

BEFORE
THE CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

PETITION FOR

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

- (i) _____
(ii) Transmission tariff for 2014-19 tariff block

for Combined elements of i.) Additional bays at Kolar and Hosur for second circuit of Kolar-Hosur 400 kV D/C line and ii.) 400 kV Hiriyur sub-station, including 315 MVA auto transformer & LILO of Davangere-Hoody 400 kV D/C line at Hiriyur with associated bays under System Strengthening Scheme-II in Southern 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

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



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

PETITION NO.:

IN THE MATTER OF

Approval under regulation-86 of CERC (Conduct of Business) Regulations'1999, 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 Combined elements of i.) Additional bays at Kolar and Hosur for second circuit of Kolar-Hosur 400 kV D/C line and ii) 400 kV Hiriyur sub-station, including 315 MVA auto transformer & LILO of Davangere-Hoody 400 kV D/C line at Hiriyur with associated bays under System Strengthening Scheme-II in Southern Region.

Power Grid Corporation of India Ltd.

--- PETITIONER

Registered office: B-9, Qutab Institutional Area,
Katwaria Sarai, New Delhi. 110 016.
Corporate Centre : 'SAUDAMINI', Plot No-2,
Sector-29, Gurgaon-122 001 (Haryana).

Karnataka Power Transmission Corporation Ltd.
Cauvery Bhavan, Bangalore – 560 009
Represented by its Chairman
And Others

---- RESPONDENTS

Sl. 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 01.09.2010 In petition no 71/2010 for block 2009-14	Encl.-1	16-32
7	Tariff Filing Formats (2009-14)	Encl.- 2	33-43
8	Tariff Filing Formats (2014-19)	Encl.- 3	44-62

Filed by
Power Grid Corporation of India Ltd.
Represented by

Gurgaon

Dated:17/06.2014

Dy. General Manager (Commercial)



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

PETITION NO.:

IN THE MATTER OF

Approval under regulation-86 of CERC (Conduct of Business) Regulations'1999, 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 Combined elements of i.) Additional bays at Kolar and Hosur for second circuit of Kolar-Hosur 400 kV D/C line and ii) 400 kV Hiriyur sub-station, including 315 MVA auto transformer & LILO of Davangere-Hoody 400 kV D/C line at Hiriyur with associated bays under System Strengthening Scheme-II in Southern Region.

Power Grid Corporation of India Ltd.

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Katwaria Sarai, New Delhi, 110 016.

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

Karnataka Power Transmission Corporation Ltd.

----- RESPONDENTS

Cauvery Bhavan, Bangalore – 560 009

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

Gurgaon

Dated: ...17/...06.2014

Dy. General Manager (Commercial)



- 4 Tamil Nadu Generation and Distribution Corporation Ltd (Formerly Tamilnadu Electricity Board -TNEB)
NPKRR Maaligai, 800, Anna Salai
Chennai – 600 002
Represented by its Chairman
- 5 Electricity Department
Govt of Pondicherry,
Pondicherry - 605001
Represented by its Chief Secretary
- 6 Eastern Power Distribution Company of Andhra Pradesh Limited (APEPDCL)
APEPDCL, P&T Colony,
Seethmmadhara, VISHAKHAPATNAM
Andhra Pradesh,
Represented by its Managing Director

- 7 Southern Power Distribution Company of Andhra Pradesh Limited (APSPDCL)
Srinivasasa Kalyana Mandapam Backside,
Tiruchanoor Road, Kesavayana Gunta,
TIRUPATI-517 501,
Chittoor District, Andhra Pradesh
Represented by Its Managing Director

- 8 Central Power Distribution Company of Andhra Pradesh limited (APCPDCL)
Corporate Office, Mint Compound,
HYDERABAD – 500 003
Andhra Pradesh
Represented by Its Managing Director

- 9 Northern Power Distribution Company of Andhra Pradesh Limited (APNPDCL)
Opp. NIT Petrol Pump
Chaitanyapuri, Kazipet,
WARANGAL – 506 004
Andhra Pradesh
Represented by Its Managing Director

- 10 Bangalore Electricity Supply Company Ltd.,
(BESCOM), Corporate Office, K.R.Circle
BANGALORE – 560 001
Karnataka
Represented by Its Managing Director

- 11 Gulbarga Electricity Supply Company Ltd.,
(GESCOM)
Station Main Road, GULBURGA
Karnataka
Represented by Its Managing Director
- 12 Hubli Electricity Supply Company Ltd., (HESCOM)
Navanagar, PB Road
HUBLI, Karnataka
Represented by Its Managing Director
- 13 MESCOM Corporate Office,
Paradigm Plaza, AB Shetty Circle
MANGALORE – 575 001
Karnataka
Represented by Its Managing Director
- 14 Chamundeswari Electricity Supply Corporation
Ltd., (CESC)
927, L J Avenue
Ground Floor, New Kantharaj Urs Road
Saraswatipuram, MYSORE – 570 009
KARNATAKA
Represented by Its Managing Director
- 15 Electricity Department
Government of Goa
Vidyuti Bhawan, Panaji
Goa 403001
Represented by Chief Engineer (Electrical)

GURGAON
DATED:- 17.06.2014

PETITIONER
POWER GRID CORPORATION OF INDIA LTD.
REPRESENTED BY


Dy. General Manager (Commercial)





7
Affidavit verifying the Petition
S/O Sh. R. M. Jaisankar V. P. working as Dy. General Manager (Commercial) in the Power Grid

And Others
Represented by its Chairman
Cauvery Bhavan, Bangalore - 560 009
Karnataka Power Transmission Corporation Ltd.

--- RESPONDENTS
Sector-29, Gurgaon-122 001 (Haryana)
Corporate Centre: SAUDAMINI, Plot No-2,
Katwaria Sarai, New Delhi, 110 016.
Registered office: B-9, Qutab Institutional Area,
Power Grid Corporation of India Ltd.

--- PETITIONER
Scheme-II in Southern Region.
Davangere-Hoody 400 KV D/C line at Hirur with associated bays under System Strengthening
400 KV D/C line and ii) 400 KV Hirur sub-station, including 315 MVA auto transformer & LLO of
for Combined elements of i) Additional bays at Kolar and Hosur for second circuit of Kolar-Hosur
(i) Truing up Transmission tariff for 2009-14 tariff block and
(ii) Transmission tariff for 2014-19 tariff block

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

PETITION NO.:

BEFORE
THE CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

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आरतीय वैर न्यायिक

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.
2. That the enclosed tariff Petition is being filed for determination of Truing up Transmission tariff for 2009-14 tariff block and determination of tariff for 2014-19 tariff block for Combined elements of i) additional bays at Kolar and Hosur for second circuit of Kolar-Hosur 400 kV D/C line and ii) 400 kV Hiriyur sub-station, including 315 MVA auto transformer & LIL0 of Davangere-Hoody 400 kV D/C line at Hiriyur with associated bays under System Strengthening Scheme-II in Southern Region.
3. That no other tariff Petition except this Petition has been filed directly or indirectly for approval of tariff for Combined elements of i) additional bays at Kolar and Hosur for second circuit of Kolar-Hosur 400 kV D/C line and ii) 400 kV Hiriyur sub-station, including 315 MVA auto transformer & LIL0 of Davangere-Hoody 400 kV D/C line at Hiriyur with associated bays under System Strengthening Scheme-II in Southern.
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 17th 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 there from.



ATTESTED
17/6/2014
S. MAN SINGH
ADVOCATE & NOTARY
GURGAON (HARYANA)

(DEPONENT)



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

PETITION NO.:

IN THE MATTER OF

Approval under regulation-86 of CERC (Conduct of Business) Regulations'1999, 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
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for Combined elements of i.) Additional bays at Kolar and Hosur for second circuit of Kolar-Hosur 400 kV D/C line and ii) 400 kV Hiriyur sub-station, including 315 MVA auto transformer & LILO of Davangere-Hoody 400 kV D/C line at Hiriyur with associated bays under System Strengthening Scheme-II in Southern Region.

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

Karnataka Power Transmission Corporation Ltd.

---- RESPONDENTS

Cauvery Bhavan, Bangalore – 560 009

Represented by its Chairman

And Others

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 for Combined elements of i) additional bays at Kolar and Hosur for second circuit of Kolar-Hosur 400 kV D/C line and ii) 400 kV Hiriyur sub-station, including 315 MVA auto transformer & LILLO of Davangere-Hoody 400 kV D/C line at Hiriyur with associated bays under System Strengthening Scheme-II in Southern Region and the same has been put under commercial operation from 01.02.2004.
- 4.0 That the final Transmission Tariff based on admitted capital cost of Rs 4596.06 Lakhs as on 01.04.2009 and 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 01.09.2010 in petition No.: 71/2010, a copy whereof is attached hereto as **Encl.-1, page 16 to 32**
- 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. 2014-15 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
2013-14	20.961	19.610

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 loan adjustments. As per Hon'ble Commission order dated 08.06.2011 in petition no. 238/2010, it has been stated that interest on loan 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 (MAT)

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

Project		2009-10	2010 - 11	2011 -12	2012 - 13	2013 - 14
i) additional bays at Kolar and Hosur for second circuit of Kolar-Hosur 400 kV D/C line and ii) 400 kV Hiriyur sub-station, including 315 MVA auto transformer & LILO of Davangere-Hoody 400 kV D/C line at Hiriyur with bays.	Annual Fixed Cost approved Revised AFC based on truing up	1142.92	1150.93	1160.44	1171.50	1185.65
		1158.88	1176.02	1185.79	1196.84	1214.13

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 35 to 42.**



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-I, Part 3 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 44 to 61**.

