

BEFORE

THE CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

PETITION FOR

APPROVAL OF TRANSMISSION TARIFF
for

Asset-I: LILO of 400 kV D/C Kolhapur – Mapusa at 400 kV Kolhapur GIS (New) along with associated bays and Asset-II: 125 MVar Bus Reactor along with associated bays at 400 kV Kolhapur GIS (New) under Transmission System associated with “System Strengthening – XVII in Southern Regional Grid”

In

Western Region.

PETITION NO. :

TARIFF BLOCK:2014 - 2019

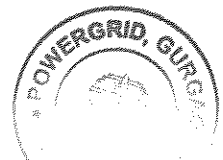
POWER GRID CORPORATION OF INDIA LTD.

REGISTERED OFFICE

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

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 and CERC (Terms and Conditions of Tariff) Regulations '2014 for determination of Transmission Tariff from DOCO to 31.03.2019 for **Asset-I:** LILO of 400 kV D/C Kolhapur – Mapusa at 400 kV Kolhapur GIS (New) along with associated bays and **Asset-II:** 125 MVAR Bus Reactor along with associated bays at 400 kV Kolhapur GIS (New) under Transmission System associated with “System Strengthening – XVII in Southern Regional Grid” in Western Region for 2014-19 Tariff Period.

Power Grid Corporation of India Ltd.

--- **PETITIONER**

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

Tamil Nadu Generation and Distribution Corporation ----- **RESPONDENTS**

Ltd (Formerly Tamilnadu Electricity Board -TNEB)
NPKRR Maaligai, 800, Anna Salai
Chennai – 600 002
Represented by its Chairman And Others

To


The Secretary
Central Electricity Regulatory Commission
New Delhi 110001
Sir,

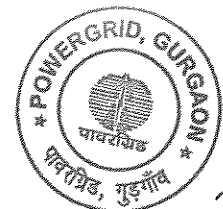
The application filed under Regulation 86 of CERC (Conduct of Business) Regulation, 1999 and CERC (Terms and Conditions of Tariff) Regulations '2014 for determination of Transmission tariff from DOCO to 31.03.2019 may please be registered.

**FILED BY
POWER GRID CORPORATION OF INDIA LTD.**

REPRESENTED BY

**GURGAON
DATED: 27/10.2015**


**Prahlad Saraswat
Dy. General Manager (Commercial)**



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

PETITION NO.:

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Tamil Nadu Generation and Distribution Corporation
Ltd (Formerly Tamilnadu Electricity Board -TNEB)
NPKRR Maaligai, 800, Anna Salai
Chennai – 600 002
Represented by its Chairman
And Others

--- RESPONDENTS

MEMO OF PARTIES

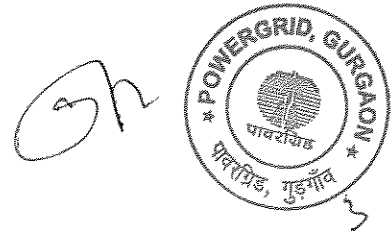
Power Grid Corporation of India Ltd.

---PETITIONER

VERSUS

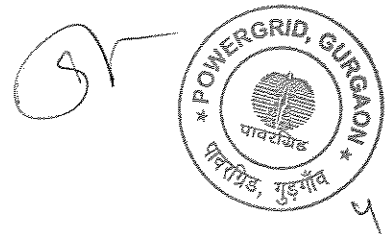
- 1 Karnataka Power Transmission Corporation Ltd.,
(KPTCL), Kaveri Bhavan, Bangalore – 560 009
Represented by its Chairman
- 2 Transmission Corporation of Andhra Pradesh Ltd.,
(APTRANSCO), Vidyut Soudha, Hyderabad– 500082
Represented by its Chairman
- 3 Kerala State Electricity Board (KSEB)
Vaidyuthi Bhavanam
Pattom, Thiruvananthapuram – 695 004
Represented by its Chairman
- 4 Tamilnadu Electricity Board (TNEB)
NPKRR Maaligai, 800, Anna Salai
Chennai – 600 002

--- RESPONDENTS

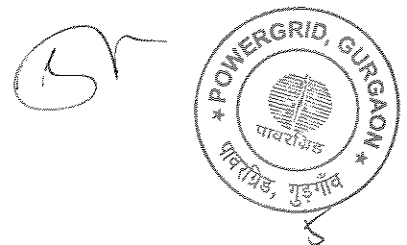


Represented by its Chairman

- 5 Electricity Department
Government of Goa
Vidyuti Bhawan, Panaji
Goa 403001
Represented by Chief Engineer (Electrical)
- 6 Electricity Department
Govt of Pondicherry,
Pondicherry - 605001
Represented by its Chief Secretary
- 7 Eastern Power Distribution Company of Andhra Pradesh
Limited (APEPDCL)
APEPDCL, P&T Colony,
Seethmmadhara, VISHAKHAPATNAM
Andhra Pradesh,
Represented by its Managing Director
- 8 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
- 9 Central Power Distribution Company of Andhra Pradesh
limited (APCPDCL)
Corporate Office, Mint Compound,
HYDERABAD – 500 063
Andhra Pradesh
Represented by Its Managing Director
- 10 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
- 11 Bangalore Electricity Supply Company Ltd.,
(BESCOM), Corporate Office, K.R.Circle
BANGALORE – 560 001
Karnataka
Represented by Its Managing Director



- 12 Gulbarga Electricity Supply Company Ltd., (GESCOM)
Station Main Road, GULBURGA
Karnataka
Represented by Its Managing Director
- 13 Hubli Electricity Supply Company Ltd., (HESCOM)
Navanagar, PB Road
HUBLI, Karnataka
Represented by Its Managing Director
- 14 MESCOM Corporate Office,
Paradigm Plaza, AB Shetty Circle
MANGALORE – 575 001
Karnataka
Represented by Its Managing Director
- 15 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
- 16 IL & FS Tamil Nadu Power Company Limited
B-Block, 4th Floor,
Navin's Presidium
103, Nelson Manickam Road
Aminjikarai
Chennai – 600 029
Tamil Nadu
Represented by Its Managing Director
- 17 PEL Power Limited
8-2-293/A/76,
Road No 9A, Jubilee Hills
Hyderabad – 500 033
Andhra Pradesh
Represented by Its Managing Director
- 18 MADHYA PRADESH POWER MANAGEMENT
COMPANY LTD.
Shakti Bhawan, RAMPU
Jabalpur – 482 008
Represented by its MD
- 19 MAHARASHTRA STATE ELECTRICITY
DISTRIBUTION CO. LTD.
Hongkong Bank Building, 3rd FLOOR
M.G. ROAD, FORT, Mumbai-400001.
represented by its MD




- 20 GUJARAT URJA VIKAS NIGAM LTD.
Sardar Patel Vidyut Bhawan,
Racecourse road
Vadodara – 390 007
Represented by its chairman
- 21 ELECTRICITY DEPARTMENT
GOVT. OF GOA
Vidyut bhawan, Panaji,
Near Mandvi hotel, GOA – 403 001
Represented by its Chief Engineer (electrical)
- 22 ELECTRICITY DEPARTMENT
Administration of Daman & Diu
Daman – 396 210
Represented by its Secretary (fin.)
- 23 ELECTRICITY DEPARTMENT
Administration of Dadra Nagar Haveli
U.T., Silvassa – 396 230
Represented by its secretary (fin.)
- 24 CHHATTISGARH STATE ELECTRICITY BOARD
P.O.Sunder nagar, Dangania, Raipur
Chhatisgaarh-492013
Represented by its Chairman
- 25 MADHYAPRADESH AUDYOGIK KENDRA
Vikas Nigam (Indore) LTD.
3/54, Press Complex, AGRA-BOMBAY ROAD,
INDORE-452 008

FILED BY
POWER GRID CORPORATION OF INDIA LTD.

REPRESENTED BY

GURGAON
DATED 22/10.2015


Prahlad Saraswat
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 and CERC (Terms and Conditions of Tariff) Regulations '2014 for determination of Transmission Tariff from DOCO to 31.03.2019 for **Asset-I:** LILO of 400 kV D/C Kolhapur – Mapusa at 400 kV Kolhapur GIS (New) along with associated bays and **Asset-II:** 125 MVAR Bus Reactor along with associated bays at 400 kV Kolhapur GIS (New) under Transmission System associated with “System Strengthening – XVII in Southern Regional Grid” in Western Region for 2014-19 Tariff Period.

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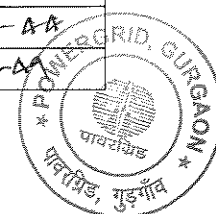
Tamil Nadu Generation and Distribution Corporation ----- RESPONDENTS
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NPKRR Maaligai, 800, Anna Salai
Chennai – 600 002

Represented by its Chairman
And Others

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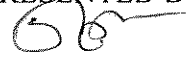




10	Copy of Order dated 12.08.2015	Encl-5	50-51
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**FILED BY
POWER GRID CORPORATION OF INDIA LTD.**

REPRESENTED BY

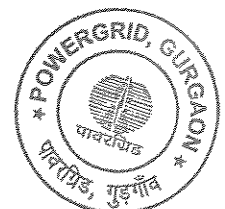


(Prahlad Saraswat)

Dy. General Manager (Commercial)

GURGAON

DATED: 22/10.2015



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**BEFORE
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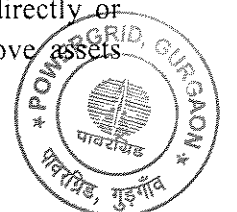
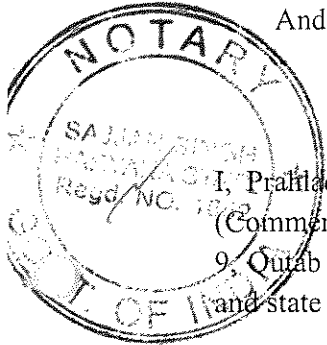
NPKRR Maaligai, 800, Anna Salai
Chennai – 600 002

Represented by its Chairman
And Others

Affidavit verifying the Petition

I, Pralhad Saraswat, S/O Late Sh. R. M. Saraswat working as Deputy General Manager (Commercial) in the Power Grid Corporation of India Ltd., having its registered Office at B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi-110 016, do hereby solemnly affirm and state as under:-

1. I am the Deputy General Manager in Power Grid Corporation of India Ltd., the representative of the Petitioner in the above matter, and am duly authorised to make this affidavit.
2. I submit that the enclosed tariff Petition is being filed for determination of Transmission Tariff for 2014-19 Block for **Asset-I:** LILO of 400 kV D/C Kolhapur – Mapusa at 400 kV Kolhapur GIS (New) along with associated bays and **Asset-II:** 125 MVAR Bus Reactor along with associated bays at 400 kV Kolhapur GIS (New) under Transmission System associated with “System Strengthening – XVII in Southern Regional Grid” in Western Region.
3. I submit that no other tariff Petition except this Petition has been filed directly or indirectly for approval of Transmission Tariff for 2014-19 Block for above assets



under Transmission System associated with "System Strengthening – XVII in Southern Regional Grid" in Western Region.

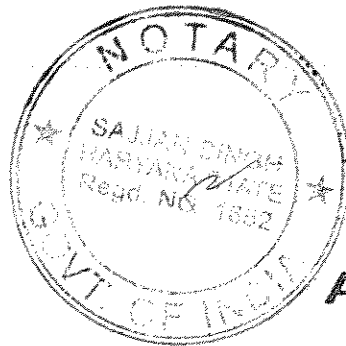
4. The statements made in the tariff Petition herein are based on petitioner company's official records maintained in the ordinary course of business and I believe them to be true and correct.
5. The documents attached with the petition are legible copies and duly attested by me.


(DEPONENT)

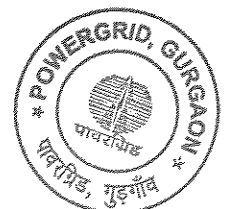
VERIFICATION

Solemnly affirmed at Gurgaon on this ^{27th}...day of **October, 2015** that the contents of the above affidavit are true to my knowledge and belief and no part of it is false and nothing material has been concealed there from.


(DEPONENT)



ATTESTED
27/10/2015
SAJJAN SINGH
ADVOCATE & NOTARY
AT GURGAON



BEFORE
THE CENTRAL ELECTRICITY REGULATORY COMMISSION
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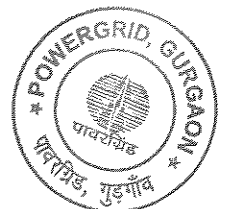
Represented by its Chairman
And Others

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 CERC (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.

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- 3.0 The petitioner being CTU and deemed transmission licensee is required to inter-alia build, maintain and operate an efficient, co-ordinated and economical interstate transmission system (ISTS). The tariff for the said transmission systems shall be determined by the Hon'ble Commission in accordance with the CERC (Terms and Conditions of Tariff) Regulations, 2014.
- 4.0 That the instant petition covers approval of transmission tariff for **Asset-I:** LILO of 400 kV D/C Kolhapur – Mapusa at 400 kV Kolhapur GIS (New) along with associated bays and **Asset-II:** 125 MVAR Bus Reactor along with associated bays at 400 kV Kolhapur GIS (New) under Transmission System associated with “System Strengthening – XVII in Southern Regional Grid” in Western Region.

5.0 Approval of the Scheme

- 5.1 That the petitioner has been entrusted with the implementation of Transmission System associated with “System Strengthening – XVII in Southern Regional Grid” in Southern Region. The investment approval of the project was accorded by Board of Directors of POWERGRID in 273rd meeting held on 27.06.2012 & circulated vide the Memorandum Ref.: C/CP/SRSS-XVII dated 02.07.2012, at an estimated cost of ₹1508.74 Crores including IDC of ₹61.97 Crores, price level – April-2012, a copy whereof is attached hereto as **Encl-1, page 3 to 4**.

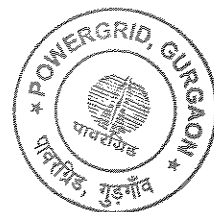
The scope of the scheme was discussed and agreed in the 31st & 33rd SCM of Southern Region Constituents held on 16-11-2010 & 20-10-2011 respectively. Subsequently the scheme was discussed and approved in the 18th Meeting of SRPC held on 23-12-2011. Extracts of the MOMs of 31st & 33rd SCMs and 18th SRPC meetings are enclosed collectively as **Encl-2 page 5 to 7**.

- 5.2 The scope of work covered under “System Strengthening – XVII in Southern Regional Grid” is as follows:

Transmission Line

- (i) Narendra (New, Kudgi) – Kolhapur (New) 765 kV D/C Transmission Line (initially charged at 400kV).
- (ii) LILO of both circuits of Kolhapur – Mapusa 400 kV D/C Transmission line at Kolhapur (New).
- (iii) Narendra (New, Kudgi) – Narendra (Existing) 400 kV D/C Quad Transmission Line

SR



Sub Station

- (i) Establishment of 765/400kV GIS Substation at Narendra (New, Kudgi), (Initially charged at 400kV).
- (ii) Establishment of 765/400kV GIS Substation at Kolhapur (New), (Initially charged at 400kV).
- (iii) Extension of 400/220kV Substation at Narendra (AIS).

The Schematic diagram of the scheme is Enclosed at Encl-3 . . . Page 4/10

Petitioner has already filed petition for the assets as mentioned below:

S. No.	Details of assets as filed in the Petition	Anticipated DOCO as per Petition	Actual DOCO	Petition no.	Filing date	Hearing Status
1.	Narendra (New, Kudgi) – Narendra (Existing) 400kV D/C Quad Transmission Line along with Establishment of 765/400kV GIS Substation at Narendra (New, Kudgi), (Initially charged at 400kV) and Bay Extn at Narendra (Existing)	15.05.2015		61/TT/2015	28.01.15	Awaited (Provisional Order issued –dated- 15.04.2015)
2.	Narendra (New, Kudgi) – Kolhapur (New) 765kV D/C Transmission Line (initially charged at 400kV along with associated Bays at Narendra (New, Kudgi) and Kolhapur (New)	15.05.2015				

Assets covered under instant petition are:

S.No	Details of assets being filed	Actual / Anticipated DOCO
1.	Asset-I: LILO of 400 kV D/C Kolhapur – Mapusa at 400 kV Kolhapur GIS (New) along with associated bays and	01.11.2015 (Ant.)
2.	Asset-II: 125 MVAR Bus Reactor along with associated bays at 400 kV Kolhapur GIS (New)	01.11.2015 (Ant.)

Anticipated DOCO for Asset I & II has been changed from 01.09.2015 to 01.11.2015. Tariff has been calculated based on earlier Anticipated DOCO of 01.09.2015 (Management Certificate available), however, tariff is claimed based on revised anticipated DOCO of 01.11.2015.

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On filing the Petition for the above mentioned Assets, scope of the Project stands completed.

6.0 Implementation Schedule

As per the Investment approval, the project System Strengthening - XVII in Southern Regional Grid was scheduled to be commissioned within 33 months from the date of Investment Approval i.e., by 26th March, 2015. The project is anticipated to be commissioned on 01st November, 2015 with an overall delay of about seven (07) months w.r.t the Investment Approval.

The reason for delay was mainly due to delay in award of Tower package for 765kV D/C Kudgi (New) – Kolhapur (New) Transmission Line and LILO of 400 kV D/C Kolhapur – Mapusa Transmission Line at Kolhapur Substation and 400kV GIS Kolhapur Substation package. It may be mentioned that the Petitioner took up the procurement of these tower and substation packages through the World Bank funding. These packages were covered under the Prior Review Procedure of the Bank as per the Bank's guidelines.

