ation of Depreciation Rate		
Name o	f the Transmission Licensee: Power Grid Cor	poration of India Limited		
Name o	f the Region: WESTERN REGION	· · · · · · · · · · · · · · · · · · ·		
Name o	f the Project: 400/220 KV KHANDWA SUBST	ATION AND LILO OF 400 KV	D/C ITARSI-DHULE T/L	AT KHANDWA
Name o	f the Transmission Element or Communicati	on System: 400/220 KV KH	ANDWA SUBSTATION A	ND LILO OF 400 KV
D/C ITA	RSI-DHULE T/L AT KHANDWA			
Date of	Commercial Operation: 01-Feb-2005			
			· · · · · · · · · · · · · · · · · · ·	
	The Calc	culation of Total Life of Asse	et	
SI. No.	Name of the Assets	Gross Block	ife As per CERC Norms	Weighted Life
	-1	-2	-3	(4)=Col.2 x Col.3
1	FREEHOLD LAND	57.05	0	
2	BUILDING	863.57	25	21589.2
3	TR LINE	2933.79	35	102682.6
4	SUB STATION	5013.34	25	125333.
 5	PLCC	122.34	25	3058.
6	LEASEHOLD LAND	0	25	
	Total	8933.04		252663.
	Total Life of Asset		252663.9/8933.04	2
				112 42
				(Petitione



						Form 10A
Statement	Statement of Depreciation	on				
Name of the Transmission Licensee: Power Grid Corporation of India Limited	ndia Limited					
Name of the Region: WESTERN REGION						
Name of the Project: 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV D/C ITARSI-DHULE T/L AT KHANDWA	ILO OF 400	KV D/C ITA	SI-DHULE	T/L AT KHAI	NDWA	
Name of the Transmission Element or Communication System: 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV D/C	00/220 KV K	HANDWA	SUBSTATIO	N AND LILO	OF 400 KV	D/C
ITARSI-DHULE T/L AT KHANDWA						
Date of Commercial Operation: 01-Feb-2005						
						Rs. in Lacs
Particulars	Existing	2014-15	2015-16	2016-17	2017-18	2018-19
	2013-14					
Opening Capital Cost	8990.09	8990.09	8990.09	8990.09	8990.09	8990.09
Closing Capital Cost	8990.09	8990.09	8990.09	8990.09	8990.09	8990.09
Average Capital Cost	8990.09	8990.09	8990.09	8990.09	8990.09	8990.09
Freehold Land (Av. Cost)	57.05	57.05	57.05	57.05	57.05	57.05
Rate of Depreciation	2.07	2.07	5.07	2.07	2.07	5.07
Depreciable Value	8039.74	8039.74	8039.74	8039.74	8039.74	8039.74
Balance useful life of the asset (at the beginning of year)	20	20	19	18	17	16
Elapsed life of the asset (at the beginning of the year)	6	6	10	11	12	13
Remaining Depreciable Value	4591.09	4134.83	3678.65	3222.47	2766.29	2603.57
Depreciation during the year	456.18	456.18	456.18	456.18	162.72	162.73
Depreciation upto previous year	3448.65	3904.91	4361.09	4817.27	5273.45	5436.17
Cumulative depreciation (incl. of AAD)	3904.83	4361.09	4817.27	5273.45	5436.17	5598.9
					٩	1 H
						(Petitioner)



	(Petitioner)						
~	A						
	57.38	56.38	62.47	62.07	61.71	58.47	Pro rata Interest on working capital
	£7.38	56.38	62.47	62.07	61.71	58.47	Interest on working capital
	13.5	13.5	13.5	13.5	13.5	12.25	Rate of interest
	425.07	417.66	462.71	459.78	457.14	477.31	Total working capital
	250.77	248.95	299.42	301.74	304.18	311.05	Receivables
	112.05	108.46	104.97	101.6	98.33	106.88	Maintenance Spares
	62.25	60.25	58.32	56.44	54.63	59.38	Op. and Maintenance
	2018-19	2017-18	2016-17	2015-16	2014-15	Existing 2013-14	Particulars
	Rs. in Lacs						
						2005	Date of Commercial Operation: 01-Feb-2005
							T/L AT KHANDWA
	SI-DHULE	V D/C ITARS	O OF 400 K	ON AND LIL	SUBSTATIC	/220 KV KHANDWA	Name of the Transmission Element: 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV D/C ITARSI-DHULE
							KHANDWA
		HULE T/L A	C ITARSI-DI	F 400 KV D/	AND LILO O	DWA SUBSTATION	Name of the Project: 400/220 KV KHANDWA SUBSTATION AND LILO OF 400 KV D/C ITARSI-DHULE T/L AT
							Name of the Region: WESTERN REGION
				imited	n of India L	wer Grid Corporatio	Name of the Transmission Licensee: Power Grid Corporation of India Limited
				g Capital	on Workin	Calculation of Interest on Working Capital	Ca
	Form 11						