The capital cost admitted by CERC as on 31.03.2014 is Rs 4596.06 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 Cost (Rs. Lakh)#
2014 – 2015	1150.55
2015 – 2016	1151.48
2016 – 2017	1041.69
2017 – 2018	1052.1
2018 – 2019	1062.28

- 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 will complete 12-Yrs on 01.02.2016 and thus depreciation during 2016-17, 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 27 of the CERC Tariff regulations 2014. The details have been computed and are provided in Form- 10 A.

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 20.96% 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 under-recovery 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 and 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 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, for the project needs to be claimed / adjusted over the tariff block of 05 years directly from / with the beneficiaries.
- 7.8 The transmission charges at para-7.2 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 CPSEs 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.
- 7.9 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).
- 7.10 The Transmission Charges and other related Charges indicated at para 7.1 & 7.2 above, is exclusive of incentive, late payment surcharge, FERV, any statutory taxes, levies, duties, cess, filing fees, license fee, RLDC fees and charges or any other kind of imposition (s) and/ or other surcharges etc. whatsoever imposed / charged by any Government (Central/State) and / or any other local bodies/authorities/regulatory authorities in relation to transmission of electricity, environmental protection, and/or

in respect of any of its installation associated with the Transmission System and the same shall be borne and additionally paid by the respondent(s) to the petitioner and the same shall be charged, billed separately by the petitioner on the respondents.

8.0 Sharing of Transmission Charges

Tariff for Transmission of Electricity (Annual Fixed Cost) as per para 7.0 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 and 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 time 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.

- 9.0 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-7.0 above. **The Petitioner submits that the Encl.-1 to Encl.-3 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.
- 3) 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 for suitable revision in the norms for O&M expenditure for claiming the impact of wage 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 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

Dy. General Manager (Commercial)

Gurgaon

Dated:/7/06.2014



**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No.71/2010

Coram:

1. Shri V.S.Verma, Member
2. Shri M.Deena Dayalan, Member

DATE OF HEARING: 22.6.2010

DATE OF ORDER: 1.9.2010

In the matter of

Approval of transmission tariff for combined elements of (i) additional bays at Kolar and Hosur for second circuit of Kolar-Hosur 400 kV D/C line and (ii) 400 kV Hiryur sub-station, including 315 MVA auto transformer and LLO of Devangere-Hoody 400 kV D/C line at Hiryur with associated bays under system strengthening scheme-II in Southern 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**
Vs

- 1.Kerala State Electricity Board, Thiruvananthapuram
- 2.Tamil Nadu Electricity Board, Chennai
- 3.Electricity Department, Govt. of Pondicherry, Pondicherry
- 4.Electricity Department, Government of Goa, Panaji
- 5.Transmission Corporation of Andhra Pradesh Ltd., Hyderabad
- 6.Northern Power Distribution Company of Andhra Pradesh Limited, Warangal
- 7.Eastern Power Distribution Company of Andhra Pradesh Limited, Vishakhapatnam
- 8.Southern Power Distribution Company of Andhra Pradesh Limited, Tirupati
9. Central Power Distribution Company of Andhra Pradesh Limited, Hyderabad
- 10.Karnataka Power Transmission Corporation Limited, Bangalore
11. Bangalore Electricity Supply Company Ltd., Bangalore
12. Gulbarga Electricity Supply Company Ltd. Gulbarga
13. Hubli Electricity Supply Company Ltd., Hubli
14. MESCOM Corporate office, Mangalore
- 15.Chamundeswari Electricity Supply Corporation Ltd., Mysore.

..Respondents

The following were present:

1. Shri U.K.Tyagi, PGCIL
2. Shri M.M. Mondal, PGCIL

Order in Pet No.71-2010



3. Shri R.Prasad, PGCIL
4. Shri R.K.Gupta, PGCIL
5. Shri V.Vamsi, PGCIL

ORDER

The petition has been filed for approval of tariff for combined elements of (i) additional bays at Kolar and Hosur for second circuit of Kolar-Hosur 400 kV D/C line and (ii) 400 kV Hiriyur sub-station, including 315 MVA auto transformer and LLO of Devangere-Hoody 400 kV D/C line at Hiriyur with associated bays under system strengthening scheme-II (the transmission scheme) in Southern 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 also prayed to be allowed to adjust impact on interest on loan due to floating rate of interest, to recover the service tax on transmission charges and reimbursement of licence fee separately from the respondents.

The petitioner has also prayed 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 tax rates viz. MAT, surcharge, any other cess, charges, levies etc as per the Finance Act, 2010 and allow consequential impact on tariff for 2009-14 period accordingly.

3. The investment approval for the transmission scheme was accorded by the Board of Directors of the petitioner company vide its letter dated 23.10.2001 at an estimated cost of Rs. 7761.00 lakh, including IDC of Rs. 722.00 lakh. The combined transmission assets were declared under commercial operation 1.9.2003 and 1.2.2004, respectively.

4. The annual transmission charges for the period from 1.4.2004 to 31.3.2009 were decided by the Commission in its order dated 1.9.2008 in Petition No. 63/2008 at a gross block of ₹ 586.22 lakh for additional bays at Kolar and Hosur for second circuit of Kolar-Hosur 400 kV D/C line and ₹ 4009.84 lakh for 400 kV Hiriyur sub-station, including 315 MVA auto-transformer and LLO of Devangere-Hoody 400 kV D/C line at Hiriyur as on 31.3.2009 and thereafter no additional capital expenditure is involved for the transmission asset.

5. The petitioner has claimed the transmission charges as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	226.25	226.25	226.25	226.25	226.25
Interest on Loan	173.34	153.06	132.68	112.12	92.81
Return on Equity	228.92	228.92	228.92	228.92	228.92
Interest on Working Capital	36.88	37.93	38.95	40.04	41.25
O & M expenses	47.63	50.77	53.66	56.16	58.77
Total	1162.92	1150.93	1160.45	1171.49	1185.65

6. 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	71.61	75.72	80.05	84.62	89.46
O & M expenses	39.79	42.06	44.47	47.01	49.70
Receivables	190.49	191.82	193.41	195.25	197.61
Total	301.89	309.60	317.93	326.88	336.77
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	36.98	37.93	38.95	40.04	41.25

7. Reply to the petition has been filed by Tamil Nadu Electricity Board (TNEB). 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. TNEB in its reply has made following submission:

(i) To exercise prudence check to ascertain that the tariff to be awarded by combining the elements shall not result in higher tariff in the year to come than what would become due considering the elements individually;

(ii) As such there is no provision in the 2009 regulations for reimbursement on account of change in the rate of MAT/Corporate tax on a yearly basis. However, since a year in the present tariff period has already elapsed, the rates prevailing on the date of petition be considered in awarding tariff and further variations if any may be allowed to be settled along with truing up exercise at the end of the tariff period;

(iii) Under para 6.8 of the petition, the petitioner has prayed that the service tax payable by them be allowed to be recovered from the beneficiaries. The Government of India vide its notification dated 27.2.2010 have exempted transmission services from the purview of levy of service tax;

(iv) To negate the filing fee claim in line with the decision taken by the Commission vide its order dated 11.9.2008 in Petition No. 129/2005 (Suo motu);

(v) To negate the request for revision of the normative o & M expenses considering the impact of wage revision, effective from 1.1.2007 as the regulations do not provide any revision under any circumstances, TNEB has also raised issues of the reimbursement of expenditure towards publishing notices and licence fee. The issues raised by the MPPTCL have been dealt with in the relevant paras of this order.

8. The petitioner has filed its rejoinder vide affidavit dated 11.6.2010. In regard to first issue, the petitioner has submitted that calculation of tariff by combining the elements has been done in accordance with Commission's letter dated 23.10.2009 pertaining to procedure for combining of assets for the purpose of tariff for the period 2009-14. In regard to (ii) above, the petitioner has submitted that unless the revision in MAT rate is effected in computing the ROE, the cash flow would be adversely affected as tax would have to be paid at revised rate of MAT 15% @ in accordance with the Finance Act, 2009 whereas cash would be generated through ROE based on MAT@ 10%. Finance Act, 2010 has increased the MAT Rate to 18%. Revision of rate of pre tax return on equity with the applicable MAT as per the Finance Act, 2009/2010 would save both the petitioner and the beneficiaries from an additional exercise and also avoid accumulation of arrears in respect of revision of ROE for all the tariff period 2009-14. In regard to service tax, the petitioner has submitted that in the Finance Act 2010, transmission service has been exempted from service tax. However, service tax implication, if any, for the period 2009-10 shall have to be shared by the beneficiaries. In regard

to O & M the petitioner has submitted that per ckt km and per bay O & M rates considered are based on the 2004 regulations. The petitioner has submitted that the wage revision for the executive levels has already been done, however, for the non-executive levels, the wage revision shall be done shortly and he will approach before the Commission for additional manpower cost on account of wage revision during the period 2009-14.

CAPITAL COST

9. 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.

10. The petitioner has claimed the capital expenditure of ₹ 4596.06 lakh, which was admitted vide order dated 1.9.2008 in Petition No. 63/2008. The petitioner has not claimed any additional capitalization.

11. Accordingly, gross block of ₹ 4596.06 lakh as on 31.3.2009 has been considered for the purpose of tariff.

DEBT-EQUITY RATIO

12. Clause (2) of Regulation 12 of the 2009 regulations *inter alia* provides that,-

"(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."

13. The petitioner has claimed tariff based on debt-equity ratio of 71.51:28.49 as considered by the Commission in its order dated 1.9.2008 *ibid*. The same debt-equity ratio has been considered for the purpose of tariff.

RETURN ON EQUITY

14. 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 tried 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 = $\frac{\text{base rate}}{1-t}$

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 = $15.50 / (1-0.3399) = 23.481\%$."