- **Tower Package**

In respect of the Tower Package, it is submitted that since there were substantial no. of tower packages under the instant World Bank funding, the procurement process was initiated with the bids invited on 22/03/2012 and the bidding documents were forwarded to the World Bank for their concurrence. After receipt of the Bank's 'No Objection' to the Bidding Documents of the subject package on 24/04/2012, the bids were opened on 08/05/2012 and after due diligence the Bid Evaluation Report was forwarded to the Bank on 03/07/2012. With serious concern raised by the Petitioner on extremely poor performance and capacity constraints of the bidder which would be extremely detrimental to the Petitioner's interest, after several round of discussions with the Bank, it was found appropriate to annul the bidding process and re-invite fresh bids for which Bank's 'No Objection' was received on 28/06/2013.

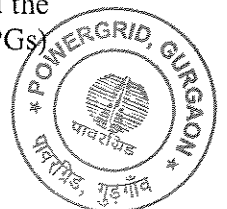
Accordingly, after the annulment of the said bidding process, fresh bidding process under the World Bank funding for the tower package were immediately initiated for which IFB (invitation for bids) was published on 20/08/2013. After evaluation of the bids and obtaining 'No-Objection' from the Bank to the Bid Evaluation Report on 04/11/2013, the award was placed on 26/11/2013.

- **Substation Package**

In respect of the Substation Package, it is submitted that the bidding documents were forwarded to the World Bank on 13/03/2012 for their clearance as per the Prior Review Procedure of the Bank. After receipt of the Bank's 'No Objection' to the Bidding Documents of the subject package on 16/05/2012, the procurement process was initiated on 22/05/2012 and the Bid Evaluation Report was forwarded to the Bank on 27/12/2012. After receipt of Bank's 'No Objection' on 14/01/2013, the award was placed on 05/02/2013. The agency M/s. Pinggao Group Co. Ltd., China [PINGGAO] (on whom the award was placed), however, did accept the order even after lot of follow ups due to disagreement regarding the scope of work. As PINGGAO neither signed the Contract Agreements nor submitted the Contract Performance Guarantees (CPGs)

OR

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within the prescribed time frame, the award on PINGGAO was annulled, after obtaining clearances from the World Bank in 24/06/2013.

After the annulment of the said bidding process, fresh bidding process for the package was immediately initiated and the Bidding Documents were issued to the Bidders on 13/08/2013. Simultaneously, the Bidding Documents were forwarded to World Bank on 30/08/2013 for their clearance. After obtaining 'No-Objection' to the Bidding Document from the Bank on 29/08/2013, bids were invited for which IFB was published on 15/10/2013. After evaluation of the bids and obtaining 'No-Objection' from the Bank to the Bid Evaluation Report on 21/12/2013, the award was placed on 12/02/2014.

From the above, it may be noted that the annulment of bidding processes and again starting the bidding processes afresh for the Tower and Substation packages has caused an unavoidable initial delay of 17 to 20 months.

• **Delay in Execution due to RoW Issues**

In addition to the initial delay, the Petitioner had faced severe RoW issues at two of the locations during the construction of the line, wherein Section 16 under Telegraph Act, 1885 had to be invoked. Due to stiff resistance from land owners, following cases under Section 16 of Telegraph Act, 1885 were filed in District Court:

- A. For location no. 7/2 (Loop Out), case was filed on 25/05/2015 against two persons namely Shri Ashok Nivrutti Patil and Smt Usha Madan.

The work at the said location could only be carried out after District Magistrate, Kolhapur had issued direction for resumption of construction work vide its order dated 12/08/2015.

Copy of the case filed is Enclosed at Encl- 4...Page 4,90.... and copy of Order is Enclosed at Encl-5 ...Page ...to.51

- B. For location no. 14/4 (Loop In) case was filed on 04/06/2015 against twelve persons namely Sh. Dhanpal Kinikar, Sh. Bhupal Kinikar, Sh. Bapu Borate, Sh. Khanu Borate, Sh. Baban Hajare, Sh. Vitthal Hajare, Sh. Ananad Hajare, Sh. Navala Hajare, Smt. Shobha Hajare, Sh. Sajjan Hajare, Sh. Sarang Dhere and Sh. Rahul Patil.

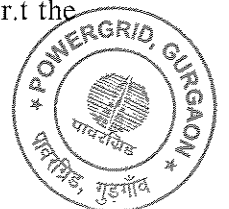
The work at the said location could only be carried out after District Magistrate, Kolhapur had issued direction for resumption of construction work vide its order dated 25/08/2015.

Copy of the case filed is Enclosed at Encl- 6...Page ...to.55 and copy of Order is Enclosed at Encl-7 ...Page ...to.51

From the above, it may be noted that despite substantial initial delay of more than 17 months and the delay of more than two months during execution due to court cases, which were beyond the control of the Petitioner, the Petitioner with its vast experience of project execution and by putting in its best efforts to complete the assets has been able to recover the delay of more than 10 months and the assets are now anticipated to be completed with a marginal delay of 7 months w.r.t the Investment Approval.

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The Petitioner therefore prays to this Hon'ble Commission to kindly condone the delay in commissioning of the assets and approve the full cost and tariff as claimed.

7.0 Completion Cost

7.1 That the application for determination of tariff is filed in line with provision 7 (2) of tariff Regulation 2014 applicable for 2014-19 period. Further, that the present petition covers approval of tariff based on estimated expenditure incurred up to DOCO and additional capitalization projected to be incurred from anticipated DOCO to 31.03.2019 in respect of the subject assets as per details given below. That the capital cost incurred upto DOCO and projected to be incurred during 2015-16, 2016-17 and 2017-18 is duly certified by Management in Management certificate; copy whereof in respect of the assets covered in this petition is enclosed herewith at **Encl-8 page 17 to 18**.

(₹ in Lakhs)

Name of the element	Approved Cost	Exp. Up to DOCO	Proposed Expenditure for FY			Estimated completion Cost
			2015-16	2016-17	2017-18	
Asset-I	17626.87	16001.75	2126.43	2064.21	335.00	20527.39
Asset-II	1545.92	1095.19	225.00	266.06	0.00	1586.25
Total	19172.79	17096.9	2351.43	2330.27	335.00	22113.64

Against the total approved cost of ₹ 191.73 Crores, the anticipated completed cost is ₹ 221.14 crores, so, there is cost overrun in comparison to FR cost. The reasons for item wise cost variation between approved cost (FR) and actual cost as on DOCO are explained below in detail as mentioned in Form-5.

1. Increase in Compensation Amount (Approx. 4.2 crores):

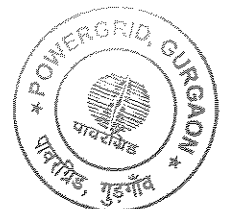
The higher side variation in this head is mainly due to increase in the amount towards Crop/ Tree Compensation based on the assessment by concerned state Revenue Authorities/ Horticulture Department. The Total expenditure also includes the estimated compensation for balance disbursement in line with guideline of state authority.

2. Increase in Cost of Transmission Line Material (Approx. 9.8 crores):

Due to increase in populated area and habitations the tapping point for LILO at Kolhapur - Mapusa T/L has been changed. The change in tapping point resulted into increased angle points whereas the line length was not affected much.

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Increased angle points resulted into increase in tower weight by 123.84 MT. Due to increased angle point type of Hardware fittings (Suspension to Tension fittings) have also changed and further increased the quantity of 160 KN Insulators.

Further, increase in cost is due to awarded rate also.

3. **Increase in cost of Civil works in Township & Colony, Roads and Drainage, Foundation for Structures, etc. (Approx. 18 crores):**

- a. There is high undulation in the ground in township area, thereby increasing the earthwork quantity in road works, building works, etc.
- b. Rock encountered at shallow depth.
- c. Increase in awarded cost w.r.t. FR cost.

RCE for the project is under preparation and shall be submitted as and when approved. Hence, it is humbly prayed that tariff may be allowed on the estimated completion cost.

Initial spares: The Initial spare for the Transmission lines for the assets covered in this petition is 0.90%, while for sub-stations is 5.00% & 4.88% (GIS) respectively.

(in lakhs)

Asset	T/L			Substation		
	Cost	Initial Spares	Initial spares as % of Capital Cost	Cost	Initial Spares	Initial spares as % of Capital Cost
Asset-I	6715.08	60.33	0.91%	7945.79	397.00	5.259%
Asset-II	Nil	Nil	Nil	1433.22	70.00	5.135%

7.2 The details of underlying assumptions for additional capitalization for this asset is summarized below:

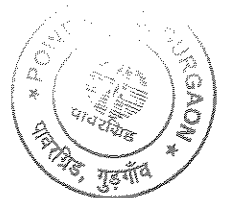
The admissibility of additional capital expenditure (Add. Cap.) incurred after DOCO is to be dealt in accordance with the provisions of Regulation 14, the extract of Regulation 14 of the regulations, 2014 is reproduced as under:

“Additional Capitalization”

(1) *The capital expenditure incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and upto the cut-off date may be admitted by the Commission, subject to prudence check:*

- (i) *Undischarged liabilities recognized to be payable at a future date;*
- (ii) *Works deferred for execution;*

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- (iii) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 13;
- (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law; and
- (v) Change in law or compliance of any existing law:
Provided that the details of works asset wise/work wise included in the original 48 scope of work along with estimates of expenditure, liabilities recognized to be payable at a future date and the works deferred for execution shall be submitted along with the application for determination of tariff.

7.3 The additional Capitalization incurred/projected to be incurred in the contextual asset is mainly on account of Balance/Retention Payments and hence the same may be allowed by Hon'ble Commission. The details of underlying reasons for additional capitalization for **Asset-I** and **Asset-II** under Transmission System associated with "System Strengthening – XVII in Southern Regional Grid" in Southern Region are given in Form -7.

That the petition for determination of tariff is being filed in line with Regulation 7 under chapter 3 of tariff Regulation 2014 applicable for 2014-19 period.

8.0 Addition ROE @ 0.5%,

Since the assets are anticipated to be commissioned with in CERC time line specified for claiming additional ROE of 0.5 %, following provisions of CERC (Terms and Conditions of Tariff) Regulations, 2014 may please be invoked.

Regulation 24: Return on equity

- (2) (i) in case of projects commissioned on or after 1st April, 2014, an additional return of 0.5% shall be allowed if such projects are completed within the time line specified in Appendix-I.

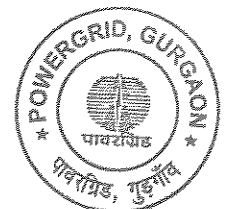
Appendix-I

Time line for completion of projects:

1. The completion time schedule shall be reckoned from the date of investment approval by the Board (of the generating company or the transmission licensee), or the CCEA clearance as the case may be, up to the date of commercial operation of the units or block or element of the transmission project as applicable.
2. The time schedule has been indicated in months in the following tables:

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Asset	Actual / Ant. Comp.		Qualifying Time line for Project as per CERC (Months)	Scheduled completion (Months)	Additional ROE Claimed
	Date	Month			
Asset-I	01.11.2015	40	38	33	NO
Asset-II	01.11.2015	40	40	33	YES

That the elements covered in this project have the time schedule stipulated as 36 months (for 765 kV Substation), 38 months (For 400 kV D/C Quad line) & 40 months for (For 765 kV D/C Line) in the Appendix-II to the Regulations. The elements covered in this project "Asset-I and Asset-II under Transmission System associated with System Strengthening – XVII in Southern Regional Grid", are anticipated to be completed within 40 months from the date of investment approval and therefore keeping in view the time-line for the Project as whole (considering the element with time-line as 38, months), qualify for additional ROE of 0.5% under Regulation 24 (2) of CERC (Terms and conditions of Tariff) Regulations, 2014.

However, since line length for Asset-I is less than 50 kms therefore Additional RoE for Asset-I is not being claimed. Asset-II qualifies in all respects for Additional RoE therefore Additional RoE for Asset-II is being claimed. Hon'ble Commission may kindly allow the same.

9.0 TRANSMISSION TARIFF for 2014-19 BLOCK:

9.1 The tariff for block 2014-2019 has been worked out as per CERC (Terms and Conditions of Tariff) Regulations, 2014. In the present petition the transmission tariff has been calculated taking estimated Expenditure upto DOCO and estimated expenditure from anticipated DOCO to 31.03.2019. Calculations for working out the tariff along with supporting documentation are attached hereto at **Encl-9**

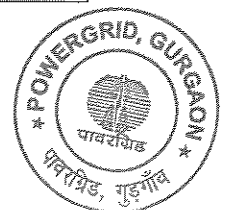
Page. 100 - 106 to 114

9.2 The annual transmission tariff for the tariff period 2014-19 is summarized as below:

(₹ in lakhs)

S. No.	Name of the asset	2014-15	2015-16	2016-17	2017-18	2018-19
1	Asset-I	---	1026.68	2716.82	2852.23	2861.84
2	Asset-II	---	89.22	246.83	264.49	264.78

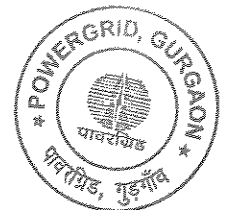
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Anticipated DOCO for Asset I & II has been changed from 01.09.2015 to 01.11.2015. Tariff has been calculated based on earlier Anticipated DOCO of 01.09.2015 (Management Certificate available), however, tariff is claimed based on revised anticipated DOCO of 01.11.2015.

While calculating Annual fixed charges O&M, 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

- 9.3 That, it is submitted that the petitioner being liable to pay income tax at MAT rate, the ROE has been calculated @ 19.61(Asset-I) & 20.243 % (Asset-II) after grossing up the ROE with MAT rate of 20.961% based on the rate prescribed by the Hon'ble Commission as per illustration under regulation 25 (2) (i) of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014. 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.
- 9.4 That as provided in clause 49 of the Tariff Regulations 2014, the deferred tax liability before 01.04.2009 shall be recovered from the beneficiaries or the long term customers /DICs as and when the same gets materialized.
- 9.5 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 9.2 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.
- 9.6 That Interest on Loan has been calculated on the basis of rate prevailing as on anticipated DOCO. 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.



- 9.7 The transmission charges at para-9.2 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 w.e.f. 1.1.2017 and actual impact of wage hike which will be effective from a future date has also not been factored in fixation of the normative O&M rates prescribed for the tariff block 2014-19. The scheme of wage revision applicable to CPSUs being binding on the petitioner, the petitioner reserves the right to approach the Hon'ble Commission for suitable revision in the norms for O&M expenditure for claiming the impact of wage hike from 01.01.2017 onwards.
- 9.8 The application filing fee, expenses incurred on publication of Notices in Newspapers and License fee may be allowed to be recovered separately from the respondents in terms of Regulation 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).
- 9.9 The Transmission Charges and other related Charges indicated at para 9.2 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.
- 9.10 The Under the proposed GST which is likely to be introduced by Govt. of India w.e.f. 01.04.2016, Transmission charges are not exempted. Any tax Payable by Powergrid Corporation of India Limited on account of implementation of GST may be reimbursed

10.0 Sharing of Transmission Charges

The Tariff for Transmission of Electricity (Annual Fixed Cost) as per para 9.2 of petition shall be shared as per Regulation-43 of CERC (Terms and Conditions of Tariff) Regulations, 2014. These charges shall be recovered on monthly basis and the billing collection and disbursement of Transmission Charges shall be governed by



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provision of CERC (sharing of interstate Transmission Charges and Losses) Regulations, 2010.

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 above. **The Petitioner submits that the Encl-1 to Encl-.... 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 Transmission Tariff for the tariff block 2014-19 block for the assets covered under this petition, as per para -9.2 above.
- 2) Admit the capital cost as claimed in the Petition and approve the Additional Capitalization incurred / projected to be incurred during 2014-19 block.
- 3) Tariff may be allowed on the estimated completion cost.
- 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 Additional ROE for Asset-II as claimed in the Petition.
- 6) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable 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.
- 7) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 52 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014, and other expenditure (if any) in relation to the filing of petition.
- 8) Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the respondents in terms of Regulation 52 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014.
- 9) Allow the petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2014-19 period, if any, from the respondents.
- 10) Allow the petitioner to recover FERV on the foreign loans deployed as provided under



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clause 50 of the Tariff Regulations, 2014.

- 11) 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.
- 12) Allow tariff up to 90% of the Annual Fixed Charges in accordance with clause 7 (i) of Regulation 7 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 for purpose of inclusion in the PoC charges.
- 13) Allow the petitioner to bill Tariff from actual DOCO and also the petitioner may be allowed to submit revised Cost Certificates and tariff Forms (as per the Relevant Regulation) based on actual DOCO.
- 14) Allow Reimbursement of Tax if any on account of the proposed implementation of GST w.e.f 01.04.2016.