Note: Paint for g Internal for 2014-15 Submilled in aftiduit it 26/6/14





TARIFF FOR 2009- US

	INDEX	CHECK LIS
		PART-II
	Name of the Company	Power Grid Corporation of India Ltd.
	Name of the Project :	400/220 kV Khandwa S/S and LILO of 400 kV D/C Itrasi-Dhule transmission line at Khandwa
	Name of the Transmission Element:	400/220 kV Khandwa S/S and LILO of 400 kV D/C Itrasi-Dhule transmission line at Khandwa
	Checklist of Forms and other information/ documents for tarif	f filing for Transmission System
Form No.	Tariff Filing Formats (Transmission)	Tick
FORM- 1	Summary Sheet	Yes
FORM-1A	Calculation of Return on Equity	Yes
FORM-2	Details of Transmission Lines and Substations	Yes
FORM-3	Normative Parameters considered for tariff calculations	Not applicable and hence not enclosed
FORM- 4	Details of Foreign loans	Not applicable and hence not enclosed
FORM-4A	Details of Foreign Equity	Not applicable and hence not enclosed
FORM-5	Abstract of Admitted Cost for the existing Projects	Not applicable and hence not enclosed
FORM-5A	Abstract of Project Cost Estimates and Schedule of Commissioning for	
	the new Projects	Not applicable and hence not enclosed
FORM-5B	Element wise Break-up of Project Cost for Transmission System	Not applicable and hence not enclosed
FORM-5C	Break-up of Construction/Supply/Sevice packages	Not applicable and hence not enclosed
FORM-5D	Details of elementwise cost	Not applicable and hence not enclosed
FORM-6	Financial Package upto COD	Not applicable and hence not enclosed
FORM- 7	Details of Project Specific Loans	Not applicable and hence not enclosed
FORM- 8	Details of Allocation of corporate loans to various transmission	Not applicable and hence not enclosed
OKI-1- 0	elements	.
		Not applicable and hence not enclosed
ORM-9	Statement of Additional Capitalisation after COD	Not applicable and hence not enclosed
ORM-9A	Statement of capital cost	Not applicable and hence not enclosed
FORM- 10	Financing of Additional Capitalisation	Not applicable and hence not enclosed
FORM- 11	Calculation of Depreciation Rate	Yes
FORM- 12	Statement of Depreciation	Not applicable and hence not enclosed
FORM- 13	Calculation of Weighted Average Rate of Interest on Actual Loans	Yes
FORM- 13A	Calculation of Interest on Normative Loans	Yes
		Not applicable and hence not enclosed
FORM-13B	Calculation of Interest on Working Capital	Yes
	Draw down Schedule for Calculation of IDC & Financing Charges	No. 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
FORM- 14		Not applicable and hence not enclosed
ORM-14A	Actual Cash Expenditure	Not applicable and hence not enclosed
	ation/ Documents	
Sl. No.	Information/Document	Tick
1	Certificate of incorporation, Certificate for Commencment of Business, Memorandum of Association, & Articles of Association (For New Station setup by a company making tariff application for the first time to CERC)	
2	Regionwise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & annexures for the new	
	Transmission System & for the relevant years.	be submitted shortly
3	Copies of relevant loan Agreements	-Not Applicable -
3 4	Copies of relevant loan Agreements Copies of the approval of Competent Authority for the Capital Cost	-Not Applicable -
4 5	Copies of relevant loan Agreements Copies of the approval of Competent Authority for the Capital Cost and Financial package. Copies of the Equity participation agreements and necessary approval	-Not Applicable -
4 5	Copies of relevant loan Agreements Copies of the approval of Competent Authority for the Capital Cost and Financial package.	-Not ApplicableNot Applicable - Equity contribution by GOI (57.9%) and
5	Copies of relevant loan Agreements Copies of the approval of Competent Authority for the Capital Cost and Financial package. Copies of the Equity participation agreements and necessary approval for the foreign equity.	-Not ApplicableNot Applicable - Equity contribution by GOI (57.9%) and others(42.1%)