15. 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 ₹ 228.92 lakh each year during the tariff period @ 17.481% against the equity base of ₹ 1309.52 lakh. This has been found to be in order. Accordingly, the petitioner shall be entitled to return on equity @ ₹ 228.92 lakh each year during the tariff period, as claimed.

16. The Commission vide its order dated 3.8.2010 in Petition No. 17/2010 has already taken a decision to amend the 2009 regulations. The relevant portion of the said order is extracted as under:

"We are of the view that this issue of 'grossing up the base rate with the normal tax rate for the year 2008-09' is generic in nature and therefore, it will be appropriate to make suitable provisions in the 2009 regulations to cater to any future changes in the tax rate. Accordingly, we direct the staff of the Commission to prepare and submit draft amendment to the 2009 regulations for allowing grossing up of base rate of return with the applicable tax rate as per the Finance Act for the relevant year and direct settlement of tax liability between the generating company/transmission licensee and the beneficiaries/long term transmission customers on year to year basis. Any under/over recovery on account of direct settlement of tax liability shall be subject to the final adjustment at the time of true up exercise."

17. In view of our above order the prayer of the petitioner will be taken care of after amendment of the regulations.

INTEREST ON LOAN

18. 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 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 provisions on the arbitration settlement or to the court.~~

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 re-financing of loan."

19. In our calculation, the interest on loan has been worked out as detailed below:

(i) Details of net outstanding loan as on 31.3.2009, cumulative repayment up to 31.3.2009, rate of interest for Bonds, repayment

schedule for the loans, etc, have been taken from the order dated 1.9.2008 in Petition No. 63/2008 for working out weighted average rate of interest.

- (ii) Tariff has been worked out considering normative loan and normative repayments. Depreciation allowed has been taken as normative repayment for the period 2009-14.
- (iii) Weighted average rate of interest on actual loan worked out as above has been applied on the average loan during the year to arrive at the interest on loan.

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

(₹ in lakh)						
Details of loan	Up to 31.3.2009	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Normative Loan	3286.54	3286.54	3286.54	3286.54	3286.54	3286.54
Cumulative Repayment up to Previous Year		1078.92	1305.17	1531.42	1757.67	1983.92
Net Loan-Opening		2207.62	1981.37	1755.12	1528.87	1302.62
Addition due to Additional Capitalisation		0.00	0.00	0.00	0.00	0.00
Repayment during the year		226.25	226.25	226.25	226.25	226.25
Net Loan-Closing		1981.37	1755.12	1528.87	1302.62	1076.37
Average Loan		2094.49	1852.24	1641.99	1415.74	1180.42
Weighted Average Rate of Interest on Loan		8.4782%	8.4782%	8.4782%	8.4782%	8.4782%
Interest		173.34	153.06	132.68	112.12	92.81

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

DEPRECIATION

22. 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.

xxxx
xxxx

(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.

(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."

23. The deprecation has been worked out on the admitted capital expenditure of ₹ 4596.06 lakh as on 31.3.2009. Cumulative depreciation up to 31.3.2009 has been taken as per order dated 1.2.2008 in Petition No.63/2008.

24. For the period 1.4.2009 to 31.3.2014 the depreciation works out to ₹ 226.25 lakh each year by applying rate of depreciation of 4.9227% as shown below:

[₹ in lakh]

Details of Depreciation		Up to 31.3.2009	2009-10	2010-11	2011-12	2012-13	2013-14
As per order dated 1.9.2008		4596.06	4596.06	4596.06	4596.06	4596.06	4596.06
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			4596.06	4596.06	4596.06	4596.06	4596.06
Average gross block			4596.06	4596.06	4596.06	4596.06	4596.06
Rate of Depreciation			4.9227%	4.9227%	4.9227%	4.9227%	4.9227%
Depreciable Value	90%		4104.86	4104.86	4104.86	4104.86	4104.86
Elapsed Life			6	7	8	9	10
Balance Useful life of the asset			-	-	-	-	-
Remaining Depreciable Value			3053.89	2827.64	2601.39	2375.14	2148.89
Depreciation			226.25	226.25	226.25	226.25	226.25

OPERATION & MAINTENANCE EXPENSES

25. 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:

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

26. The petitioner has claimed O & M expenses for 0.946 Ckt.km and 10 bays, which has 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
Transmission lines (0.946 km)	0.59	0.63	0.66	0.70	0.74
O&M expenses for 10 bays	476.84	504.14	532.99	563.46	595.68
Total	477.43	504.77	533.65	564.16	596.42

27. 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 hike w.e.f 1.1.2007 is more than 50%. The petitioner has further submitted that O & M norms for the period 2009-14, the cost associated with license fees had not been captured and the licence fee be allowed to be recovered separately from the respondents. The petitioner has not made any claim towards wage hike and licence fee in the present petition, these issues shall be considered after making the application by the petitioner in this regard.

INTEREST ON WORKING CAPITAL

28. 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 of 2 months transmission charges claimed in the petition. In the tariff being allowed, receivables have been worked out on the basis of 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

1.4.2009. The value of maintenance spares works out to ₹ 71.61 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.

29. 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	71.61	75.72	80.05	84.62	89.46
O & M expenses	39.79	42.06	44.47	47.01	49.70
Receivables	190.49	191.82	193.41	195.25	197.61
Total	301.89	309.60	317.92	326.89	336.77
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	36.98	37.93	38.95	40.04	41.25

TRANSMISSION CHARGES

30. 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	226.25	226.25	226.25	226.25	226.25
Interest on Loan	173.34	153.06	132.68	112.12	92.81
Return on Equity	228.92	228.92	228.92	228.92	228.92
Interest on Working Capital	36.98	37.93	38.95	40.04	41.25
O & M Expenses	477.43	504.77	533.65	564.16	596.42
Total	1142.92	1150.93	1160.44	1171.50	1185.65

Application fee and the publication expenses

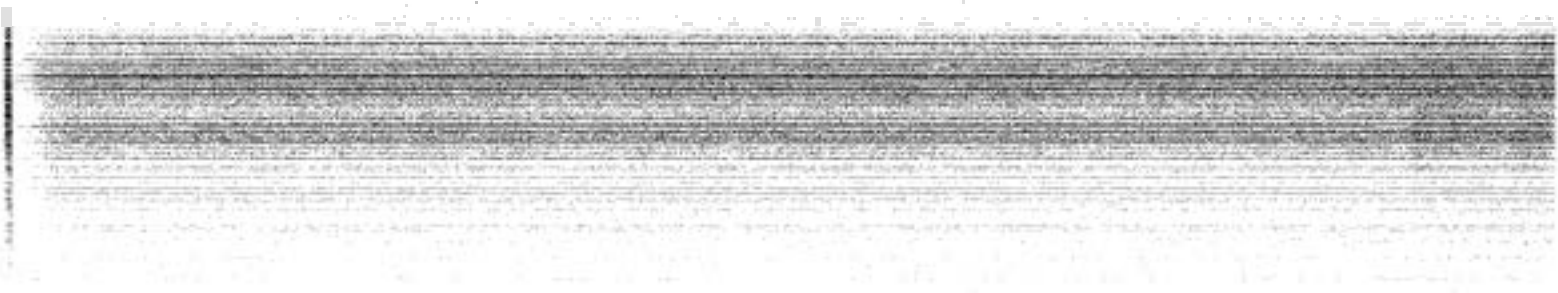
31. The petitioner has sought approval for the reimbursement of fee paid by it for filing the petition. In accordance with our decision in order dated 11.1.2010 in Petition No. 109/2009, the petitioner shall be entitled to recover the filing fees from the beneficiaries.

32. 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 beneficiaries on pro rata basis.

33. In addition to the transmission charges, the petitioner shall be entitled to other charges like income-tax, incentive, surcharge and other cess and taxes in accordance with the 2009 regulations.



[Handwritten signature]



sd/-
(M. DEENA DAYALAN)
MEMBER

sd/-
(V.S. VERMA)
MEMBER

- 34. The transmission charges allowed shall be recovered on monthly basis in accordance with Regulation 23 and shall be shared by the respondents in accordance with Regulation 33 of the 2009 regulations.
- 35. This order disposes of Petition No. 71/2010.

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN

(₹ in Lakh)

Details of Loan	2009-10	2010-11	2011-12	2012-13	2013-14
1 Bond-IX					
Gross loan opening	552.00	552.00	552.00	552.00	552.00
Cumulative Repayment up to the date of commercial operation/previous year	331.20	386.40	441.60	496.80	552.00
Net Loan-Opening	220.80	165.60	110.40	55.20	0.00
Additions during the year	0.00	0.00	0.00	0.00	0.00
Repayment during the year	55.20	55.20	55.20	55.20	0.00
Net Loan-Closing	165.60	110.40	55.20	0.00	0.00
Average Loan	193.20	138.00	82.80	27.60	0.00
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	23.67	16.91	10.14	3.38	0.00
Rep Schedule	10 Annual Instalment from 31.7.2006				
2 Bond-XIII Option-I					
Gross loan opening	1500.00	1500.00	1500.00	1500.00	1500.00
Cumulative Repayment up to the date of commercial operation/previous year	375.00	500.00	625.00	750.00	875.00
Net Loan-Opening	1125.00	1000.00	875.00	750.00	625.00
Additions during the year	0.00	0.00	0.00	0.00	0.00
Repayment during the year	125.00	125.00	125.00	125.00	125.00
Net Loan-Closing	1000.00	875.00	750.00	625.00	500.00
Average Loan	1062.50	937.50	812.50	687.50	562.50
Rate of Interest	8.63%	8.63%	8.63%	8.63%	8.63%
Interest	91.69	80.91	70.12	59.33	48.54
Rep Schedule	12 Annual Instalment from 23.2.2008				
3 BOND XV					
Gross loan opening	905.00	905.00	905.00	905.00	905.00
Cumulative Repayment up to the date of commercial operation /previous year	150.83	226.25	301.67	377.08	452.50
Net Loan-Opening	754.17	678.75	603.33	527.92	452.50
Additions during the year	0.00	0.00	0.00	0.00	0.00
Repayment during the year	75.42	75.42	75.42	75.42	75.42
Net Loan-Closing	678.75	603.33	527.92	452.50	377.08
Average Loan	718.46	641.04	565.63	490.21	414.79
Rate of Interest	6.68%	6.68%	6.68%	6.68%	6.68%
Interest	47.86	42.82	37.78	32.75	27.71
Rep Schedule	12 Annual Instalment from 22.3.2005				
Total Loan					
Gross loan opening	2957.00	2957.00	2957.00	2957.00	2957.00
Cumulative Repayment up to the date of commercial operation /previous year	857.03	1112.65	1368.27	1623.88	1879.50
Net Loan-Opening	2099.97	1844.35	1588.73	1333.12	1077.50
Additions during the year	0.00	0.00	0.00	0.00	0.00
Repayment during the year	255.62	255.62	255.62	255.62	200.42
Net Loan-Closing	1844.35	1588.73	1333.12	1077.50	877.08
Average Loan	1972.16	1716.54	1460.93	1205.31	977.29
Rate of Interest	8.2762%	8.1928%	8.0802%	7.9198%	7.8024%
Interest	163.22	140.63	118.05	95.46	76.25