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

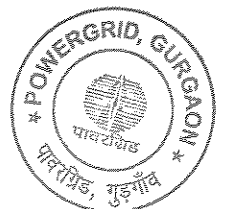
GURGAON

DATED: 27/10/15



Prahlad Saraswat

Dy. General Manager (Commercial)



ENCL-1 (1)

पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
POWER GRID CORPORATION OF INDIA LIMITED
(A Government of India Enterprise)



केंद्रीय कार्यालय : "सौदामिनी" प्लॉट सं. 2, सेक्टर-29, गुरुगॉंव-122 001, हरियाणा।
फोन : 0124-2571700-719, फैक्स : 0124-2571760, 0124-2571761 तार 'नेटग्रिड'
Corporate Office : "Saudamini" Plot No. 2, Sector-29, Gurgaon-122 001, Haryana
Tel : 0124-2571700-719, Fax : 0124-2571760, 0124-2571761 Gram : 'NATGRID'

संदर्भ संख्या / Ref. No

C/CP/SRSS-XVII

July 2, 2012

MEMORANDUM

SUB: INVESTMENT APPROVAL FOR "SYSTEM STRENGTHENING – XVII IN SOUTHERN REGIONAL GRID"

The Board of Directors of POWERGRID, in exercise of powers delegated to it by the Department of Public Enterprises (DPE), Ministry of Heavy Industries and Public Enterprises, Government of India through its Office Memorandum No. 26(3)/2005-GM-GL-92 dated 1st May, 2008 and Office Memorandum No. DPE/11(2)/97-Fin. dated 22nd July, 1997 (modified subsequently through Office Memorandum No. 18(24)/2003-GM-GL-64 dated 5th August, 2005); have accorded investment approval for "System Strengthening – XVII in Southern Regional Grid" in its 273rd meeting held on June 27, 2012 as per the details given below:

1. Broad Scope of the Project

Transmission Lines

- (i) Narendra (New, Kudgi) – Kolhapur (new) 765kV D/C Transmission line (initially charged at 400kV);
- (ii) LILO of both circuits of Kolhapur – Mapusa 400 kV D/C Transmission line at Kolhapur (new);
- (iii) Narendra (New, Kudgi) - Narendra (Existing) 400 kV D/C Quad Transmission line;

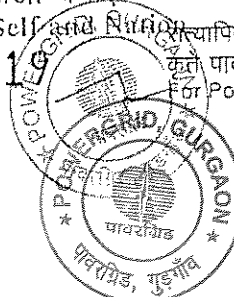
Substations

- (i) Establishment of 765/400kV GIS substation at Narendra (New, Kudgi) (initially charged at 400kV);
- (ii) Establishment of 765/400kV GIS substation at Kolhapur (New) (initially charged at 400kV);
- (iii) Extension of 400/220 kV substation at Narendra (AIS)

पंजीकृत कार्यालय : बी.9, कृताव इंस्टीटयूशनल एरिया, कटवांरिया सारा, नई दिल्ली-110016 दूरभाष : 011-26560121 फैक्स : 011-26560039 तार : नेटग्रिड
Registered Office : B-9, Outab Institutional Area, Katwara Sara, New Delhi-110016 Tel : 011-26560121 Fax : 011-26560039 Gram : NATGRID

स्वहित एवं राष्ट्रहित में ऊर्जा बचाएं
Save Energy for Benefit of Self and Nation

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कृते पावर ग्रिड कारपोरेशन ऑफ इंडिया लि
For Power Grid Corporation of India Ltd.

कम्पनी सचिव / Company Secretary

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2. Project Cost & Funding

The estimated cost of the project based on April, 2012 price level is Rs. 1508.74 Crore including IDC of Rs. 61.97 Crore. The abstract cost estimate is attached as Annexure-I.

Project is proposed to be implemented through The World Bank loan/ domestic borrowings (loans/bonds) and Internal Resources of POWERGRID with a Debt: Equity ratio of 70:30.

3. Commissioning Schedule

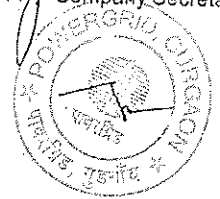
The project is scheduled to be commissioned within 33 months from the date of approval of Board of Directors, i.e. June 27, 2012.

(Signature)

(Seema Gupta)
General Manager (CP)

सत्यापित प्राव / Certified to :
कृते पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया
For Power Grid Corporation of India Ltd.

(Signature)
कम्पनी सचिव / Company Secretary



(Signature)

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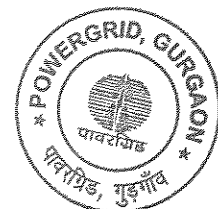


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**SCOPE OF WORKS FOR
SYSTEM STRENGTHENING - XVII IN SOUTHERN REGIONAL GRID**


A. <u>Transmission Lines</u>	<u>Length (Km)</u>
1.0 Narendra (New, Kudgi) - Kolhapur (New) 765 kV D/C	198
2.0 LILO of both circuits of existing Kolhapur-Mapusa 400kV D/C Line at Kolhapur (GIS)	43
3.0 Narendra (New, Kudgi) -Narendra (Existing) 400kV D/C Quad Line	185
B. <u>Substation Works</u>	
1.0 400KV New Substation at Narendra (New, Kudgi) (which shall be later upgraded to 765 kV)	<u>400 kV</u> - Line Bays : 4 Nos. - 125MVAR, 420KV 3-ph Bus Reactor : 1 No - Bus Reactor Bays : 1 No. - Tie Bays : 3 Nos.
2.0 400KV New Substation at Kolhapur (New) (which shall be later upgraded to 765 kV)	<u>400 kV</u> - Line Bays : 6 Nos. - 125MVAR, 420KV 3-ph Bus Reactor : 1 No - Bus Reactor Bays -1 no. - Tie Bays : 4 Nos.
3.0 Extension of 400/220 kV Narendra (Existing) Substation	<u>400 kV</u> - Line Bays : 2 Nos. - Tie Breaker Bay - 1 no.

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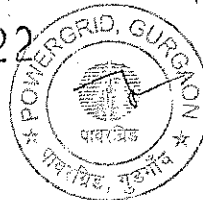
Distribution:

1. PS to Secretary (Power), MoP, Shram Shakti Bhawan, New Delhi-110001
2. Chairman, CERC, Core-3, 6th floor, SCOPE complex, NEW DELHI- 110 003
3. Chairman, CEA, Sewa Bhawan, R.K.Puram, New Delhi -66
4. Chairman, Kerala State Electricity Board, Vaidyuthi Bhavanam, Pattom, Thiruvananthapuram-695 004.
5. Chairman, Karnataka Power Transmission Corporation Ltd, Cauvery Bhawan, Bangalore -560 009
6. Chairman, Tamil Nadu Electricity Board, 800, NPKR Ramaswamy Maligai, Anna Salai, Chennai-600 002
7. Chairman, APTRANSCO, Vidyut Soudha, Hyderabad-500 049
8. Chief Secretary, Electricity Department of Pondicherry, Pondicherry-605001.
9. Advisor, PAMD, Planning Commission, Yojana Bhawan, New Delhi
10. Additional Secretary, MoP, Shram Shakti Bhawan, New Delhi
11. Member Secretary, Planning Commission, Yojana Bhawan, New Delhi
12. Member Secretary, SRPC, Central Electricity Authority, No. 29 Race Course Cross Road, Bangalore-560 009
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14. Secretary, CEA, Sewa Bhawan, R.K.Puram, New Delhi -66 - 03 copies
15. Deputy Director General (PI), Ministry of Statistics & Programme Implementation, Sardar Patel Bhawan, New Delhi.
16. Joint Secretary & Financial Advisor, MoP, Shram Shakti Bhawan, New Delhi
17. Joint Secretary (Transmission), MoP, Shram Shakti Bhawan, New Delhi
18. Joint Secretary (Plan Finance Div.-II), Ministry of Finance, North Block, New Delhi
19. Director (Transmission), MoP, Shram Shakti Bhawan, New Delhi
20. Director, Ministry of Finance (Plan finance Div.), North Block, New Delhi
21. Deputy Secretary, Cabinet Secretariat, Rashtrapati Bhawan, New Delhi
22. Under Secretary, Finance & Budget Section, MoP


(Seema Gupta)
General Manager (CP)

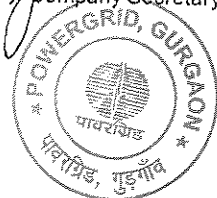
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कृते पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लि.
For Power Grid Corporation of India Ltd.

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कम्पनी सचिव / Company Secretary


Anup Paudyal
Company Secretary



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**ABSTRACT COST ESTIMATE
(BASE COST)**

SYSTEM STRENGTHENING - XVII IN SOUTHERN REGIONAL GRID

(Cost updated to April 2012 price level)

Sr. No.	DESCRIPTION	AMOUNT (Rs. in Crs.)
A	Preliminary Survey & Soil Investigation	0.93
B	Land Acquisition for Substation and R & R Compensation	19.05
C	Cost of Compensation for Transmission Lines	
	i) Compensation towards Crop, Tree & PTCC	6.38
	ii) Compensation towards Forest	0.34
D	<u>Civil Works</u>	
	i) Infrastructure for substations	25.60
	ii) Non Residential Buildings	8.84
	iii) Colony for Trans. Lines & Substations	14.02
E	<u>Equipment Cost</u>	
	a) Trans Lines	1062.21
	b) Sub-Stations	202.26
F	Sub Total A TO E	1339.63
G	Incidental expenditure during construction (IEDC) @ 5% of [F - C(ii)]	65.96
H	Contingencies @ 3% of [F - C(ii)]	40.18
I	Centages & Contingencies @ 8% on Compensatory Afforestation (considering Rs.45,000 per Ha) 3 Ha	0.001
	Sub Total (A to I)	1446.77
K	Interest During Construction(IDC)	61.97
	GRAND TOTAL	1508.74
Note	1. Loan has been assumed to be available from World Bank Loan and Domestic sources. 2. Interest rate on Loan has been considered @ 7.0% for World Bank Loan and @ 10.5% for Domestic Loan subject to actuals. 3. Debt/Equity ratio has been considered as 70:30.	

सत्यापित प्रतिल / Certified to be True Copy
कृते पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लि
or Power Grid Corporation of India Ltd.

Shing Pandan
कम्पनी सचिव / Company Secretary



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Central Electricity Authority
System Planning & Project Appraisal Division
Sewa Bhawan, R.K. Puram, New Delhi - 110066

No. 51/4/SP&PA-2010/ 1295-1305

Date: 10 December 2010

To

1. The Member Secretary, Southern Regional Power Committee, 29, Race Course Cross Road, Bangalore 560 009. FAX : 080-22259343	2. The Director (Projects), Power Grid Corp. of India Ltd. "Saudamini", Plot No.2, Sector-29, Gurgaon 122 001, Haryana. FAX : 95124-2571932
3. The Director (Transmission), Transmission Corp. of Andhra Pradesh Ltd., Vidyut Soudha, Hyderabad - 500 082. FAX : 040-66665137	4. The Director (Transmission), Karnataka State Power Transmission Corp.Ltd., Cauvery Bhawan, Bangalore 560 009. FAX : 080 -22228367
5. The Member (Transmission), Kerala State Electricity Board, Vidyuthi Bhawanam, Pattom, P.B. No. 1028, Thiruvananthapuram - 695 004. FAX : 0471-2444738	6. Member (Distribution), Tamil Nadu electricity Board (TNEB), 6 th Floor, Eastern Wing, 800 Anna Salai, Chennai - 600002. FAX : 044-28516362
7. The Director (Power), Corporate Office, Block - I, Neyveli Lignite Corp. Ltd., Neyveli, Tamil Nadu - 607 801. FAX : 04142-252650	8. The Superintending Engineer -I, First Floor, Electricity Department, Gingy Salai, Puducherry - 605 001. FAX : 0413-2334277/2331556
9. Director (Projects), National Thermal Power Corp. Ltd. (NTPC), NTPC Bhawan, Core-7, Scope Complex, Lodhi Road, New Delhi-110003, FAX-011-24360912	10. Director (Operations), NPCIL, 12 th Floor, Vikram Sarabhai Bhawan, Anushakti Nagar, Mumbai - 400 094. FAX : 022- 25991258

Sub: 31st meeting of the Standing Committee on Power System Planning of Southern Region-
 Minutes of the meeting.

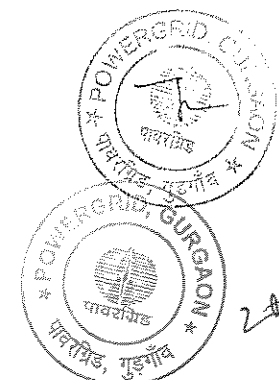
Sir,

Minutes of 31st meeting of the Standing Committee on Power System Planning of Southern Region (SCPSPSR) held on 16th November 2010 at Northern Region Power Committee, Katwaria Sarai, New Delhi are enclosed. The minutes are also available at CEA's website www.cea.nic.in.

Yours faithfully,

Pardeep Jindal
 Director (SP&PA)
 (Telephone: 011 26198092,
 Fax No. 011 6102045)

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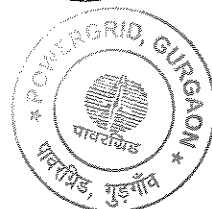
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MINUTES OF 31st MEETING

Minutes of 31st Meeting of the
Standing Committee on Power System Planning of Southern Region (SCPSPSR)
Held on November 16, 2010 at Northern Region Power Committee, Katwaria Sarai, New Delhi.

- 1.0 List of participants is given at Annex-VIII.
- 2.1 Member (Power Systems) welcomed the participants and observed that the agenda for today's meeting included number of critical issues including transmission system for Gas based IPP projects in Vemagiri area having short gestation period. Therefore, it was important that decisions should be arrived at the earliest to avoid any mismatches between generation and transmission. In this regard, he suggested that if required small study group might be constituted for in-depth study to expeditiously arrive at such decisions.
- 2.2 Chief Engineer, CEA while welcoming the participants stated that a large number of applications were being made for connectivity without matching applications for Long-term Access (LTA). He observed that as per the present regulations on LTA/Connectivity the grid strengthening could be taken only for the LTA requests, effectively meaning that the Connectivity applicants would be leaning entirely on the existing/planned transmission system meant for the Long-term beneficiaries. He said that the present grid did not have any capacity left to accommodate such large number of Connectivity requests. Therefore, it was necessary that the Connectivity might be given to only those applicants who were applying for the LTA also and suggested the Connectivity applicants to apply for LTA as early as possible. He further stated that the applicants granted Connectivity/LTA must sign BPTA and submit requisite Bank Guarantee in line with the CERC regulations, 2009. Chief Engineer (CEA) asked Director (SP & PA), CEA to proceed with the Agenda for the meeting.
- 3.0 **Confirmation of the minutes of 30th meeting of the Standing Committee:**
- 3.1 Director, CEA stated that the minutes of 30th meeting of the Standing Committee on Power System Planning of Southern Region, held on 13th April 2010 at Gurgaon, were issued vide CEA's letter number 51/4/SP&PA-2010/ 442-451 dated May 05, 2010 and that there were no comments/observations on the circulated minutes.
- 3.2 The minutes as circulated were confirmed by the Standing Committee.
- 4.0 **Review of Inter-regional Scheme - Narendra – Kolhapur 400kV D/c line with 1000 MW HVDC back-to-back at Kolhapur:**
- 4.1 Director (SP&PA), CEA said that the Narendra-Kolhapur 400kV D/C line between SR and WR alongwith a 2x500 MW HVDC back-to-back modules at Kolhapur as asynchronous link between SR-WR was planned in 2007 to export surplus power from SR to WR/NR. This link was planned under scheme for augmentation of SR-WR inter-regional capacity and was targeted to come during 2010-11 as it was anticipated that by 2011, SR would have surplus exportable power. In order to reduce cost and time of commissioning of the asynchronous link, it was proposed that one unit of HVDC back-to-back at Sasaram would be shifted to Kolhapur. However, the anticipated generation additions in SR have got delayed and this asynchronous

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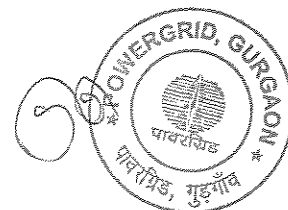
- 4.4.2 Madhugiri – Narendra – Kolhapur – Padghe (one circuit via Pune) 765kV D/C line may be planned in place of the proposal for Madhugiri - Basawan Bagewadi – Sholapur 765 kV D/C lines for additional generation projects in Cuddalore/Nagpattnam/Tuticorin area.
- 4.4.3 The Narendra – Kolhapur 765kV D/C line initially charged at 400 kV may be taken up separately as additional SR-WR synchronous link matching with the commissioning of Raichur – Sholapur 765 kV 2xS/C lines. This Narendra-Kolhapur 765kV D/C line operated at 400kV would be in place of the Narendra-Kolhapur asynchronous link and thus would be implemented as system strengthening scheme for SR/WR regions.
- 4.4.4 Following works would be included in this system strengthening scheme:
- (a) New 400kV substation each at Narendra (GIS) and Kolhapur (to be later upgraded to 765kV)
 - (b) Narendra (GIS) – Kolhapur (new) 765kV D/C line (initially charged at 400 kV)
 - (c) LILO of both circuits of Kolhapur – Mapusa 400 kV D/C line at Kolhapur (new)
 - (d) Narendra (GIS) - Narendra (existing) 400 kV D/C Quad line.
- 4.4.5 765kV operation of the above Narendra-Kolhapur line and upgradation of Narendra and Kolhapur S/Ss to 765kV level would be part of the evacuation system for generation projects in Southern Region.