1.1

TARIFF FOR 2004-19

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PART-III

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

Form No.	Title of Tariff Filing Forms (Transmission & Communication	Ti ala	
rorm No.	System)	Tick	
FORM-1	Summary Sheet	~	
FORM-2	Details of Transmission Lines and Substations, Communication	V	
rokwi-z	System		
FORM-3	Normative parameters considered for tariff computations	~	
FORM- 4	Abstract of admitted parameters for the existing transmission	/	
	assets/elements under project.		
FORM- 4A	Statement of Capital cost	V	
FORM- 4B	Statement of Capital Works in Progress	NA	
FORM- 4C	Abstract of Capital Cost Estimates and Schedule of		
	Commissioning for the New Project/Element	NA	
EODM 5	Element wise Break-up of Project/Asset/Element Cost for	1.0	
FORM-5	Transmission System or Communication System	NA	
FORM-5A	Break-up of Construction/Supply/Service packages	NA	
FORM-5B	Details of element wise cost of the Project	NA	
FORM- 6	Financial Package upto COD	V	
FORM- 7	Statement of Additional Capitalisation after COD	NA	
FORM- 7A	Financing of Additional Capitalisation	NA	
FORM- 7B	Statement of Additional Capitalisation during fag end* of the	NA	
	Project	VVP	
FORM- 8	Calculation of Return on Equity		
FORM-8A	Details of Foreign Equity	NA	
FORM-8B	Details of additional RoE	NA	
FORM-9	Details of Allocation of corporate loans to various transmission	NA	
FORM-9	elements	1017	
FORM-9A	Details of Project Specific Loans	NA	
FORM-9B	Details of Foreign loans	NA	
FORM-9C	Calculation of Weighted Average Rate of Interest on Actual	HAL	
	Quarius 4	ed . The	

Easter No.	Title of Tariff Filing Forms (Transmission & Communication	Tiele	
Form No.	System)	Tick	
	Loans		
FORM-9D	Loans in Foreign Currency	NA	
FORM-9E	Calculation of Interest on Normative Loan		
FORM-10	Calculation of Depreciation Rate		
FORM-10A	Statement of Depreciation		
FORM- 10B	Statement of De-capitalisation	NA	
FORM-11	Calculation of Interest on Working Capital		
FORM- 12	Details of time over run	NA	
FORM- 12A	Incidental Expenditure during Construction	NA	
FORM- 12B	Draw Down Schedule for Calculation of IDC & Financing Charges	NP	
FORM-13	Breakup of Initial spares	NA	
FORM-14	Other Income as on COD	NA	
FORM- 15	Actual cash expenditure	NA	
Other Inform	ation/ Documents		
Sl. No.	Information/Document	Tick	
	Certificate of incorporation, Certificate for Commencement of		
1	Business, Memorandum of Association, & Articles of Association	MA	
•	(For New Project(s) setup by a company making tariff application		
	for the first time to CERC)	1	
	101 110 1110 1110 10 0 1110)		
	Region wise and Corporate audited Balance Sheet and Profit &	Consoli	dated BS
2		100 100/1	11 8 W)R.
2	Region wise and Corporate audited Balance Sheet and Profit &	100 100/1	1 8 W)R.
2	Region wise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & annexures for the new	100 100/1	11 8 W)R.
3	Region wise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & annexures for the new Transmission System & Communication System for the relevant	100 100/1	11 8 W)R.
3	Region wise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & annexures for the new Transmission System & Communication System for the relevant years.	100 100/1	1 8 W)R.
	Region wise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & annexures for the new Transmission System & Communication System for the relevant years. Copies of relevant loan Agreements	of Poch for Fly shall shout NA NP	1 14-15 Le Bubmita
3	Region wise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & annexures for the new Transmission System & Communication System for the relevant years. Copies of relevant loan Agreements Copies of the approval of Competent Authority for the Capital	of Poch for Fly shall shout NA NP	1 14-15 Le Bubmita
3	Region wise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & annexures for the new Transmission System & Communication System for the relevant years. Copies of relevant loan Agreements Copies of the approval of Competent Authority for the Capital Cost and Financial package.	of Poch for Fly shall shout NA NP	1 14-15 Le Bubmita
3	Region wise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & annexures for the new Transmission System & Communication System for the relevant years. Copies of relevant loan Agreements Copies of the approval of Competent Authority for the Capital Cost and Financial package. Copies of the Equity participation agreements and necessary	of Poch for Fly shall shout NA NP	1 8 W)R.
3 4 5	Region wise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & annexures for the new Transmission System & Communication System for the relevant years. Copies of relevant loan Agreements Copies of the approval of Competent Authority for the Capital Cost and Financial package. Copies of the Equity participation agreements and necessary approval for the foreign equity.	of Poch for Fly shall shout NA NP	1 14-15 Le Bubmita

Form No.	Title of Tariff Filing Forms (Transmission & Communication	Ti-1.
rorm No.	System)	Tick
-	List of supporting documents to be submitted:	
	a. Detailed Project Report	
	b. CPM Analysis	NA
	c. PERT Chart and Bar Chart	•
	d. Justification for cost and time Overrun	
	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	alh
	Govt. of India for first two years i.e. 2014-15 and 2015-16 at the	NA
8	time of mid-term true-up in 2016-17 and for balance period of	
	tariff period 2014-19 at the time of final true-up in 2019-20. In case	
	of initial tariff filing the latest available Cost Audit Report should	
	be furnished.	
9	Any other relevant information, (Please specify)	

Note1: Electronic copy of the petition (in word format) and detailed calculation as per these formats (in excel format) and any other information submitted shall also be furnished in the form of CD/Floppy disc.





LG.