Summary Sheet

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

Name of the Region: SOUTHERN REGION

Name of the Project: SYSTEM STRENGTHENING SCHEME III IN SOUTHERN REGION

Name of the Transmission Element or Communication System: Combined assets of SRSS-II (Hiriyur s/s ICT, LILO Dev-Hoody, Bays at Kolar & Hosur)

Date of Commercial operation : 01-Feb-2004

Rs. in Lacs

Particulars	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	0	226.25	226.25	226.25	226.25	226.25
Interest on Loan	0	173.35	153.06	132.68	112.12	92.82
Return on Equity	0	244.54	253.5	253.75	253.75	256.8
Int. on Working Capital	0	37.31	38.44	39.46	40.56	41.84
Op. and Maintenance	0	477.43	504.77	533.65	564.16	596.42
Total		1158.88	1176.02	1185.79	1196.84	1214.13

(Petitioner)



Calculation of Return on Equity

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

Name of the Region: SOUTHERN REGION

Name of the Project: SYSTEM STRENGTHENING SCHEME-II IN SOUTHERN REGION

Name of the Transmission Element or Communication System: Combined assets of SRSS-II (Hiriyur s/s ICT, LILO Dev-Hoody, Bays at Kolar & Hosur)

Date of Commercial operation: 01-Feb-2004

Rs. in Lacs

Particulars	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Opening Equity	0	1309.52	1309.52	1309.52	1309.52	1309.52
Notional Equity on Add Cap	0	0	0	0	0	0
Total Equity	0	1309.52	1309.52	1309.52	1309.52	1309.52
Average Equity	0	1309.52	1309.52	1309.52	1309.52	1309.52
Rate of Return on Equity (%)	0	18.674	19.358	19.377	19.377	19.61
Return on Equity	0	244.54	253.5	253.75	253.75	256.8

(Petitioner)



Details of Transmission Lines and Substations, Communication System

Name of the Petitioner: Power Grid Corporation of India Limited

Name of the Region: SOUTHERN REGION

Name of the Project: SYSTEM STRENGTHENING SCHEME-II IN SOUTHERN REGION

Name of the Transmission element or Communication system: Combined assets of SRSS-II (Hiriyur s/s ICT, LILO Dev-Hoody, Bays at Kolar & Hosur)

Date of Commercial Operation: 01-Feb-2004

Transmission Lines:

Sl.No.	Name of Line	Type of Line AC/MVDC	SVC or D/C	No. of Sub- Conductors	Voltage level KV	Line Length CKT. KM	Line length	Date of Commercial operation	Covered in the present petition	
									Yes/No	If No, petition No.
1	LILO OF DAVENGERE-HOODY AT HIRIYUR	AC	DC	2	400 KV	1.892	0.946	1-Feb-04	Y	

Substations:

Sl. No.	Name of Sub-st.	Type of Substation	Voltage level KV	No. of transform- ers / Reactors/ SVC etc.	No. of Bays				Date of Commercial operation	Covered in the present petition	
					765 KV	400 KV	220 KV	132 KV & below		Yes/No	If No, petition No.
1	HIRIYUR-Davangere I (Guttur I)		400		1				1-Feb-04	Y	
2	HIRIYUR-Davangere II (Guttur II)		400		1				1-Feb-04	Y	
3	HIRIYUR-Hoody I (Neelmangala I)		400		1				1-Feb-04	Y	
4	HIRIYUR-Hoody II (Neelmangala II)		400		1				1-Feb-04	Y	
5	HIRIYUR-ICT I		400		1				1-Feb-04	Y	
6	HIRIYUR-ICT I		220			1			1-Feb-04	Y	
7	HIRIYUR-Hiriyur		220			1			1-Feb-04	Y	
8	HIRIYUR-Chitradurga		220			1			1-Feb-04	Y	
9	HOSUR-0		400		2				1-Feb-04	Y	
	Total				7	3					

Communication
System:

Sl. No.	Name of Communication System	Type of Communication System	Technical Particulars	Number / length	Date of Commercial operation	Covered in the present petition	
						Yes/No	If No, petition No.



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Calculation of Depreciation Rate

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

Name of the Region: SR-II

Name of the Project: SYSTEM STRENGTHENING SCHEME-II IN SOUTHERN REGION

Name of the Transmission Element: Combined assets of SRSS-II (Hiriyur s/s ICT, LHO Dev-Hoody, Bays at Kolar & Hosur)

Date of Commercial Operation: 01-Feb-2004

Particulars	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	Rs. in Lacs
Depreciable Value		4104.86	4104.86	4104.86	4104.86	4104.86	4104.86
Balance useful life of the asset (at the beginning of year)		20	19	18	17	15	15
Elapsed life of the asset (at the beginning of the year)		5	6	7	8	10	10
Remaining Depreciable Value		3053.89	2827.64	2601.39	2375.14	2148.89	2148.89
Depreciation during the year		226.25	226.25	226.25	226.25	226.25	226.25
Depreciation upto previous year		1050.97	1277.22	1503.47	1729.72	1955.97	1955.97
Cumulative depreciation (incl. of AAD)		1277.22	1503.47	1729.72	1955.97	2182.22	2182.22
Average Net Normative Loan		0	0	0	0	0	0

Petitioner



9

33



Sl. No.	Particulars	Gross block at the beginning of the year	Add Cap during the year	Gross block at the end of the year	Average Gross Block	Dep. Rate	Amount
1	FREEHOLD LAND	35.1	0	35.1	35.1	0	0
2	BUILDING	825.47	0	825.47	825.47	3.34	27.57
3	TR LINE	138.6	0	138.6	138.6	5.28	7.32
4	SUB STATION	3459.16	0	3459.16	3459.16	5.28	182.64
5	PLCC	137.73	0	137.73	137.73	6.33	8.72
6	LEASEHOLD LAND	0	0	0	0	3.34	0
	Total	4596.06	0	4596.06	4596.06		226.25
	Weighted Average Rate of Depreciation						4.92
	Lapsed life						9
2012-2013							
1	FREEHOLD LAND	35.1	0	35.1	35.1	0	0
2	BUILDING	825.47	0	825.47	825.47	3.34	27.57
3	TR LINE	138.6	0	138.6	138.6	5.28	7.32
4	SUB STATION	3459.16	0	3459.16	3459.16	5.28	182.64
5	PLCC	137.73	0	137.73	137.73	6.33	8.72
6	LEASEHOLD LAND	0	0	0	0	3.34	0
	Total	4596.06	0	4596.06	4596.06		226.25
	Weighted Average Rate of Depreciation						4.92
	Lapsed life						9
2013-2014							
1	FREEHOLD LAND	35.1	0	35.1	35.1	0	0
2	BUILDING	825.47	0	825.47	825.47	3.34	27.57
3	TR LINE	138.6	0	138.6	138.6	5.28	7.32
4	SUB STATION	3459.16	0	3459.16	3459.16	5.28	182.64
5	PLCC	137.73	0	137.73	137.73	6.33	8.72
6	LEASEHOLD LAND	0	0	0	0	3.34	0
	Total	4596.06	0	4596.06	4596.06		226.25
	Weighted Average Rate of Depreciation						4.92
	Lapsed life						9

Date of Commercial Operation: 01-Feb-2004

Name of the Transmission Element: Combined assets of SRSS-II (Hiriyur s/s ICT, LLO Dev-Hoody, Bays at Kolar & Hosur)

Name of the Project: SYSTEM STRENGTHENING SCHEME-II IN SOUTHERN REGION

Name of the Region: SR-II

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

Calculation of Depreciation Rate

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: SOUTHERN REGION

Name of the Project: SYSTEM STRENGTHENING SCHEME-II IN SOUTHERN REGION

Name of the Transmission Element or Communication System: Combined assets of SRSS-II (Hiriyur s/s ICT, LLO Dev-Hoody