5.0 Transmission System for Evacuation of Power from Yermarus TPS (2x800 MW) and Edlapur TPS (1x800 MW) of KPCL :

5.1 Director, CEA said that a transmission system for Yermarus TPS (2x800 MW) and Edlapur TPS (1x800 MW) of KPCL was agreed in the 28th meeting of the Standing Committee on power system planning in Southern Region held on 15th June, 2009. Subsequently, due to high short circuit levels in Raichur and adjoining buses, CEA suggested KPTCL to review transmission system for these two projects. It was suggested that instead of connecting Edlapur TPS to the existing Raichur TPS switchyard, it might be connected to Yermarus TPS switchyard at 400 kV through a 400 kV D/C line. The power from Yermarus and the Edlapur TPS could be transmitted through Yermarus – Basavana Bagewadi 400kV quad D/C line, and Yermarus - Raichur New 765 kV S/C line. This would also reduce the fault levels at 400 kV Sub-stations at Raichur TPS, Yermarus TPS and Raichur New. This alternative required a 765kV S/S at Yermarus. To avoid a 765kV S/S at Yermarus and to optimize transmission requirement for Yermarus and Edlapur TPS's revised studies were carried out in CEA in June 2010 jointly with engineers from KPTCL and PGCIL. The following transmission system was found to be the most suitable considering the fault level and the flows in the grid (details given in the study report attached with Agenda Note)

- (1) Edlapur TPS - Yermarus TPS S/S 400 kV D/C line.
- (2) Yermarus TPS – Raichur New (PGCIL) 400 kV Quad D/C line.
- (3) The planned LILO of RTPS-Gooty at Raichur New would be bypassed through a bypass arrangement so as to retain RTPS-Gooty direct connection.
- (4) Basavana Bagewadi 400/220 kV 2x500 MVA Substation.
- (5) Yermarus – Basavana Bagewadi 400 kV Quad D/C line.
- (6) Basavana Bagewadi – Narendra (PGCIL) 400kV D/C line.

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Central Electricity Authority
System Planning & Project Appraisal Division
Sewa Bhawan, R.K. Puram, New Delhi – 110066

No. 51/4/SP&PA-2011/ 1647-58

Date: 15 November 2011

To

1. The Member Secretary, Southern Regional Power Committee, 29, Race Course Cross Road, Bangalore 560 009. FAX : 080-22259343	2. The Director (Projects), Power Grid Corp. of India Ltd. "Saudamini", Plot No.2, Sector-29, Gurgaon 122 001, Haryana. FAX : 95124-2571932
3. The Director (Grid Operation), Transmission Corp. of Andhra Pradesh Ltd., Vidyut Soudha, Hyderabad – 500 082. FAX : 040-66665137	4. The Director (Transmission), Karnataka State Power Transmission Corp.Ltd., Cauvery Bhawan, Bangalore 560 009. FAX : 080 -2228367
5. The Member (Transmission), Kerala State Electricity Board, Vidyuthi Bhawanam, Pattom, P.B. No. 1028, Thiruvananthapuram - 695 004. FAX : 0471-2444738	6. Member (Distribution), Tamil Nadu electricity Board (TNEB), 6 th Floor, Eastern Wing, 800 Anna Salai, Chennai - 600002. FAX : 044-28516362
7. The Director (Power), Corporate Office, Block – I, Neyveli Lignite Corp. Ltd., Neyveli, Tamil Nadu – 607 801. FAX : 04142-252650	8. The Superintending Engineer –I, First Floor, Electricity Department, Gingy Salai, Puducherry – 605 001. FAX : 0413-2334277/2331556
9. Director (Projects), National Thermal Power Corp. Ltd. (NTPC), NTPC Bhawan, Core-7, Scope Complex, Lodhi Road, New Delhi-110003. FAX-011-24360912	10. Director (Operations), NPCIL, 12 th Floor, Vikram Sarabhai Bhawan, Anushakti Nagar, Mumbai – 400 094. FAX : 022- 25991258

Sub: 33rd meeting of the Standing Committee on Power System Planning of Southern Region
- Minutes of the meeting.

Sir,

The 33rd meeting of the Standing Committee on Power System Planning of Southern Region was held on 20th October, 2011 (Thursday) at Conference Hall of Northern Region Power Committee, Katwaria Sarai, New Delhi.

Minutes of the meeting is enclosed. It is also available at CEA's website (www.cea.nic.in).

Yours faithfully,

(Pardeep Jindal)

Director (SP&PA)

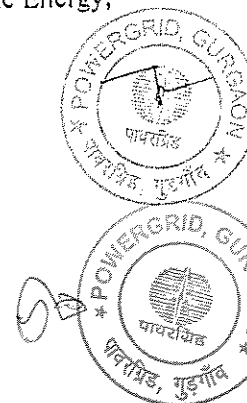
(Telephone: 011 26198092, Fax No. 011 26102045)

Copy to:

(1) Sh. SK Soonee, CEO, POSOCO,
B-9, Qutub Institutional Area,
Katwaria Sarai,
New Delhi-110016

(2) Sh. Shashi Shekhar, Joint Secretary,
Min. of New & Renewable Energy,
CGO Complex,
New Delhi -110003

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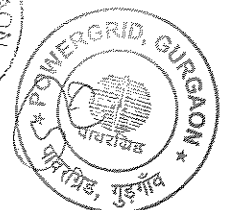
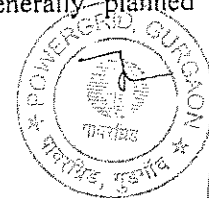


MINUTES OF MEETING

**Minutes of 33rd Meeting of
Standing Committee on Power System Planning in Southern Region (SCPSPSR)
held on 20th October, 2011 (Thursday) at Northern Region Power Committee,
Katwaria Sarai, New Delhi.**

- 1.0 List of participants is given at Annex-I.
- 2.0 Member (Power Systems), CEA welcomed the participants and observed that the agenda for today's meeting included some critical issues such as interconnection of SR with NEW grid with emphasis for implementation of interregional links for the reliable and secure operation of All India Grid and transmission system for Bhavanapadu Thermal project and many important issues such as review of associated transmission systems for Krishnapatnam UMPP, Kudgi, Yeramaras/Edlapur and Neyveli Replacement generation projects and system strengthening aspects in Southern Region. He asked Director (SP & PA), CEA to proceed with the Agenda for the meeting.
- 3.0 **Confirmation of the minutes of 32nd meeting of the Standing Committee**
- 3.1 Director(SP&PA), CEA stated that minutes of 32nd meeting of the Standing Committee on Power System Planning of Southern Region were issued vide CEA's letter number 51/4/SP&PA-2011/991-1001 dated 06-07-2011. In this regard, an observation was received from SRPC, regarding transmission system for evacuation of power from Simhadri-II TPS(2x500MW) of NTPC, quoting 'The existing transmission system (ISTS) in Southern region is fully capable of handling the entire LTA of the region including the generation from Simhadri-II and only STOA will be curtailed if needed be'.
- 3.2 Based on these observations, a corrigendum to the minutes of the 32nd meeting was issued vide CEA letter no. 51/4/SP&PA-2011/1085-1095 dated 08 August 2011. The minutes of the 32nd meeting along with corrigendum, as circulated, were confirmed. Copy of the corrigendum is given at Annex-II.
- 4.0 **Delinking of Associated Transmission System of Krishnapatnam UMPP from Krishnapatnam UMPP generation due to uncertainty.**
- 4.1 Director(SP&PA), CEA stated that for the ease of implementation matching with the commissioning schedule of different units of Krishnapatnam UMPP the ATS has been taken up in three parts viz. Part-A, Part-B and Part-C. The Part-A & C mainly comprised of elements for immediate evacuation of power and part-B mainly comprised of those elements that are aimed at synchronous inter-connection of SR and WR. Matching with the commissioning requirement of first unit of KUMPP, works for part-A had been initiated at site. The preliminary activities for Part-B and Part-C were also completed.
- 4.2 Member(PS), CEA said that the transmission system is generally planned for grid

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POWERGRID based on the site realities.

9.7.2 To be carried out by TANTRANSCO/TNEB:

- To coordinate with NLC to reconfigure and re-conductor the existing 230kV network emanating from NLC project. TNEB may take help from CEA/CTU for system studies/design of the system.

9.7.3 To be carried out by POWERGRID (for LTA Transmission System):

- POWERGRID would identify the 400kV line for LTA requirement in place of the earlier agreed Neyveli (Replacement) – Sholinganallur 400 kV D/c line, in coordination with TNEB and NLC.

10.0 Transmission System for evacuation of power from Kudgi TPS (3x800 MW in Phase-I) of NTPC Limited.

10.1 Director (SP & PA), CEA informed that the transmission system for Kudgi TPS was agreed in the 32nd Meeting of Standing Committee on Power System Planning in SR held on 8 June, 2011 which inter-alia included stepping up of generation at 765 kV and 765 kV D/C lines from Kudgi to Narendra and Narendra to Madhugiri. Subsequently, KPTCL requested that the proposed Narendra (new) substation may be constructed nearer to Kudgi site as they can help in identification and procurement of land for the substation close to the Kudgi generation project. Further, they suggested 400 kV D/c quad lines from Kudgi to Narendra (existing) and Raichur (new) alongwith Narendra(New) to Madhugiri 765 kV D/c (charged at 400 kV) as a part of evacuation system for Kudgi TPS.

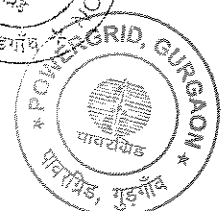
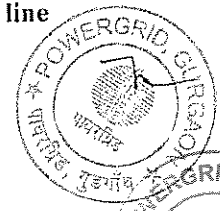
10.2 In this regard, POWERGRID informed that the Narendra (new) substation is covered under the inter-regional scheme viz. Narendra – Kolhapur 765 kV D/c (initially charged at 400 kV). This link is required in the timeframe of Raichur-Sholapur 765 lines for smooth synchronisation of two large grids. Therefore, it is utmost important that this inter-regional scheme and transmission system for Kudgi should not be clubbed. Prima-facie in line with the proposal of KPTCL the Narendra (new) substation can be constructed near Kudgi TPS site which can later be integrated with Kudgi transmission system matching with the Kudgi generation project.

10.3 Construction of 765/400kV substation at Narendra (new) near Kudgi was discussed with respect to adoption of AIS/GIS. ED (POWERGRID) explained that they have gone ahead with 400kV Narendra (new) substation as a GIS substation under the SR-WR inter-regional scheme. After deliberations it was decided that the 400kV Narendra (new) substation near Kudgi site may be constructed as GIS. Accordingly, the same system as already approved scheme in Standing Committee and RPC and under implementation by POWERGRID with following configuration was agreed as the inter-regional link:

- (i) Establishment of 400kV GIS substations at Narendra (New, near Kudgi) and Kolhapur(New) (with provision to upgrade to 765kV at a later date)
- (ii) Narendra (New) – Kolhapur (New) 765 kV D/C line (initially charged at 400 kV)
- (iii) Narendra (New) – Narendra (Existing) 400 kV D/C quad line

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- (iv) LILO of both circuits of Kolhapur – Mapusa 400 kV D/C line at Kolhapur (New)

10.4 As regard Kudgi Transmission System following system was agreed:

Transmission system for Kudgi Phase-I Generation project of NTPC (3x800 MW)

To be provided by NTPC:

- (i) Stepping up of power at the generation project to 400 kV
(ii) Provision of Bus reactor of 2x125 MVAR at generation switchyard.
(iii) Provision of 2x500 MVA, 400/220kV transformers at generation switchyard and 6 nos. 220 kV bays

To be implemented as ISTS (as evacuation system for Kudgi TPS Phase-I):

- (i) Kudgi TPS – Narendra (New) 400 kV 2xD/C quad lines
(ii) Narendra (New) – Madhugiri 765 kV D/C line (initially charged at 400 kV)
(iii) Madhugiri – Bangalore 400 kV D/c (quad) line. (The terminal point at Bangalore is yet to be decided, for which POWERGRID would take action and inform CEA/SCPSR)

10.5 In addition to above, a 400 kV D/c quad line from Narendra (New) to Raichur(New) would be considered while planning the transmission system when NTPC applies for LTA for Phase-II (1600 MW) of the Kudgi TPS.

11.0 Erection and Commissioning of Interstate line from 132kV Kistampeth S/S (AP) to proposed 132kV Sironcha S/s (MS)

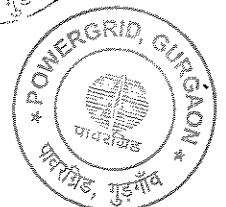
11.1 Director, CEA stated that MSETCL has proposed an interstate line from 132kV Kistampeth S/S (AP) to proposed 132kV Sironcha S/s (MS). At present 66kV S/S at Sironcha is fed from 220kV Gadchandur S/s, which is situated about 240km away. Due to long lines passing through dense forest area, frequent supply interruptions and low voltage problem prevail in this area. MSETCL has already planned new 132kV S/S at Alapalli, Yetapalli and Sironcha. A 132kV S/s at Kistampeth in AP is 35km away from Sironcha and is fed from 220kV Ramagundam S/s. the load at Sironcha S/s will be around 5.0MW & future load growth is also very small.

11.2 CE (PS), APTRANSCO said that they did not agree for the proposal and this would lead to voltage violations for their network.

11.3 After deliberations it was agreed that MSETCL would be informed about opinion of APTRANSCO in the WR Standing Committee meeting to be held next day (21-10-2011) in New Delhi.

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SOUTHERN REGIONAL POWER COMMITTEE
BANGALORE

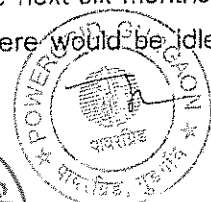
MINUTES OF THE 18TH MEETING OF SRPC
HELD AT HYDERABAD ON 23.12.2011

1. **INTRODUCTION**

- 1.1 The 18th meeting of the Southern Regional Power Committee was held at Hyderabad on 23rd December, 2011. The list of participants is given at Annexure-I.
- 1.2 Shri Ajay Jain, CMD, APTRANSCO on behalf of the power utilities of Andhra Pradesh extended a hearty welcome to Shri T.M Manoharan, Chairman, KSEB & Chairperson, SRPC, all the members of SRPC, other officers from CEA, PGCIL, NTPC, SRLDC, SRPC Secretariat and the delegates from the four States of SR & Union territory of Puducherry. He stated that the 18th SRPC meeting was being held at a most crucial time when the entire country as well as the Southern Region were looking towards the power sector for quality and economical power supply. The situation in the power sector was not so bright. Very challenging tasks lay ahead as the next four to five months were the peak summer months and the rabbi season. All SR States would be under tremendous pressure. It was therefore the right time to deliberate about how quality power could be delivered to the citizens. He said that the meeting would go a long way in addressing some of the key issues like corridor constraints being faced by the SR States. All the four states in SR required huge quantum of power. This year the hydel position had not been encouraging. There had been drought in the SR States. The South West monsoon had failed and even the North West monsoon so far had not been encouraging. The demand of power was going up daily. Severe constraints existed in procurement of power from other Regions. He requested PGCIL to take up the work on a priority basis to enhance the corridor in view of the concerns of the SR States. He added that the other key issue was the availability of coal, gas and nuclear fuel. The gas supply from RIL basin had come down and AP was much affected. Gas based IPPs which could generate 2700 MW were generating only about 1400 MW only due to severe short fall of gas supply. He requested Member Secretary, SRPC to take up this issue on behalf of SR constituents and impress on Ministry of Power as well as Ministry of Petroleum about the constraint. He informed that some of the new gas IPPs in AP were also getting ready. Almost 3000 MW of additional capacity would be ready in AP within the next six months. However, due to gas shortage and transmission constraints there would be idle

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System Strengthening Scheme for the purpose of relieving congestion between S1 – S2 Bid areas.

- 37.2 It was agreed that the matter had to be deliberated first in the Standing Committee on Power System Planning.

38. **SYSTEM CONSTRAINTS IN NORTHERN KERALA DUE TO POWER RESTRICTION IN THE 220 KV KADAKOLA – KANIAMPETA FEEDER**

- 38.1 Member (Tr. & Gen Opn.), KSEB vide letter dated 6th December 2011 (refer Annexure-VII) had proposed that strengthening works of this line may also be taken up by Power Grid since this would contribute in reduction of congestion in S1-S2 corridor.

- 38.2 In the TCC meeting held the previous day, Karnataka stated that they were affected by higher power flow on the 220 KV inter-State line in the PoC regime. Unless issues were resolved by Hon'ble CERC they would not allow more power flow.

39. **DOUBLING OF 110 KV KONAJE – MANJESWARAM SC FEEDER**

- 39.1 Member (Tr. & Gen Opn.), KSEB vide letter dated 6th December 2011 (refer Annexure-VII) had proposed that the feeder be converted to a D/C line so that more power could be drawn by the Northern Region of Kerala. This would also meet the power shortage in Northern Kerala to a large extent.

- 39.2 In the TCC meeting held the previous day, it was agreed that the above scheme would be referred to the Standing Committee on Power System Planning.

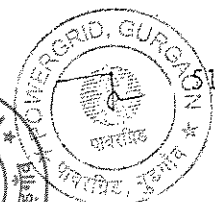
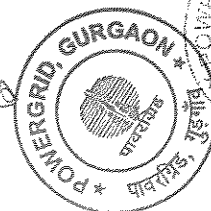
40. **INSTALLATION OF SHUNT CAPACITORS**

- 40.1 Member (Tr. & Gen Opn.), KSEB vide letter dated 6th December 2011 (refer Annexure-VII) had stated that an estimate amounting to ₹ 2.5 Crores for installation of shunt capacitor banks at 66 kV substations had been forwarded to SRPC for availing reimbursement from the PSDF fund. The status of the request for reimbursement was proposed to be discussed.

- 40.2 In the TCC meeting held the previous day, MS I/c, SRPC had informed that the modalities for funding schemes through PSDF were yet to be approved by CERC.

41. **TRANSMISSION SCHEMES AGREED IN THE 33RD MEETING OF STANDING COMMITTEE ON POWER SYSTEM PLANNING / LONG TERM OPEN ACCESS MEETING HELD ON 20TH OCTOBER 2011 AT NEW DELHI**

- 41.1 PGCIL vide letter dated 7th December 2011 (Annexure-XVII) had proposed the following items for discussion:

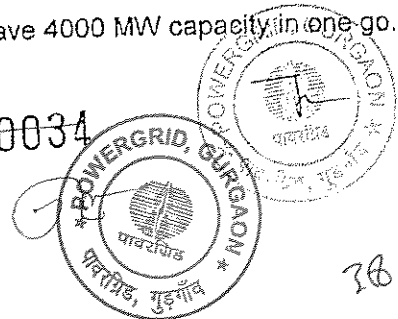


- i) Implementation of Nellore Pooling Station – Gooty 400 kV (Quad) D/C line as System Strengthening in Southern Region
- ii) Implementation of Krishnapattanam UMPP – Nellore 400 kV (Quad) D/C line as Thermal Powertech – Nellore Pooling Station 400 kV D/C line
- iii) Srikakulam Pooling Station – Vemagiri Pooling Station 765 kV D/C line
- iv) Transformer Augmentation in Southern Region – Augmentation in 18 substations in SR has been proposed.
- v) Transmission System for evacuation of power from 2x500 MW Neyveli Lignite Corporation Ltd TS-I (Replacement) in Neyveli, Tamil Nadu
- vi) Transmission System for evacuation of power from Kudgi TPS (3x800 MW in Phase-I) of NTPC Limited
- vii) Requirement of Spare Converter Transformers for HVDC back to back station at Vizag (Gazuwaka) and Chandrapur
- viii) Use of Multi-circuit for portions of the Electronic City – Hosur 400 kV D/C line and booking of costs (Item 4.5 of Agenda)
- ix) Thiruvalem 765/400 kV S/S – construction of 765 kV Switchyard as GIS
- x) LILO of Gazuwaka – Vijayawada 400 kV S/C line by GREL and related issue
- xi) Proposal for laying of OPGW and associated Optical Fibre Communication (OFC) equipments in Southern Region
- xii) LTA applications of Simhapuri Energy Private Limited (Phase-I & II: 2x150 + 2x150 MW)
- xiii) Connectivity and LTA Application in Nagapattinam area of Tamil Nadu
- xiv) Extension of Interim LILO arrangement by GMR to Vemagiri Pooling Station & LILO of Gazuwaka-Vijayawada line at Vemagiri Pooling Station
- xv) Transmission System for Connectivity of various IPPs – Surana Power Limited (2x210 MW) & Dandelion Properties Private Limited (250 MW – Bulk Consumer)

41.2 In the TCC meeting held the previous day, APTRANSCO stated that in respect of Srikakulam - Vemagiri Pooling Station interconnector and Narendra New – Madhugiri 765 KV line they were not in agreement with the proposals circulated. They would go to CEA for further studies and subsequently inform their views.

41.3 Power Grid said that presently the lines are to come up through competitive bidding process. Hence it was very essential that the lines are cleared expeditiously, so that the same could be put up to the Empowered Committee.

41.4 MD, KPTCL said that the evacuation system in respect of Kudigi should be expedited, since NTPC was now planning to have 4000 MW capacity in one go.



41.5 SRPC approved the above proposals of Power Grid, except in respect of items on which APTRANSCO had some reservations and highlighted in para 41.2.

42. **DRAWAL OF POWER FOR COMMISSIONING ACTIVITIES UNDER UI MECHANISM**

42.1 In the OCC Meetings, it was noted that Kudankulam Atomic Power Project, NLC TS-II Expansion & Lanco Stage-III had been allowed by the OCC forum to draw power on UI for their commissioning activities. Though interchange of power was specified in the Regulations, the rate for drawal was not clearly pointed out. Hence the drawal of power on UI basis could not be for indefinite time period and a call needed to be taken on this issue. The matter had subsequently been taken up with the concerned utilities.

42.2 It was also discussed in the 64th OCC Meeting that uniform non discriminatory guidelines needed to be followed regarding drawal of power. The matter had also been taken up with Hon'ble CERC. However a final view on this issue would be taken in the 66th meeting of OCC scheduled on 14th December 2011.

42.3 In the TCC meeting held the previous day TCC had recommended that the three entities (NLC TS-II Expn., Kudankulam APP and Lanco Stage -III) be allowed to continue to draw commissioning power under UI mechanism till April 2012. APTRANSCO had stated that Lanco Stage-III should pass the profit earned during injection of infirm power to SR pool entities.

42.4 Committee agreed that commissioning power may be continued to be drawn under UI mechanism till end April 2012 only.

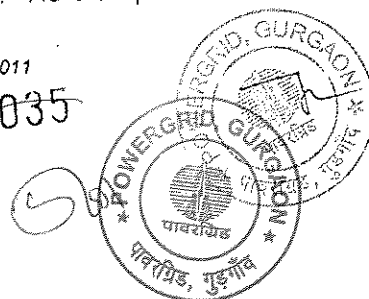
43. **STOA SCHEDULING BY SRLDC TO KARNATAKA**

MD, PCKL said that they were facing situations where the generator would unilaterally ask the SRLDC to surrender the corridor without even consulting the procurer. Secondly there were instances, when there were two LOIs on the same source at different prices. It was seen at times that the costlier power was getting scheduled, while the cheaper power was not getting scheduled. He enquired whether SRLDC can take cognizance of the price. GM, SRLDC clarified that details of price etc were not available with them and they would need to schedule only as per request of the applicant.

44. **CERC INITIATIVE FOR RISING FREQUENCY BAND**

44.1 Director (Opn.), TANTRANSCO sought the opinion of other states regarding tightening of the IEGC frequency band. He also pointed out that various national...

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ANNEXURE - XVII

(115)

पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड
भारत सरकार का उद्यम
POWER GRID CORPORATION OF INDIA LIMITED
(A Government of India Enterprise)



कन्द्रीय कार्यालय "सी.आर.सी." प्लॉट नं-2, सेक्टर-29, गुडगाँव-122 001, हरियाणा
फोन: 0124-2571700-719 फैक्स: 0124-2571760 0124-2571761
Corporate Office "Sewadamin" Plot No-2, Sector-29, Gurgaon-122 001 Haryana
Tel: 0124-2571700-719 Fax: 0124-2571760 0124-2571761
REGIONAL CORPORATE CENTRE

Ref No:

ANNEXURE - I

Date: 07-12-2011

C/OS/SRPC- 18th /Agenda

The Member Secretary
Southern Regional Power Committee
29, Race Course Cross Road
BANGLORE - 560 009

Sub : Agenda Points for 17th TCC and 18th SRPC Meetings being held on 22nd
and 23rd Dec, 2011 at Hyderabad

Dear Sir,

Regarding the subject, please find enclosed herewith Agenda points for discussion during
forthcoming TCC/SRPC meetings proposed on 22nd and 23rd Dec, 2011 at Hyderabad.
It is requested to kindly incorporate the same in the Main Agenda of SRPC.

Thanking you.

Yours faithfully,

Kamal Surkar
(Kamal Surkar)

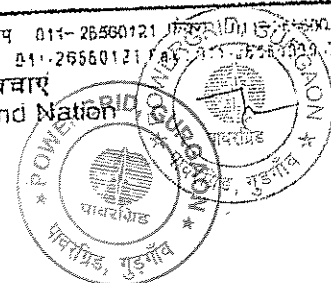
Addl. GM (Operation Services)

Encl : A /a
(Sheets : 14 only)

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कन्द्रीय कार्यालय, पी-5, कृतांग उद्योग प्रशासन एरिया, कटारवा सराय, नई दिल्ली-110016 फ़ोन 011-26560121 फ़ैक्स 011-26560122
Corporate Office: B-9, Katwaria Institutional Area Katwaria Sarai, New Delhi-110015 Tel: 011-26560121 Fax: 011-26560122

स्वहित एवं राष्ट्रहित में कर्जा बचाए
Save Energy for Benefit of Self and Nation





पावर गिड

पावर गिड कारपोरेशन ऑफ इंडिया लिमिटेड

AGENDA FOR 17th TCC / 18th SRPC MEETINGS
(Scheduled on 22nd and 23rd Dec' 2011 at Hyderabad)

1.0 Procurement of ERS Sub-station

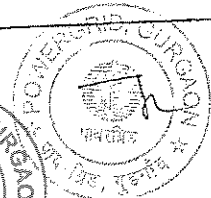
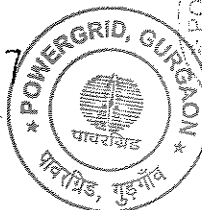
POWERGRID proposal for procurement of two (2) nos. ERS Sub-station in a large Regional Transmission System of Southern Region to take care of any evacuation constraint was deliberated during 17th meeting of SRPC held at Vishakhapatnam when APTRANSCO had accepted the proposal of POWERGRID for procurement of two (2) nos. ERS Sub-station where as KPTCL, TANTRANCO and KSEB had agreed in principle. It was decided to convene a special meeting to discuss the operation/commercial and other related issues. Accordingly, SRPC convened special TCC meeting on 8th November 2011 at Bangalore when POWERGRID gave a detailed presentation to address the concern expressed by constituent members during 17th meeting of SRPC. During the said deliberation POWERGRID emphasized that this proposal is a part of pro-active approach for transmission sector.

Members may deliberate and approve the proposal.

2.0 Following transmission Schemes agreed in the 33rd meeting of the Standing Committee on Power System Planning of Southern Region held on 20th October, 2011 (Thursday) at Conference Hall of Northern Region Power Committee, Katwaria Sarai, New Delhi.

2.1 Implementation of Nellore Pooling station – Gooty 400kV (quad) D/c line as System Strengthening in Southern Region.

The transmission system planning is done on the basis of overall optimization of the transmission additions looking into the requirements for a given time frame. In this exercise often transmission system evolved for a given time frame serves more than one generation project as well as grid strengthening requirement. The evolved transmission requirements are clubbed as Associated Transmission System (ATS) with generation project and/or separate grid strengthening scheme. Accordingly, in the event of any generation getting delayed, it may so happen that ATS planned with



16.	Malkaram	APTRANSCO	2x315	1x315
17.	Nelamangala	KPTCL	2x315	1x500
18.	Hoody	KPTCL	2x315	1x500

2.5 Transmission System for evacuation of power from 2x500 MW Neyveli Lignite Corporation Ltd. TS-I (Replacement) in Neyveli, Tamil Nadu.

Following was agreed for the 2x500MW Neyveli Lignite Corporation Ltd. TS-I Replacement Project:

To be carried out by NLC(for connectivity system):

- i) Provision of 7x166 MVA single phase 400/230 kV transformer at generation switchyard
- ii) 1x80 MVAR Bus Reactor at generation switchyard
- iii) LLO of existing Neyveli TS-II – Neyveli TS-I expansion 400 kV S/c at generation switchyard or of any other line as decided by NLC and POWERGRID based on the site realities.

To be carried out by TANTRANSCO/TNEB:

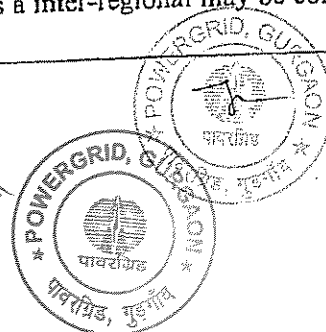
- i) To coordinate with NLC to reconfigure and re-conductor the existing 230kV network emanating from NLC project. TNEB may take help from CEA/CTU for system studies/design of the system.

To be carried out by POWERGRID (for LTA Transmission System):

- i) POWERGRID would identify the 400kV line for LTA requirement in place of the earlier agreed Neyveli (Replacement) – Sholinganallur 400 kV D/c line, in coordination with TNEB and NLC.

2.6 Transmission System for evacuation of power from Kudgi TPS (3x800 MW in Phase-I) of NTPC Limited.

The transmission system for Kudgi TPS was agreed in the 32nd Meeting of Standing Committee on Power System Planning in SR held on 8 June, 2011 and included in the agenda for the 17th meeting of SRPC, which inter-alia included stepping up of generation at 765 kV and 765 kV D/C lines from Kudgi to Narendra and Narendra to Madhugiri. Subsequently, KPTCL requested that the proposed Narendra (new) substation being constructed by POWERGRID as a inter-regional may be constructed



nearer to Kudgi site as they can help in identification and procurement of land for the substation close to the Kudgi generation project.

After deliberations, it was decided that the earlier approved inter-regional system given below shall be retained with modification to the extent that Narendra (New) substation shall be constructed near Kudi site of NTPC.

- i) Establishment of 400kV GIS substations at Narendra (New) near Kudgi and Kolhapur(New) (with provision to upgrade to 765kV at a later date)
- ii) Narendra (New) – Kolhapur (New) 765 kV D/c line (initially charged at 400kV)
- iii) Narendra (New) – Narendra (Existing) 400 kV D/c quad line

Following transmission system was agreed during standing committee meeting for Kudgi Phase-I Generation project of NTPC (3x800 MW)

To be provided by NTPC:

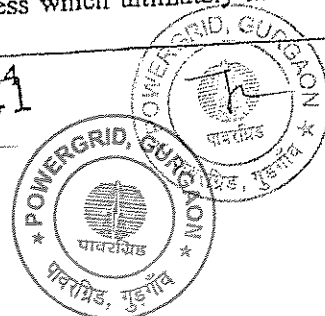
- i) Stepping up of power at the generation project to 400 kV
- ii) Provision of Bus reactor of 2x125 MVAR at generation switchyard.
- iii) Provision of 2x500 MVA, 400/220kV transformers at generation switchyard and 6 nos. 220 kV bays

To be implemented as ISTS (as evacuation system for Kudgi TPS Phase-I):

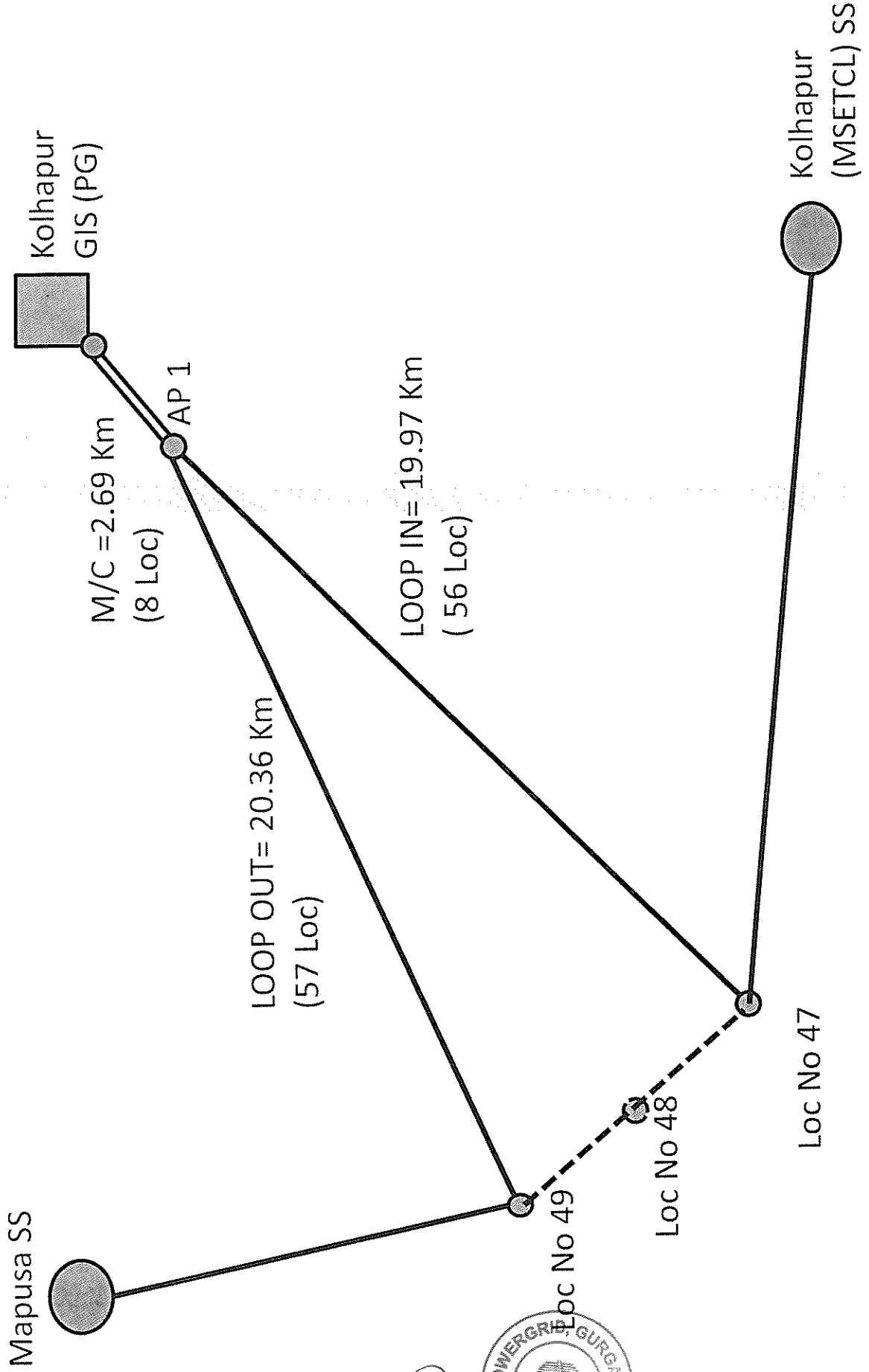
- i) Kudgi TPS – Narendra (New) 400 kV 2xD/C quad lines
- ii) Narendra (New) – Madhugiri 765 kV D/C line (initially charged at 400 kV)
- iii) Madhugiri – Bangalore 400 kV D/c (quad) line. (The terminal point at Bangalore is yet to be decided. for which POWERGRID would take action and inform CEA/SCPSR)