Date of Commercial Operation: 01-Feb-2004

Particulars	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
BOND IX-DOCO - 01-FEB-2004-1						
Gross Opening Loan	0	470	470	470	470	470
Cumulative Repayments of Loans upto	0	282	329	376	423	470
Net Loans Opening	0	188	141	94	47	0
Add: Drawl(s) during the year	0	0	0	0	0	0
Less: Repayment(s) of Loan during the year	0	47	47	47	47	0
Net Closing Loan	0	141	94	47	0	0
Average Net Loan	0	164.5	117.5	70.5	23.5	0
Rate of Interest on Loan	0	12.25	12.25	12.25	12.25	12.25
Interest on Loan	0	20.15	14.39	8.64	2.88	0
BOND IX-DOCO - 01-SEP-2003-1						
Gross Opening Loan	0	82	82	82	82	82
Cumulative Repayments of Loans upto	0	49.2	57.4	65.6	73.8	82
Net Loans Opening	0	32.8	24.6	16.4	8.2	0
Add: Drawl(s) during the year	0	0	0	0	0	0
Less: Repayment(s) of Loan during the year	0	8.2	8.2	8.2	8.2	0
Net Closing Loan	0	24.6	16.4	8.2	0	0
Average Net Loan	0	28.7	20.5	12.3	4.1	0
Rate of Interest on Loan	0	12.25	12.25	12.25	12.25	12.25
Interest on Loan	0	3.52	2.51	1.51	0.5	0
BOND - XIII - Option - I-DOCO - 01-FEB-2004-						
Gross Opening Loan	0	1277	1277	1277	1277	1277
Cumulative Repayments of Loans upto	0	319.25	425.67	532.09	638.51	744.93
Net Loans Opening	0	957.75	851.33	744.91	638.49	532.07
Add: Drawl(s) during the year	0	0	0	0	0	0
Less: Repayment(s) of Loan during the year	0	106.42	106.42	106.42	106.42	106.42
Net Closing Loan	0	851.33	744.91	638.49	532.07	425.65
Average Net Loan	0	904.54	798.12	691.7	585.28	478.86
Rate of Interest on Loan	0	8.63	8.63	8.63	8.63	8.63
Interest on Loan	0	78.06	68.88	59.69	50.51	41.33



28

9

(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: SOUTHERN REGION

Name of the Project: SYSTEM STRENGTHENING SCHEME-II IN SOUTHERN REGION

Name of the Transmission Element or Communication System: Combined assets of SRS5-II (Hilnur s/s ICT, LLO Dev-Hoody

Date of Commercial Operation: 01-Feb-2004

Rs. in Lacs

BOND - XIII - Option - I-DOCO - 01-SEP-2003-	0	223	223	223	223	223	223	223	223
Gross Opening Loan	0	223	223	223	223	223	223	223	223
Cumulative Repayments of Loans upto	0	55.75	74.33	92.91	111.49	130.07	167.25	148.67	130.09
Net Loans Opening	0	167.25	148.67	130.09	111.51	92.93	0	0	0
Add: Drawl(s) during the year	0	0	0	0	0	0	0	0	0
Less: Repayment(s) of Loan during the year	0	18.58	18.58	18.58	18.58	18.58	18.58	18.58	18.58
Net Closing Loan	0	148.67	130.09	111.51	92.93	74.35	148.67	130.09	111.51
Average Net Loan	0	148.67	130.09	111.51	92.93	74.35	148.67	130.09	111.51
Average Net Loan	0	157.96	139.38	120.8	102.22	83.64	157.96	139.38	120.8
Rate of Interest on Loan	0	8.63	8.63	8.63	8.63	8.63	8.63	8.63	8.63
Interest on Loan	0	13.63	12.03	10.43	8.82	7.22	13.63	12.03	10.43
BOND XV-DOCO - 01-FEB-2004-1									
Gross Opening Loan	0	733	733	733	733	733	733	733	733
Cumulative Repayments of Loans upto	0	122.17	183.25	244.33	305.41	366.49	610.83	488.67	427.59
Net Loans Opening	0	610.83	549.75	488.67	427.59	366.51	610.83	549.75	488.67
Add: Drawl(s) during the year	0	0	0	0	0	0	0	0	0
Less: Repayment(s) of Loan during the year	0	61.08	61.08	61.08	61.08	61.08	61.08	61.08	61.08
Net Closing Loan	0	549.75	488.67	427.59	366.51	305.43	549.75	488.67	427.59
Average Net Loan	0	580.29	519.21	458.13	397.05	335.97	580.29	519.21	458.13
Rate of Interest on Loan	0	6.68	6.68	6.68	6.68	6.68	6.68	6.68	6.68
Interest on Loan	0	38.76	34.68	30.6	26.52	22.44	38.76	34.68	30.6
BOND XV-DOCO - 01-SEP-2003-1									
Gross Opening Loan	0	172	172	172	172	172	172	172	172
Cumulative Repayments of Loans upto	0	28.66	42.99	57.32	71.65	85.98	143.34	129.01	114.68
Net Loans Opening	0	143.34	129.01	114.68	100.35	86.02	143.34	129.01	114.68
Add: Drawl(s) during the year	0	0	0	0	0	0	0	0	0
Less: Repayment(s) of Loan during the year	0	14.33	14.33	14.33	14.33	14.33	14.33	14.33	14.33
Net Closing Loan	0	129.01	114.68	100.35	86.02	71.69	129.01	114.68	100.35
Average Net Loan	0	136.18	121.85	107.52	93.19	78.86	136.18	121.85	107.52
Rate of Interest on Loan	0	6.68	6.68	6.68	6.68	6.68	6.68	6.68	6.68
Interest on Loan	0	9.1	8.14	7.18	6.23	5.27	9.1	8.14	7.18

(Petitioner)



40

9

17
24



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: SOUTHERN REGION					
Name of the Project: SYSTEM STRENGTHENING SCHEME-II IN SOUTHERN REGION					
Name of the Transmission Element or Communication System: Combined assets of SRSS-II (Hiriyur s/s ICT, LIL0 Dev-Hoody					
Date of Commercial Operation: 01-Feb-2004					
RS. in Lacs					
Summary	0	2957	2957	2957	2957
Gross Opening Loan	0	2957	2957	2957	2957
Cumulative Repayments of Loans upto	0	857.03	1112.64	1368.25	1623.86
Net Loans Opening	0	2099.97	1844.36	1588.75	1333.14
Add: Drawl(s) during the year	0	0	0	0	0
Less: Repayment(s) of Loan during the year	0	255.61	255.61	255.61	255.61
Net Closing Loan	0	1844.36	1588.75	1333.14	1077.53
Average Net Loan	0	1972.17	1716.56	1460.95	1205.34
Rate of Interest on Loan	0	8.2762	8.1925	8.0804	7.9198
Interest on Loan	0	163.22	140.63	118.05	95.46
					76.26
(Petitioner)					

Calculation of Interest on Normative Loan

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

Name of the Region: SOUTHERN REGION

Name of the Project: SYSTEM STRENGTHENING SCHEME-II IN SOUTHERN REGION

Name of the Transmission Element or Communication System: Combined assets of SRSS-II (Hiriyur s/s ICT, LILO Dev-Hoody, Bays at Kolar & Hosur)

Date of Commercial Operation: 01-Feb-2004

Rs. in Lacs

Particulars	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Normative Loan Opening	0	3286.54	3286.54	3286.54	3286.54	3286.54
Cumulative Repayments of Normative Loans	0	1078.92	1305.17	1531.42	1757.67	1983.92
Net Normative Loans Opening	0	2207.62	1981.37	1755.12	1528.87	1302.62
Increase/Decrease due to ACE during the year	0	0	0	0	0	0
Less: Repayment(s) of Normative Loan during	0	226.25	226.25	226.25	226.25	226.25
Net Closing Normative Loan	0	1981.37	1755.12	1528.87	1302.62	1076.37
Average Net Normative Loan	0	2094.5	1868.25	1642	1415.75	1189.5
Rate of Interest on Loan	0	8.2762	8.1925	8.0804	7.9198	7.8029
Weighted average rate of interest on actual	0	173.35	153.06	132.68	112.12	92.82

(Petitioner)



Calculation of Interest on Working Capital

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

Name of the Region: SOUTHERN REGION

Name of the Project: SYSTEM STRENGTHENING SCHEME-II IN SOUTHERN REGION

Name of the Transmission Element: Combined assets of SRSS-II (Hiriyur s/s ICT, LILO Dev-Hoody, Bays at Kolar & Hosur)

Date of Commercial Operation: 01-Feb-2004

Particulars	Rs. in Lacs					
	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Op. and Maintenance	0	39.79	42.06	44.47	47.01	49.7
Maintenance Spares	0	71.61	75.72	80.05	84.62	89.46
Receivables	0	193.15	196	197.63	199.47	202.36
Total working capital	0	304.55	313.78	322.15	331.1	341.52
Rate of Interest	0	12.25	12.25	12.25	12.25	12.25
Interest on working capital	0	37.31	38.44	39.46	40.56	41.84

(Petitioner)



Summary Sheet

Name of the Transmission Licensee: Power Grid Corporation of India Limited
 Name of the Region: SR-II
 Name of the Project: SYSTEM STRENGTHENING SCHEME - II IN SOUTHERN REGION
 Name of the Transmission Element or Communication System: Combined assets of SRSS-II (Hiriyur s/s ICT, LILO Dev-Hoody, Bays at Kolar & Hosur)

Date of Commercial operation : 01-Feb-2004

						Rs. in Lacs
Particulars	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	226.25	226.25	226.25	113.09	113.1	113.08
Interest on Loan	92.82	74.91	57.02	43.41	33.48	22.75
Return on Equity	228.92	256.8	256.8	256.8	256.8	256.8
Int. on Working Capital	41.25	43.19	43.79	41.91	42.76	43.62
Op. and Maintenance	596.42	549.4	567.62	586.48	605.96	626.03
Total	1185.66	1150.55	1151.48	1041.69	1052.1	1062.28

(Petitioner)

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2



Name of the Petitioner: Power Grid Corporation of India Limited
 Name of the Region: SR-II
 Name of the Project: SYSTEM STRENGTHENING SCHEME-II IN SOUTHERN REGION
 Name of the Transmission element or Communication system: Combined assets of SSS-II (Hiriyur s/s ICT, LILIO Dev-Hoody, Bays at Kolar & Hosur)
 Date of Commercial Operation: 01-Feb-2004