2.7 Requirement of Spare Converter Transformers for HVDC back to back station at Vizag (Gazuwaka)

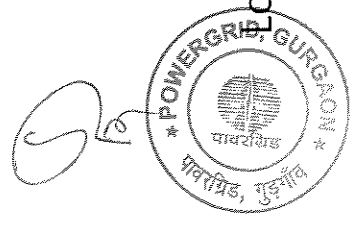
The HVDC Back-to Back Station at Chandrapur has been consistently being operated at Utilisation factor more than 93% during 2011 (except during June and July, 2011) and has exceeded 99% during Feb & March, 2011. Further frequent change in Power Order depending upon Grid condition/system requirement, the Converter Transformers are subjected to frequent operation of On Load Tap Changers and transformers are subjected to enormous stress which ultimately has long term effect



LILO of 400kV DC Kolhapur (MSETCL) - Mapusa at Kolhapur GIS (PG)



End-3

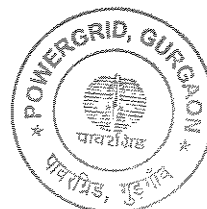


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**SCOPE OF WORKS FOR
SYSTEM STRENGTHENING - XVII IN SOUTHERN REGIONAL GRID**

A. <u>Transmission Lines</u>	<u>Length (Km)</u>
1.0 Narendra (New, Kudgi) - Kolhapur (New) 765 kV D/C	198
2.0 LILO of both circuits of existing Kolhapur-Mapusa 400kV D/C Line at Kolhapur (GIS)	43
3.0 Narendra (New, Kudgi) -Narendra (Existing) 400kV D/C Quad Line	185
B. <u>Substation Works</u>	
1.0 400KV New Substation at Narendra (New, Kudgi) (which shall be later upgraded to 765 kV)	<u>400 kV</u> - Line Bays : 4 Nos. - 125MVAR, 420KV 3-ph Bus Reactor : 1 No - Bus Reactor Bays : 1 No. - Tie Bays : 3 Nos.
2.0 400KV New Substation at Kolhapur (New) (which shall be later upgraded to 765 kV)	<u>400 kV</u> - Line Bays : 6 Nos. - 125MVAR, 420KV 3-ph Bus Reactor : 1 No - Bus Reactor Bays -1 no. - Tie Bays : 4 Nos.
3.0 Extension of 400/220 kV Narendra (Existing) Substation	<u>400 kV</u> - Line Bays : 2 Nos. - Tie Breaker Bay - 1 no.

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IN THE COURT OF DIVISIONAL MAGISTRATE, KOLHAPUR
(MAHARASHTRA STATE)

Power Grid Corporation of India LtdApplicant
765/400 KV GIS
Survey No.95/96 Kalamba Village
P.O.Girgaon, Tal.Karveer, Dist.Kolhapur
- Versus-

1. Sh. Ashok Nivruti PatilNon-Applciant
2. Smt.Usha Madan Mutha/
Sh.Madan Amolchand Mutha
V+Post: Karnoor, Taluka:Kagal
Dist: Kolhapur (Maharashtra).

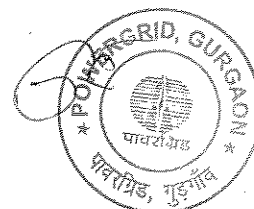
Application Under Section 16(1) read with Section 10 of the Indian Telegraph Act, 1885 and Section 164 of the Electricity Act, 2003, seeking permission to exercise the powers under the Act during construction of Loop-Out of LILO of 400 KV D/C Kolhapur – Mapusa line to GIS Station at Kalamba, Tal.Karveer, Dist.Kolhapur under System Strengthening in Southern Region – XVII Scheme

The Applicant most humbly submits as under:-

1) That Power Grid Corporation Of India limited (POWERGRID). A Government Of India Enterprise. is incorporated under the companies act, 1956 having its Registered office at B-9 Qutub Institutional Area, Katwaria Sarai, New Delhi. The statutory functions and duties mandated under section 38 and 40 of the Electricity Act, 2003 *inter-alia*, are to undertake the transmission of electricity through Inter-state Transmission system (ISTS), to build, maintain and operate an efficient, coordinated and economical transmission systems.

2) That POWERGRID is declared as "Central Transmission Utility" (CTU) Under the Electricity Act, 2003 and therefore, it is deemed 'Transmission Licensee' authorized to establish, operate and maintain transmission lines. The Government of India, in exercise of powers under section 164 of the Electricity Act, 2003, has conferred upon and/or authorized POWERGRID to exercise all the power vested in and/or possessed by the 'Telegraph Authority' under part -III of the Indian telegraph act 1885, vide Order dated 24th December 2003 published in the Gazette of India: Extraordinary: Part II- Section 3-Sub- section (ii) (Copy of Gazette notification dated 24.12.2003 is enclosed at Annexure – I). In order to discharge the statutory duties and the functions mandated under the Electricity Act, 2003, the applicant is legally authorized to use the immovable property for establishment of the transmission line including erection of the towers. The Applicant causes as little damage as possible and if any damage is caused, the compensation is paid as per assessment done by the Executive Magistrate.

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3) That pursuant to prior approval of the Government of India accorded under section 68 of the Electricity Act 2003, vide Central Electricity Authority, Government of India, letter dated 27.04.2011, and an extra high voltage line Loop-In and Loop-Out (LILO) of 400 KV D/C Kolhapur-Mapusa Line is being established under System Strengthening in Southern Region – XVII Scheme. Copy of letter is enclosed as **Annexure-II**. The said scheme is being implemented in larger interest of public. It would immensely benefit and boost the agriculture, industry, commercial establishment and the household consumers and cater to their daily need of power.

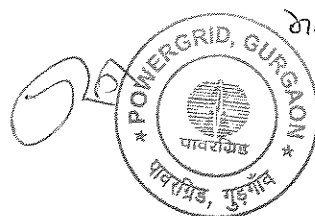
4) That while the applicant was executing the work of Loop-Out of aforesaid mentioned EHV Transmission Line, using the agricultural lands of the following land owners/occupants of the village mentioned against them in Village-Karnoor Taluka Kagal, Dist-Kolhapur the Applicant was obstructed to exercise the powers under law to establish the aforesaid mentioned EHV Transmission Line:

Sr. No.	Name of Land Owners/Occupiers	Taluka	Village	Gut no.	Loc. No.	Remarks
01	Sh. Ashok Nivruti Patil & Smt. Usha Madan Mutha/Sh.Madan Amolchand Mutha	Kagal	Karnoor	246	Loop-Out Loc.no 7/2	Obstruction from the land owner/s to cast foundation/ Tower erection and laying of EHV line

5) That a small piece of land is falling under the line corridor for which it was explained to the land owners that sufficient clearance is available below the line conductor. The land owners shown resistance and obstructed the Foundation/Tower Erection/Stringing work at Loc 7/2 of **Loop-Out line**. Due to obstruction by land owners, no work could be taken up and the project is jeopardized.

6) The whole of land may be used for agricultural purpose or grow any kind of crop. The subject section of the line has been undertaken with the optimal route considering all the relevant factors/aspects required to be considered for alignment of the route. The line has been finalized by highly skilled persons and experts. It is humbly submitted that there is no illegality or infirmity in the acts of the Applicant to enter upon the subject land and use it for establishment of tower under an Approved Scheme. The copy of 7/12 Extract is enclosed at **Annexure -III**.

7) That the finalization of the route alignment of the line was got done by the Applicant through experts after walk-over survey, detailed survey and check survey considering all the technical, ecological and environmental factors/aspects and such finalization of the route cannot now be questioned by the Non-Applicants. The copy of the said Route Map is enclosed **Annexure-IV**. It is for the Applicant to take decision with regard to use of the appropriate land to locate the towers as per the technical requirement/parameters and norms. A particular land is identified by the Applicant



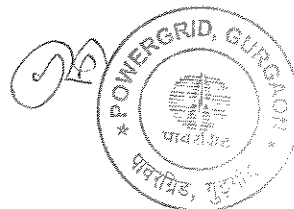
after due investigation and considering all the relevant factor/aspects and it is not for the owners and others to the point out as to which land is to be utilized and to which land should not used. It is submitted that if such obstruction are not removed, it would be detrimental to the highly technical functioning of the Applicant, whose statutory duties and functions include, inter-alia, to establish inter-state transmission system running into hundreds of kilometer complying with standard norms, and required parameters.

8) That according to the provision contained in the Electricity Act, 2003 and Part-III of the Indian Telegraph Act, 1885, the Applicant is authorized and empowered to the place and maintain the electric line and posts in or upon and any land. It causes as little damage as possible and if any damage to the crop or tree or structure is caused, compensation is paid after it is assessed by the Executive Magistrate. It is submitted that in the instant case also if any damage to the crop or tree or structure whatsoever is caused during the establishment of the line, the compensation will be paid after assessment by the Executive Magistrate. According to the section 16(3) of the Indian Telegraph Act, 1885, if any dispute arises concerning the sufficiency of the compensation, as assessed by the Magistrate, the aggrieved person has a remedy. It is submitted that the Applicant does not acquire any land. The land is merely used for the establishment of an electric line. It is an established law that there could not be valid objection to the implementation of the sanctioned scheme either on the principle of natural justice and on the ground of unauthorized use of the land and the compensation is provided under the law for the loss or damage of crop or tree or structure.

9) That the Foundation, Tower Erection and stringing work at location no. 7/2 of Loop-Out line (Tal-Kagal) in this area is pending due to resistance/obstruction from the land owners. The progress of work done is shown in progress chart. The copy of the progress chart is enclosed at Annexure – V. It is submitted that in case the resistance/obstruction is not removed, the inconvenience caused to the Applicant, would be tremendous and manifold as compared to a little inconvenience to the owners of the subject land. The works at the location have come to standstill and any delay in non-removal of the obstruction/resistance would result into heavy cost, directly as well as indirectly on a Government Company. It is submitted that the Applicant made all efforts to persuade the Non-Applicants explaining entire legal and factual positions and requested him not to resist or obstruct the execution of the works, but to no avail.

10) That any obstruction/resistance by any individual in carrying out the works of an Approved Scheme in accordance with the standard norms, practice, technical and environmental requirements, will cause an irreparable loss to POWERGRID. In particular and to the public, in general. Such resistance or obstruction will, in no uncertain term, be against the public interest. The project is being implemented in a time-bound program in which the time is of essence. The Government of India (GOI) monitors regularly the performance of POWERGRID which has statutory duty to carry out the works as required by GOI in a most efficient and economical manner. The Indian Telegraph Act 1885, clearly provides that in exercise of powers, 'The Telegraph Authority' does not acquire any right other than that of the user only in the property. As submitted in the foregoing paragraphs, the Applicant-POWERGRID is conferred with all the powers that are possessed by a 'Telegraph Authority' in Part-III of the Indian Telegraph Act – 1885.

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11) That the Applicant most humbly craves leaves of your good selves for the opportunity of oral hearing and submission of the additional documents, as and when required, to establish their case.

12) In the facts and circumstances of the case, it is most humbly prayed that-

(i) The Order be passed granting permission to the Applicant – POWERGRID to exercise the powers of section-10 & 16(1) of the Indian Telegraph Act , 1885 in order to carry out the works at Location No 7/2 of **Loop-Out line** for the establishment of LILO of 400 KV D/C Kolhapur-Mapusa Line for the said scheme as per the finalized route alignment by using the land of the Non-Applicant belonging to Sh. Ashok Nivruti Patil & Smt. Usha Madan Mutha/Sh.Madan Amolchand Mutha of Karnoor Village, Taluka Kagal, Dist:- Kolhapur .

(ii) The Non-Applicant be further directed by Order that the Non-Applicant herein above will individually give all facilities to carry out the works of the Foundation, Erection and Stringing of the Transmission Line under the scheme, as approved, without any obstruction, or resistance, or objection of any kind what so ever in using the subject land.

(iii) The Non-Applicant be directed that in the event of any resistance or obstruction after making of such Order in terms of prayer clause i) and ii) of para. 12 above, the concerned Non-Applicant will be deemed to have committed an offence u/S 188 of the Indian Panel Code , 1860 ; and the said work shall be started with adequate Police protection.

(iv) The concerned Police authorities be directed to provide adequate Police Protection in the event of any resistance or obstruction by the Non-Applicant u/s 188 of IPC,1860 after making of such order.

(v) Any other relief as deemed fit.

Hence prayed, accordingly

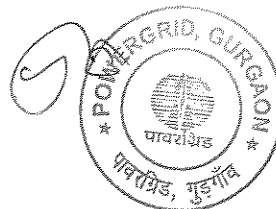
PLACE: Kolhapur

DATE:

APPLICANT-POWERGRID

M. M. Mehendale
28/5

एम. एम. मेहेंदले (TLC)/M. M. Mehendale (TLC)
सहायक महासंचालक/Asst. Gen. Manager
पावरग्रिड-कोल्हापूर/Power Grid-Kolhapur.

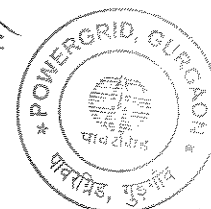


LIST OF DOCUMENTS FILED BY APPLICANT

S.NO	PARTICULARS	ANNEXURE
01	Gazette notification dated 24.12.2003	I
02	PRIOR APPROVAL LETTER FROM Central Electricity Authority, Govt. of India	II
03	7/12 extracts	III
04	Route Map	IV
05	Progress Charts	V

२१/१२/२००३

१/११



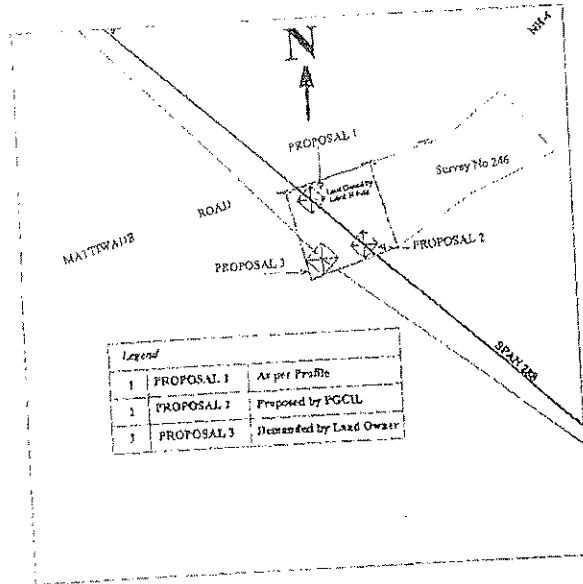
१०

'स्वराज्य भवन', नागाळा पार्क,
कोल्हापूर ४१६ ००३. दिनांक १२/०८/२०१५

✓ विद्युत वित्त प्रदायक पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लि., ७६०/१०० KV GIS, प्लॉट नं. १५/१६, कर्मळा, जे. गिरगाव, ता. करनूर, जि. कोल्हापूर	वादी
विस्तार	
१) श्री अशोक निवृत्ती पाटील	प्रतिवादी
२) श्रीभी उषा गदन मुथा	
श्री गदन असोवचंद मुथा	
भर्बे रा. करनूर, ता. कागल, जि. कोल्हापूर	

वादी यांनी इंडियन टेलिग्राफ अॅक्ट १८८५ मधील कलम १६(१) नुसार दाखल केलेला अर्ज क्रमांक टेलि.अॅक्ट/अर्ज-१/२०१५ मध्ये, दि. १२/०८/२०१५ रोजी खालीलप्रमाणे आदेश पारित केला आहे.

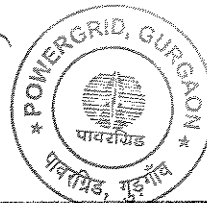
'वादी यांच्या दि इंडियन टेलिग्राफ अॅक्ट १८८५ नुसारचा अर्ज क्र. १/२०१५ अंशतः मान्य करित आहे. वा यांच्या प्रकल्पास प्रतिवादी यांच्या मालकीची मौजे करनूर, ता. कागल, जि. कोल्हापूर येथील गट नं. २४६ मध्ये जमीनीमध्ये खालील समजुतीच्या नकाशामध्ये Proposal 2 या स्थानी दर्शविण्यात आलेल्या जागेवर पावर लि कॉर्पोरेशन ऑफ इंडिया लि., या वादी कंपनीचा टॉवर उभारण्यासंदर्भात आदेश पारित करित आहे. सदर जागे टॉवर उभारण्यास प्रतिवादी यांनी कोणताही अडथळा करून नये. प्रतिवादी यांच्या जागेमध्ये टॉवर उभारताना जमीनी असल्यास त्यामधील पीक, फळझाडे, जलवाहिनी, छिन्न सिंचन संच, कुपनलिका, विहिरी यापैकी ज्याचे नुकस होऊ असेल, असे नुकसानीचा नियमाप्रमाणे मोबदला वादी यांनी प्रतिवादी यांना परस्पर देणेचा आहे. वादी य दिलेल्या मोबदला प्रतिवादी यांना मान्य नसल्यास दि इंडियन टेलिग्राफ अॅक्ट १८८५ मधील कलम १६ अन्वये जिल्हा न्यायालयत दाद मागता येई सदर आदेशाची समज सर्वसंबंधीतांना देण्यात यावी.'



सही/xxx
जिल्हादंडाधिकारी, कोल्हा

12/8/15
जिल्हादंडाधिकारी, कोल्हापूर

12/8/15



IN THE COURT OF DISTRICT MAGISTRATE, KOLHAPUR
(MAHARASHTRA STATE)

Power Grid Corporation of India LtdApplicant
765/400 KV GIS
Survey No.95/96 Kalamba Village
P.O.Girgaon, Tal.Karveer, Dist.Kolhapur
- Versus-

1. Sh. Dhanpal Bandu KinikarNon-Applicant
2. Bhupal Bandu Kinikar
3. Bapu Lahu Borate
4. Khanu Mhakoji Borate
5. Baban Bapu Hajare
6. Vithal Bapu Hajare
7. Ananda Bapu Hajare
8. Navala Bapu Hajare
9. Shobha Bapu Hajare
10. Sajjan Bapu Hajare
11. Sarang Damodhar Dhere
12. Rahul Baburao Patil
All above Owners of land in
Kogil Budruk. Village, Taluka: Karveer
Dist: Kolhapur

Application Under Section 16(1) read with Section 10 of the Indian Telegraph Act, 1885 and Section 164 of the Electricity Act, 2003, seeking permission to exercise the powers under the Act during construction of Loop-In of LILO of 400 KV D/C Kolhapur – Mapusa line to GIS Station at Kalamba, Tal.Karveer, Dist.Kolhapur under System Strengthening in Southern Region – XVII Scheme

The Applicant most humbly submits as under:-

1) That Power Grid Corporation Of India limited (POWERGRID). A Government Of India Enterprise, is incorporated under the companies act, 1956 having its Registered office at B-9 Qutub Institutional Area, Katwaria Sarai, New Delhi. The statutory functions and duties mandated under section 38 and 40 of the Electricity Act, 2003 *inter-alia*, are to undertake the transmission of electricity through Inter-state Transmission system (ISTS), to build, maintain and operate an efficient, coordinated and economical transmission systems.

2) That POWERGRID is declared as "Central Transmission Utility" (CTU) Under the Electricity Act, 2003 and therefore, it is deemed 'Transmission Licensee' authorized to establish, operate and maintain transmission lines. The Government of India, in exercise of powers under section 164 of the Electricity Act, 2003, has conferred upon and/or authorized POWERGRID to exercise all the power vested in and/or possessed by the 'Telegraph Authority' under part –III of the

महेश्वर महेदले
एम. एम. मेहेंदळे (TLC)/M. M. Mehendale (TLC)
सहायक महाप्रबंधक/Asst. Gen. Manager
पावर ग्रीड-कोल्हापूर/Power Grid-Kolhapur.

POWERGRID, COLHAPUR
पावर ग्रीड, मुडगाव

Indian telegraph act 1885, vide Order dated 24th December 2003 published in the Gazette of India; Extraordinary; Part II- Section 3-Sub- section (ii) (Copy of Order dated 24.12.2003 is enclosed at **Annexure – I**). In order to discharge the statutory duties and the functions mandated under the Electricity Act. 2003, the applicant is legally authorized to use the immovable property for establishment of the transmission line including erection of the towers. The Applicant causes as little damage as possible and if any damage is caused, the compensation is paid as per assessment done by the Executive Magistrate.

3) That pursuant to prior approval of the Government of India accorded under section 68 of the Electricity Act 2003, vide Central Electricity Authority, Government of India, letter dated 27.04.2011, and an extra high voltage line Loop-In and Loop-Out (LILO) of 400 KV D/C Kolhapur-Mapusa Line is being established under System Strengthening in Southern Region – XVII Scheme. Copy of letter is enclosed as **Annexure-II**. The said scheme is being implemented in larger interest of public. It would immensely benefit and boost the agriculture, industry, commercial establishment and the household consumers and cater to their daily need of power.

4) That while the applicant was executing the work of Loop-In of aforesaid mentioned EHV Transmission Line, using the agricultural lands of the following land owners/occupants of the village mentioned against them in **Village-Kogil Budruk**, Taluka Karveer, Dist-Kolhapur the Applicant was obstructed to exercise the powers under law to establish the aforesaid mentioned EHV Transmission Line:

Sr. No.	Name of Land Owners/Occupiers	Taluka	Village	Gut no.	Loc. No.	Remarks
01	1. Sh. Dhanpal Bandu Kinikar 2. Bhupal Bandu Kinikar 3. Bapu Lahu Borate 4. Khanu Mhakoji Borate 5. Baban Bapu Hajare 6. Vithal Bapu Hajare 7. Ananda Bapu Hajare 8. Navala Bapu Hajare 9. Shobha Bapu Hajare 10. Sajjan Bapu Hajare 11. Sarang Damodhar Dhere 12. Rahul Baburao Patil	Karveer	Kogil Budruk	510	Loop-In Loc.no .14/4	Obstruction from the land owner/s to cast foundation/ Tower erection and laying of EHV line

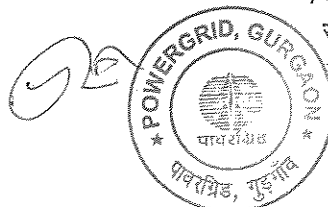
5) That a small piece of land is falling under the line corridor for which it was explained to the land owners that sufficient clearance is available below the line conductor. The land owners shown resistance and obstructed the Foundation/Tower Erection/Stringing work at Loc 14/4 of Loop-In line. Due to obstruction by land owners, no work could be taken up and the project is jeopardized.

(Handwritten Signature)

एम. एम. मेहेंदळे (TLC)/M. M. Mehendale (TLC)

साहाय्यक महाप्रबंधक/Asst. Gen. Manager

पावरग्रिड-कोल्हापूर/Power Grid-Kolhapur.



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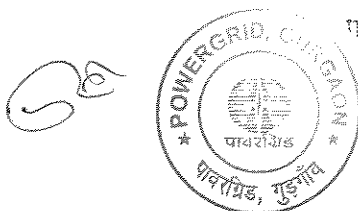
6) The whole of land may be used for agricultural purpose or grow any kind of crop. The subject section of the line has been undertaken with the optimal route considering all the relevant factors/aspects required to be considered for alignment of the route. The line has been finalized by highly skilled persons and experts. It is humbly submitted that there is no illegality or infirmity in the acts of the Applicant to enter upon the subject land and use it for establishment of tower under an Approved Scheme. The copy of 7/12 Extract is enclosed at **Annexure -III**.

7) That the finalization of the route alignment of the line was got done by the Applicant through experts after walk-over survey, detailed survey and check survey considering all the technical, ecological and environmental factors/aspects and such finalization of the route cannot now be questioned by the Non-Applicants. The copy of the said Route Map is enclosed **Annexure-IV**. It is for the Applicant to take decision with regard to use of the appropriate land to locate the towers as per the technical requirement/parameters and norms. A particular land is identified by the Applicant after due investigation and considering all the relevant factor/aspects and it is not for the owners and others to the point out as to which land is to be utilized and to which land should not be used. It is submitted that if such obstruction are not removed, it would be detrimental to the highly technical functioning of the Applicant, whose statutory duties and functions include, inter-alia, to establish inter-state transmission system running into hundreds of kilometer complying with standard norms, and required parameters.

8) That according to the provision contained in the Electricity Act, 2003 and Part-III of the Indian Telegraph Act, 1885, the Applicant is authorized and empowered to place and maintain the electric line and posts in or upon and any land. It causes as little damage as possible and if any damage to the crop or tree or structure is caused, compensation is paid after it is assessed by the Executive Magistrate. It is submitted that in the instant case also if any damage to the crop or tree or structure whatsoever is caused during the establishment of the line, the compensation will be paid after assessment by the Executive Magistrate. According to the section 16(3) of the Indian Telegraph Act 1885, if any dispute arises concerning the sufficiency of the compensation, as assessed by the Magistrate, the aggrieved person has a remedy. It is submitted that the Applicant does not acquire any land. The land is merely used for the establishment of an electric line. It is an established law that there could not be valid objection to the implementation of the sanctioned scheme either on the principle of natural justice and on the ground of unauthorized use of the land and the compensation is provided under the law for the loss or damage of crop or tree or structure.

9) That the Foundation, Tower Erection and stringing work at location no. 14/4 of Loop-In line (Tal-Karveer) in this area is pending due to resistance/obstruction from the land owners. The progress of work done is shown in progress chart. The copy of the progress chart is enclosed at **Annexure -V**. It is submitted that in case the resistance/obstruction is not removed, the inconvenience caused to the Applicant, would be tremendous and manifold as compared to a little inconvenience to the owners of the subject land. The works at the location have come to standstill and any delay in non-removal of the obstruction/resistance would result into heavy cost, directly as well as indirectly on a Government Company. It is submitted that the Applicant made all efforts to persuade the Non-Applicants explaining entire legal and factual positions and requested him not to resist or obstruct the execution of the works, but to no avail.

ॐ
रु. म. महेन्दले (TLC) / M. M. Mehendale (TLC)
सहायक महाप्रबंधक / Asst. Gen. Manager
पावरग्रिड-कोल्हापूर / Power Grid-Kolhapur.



10) That any obstruction/resistance by any individual in carrying out the works of an Approved Scheme in accordance with the standard norms, practice, technical and environmental requirements, will cause an irreparable loss to POWERGRID. In particular and to the public, in general. Such resistance or obstruction will, in no uncertain term, be against the public interest. The project is being implemented in a time-bound program in which the time is of essence. The Government of India (GOI) monitors regularly the performance of POWERGRID which has statutory duty to carry out the works as required by GOI in a most efficient and economical manner. The Indian Telegraph Act 1885, clearly provides that in exercise of powers, 'The Telegraph Authority' does not acquire any right other than that of the user only in the property. As submitted in the foregoing paragraphs, the Applicant-POWERGRID is conferred with all the powers that are possessed by a 'Telegraph Authority' in Part-III of the Indian Telegraph Act - 1885.

11) That the Applicant most humbly craves leaves of your good selves for the opportunity of oral hearing and submission of the additional documents, as and when required, to establish their case.

12) In the facts and circumstances of the case, it is most humbly prayed that-

(i) The Order be passed granting permission to the Applicant - POWERGRID to exercise the powers of section-10 & 16(1) of the Indian Telegraph Act, 1885 in order to carry out the works at Location No 14/4 of Loop-In line for the establishment of LILO of 400 KV D/C Kolhapur-Mapusa Line for the said scheme as per the finalized route alignment by using the land of the Non-Applicant belonging to Kogil Budruk Village, Taluka Karveer, Distt:- Kolhapur.

(ii) The Non-Applicant be further directed by Order that the Non-Applicant herein above will individually give all facilities to carry out the works of the Foundation, Erection and Stringing of the Transmission Line under the scheme, as approved, without any obstruction, or resistance, or objection of any kind what so ever in using the subject land.

(iii) The Non-Applicant be directed that in the event of any resistance or obstruction after making of such Order in terms of prayer clause i) and ii) of para. 12 above, the concerned Non-Applicant will be deemed to have committed an offence u/s 188 of the Indian Penal Code, 1860; and the said work shall be started with adequate Police protection.

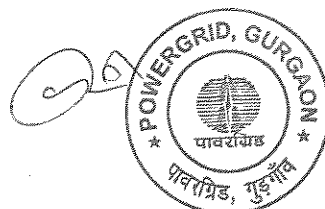
(iv) The concerned Police authorities be directed to provide adequate Police Protection in the event of any resistance or obstruction by the Non-Applicant u/s 188 of IPC, 1860 after making of such order.

(v) Any other relief as deemed fit.

Hence prayed, accordingly

PLACE: Kolhapur

DATE: 04/06/15



APPLICANT-POWERGRID

एम. एम. मेहेंदळे (TLC)/M. M. Mehendale (TLC)
सहायक महाप्रबंधक/Asst. Gen. Manager
पावरग्रिड-कोल्हापूर/Power Grid-Kolhapur.

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क्र.काया-७/गृह/ट.अक्ट/अज-२/२०१५.

जिल्हाधिकारी व जिल्हादंडाधिकारी कार्यालय
'स्वराज्य भवन', नागाळा पार्क,
कोल्हापूर ४१६ ००३.
दिनांक २५/०८/२०१५

प्रति.

सहाय्यक महाप्रबंधक

पॉवर ग्रिड कॉर्पोरेशन ऑफ इंडिया लि.

Plot No. 10 K.V. GIS. म.नं. २५/१६, कळंगवा.

पो. मिरगाव, ता. करवीर, जि. कोल्हापूर

वादी

विरुद्ध

१) श्री. धनपाल बंडू किर्णीकर

२) श्री. भुपाल बंडू किर्णीकर

३) श्री. बापू लहू बोराटे

४) श्री. खानू म्हाकोजी बोराटे

५) श्री. बबन बापू हजारे

६) श्री. विठ्ठल बापू हजारे

७) श्री. आनंदा बापू हजारे

८) श्री. नवला बापू हजारे

९) श्रीमती शोभा बापू हजारे

१०) श्री. सज्जन बापू हजारे

११) श्री. सारंग दामोदर ढेरे

१२) श्री. राहुल बाबुराव पाटील

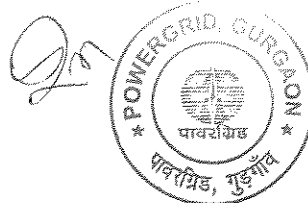
प्रतिवादी

सर्व रा. कोगील बुद्रुक, ता. करवीर, जि. कोल्हापूर

वादी यांनी इंडियन टेलिग्राफ अॅक्ट, १८८५ मधील कलम १६(१) नुसार दाखल केलेला अर्ज क्रमांक
टे.अॅक्ट/अज-२/२०१५ मध्ये, दि. २५/०८/२०१५ रोजी खालीलप्रमाणे आदेश पारित केला आहे.'

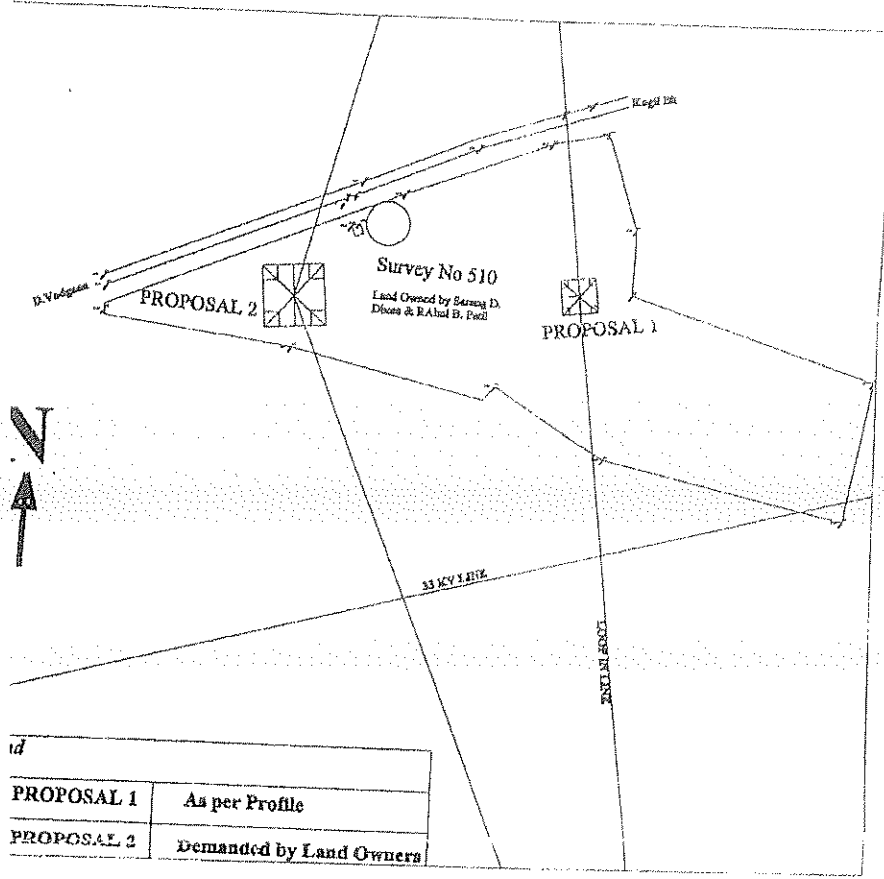
'वादी यांचा दि इंडियन टेलिग्राफ अॅक्ट, १८८५ नुसारचा अर्ज क्र. २/२०१५ मंजूर करित आहे. व
यांच्या प्रकल्पासाठी प्रतिवादी यांच्या मालकीची कोगील बुद्रुक, ता. करवीर जि. कोल्हापूर येथील गट नं. ५
मधील जमिनीमध्ये खालील समजुतीच्या नकाशांमध्ये Proposal I या स्थानी दर्शविण्यात आलेल्या जागेवर वा
पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लि., या कंपनीचा टॉवर उभारण्यासाठी याद्वारे आदेश पारित करित आहे.