Transmission Lines:

Sl.No.	Name of Line	Type of Line AD, HVDC	S/C or D/C	No. of Sub- Conductors	Voltage level KV	Line length Ckt. KM	Line length	Date of Commercial operation	Covered in the present petition Yes/No If No, petition No.
1	LILIO OF DAVENGERE-HOODY AT HIRIYUR		DC	2		0.946	0.946	1-Feb-04	Y

Substations:

Sl. No.	Name of Sub-station	Type of Substation	Voltage level KV	No. of Transformers / Reactors/ SVC etc.	No. of Bays			Date of Commercial operation	Covered in the present petition	
					765 KV	400 KV	220 KV		132 KV & below	Yes/No
1	HIRIYUR-Davangere I (Guttur I)		400		1			1-Feb-04	Y	
2	HIRIYUR-Davangere II (Guttur II)		400		1			1-Feb-04	Y	
3	HIRIYUR-Hoody I (Meenargala I)		400		1			1-Feb-04	Y	
4	HIRIYUR-Hoody II (Meenargala II)		400		1			1-Feb-04	Y	
5	HIRIYUR-ICT I		400		1			1-Feb-04	Y	
6	HIRIYUR-ICT I		220			1		1-Feb-04	Y	
7	HIRIYUR-Hiriyur		220			1		1-Feb-04	Y	
8	HIRIYUR-Chitradurga		220			1		1-Feb-04	Y	
9	HOSUR-Q		400		2			1-Feb-04	Y	
900	Total				7	3				

Communication Systems:

Sl. No.	Name of Communication System	Type of Communication System	Technical Particulars	Number / length	Date of Commercial operation	Covered in the present petition	
						Yes/No	If No, petition No.



[Petitioner]

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

Name of the Region :: SR

Name of the Project :: SYSTEM STRENGTHENING SCHEME-II IN SOUTHERN REGION

Name of the Transmission Element or Communication System :: Combined assets of SRSS-II (Hiriyur s/s ICT, LILU Dev-Hoody, Bays at Kolar & Hosur)

Date of Commercial Operation: 01-Feb-2004

Particulars	Unit	Existing	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%	11.33%	11.33%	11.33%	11.33%	11.33%
Effective tax rate	%	17.48%	17.48%	17.48%	17.48%	17.48%	17.48%
Target availability	%						
Normative O&M per KM	Rs. Lakh						
Double Circuit (Bundle conductor with four sub-conductors)	Rs. Lakh	1.174	1.062	1.097	1.133	1.171	1.21
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 sub-conductors)	Rs. Lakh	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
Balla-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	%	13.2	13.2	13.2	13.2	13.2	13.2

(Petitioner)



48

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: SR

Name of the Project: SYSTEM STRENGTHENING SCHEME-II IN SOUTHERN REGION

Name of the Transmission Element or Communication system: Combined assets of SRSS-II (Hiriyur s/s ICT, ULO Dev-Hoody, Bays at Kolar & Hosur)

Name of the Assets		Balance brought forward	Asset-1	Asset-2	Asset-3	Total Capital Expenditure admitted
DOCO			1-Feb-04			
Petition Number						
Tariff order Date						
Particulars		Capital Expenditure admitted	Capital Expenditure admitted	Capital Expenditure admitted	Capital Expenditure admitted	
Apportioned approved Cost/Revised cost estimates, if any (with reference and date of approval)						
FREEHOLD LAND	0	35.1	35.1	0	0	35.1
BUILDING	0	825.47	825.47	0	0	825.47
TR LINE	0	138.6	138.6	0	0	138.6
SUB STATION	0	3459.16	3459.16	0	0	3459.16
PLCC	0	137.73	137.73	0	0	137.73
LEASEHOLD LAND	0	0	0	0	0	0
Total	0	4596.06	4596.06	0	0	4596.06
Notional Loan	0	3286.64	3286.64	0	0	3286.64
Notional Equity	0	1309.42	1309.42	0	0	1309.42
Total	0	4596.06	4596.06	0	0	4596.06
Debt-Equity Ratio						
Debt	0	3286.64	3286.64	0	0	3286.64
Equity	0	1309.42	1309.42	0	0	1309.42
Total	0	4596.06	4596.06	0	0	4596.06
Cumulative amount of Depreciation	0	2182.22	2182.22	0	0	2182.22
Cumulative Repayment of Loan	0	2210.17	2210.17	0	0	2210.17
Initial Spares*	0					

(Petitioner)



tab

2

Financial Package upto COD (Block Year- 2014-2019)

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

Name of the Region: SR-II

Name of the Project: SYSTEM STRENGTHENING SCHEME-II IN SOUTHERN REGION

Name of the Transmission Element or Communication Element: Combined assets of SRSS-II (Hiriyur s/s ICT, LILO Dev-Hoody, Bays at Kolar & Hosur)

Date of commercial Operation: 01-Feb-2004

Rs. In Lakhs

Particulars	Financial Package as Approved		Financial Package as on COD		As Admitted by COD	
	Currency	Amount	Currency	Amount	Currency	Amount
Loans						
Loans-Domestic	INR		INR			
Loans-Foreign			INR	0		
Total Loans	INR		INR	0	INR	3286.64
Equity						
Foreign						
Domestic	INR		INR	0		
Notional						
Total Equity	INR		INR	0	INR	1309.42
Debt Equity Ratio						
Total Cost	INR		INR	0	INR	4596.06
	Debt	Equity	Total			
Total Capital cost with Addcap						



58

Financing of Additional Capitalisation

Name of the Petitioner: Power Grid Corporation of India Limited

Name of the Region: SR-II

Name of the Project: SYSTEM STRENGTHENING SCHEME-II IN SOUTHERN REGION

Name of the Transmission Element or Communication System: Combined assets of SRSS-II (Hiriyur s/s ICT, LILO Dev-Hoody, Bays at Kolar & Hosur)

Date of Commercial Operation: 01-Feb-2004

Amount in Lakhs

Financial Year	Actual/Projected					Admitted				
	2014-15	2015-16	2016-17	2017-18	2018-19					
Amount Capitalised in Work/Equipment										
Financing Details										
Loan	0	0	0	0	0					
Total Loan	0	0	0	0	0					
Equity	0	0	0	0	0					
Total	226.25	226.25	113.09	113.1	113.08					

(Petitioner)



9

9

85

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Form 8						
Calculation of Return on Equity						
Name of the Transmission Licensee: Power Grid Corporation of India Limited						
Name of the Region: SR-II						
Name of the Project: SYSTEM STRENGTHENING SCHEME-II IN SOUTHERN REGION						
Name of the Transmission Element or Communication System: Combined assets of SRSS-II (Hiriyur s/s ICT, LIL0 Dev-Hoody, Bays at Kolar & Hosur)						
Date of Commercial operation: 01-Feb-2004						
Particulars	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	1309.52	1309.52	1309.52	1309.52	1309.52	1309.52
Notional Equity on Add Cap	0	0	0	0	0	0
Total Equity	1309.52	1309.52	1309.52	1309.52	1309.52	1309.52
Average Equity	1309.52	1309.52	1309.52	1309.52	1309.52	1309.52
Rate of Return on Equity (%)	17.481	19.61	19.61	19.61	19.61	19.61
Return on Equity	228.92	256.8	256.8	256.8	256.8	256.8
Rs. in Lacs						
(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: SR-II

Name of the Project: SYSTEM STRENGTHENING SCHEME-II IN SOUTHERN REGION

Name of the Transmission Element or Communication System: Combined assets of SRSS-II (Hiriyur s/s ICT, LII

Date of Commercial Operation: 01-Feb-2004

Particulars	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19

BOND IX-DOCO - 01-FEB-2004-1

Gross Opening Loan

Cumulative Repayments of Loans upto

Previous Year

Net Loans Opening

Add: Drawl(s) during the year

Less: Repayment(s) of loan during the year

Net Closing Loan

Average Net Loan

Rate of Interest on Loan

Interest on Loan

BOND IX-DOCO - 01-SEP-2003-1

Gross Opening Loan

Cumulative Repayments of Loans upto

Previous Year

Net Loans Opening

Add: Drawl(s) during the year

Less: Repayment(s) of loan during the year

Net Closing Loan

Average Net Loan

Rate of Interest on Loan

Interest on Loan

BOND - XIII - Option - I-DOCO - 01-FEB-2004-1

Gross Opening Loan

Cumulative Repayments of Loans upto

Previous Year

Net Loans Opening

Add: Drawl(s) during the year

Less: Repayment(s) of loan during the year

Net Closing Loan

Average Net Loan

Rate of Interest on Loan

Interest on Loan

BOND IX-DOCO - 01-FEB-2003-1

Gross Opening Loan

Cumulative Repayments of Loans upto

Previous Year

Net Loans Opening

Add: Drawl(s) during the year

Less: Repayment(s) of loan during the year

Net Closing Loan

Average Net Loan

Interest on Loan

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: SR-II

Name of the Project: SYSTEM STRENGTHENING SCHEME-II IN SOUTHERN REGION

Name of the Transmission Element or Communication System: Combined assets of SRSS-II (Hiriyur s/s ICT, LII

Date of Commercial Operation: 01-Feb-2004

Particulars	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19

BOND IX-DOCO - 01-FEB-2004-1

Gross Opening Loan

Cumulative Repayments of Loans upto

Previous Year

Net Loans Opening

Add: Drawl(s) during the year

Less: Repayment(s) of loan during the year

Net Closing Loan

Average Net Loan

Rate of Interest on Loan

Interest on Loan

BOND IX-DOCO - 01-SEP-2003-1

Gross Opening Loan

Cumulative Repayments of Loans upto

Previous Year

Net Loans Opening

Add: Drawl(s) during the year

Less: Repayment(s) of loan during the year

Net Closing Loan

Average Net Loan

Rate of Interest on Loan

Interest on Loan

BOND - XIII - Option - I-DOCO - 01-FEB-2004-1

Gross Opening Loan

Cumulative Repayments of Loans upto

Previous Year

Net Loans Opening

Add: Drawl(s) during the year

Less: Repayment(s) of loan during the year

Net Closing Loan

Average Net Loan

Rate of Interest on Loan

Interest on Loan

BOND IX-DOCO - 01-FEB-2003-1

Gross Opening Loan

Cumulative Repayments of Loans upto

Previous Year

Net Loans Opening

Add: Drawl(s) during the year

Less: Repayment(s) of loan during the year

Net Closing Loan

Average Net Loan

Interest on Loan

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: SR-II

Name of the Project: SYSTEM STRENGTHENING SCHEME-II IN SOUTHERN REGION

Name of the Transmission Element or Communication System: Combined assets of SRSS-II (Hiriyur s/ICT, LI

Date of Commercial Operation: 01-Feb-2004

	Rate of Interest on Loan	8.63	8.63	8.63	8.63	8.63	8.63	8.63	8.63
Interest on Loan	7.22	32.14	22.96	13.77	4.59	0			
BOND - XIII - Option - I-DOCO - 01-SEP-2003-1									
Gross Opening Loan	223	223	223	223	223	223	223	223	223
Cumulative Repayments of Loans upto Previous Year	130.07	148.65	167.23	185.81	204.39	222.97			
Net Loans Opening	92.93	74.35	55.77	37.19	18.61	0.03			
Add: Drawl(s) during the year	0	0	0	0	0	0			
Less: Repayment(s) of loan during the year	18.58	18.58	18.58	18.58	18.58	18.58			
Net Closing Loan	74.35	55.77	37.19	18.61	0.03	0.03			
Average Net Loan	83.64	65.06	46.48	27.9	9.32	0.03			
Rate of Interest on Loan	8.63	8.63	8.63	8.63	8.63	8.63			
Interest on Loan	7.22	5.61	4.01	2.41	0.8	0			
BOND XV-DOCO - 01-FEB-2004-1									
Gross Opening Loan	172	733	733	733	733	733			
Cumulative Repayments of Loans upto Previous Year	85.98	427.57	488.65	549.73	610.81	671.89			
Net Loans Opening	86.02	305.43	244.35	183.27	122.19	61.11			
Add: Drawl(s) during the year	0	0	0	0	0	0			
Less: Repayment(s) of loan during the year	14.33	61.08	61.08	61.08	61.08	61.08			
Net Closing Loan	71.69	244.35	183.27	122.19	61.11	0.03			
Average Net Loan	78.86	274.89	213.81	152.73	91.65	30.57			
Rate of Interest on Loan	6.68	6.68	6.68	6.68	6.68	6.68			
Interest on Loan	5.27	18.36	14.28	10.2	6.12	2.04			
BOND XV-DOCO - 01-SEP-2003-1									
Gross Opening Loan	172	172	172	172	172	172			
Cumulative Repayments of Loans upto Previous Year	85.98	100.31	114.64	128.97	143.3	157.63			
Net Loans Opening	86.02	71.69	57.36	43.03	28.7	14.37			
Add: Drawl(s) during the year	0	0	0	0	0	0			
Less: Repayment(s) of loan during the year	14.33	14.33	14.33	14.33	14.33	14.33			
Net Closing Loan	71.69	57.36	43.03	28.7	14.37	0.04			
Average Net Loan	78.86	64.53	50.2	35.87	21.54	7.21			
Rate of Interest on Loan	6.68	6.68	6.68	6.68	6.68	6.68			





53

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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: SR-II						
Name of the Project: SYSTEM STRENGTHENING SCHEME-II IN SOUTHERN REGION						
Name of the Transmission Element or Communication System: Combined assets of SRSS-II (Hiriyur s/s ICT, LII)						
Date of Commercial Operation: 01-Feb-2004						
Interest on Loan	5.27	4.31	3.35	2.4	1.44	0.48
Summary						
Gross Opening Loan	2957	2957	2957	2957	2957	2957
Cumulative Repayments of Loans upto Previous Year	1879.47	2079.88	2280.29	2480.7	2681.11	2881.52
Net Loans Opening	1077.53	877.12	676.71	476.3	275.89	75.48
Add: Drawl(s) during the year	0	0	0	0	0	0
Less: Repayment(s) of loan during the year	200.41	200.41	200.41	200.41	200.41	75.41
Net Closing Loan	877.12	676.71	476.3	275.89	75.51	0.1
Average Net Loan	977.33	776.92	576.51	376.1	175.71	37.79
Rate of Interest on Loan	7.8	7.78	7.74	7.65	7.37	6.67
Interest on Loan	76.26	60.42	44.6	28.78	12.95	2.52

(Petitioner)



58

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ANNUAL REPORT 2008-2009

Schedule 05 A - Secured Loans

Description As at 31st March, 2009 As at 31st March, 2008 (Rupees in Crore)

LOANS THROUGH BONDS

BONDS VI SERIES

13% Taxable, Secured, Redeemable, Non-cumulative, Non-convertible Bonds of Rs.1000/- each redeemable at par in 10 (ten) equal annual installments from 6th December, 2002

40.00 30.00

BONDS VIII SERIES

10.35% Taxable, Secured, Redeemable, Non-Cumulative, Non-convertible Bonds of Rs.1000/-each redeemable at par in 10 (Ten) equal annual installments w.e.f. 27th April, 2005

14.00 12.00

BONDS IX SERIES

12.25% Taxable, Secured, Redeemable, Non-cumulative, Non-convertible Bonds of Rs. 1,00,000/- each redeemable at par in 10 (Ten) equal annual installments w.e.f. 22nd August, 2003

288.25 230.60

BONDS X SERIES

10.90% Taxable, Secured, Redeemable, Non-cumulative, Non-convertible Bonds of Rs. 12 lakh each redeemable at par in 12 (twelve) equal annual installments w.e.f. 21.06.2004

507.68 444.21

BONDS XI SERIES

9.80% Taxable, Secured, Redeemable, Non-Cumulative, Non-convertible Bonds of Rs. 25 lakh each, redeemable at par in 12 (twelve) equal annual installments w.e.f. 07-12-2005

170.00 147.75

Secured by way of Registered Bond Trust Deed ranking pari passu on immovable property situated at Mouje Ambheri, Taluka Kaparada in District Valsad, Gujarat and mortgage & hypothecation on assets of Anta, Auriya, Moga-Bhiwani, Chamera-Kishenpur, Sasaram-Allahabad, L.L.O of Singrauli-Kanpur and Allahabad Sub-Station

Schedule 05 A - Secured Loans (Contd.)

(Rupees in Crores)

March 2009 March 2008

34.50

441.76

128.35

b) 9.20% Taxable, Secured, Redeemable, Non-Cumulative, Non-Convertible Bonds of Rs. 3 crore each consisting of 6

STRPPs of Rs. 50 lakh each, redeemable at par in 6 (six) equal annual installments w.e.f. 07-12-2003

Secured by way of Registered Bond Trust Deed ranking pari passu, on immovable property situated at Mouje Ambher, Taluka Kaparda in District Valsad, Gujarat and mortgage & hypothecation on assets of UJ Transmission System

BONDS XI

9.70% Taxable, Secured, Redeemable, Non-Cumulative, Non-Convertible Bonds of Rs. 1.5 crore each consisting of 12 STRPPs of Rs. 12.50 lakh each, redeemable at par in 12 (twelve) equal annual installments w.e.f. 28.03.2006.

Secured by way of Registered Bond Trust Deed ranking pari passu on immovable property situated at Mouje Kaparda in District Valsad, Gujarat and mortgage and hypothecation on assets of Kayankulam & Ramagundam Hydrabad Transmission System

BONDS XII

a) 8.63% Taxable, Secured, Redeemable, Non-Cumulative, Non-Convertible Bonds of Rs. 1.5 crore each consisting of 12 STRPPs of Rs. 12.50 lakh each, redeemable at par in 12 (twelve) equal annual installments w.e.f. 31.07.2006.

Secured by way of Registered Bond Trust Deed ranking pari passu on immovable property situated at Mouje Ambher, Taluka Kaparda in District Valsad, Gujarat and mortgage & hypothecation on assets of Kishanour, Moga & Duihast Contingency Transmission System

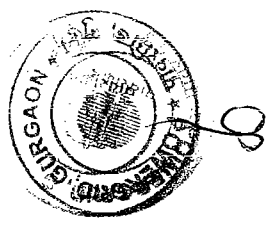
b) 7.85% Taxable, Secured, Redeemable, Non-Cumulative, Non-Convertible Bonds of Rs. 1.5 crore each consisting of 06 STRPPs of Rs. 25 lakh each, redeemable at par in 6 (six) equal annual installments w.e.f. 31.07.2003

Secured by way of Registered Bond Trust Deed ranking pari passu on immovable property situated at Mouje Ambher, Taluka Kaparda in District Valsad, Gujarat and mortgage & hypothecation on assets of NLC Lines (M) & Duihast Contingency Transmission System

9.10% Taxable, Secured, Redeemable, Non-Cumulative, Non-Convertible Bonds of Rs. 1.5 crore each consisting of 12 STRPPs of Rs. 12.50 Lakhs each redeemable at par in 12 (twelve) equal annual installments w.e.f. 17.07.2004.

Secured by way of Registered Bond Trust Deed ranking pari passu on immovable property situated at Mouje Ambher Taluka Kaparda in District Valsad, Gujarat and floating charge on the assets of the Company.

ANNUAL REPORT 2008-2009



58



52

ANNUAL REPORT 2008-2009

Description		(Rupees in Crore)	
		As at 31st March, 2009	As at 31st March, 2008

BONDS XV SERIES

6.68% Taxable, Secured, Non-Convertible Bonds of Rs. 12,50 lakhs each redeemable at par in 12 (twelve) equal annual installments w.e.f. 23.02.2008. Secured by way of Registered Bond Trust Deed ranking part passu on immovable property situated at Mouje Ambhet, Taluka Kaparada in district Valsad, Gujarat and floating charge on the assets of the Company.

BONDS XVI SERIES

7.10% Taxable, Secured, Redeemable, Non-Convertible, Non-Cumulative Bonds of Rs. 1,00 crore each consisting of 10 STRPPs annual installments w.e.f. 18.02.2009. Secured by way of Registered Bond Trust Deed ranking part passu on immovable property situated at Mouje Ambhet, Taluka Kaparada in district Valsad, Gujarat and floating charge on the assets of the Company.

BONDS XVII SERIES

7.39% Taxable, Secured, Redeemable, Non-Convertible, Non-Cumulative Bonds of Rs. 1,00 Crore each consisting of 10 STRPPs of Rs. 10,00 lakh each redeemable at par in 10 (ten) equal annual installments w.e.f. 22.09.2009. Secured by way of Registered Bond Trust Deed ranking part passu on immovable property situated at Mouje Ambhet, Taluka Kaparada in district Valsad, Gujarat and floating charge on the assets of the Company.

BONDS XVIII SERIES

8.15% Taxable, Secured, Redeemable, Non-Convertible, Non-Cumulative Bonds of Rs. 1,50 crore each consisting of 12 STRPPs of Rs. 12,50 lakh each redeemable at par in 12 (twelve) equal annual installments w.e.f. 09.03.2010. Secured by way of Registered Bond Trust Deed ranking part passu on immovable property situated at Mouje Ambhet, Taluka Kaparada in district Valsad, Gujarat and floating charge on the assets of the Company.

9.75% Taxable, Secured, Redeemable, Non-Convertible, Non-Cumulative Bonds of Rs. 1,50 crore each consisting of 12 STRPPs of Rs. 12,50 lakh each redeemable at par in 12 (twelve) equal annual installments w.e.f. 24.07.2010. Secured by way of Registered Bond Trust Deed ranking part passu on immovable property situated at Mouje Ambhet, Taluka Kaparada in district Valsad, Gujarat and floating charge on the assets of the Company.

495.00	495.00
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999.00	999.00
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1000.00	1000.00
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750.00	675.00
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825.00	750.00
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Calculation of Interest on Normative Loan

Name of the Transmission Licensee: Power Grid Corporation of India Limited									
Name of the Region: SR-II									
Name of the Project: SYSTEM STRENGTHENING SCHEMES IN SOUTHERN REGION									
Name of the Transmission Element or Communication System: Combined assets of SRSS-II (Hiriyur s/s ICT, LLO Dev-Hoody, Bays at Kolar & Hosur)									
Date of Commercial Operation: 01-Feb-2004									
Particulars	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	Rs. in Lacs		
Gross Normative Loan Opening	3286.54	3286.54	3286.54	3286.54	3286.54	3286.54	3286.54	3286.54	3286.54
Cumulative Repayments of Normative Loans upto Previous Year	1983.92	2210.17	2436.42	2662.67	2775.76	2888.86			
Net Normative Loans Opening	1302.62	1076.37	850.12	623.87	510.78	397.68			
Increase/Decrease due to ACE during the year	0	0	0	0	0	0			
Less: Repayment(s) of Normative Loan during the year	226.25	226.25	226.25	113.09	113.1	113.08			
Net Closing Normative Loan	1076.37	850.12	623.87	510.78	397.68	284.6			
Average Net Normative Loan	1189.5	963.25	737	567.33	454.23	341.14			
Rate of Interest on Loan	7.8	7.78	7.74	7.65	7.37	6.67			
Weighted average rate of interest on actual Loans	92.82	74.91	57.02	43.41	33.48	22.75			
(Petitioner)									



9

Calculation of Depreciation Rate

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

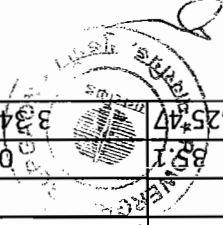
Name of the Region: SR-II

Name of the Project: SYSTEM STRENGTHENING SCHEME-II IN SOUTHERN REGION

Name of the Transmission Element or Communication System: Combined assets of SRSS-II (Hiriyur s/s ICT, LIL)

Date of Commercial Operation: 01-Feb-2004

Sl. No.	Particulars	Gross block at the beginning	Add Cap during the year	Gross block at the end of the year	Average Gross Block	Dep. Rate	Amount
1	FREEHOLD LAND	35.1	0	35.1	35.1	0	0
2	BUILDING	825.47	0	825.47	825.47	3.34	27.57
3	TR LINE	138.6	0	138.6	138.6	5.28	7.32
4	SUB STATION	3459.16	0	3459.16	3459.16	5.28	182.64
5	PLCC	137.73	0	137.73	137.73	6.33	8.72
6	LEASEHOLD LAND	0	0	0	0	3.34	0
	Total	4596.06	0	4596.06	4596.06		226.25
	Weighted Average Rate of Depreciation						4.92
	Lapsed life						11
1	FREEHOLD LAND	35.1	0	35.1	35.1	0	0
2	BUILDING	825.47	0	825.47	825.47	3.34	27.57
3	TR LINE	138.6	0	138.6	138.6	5.28	7.32
4	SUB STATION	3459.16	0	3459.16	3459.16	5.28	182.64
5	PLCC	137.73	0	137.73	137.73	6.33	8.72
6	LEASEHOLD LAND	0	0	0	0	3.34	0
	Total	4596.06	0	4596.06	4596.06		226.25
	Weighted Average Rate of Depreciation						4.92
	Lapsed life						12
1	FREEHOLD LAND	35.1	0	35.1	35.1	0	0
2	BUILDING	825.47	0	825.47	825.47	3.34	27.57
3	TR LINE	138.6	0	138.6	138.6	5.28	7.32
4	SUB STATION	3459.16	0	3459.16	3459.16	5.28	182.64
5	PLCC	137.73	0	137.73	137.73	6.33	8.72
6	LEASEHOLD LAND	0	0	0	0	3.34	0
	Total	4596.06	0	4596.06	4596.06		226.25
	Weighted Average Rate of Depreciation						4.92
	Lapsed life						13
1	FREEHOLD LAND	35.1	0	35.1	35.1	0	0
2	BUILDING	825.47	0	825.47	825.47	3.34	27.57
3	TR LINE	138.6	0	138.6	138.6	5.28	7.32
4	SUB STATION	3459.16	0	3459.16	3459.16	5.28	182.64
5	PLCC	137.73	0	137.73	137.73	6.33	8.72
6	LEASEHOLD LAND	0	0	0	0	3.34	0
	Total	4596.06	0	4596.06	4596.06		226.25
	Weighted Average Rate of Depreciation						4.92
	Lapsed life						13



Calculation of Depreciation Rate

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

Name of the Region: SR-II

Name of the Project: SYSTEM STRENGTHENING SCHEME-II IN SOUTHERN REGION

Name of the Transmission Element or Communication System: Combined assets of SRSS-II (Hiriyur s/s ICT, LIL0

Date of Commercial Operation: 01-Feb-2004

Sl. No.	Particulars	Gross block at the beginning	Add Cap during the year	Gross block at the end of the year	Average Gross Block	Dep. Rate	Amount	
3	TR LINE	138.6	0	138.6	138.6	5.28	7.32	
4	SUB STATION	3459.16	0	3459.16	3459.16	5.28	182.64	
5	PLCC	137.73	0	137.73	137.73	6.33	8.72	
6	LEASEHOLD LAND	0	0	0	0	3.34	0	
	Total	4596.06	0	4596.06	4596.06		226.25	
	Weighted Average Rate of Depreciation							4.92
	Lapsed life							14
1	FREEHOLD LAND	35.1	0	35.1	35.1	0	0	
2	BUILDING	825.47	0	825.47	825.47	3.34	27.57	
3	TR LINE	138.6	0	138.6	138.6	5.28	7.32	
4	SUB STATION	3459.16	0	3459.16	3459.16	5.28	182.64	
5	PLCC	137.73	0	137.73	137.73	6.33	8.72	
6	LEASEHOLD LAND	0	0	0	0	3.34	0	
	Total	4596.06	0	4596.06	4596.06		226.25	
	Weighted Average Rate of Depreciation							4.92
	Lapsed life							15

(Petitioner)



2/2

59

62

Calculation of Interest on Working Capital

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

Name of the Region : SR-II

Name of the Project: SYSTEM STRENGTHENING SCHEME - II IN SOUTHERN REGION

Name of the Transmission Element: Combined assets of SRSS-II (Hiriyur s/s ICT, LIL0 Dev-Hoody, Bays at Kolar & Hosur)

Date of Commercial Operation: 01-Feb-2004

Particulars	Rs. in Lacs									
	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19				
Op. and Maintenance	41.7	45.78	47.3	48.87	50.5	52.17				
Maintenance Spares	89.46	82.41	85.14	87.97	90.89	93.9				
Receivables	197.61	191.76	191.91	173.62	175.35	177.05				
Total working capital	336.77	319.95	324.35	310.46	316.74	323.12				
Rate of Interest	12.25	13.5	13.5	13.5	13.5	13.5				
Interest on working capital	41.25	43.19	43.79	41.91	42.76	43.62				

(Petitioner)