पान नं. २ .



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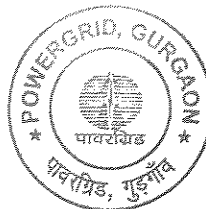
(२)



Proposal 1 या जागेवर टॉवर उभारण्यास प्रतिवादी यांनी कोणताही अडथळा करू नये तसेच वादी यांना ती यांनी आवश्यक ते सहकार्य करणेचे आहे. प्रतिवादी यांच्या जागेमध्ये टॉवर उभारताना जमीनीचे, तसेच त्यामधील पीक, फळझाडे, जलवाहिनी, टिबक सिंचन संघ, कुपर्नालका, विहिरी यापैकी ज्याचे नुकसान झाले, असे नुकसानीचा नियमाप्रमाणे मोबदला वादी यांनी प्रतिवादी यांना परस्पर देणेचा आहे. वादी यांनी 'मोबदला प्रतिवादी यांना मान्य नसल्यास दि ईंडियन टेलिग्राफ अँक्ट, १८८५ मधील कलम १६ अन्वये यांना जिल्हा न्यायालयात दाद मागता येते. सदर आदेशाची समज सर्वसंबंधीतांना देण्यात यावी.'

सही/xxx
जिल्हादंडाधिकारी, कोल्हापूर

जिल्हादंडाधिकारी, कोल्हापूर करिता



CERTIFICATE OF CAPITAL COST

Project Name: SYSTEM STRENGTHENING - XVII IN SOUTHERN REGION
 Name of Element: 125 MVAR Bus reactor along with associated bays at 400kV Kolhapur GIS (new) SS
 Anticipated DOCO : 01-09-2015

(RS./ LAKHS)

PARTICULARS	Expenditure Upto 31.03.2014	Expenditure From 01.04.2014 to 31.03.2015	Estimated Expenditure From 01.04.2015 to 31.08.2015	Estimated Expenditure From 01.09.2015 to 31.03.2016	Estimated Expenditure From 01.04.2016 to 31.03.2017	Total Expenditure
LAND	-	-	-	-	-	-
BUILDING, CIVIL WORKS & COLONY	-	21.92	31.64	25.00	26.08	104.64
TRANSMISSION LINE	-	-	-	-	-	-
SUB-STATION	-	265.73	775.90	200.00	239.98	1,481.61
PLCC	-	-	-	-	-	-
	-	287.65	807.54	225.00	266.06	1,586.25

Particulars	TL	Sub-Station
Total Cost (Plant and Machinery cost excluding IDC, IEDC, Land cost and cost of Civil works for the purpose of Initial Spares)	-	1,433.22
Initial Spares included above	-	70.00

This is to certify that the above summary has been prepared on the basis of the information drawn from the Audited Statement of Accounts of Power Grid Corporation of India Ltd., Western Region, Nagpur up to 31.03.2015. The balance expenditure is based on the estimates.

Place : Nagpur
 Date : 19.06.2015

[Signature]
 P. Pramod
 DGM (F&A)
 WR-1, Nagpur



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CERTIFICATE OF CAPITAL COST

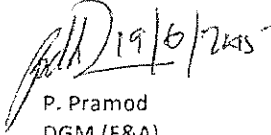
Project Name : SYSTEM STRENGTHENING - XVII IN SOUTHERN REGION
Name of Element : 125 MVAR Bus reactor along with associated bays at 400kV
Kolhapur GIS (new) SS
Anticipated DOCO : 01-09-2015

(RS./ LAKHS)

PARTICULARS	CAPITAL COST	IDC	IEDC	TOTAL
Expenditure Upto 31.03.2014	-	-	-	-
Expenditure 01.04.2014 to 31.03.2015	276.88	0.74	10.03	287.65
Estimated Expenditure 01.04.2015 to 31.08.2015	767.44	9.17	30.93	807.54
Estimated Expenditure 01.09.2015 to 31.03.2016	225.00	-	-	225.00
Estimated Expenditure 01.04.2016 to 31.03.2017	266.06	-	-	266.06
	1,535.38	9.91	40.96	1,586.25

This is to certify that the above summary has been prepared on the basis of the information drawn from the Audited Statement of Accounts of Power Grid Corporation of India Ltd., Western Region, Nagpur up to 31.03.2015. The balance expenditure is based on the estimates.

Place : Nagpur
Date : 19.06.2015


P. Pramod
DGM (F&A)
WR-1, Nagpur



CERTIFICATE OF CAPITAL COST

Project Name: SYSTEM STRENGTHENING XVII IN SOUTHERN REGION
 Name of Element: LILO of 400KV D/C Kolhapur-Mapusa at 400KV Kolhapur GIS (new) SS along with associated bays
 Anticipated DOCO : 01-09-2015


(RS./ LAKHS)

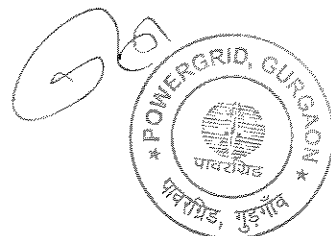
PARTICULARS	Expenditure Upto 31.03.2014	Expenditure From 01.04.2014 to 31.03.2015	Estimated Expenditure From 01.04.2015 to 31.08.2015	Estimated Expenditure From 01.09.2015 to 31.03.2016	Estimated Expenditure From 01.04.2016 to 31.03.2017	Estimated Expenditure From 01.04.2017 to 31.03.2018	Total Expenditure
LAND	185.76	64.29	-	-	-	-	250.05
BUILDING, CIVIL WORKS & COLONY	615.50	351.78	1,538.76	722.65	950.16	335.00	4,513.85
TRANSMISSION LINE	996.01	1,362.32	4,253.26	934.46	-	-	7,546.05
SUB-STATION	4.35	717.18	5,792.07	469.32	1,064.47	-	8,047.39
PLCC	-	55.47	65.00	-	49.58	-	170.05
	1,801.62	2,551.04	11,649.09	2,126.43	2,064.21	335.00	20,527.39

Particulars	TL	Sub-Station
Total Cost (Plant and Machinery cost excluding IDC, IEDC, Land cost and cost of Civil works for the purpose of Initial Spares)	6,715.08	7,945.79
Initial Spares included above	60.33	397.00

This is to certify that the above summary has been prepared on the basis of the information drawn from the Audited Statement of Accounts of Power Grid Corporation of India Ltd., Western Region, Nagpur up to 31.03.2015. The balance expenditure is based on the estimates

Place : Nagpur
 Date : 06.08.2015


 P. Pramod
 DGM (F&A)
 WR-1, Nagpur



~~06.08.2015~~

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CERTIFICATE OF CAPITAL COST

Project Name : SYSTEM STRENGTHENING XVII IN SOUTHERN REGION

Name of Element : LIO of 400kV D/C Kolhapur- Mapusa at 400kV Kolhapur GIS (new) SS along with associated bays

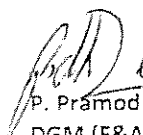
Anticipated DOCO : 01-09-2015

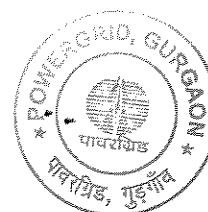
(RS./ LAKHS)

PARTICULARS	CAPITAL COST	IDC	IEDC	TOTAL
Expenditure Upto 31.03.2014	954.12	380.75	466.75	1,801.62
Expenditure 01.04.2014 to 31.03.2015	2,425.13	8.60	117.31	2,551.04
Estimated Expenditure 01.04.2015 to 31.08.2015	11,205.15	30.33	413.61	11,649.09
Estimated Expenditure 01.09.2015 to 31.03.2016	2,126.43			2,126.43
Estimated Expenditure 01.04.2016 to 31.03.2017	2,064.21			2,064.21
Estimated Expenditure 01.04.2017 to 31.03.2018	335.00			335.00
	19,110.04	419.68	997.67	20,527.39

This is to certify that the above summary has been prepared on the basis of the information drawn from the Audited Statement of Accounts of Power Grid Corporation of India Ltd., Western Region, Nagpur up to 31.03.2015. The balance expenditure is based on the estimates

Place : Nagpur
Date : 06.08.2015


P. Pramod
DGM (F&A)
WR-1, Nagpur





Ref.: NSE/LIST/163951-H

March 29, 2012

The Manager (Finance)
Power Grid Corporation of India Limited
Saudamini,
Plot No.2, Sector - 29,
Gurgaon(Haryana) - 122 001.

Kind Attn. : Mr. K.C. Pant

Dear Sir,

Sub: Listing of Secured, Redeemable, Non-Convertible, Non Cumulative, Redeemable, Taxable Bonds (Series-XXXVIII) issued by Power Grid Corporation of India Limited


This has reference to your listing application for the listing of secured redeemable, non-convertible, non cumulative, redeemable, taxable Bonds (Series-XXXVIII).

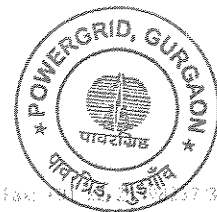
In this connection, we are pleased to inform you that the securities as specified in the application are duly listed on the WDM segment with effect from March 29, 2012 and all members have been suitably informed as per details given below:

Sr. No	Security Description	Sec Type	Security	Issue	Issue Size (Rs. in lakhs)	Maturity Date
1	POWER GRID CORP 9.25% 2027 (S-XXXVIII)	PT	PGC27	9.25%	85500	09-Mar-2027

A Trade Statistics report will be provided to you on a monthly basis in the first week of the following month, if the security was traded during the previous month. This report will contain price volume details for each day traded.

Yours truly,
For National Stock Exchange of India Limited


Johnson Joseph
Chief Manager





भारतीय स्टेट बैंक
State Bank of India

कॉरपोरेट लेखा समूह शाखा, जवाहर व्यापार भवन,
11-12 वॉ तल, 1, टॉलस्टॉय मार्ग, नई दिल्ली-110 001
Corporate Accounts Group Branch, Jawahar Vyapar Bhawan,
11th & 12th Floor, 1, Tolstoy Marg, New Delhi-110 001

Tel. : 23374525, 23374505, 23374541 (AMT-1), 23353022 (AGM & COO), 23701043, 23359506 (A & A), 23352995 (CS), 23352968 (IB)
Fax : 23353101 (Sectt.), 23352793 (CS), 23353029 (IB)

TO WHOM IT MAY CONCERN

CERTIFICATE: BASE RATE (BR)

We confirm that the BASE RATE of State Bank of India on the following dates was as under:

Base Rate as on 01.04.2014

10.00% p.a.

(IPS Manchanda)

Chief Manager & Credit Analyst (AMT-I)

08.04.2014



1\AMT\PSGD\KIBAR.DOC





Ref.: NSE/LIST /28902

June 5, 2015

The Asst. General Manager
Power Grid Corporation of India Limited
"Saudamini", Plot No.2, Sector - 29,
Gurgaon - 122 001.

Kind Attn.: Mr. K C Pant

Dear Sir,

**Sub: Listing of Secured, Non-Convertible, Non-Cumulative, Redeemable, Taxable Bonds
issued by Power Grid Corporation of India Limited**

This has reference to your listing of Secured, Non-Convertible, Non-Cumulative, Redeemable, Taxable Bonds issued by Power Grid Corporation of India Limited.

In this connection, we are pleased to inform you that the securities as specified in the application are duly listed on the Debt segment with effect from June 5, 2015 and all members have been suitably informed as per details given below:

Sr. No	Security Description	Sec Type	Security	Issue	Issue Size (Rs. in lakhs)	Maturity Date
1	Power Grid Corp 8.40% 2019 (Series - L) STRPP - A	PT	PGC19	8.40%	24400	27-May-19
2	Power Grid Corp 8.40% 2020 (Series - L) STRPP - B	PT	PGC20	8.40%	24400	27-May-20
3	Power Grid Corp 8.40% 2021 (Series - L) STRPP - C	PT	PGC21	8.40%	24400	27-May-21
4	Power Grid Corp 8.40% 2022 (Series - L) STRPP - D	PT	PGC22	8.40%	24400	27-May-22
5	Power Grid Corp 8.40% 2023 (Series - L) STRPP - E	PT	PGC23	8.40%	24400	27-May-23
6	Power Grid Corp 8.40% 2024 (Series - L) STRPP - F	PT	PGC24	8.40%	24400	27-May-24



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Ref.: NSE/LIST /28902

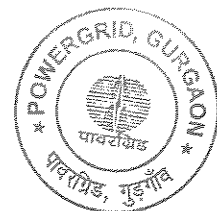
June 5, 2015

7	Power Grid Corp 8.40% 2025 (Series - L) STRPP - G	PT	PGC25	8.40%	24400	27-May-25
8	Power Grid Corp 8.40% 2026 (Series - L) STRPP - H	PT	PGC26	8.40%	24400	27-May-26
9	Power Grid Corp 8.40% 2027 (Series - L) STRPP - I	PT	PGC27	8.40%	24400	27-May-27
10	Power Grid Corp 8.40% 2028 (Series - L) STRPP - J	PT	PGC28	8.40%	24400	27-May-28
11	Power Grid Corp 8.40% 2029 (Series - L) STRPP - K	PT	PGC29	8.40%	24400	27-May-29
12	Power Grid Corp 8.40% 2030 (Series - L) STRPP - L	PT	PGC30	8.40%	24400	27-May-30

If you require any further clarifications, we shall be glad to oblige.

Yours truly,
For National Stock Exchange of India Limited


Divya Poojari
Manager



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Summary Sheet

Name of the Petitioner:
POWERGRID CORPORATION OF INDIA LTD.
Western Region

Name of the Region :
Western Region

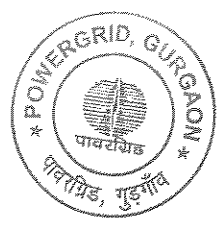
Name of the Project:
System Strengthening-XVII in Southern Region
LILO of 400 kV D/C Kolhapur-Mapusa at 400 kV Kolhapur GIS (New) S/S along
with associated bays
1-Sep-2015

Name of the Transmission Element
or Communication System :
Anticipated DOCO

Particulars	FORM-No.	(Amount in Rs. Lakh)						
		2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	
Depreciation	Form 10A			486.19	928.13	979.27	984.86	
Interest on Loan	Form 9E			153.17	281.51	281.62	264.60	
Return on Equity	Form 8			585.63	1,127.20	1,197.77	1,207.63	
Interest on Working Capital	Form 11			37.84	70.87	74.23	74.79	
O & M Expenses	Form 2			174.52	309.11	319.34	329.96	
Total		-	-	1,437.35	2,716.82	2,852.23	2,861.84	


 (Petitioner)





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Details of Transmission Lines And Substations

Name of the Petitioner: POWERGRID CORPORATION OF INDIA LTD.
 Name of the Region : Western Region
 Name of the Project: System Strengthening-XVII in Southern Region
 Name of the Transmission Element or Communication System: LILO of 400 kV D/C Kolhapur-Mapusa at 400 kV Kolhapur GIS (New) S/S along with associated bays
 Anticipated DOCO 1-Sep-2015

Name of Line	Type of Line AC/HVDC	S/C or D/C	No. of Sub-Conductors	Voltage level (kV)	Line Length Ckt Km.	Line Length (km.)	Anticipated DOCO	Covered in the present petition	
								Yes/No	If No,petition No.
Loop in portion of 400kV DC Kolhapur-Mapusa TL	AC	D/C	2	400	39.94	19.97	1-Sep-2015	Yes	...
Loop Out portion of 400kV DC Kolhapur-Mapusa TL		D/C	2	400	40.72	20.36	1-Sep-2015	yes	
LILO of 400kV DC Kolhapur-Mapusa TL		M/C	2	400	10.77	2.69	1-Sep-2015	yes	

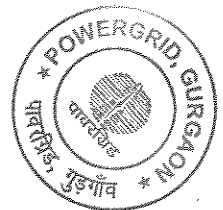
Substations

Name of Sub-Station	Type of Substation Conventional/ GIS/HVDC terminal/HVDC Back to Back	Voltage level (kV)	No. of Transformers/ Reactors/SVC etc (with Capacity)	No. of Bays			Anticipated DOCO	Covered in the present petition	
				765 (kV)	400 (kV)	220 (kV)		Yes/No	If No,petition No.
Kolhapur GIS									
Kolhapur#1	GIS	400	0.00		1		1-Sep-2015	Yes	
Kolhapur#2	GIS	400	0.00		1		1-Sep-2015	Yes	
Mapusa#1	GIS	400	0.00		1		1-Sep-2015	Yes	
Mapusa#2	GIS	400	0.00		1		1-Sep-2015	Yes	
FutureBay#1	GIS	400	0.00		1		1-Sep-2015	Yes	

* being a GIS station, one no. 400kV future bay has been implemented along with one of the Kolhapur Bay in order to complete the diameter for the one and half breaker scheme. This shall facilitate the flow of power to one of the circuit of 400kV Kolhapur (MSETCL) (after LILO of 400kV D/C Kolhapur-Mapusa TL) from both the buses.

Communication System

Name of Communication System	Type of Communication System	Technical Particulars	Number/ length	Anticipated DOCO	Covered in the present	
					Yes/No	If No,petition No.



(Handwritten signature)

(Petitioner)

POWERGRID CORPORATION OF INDIA LIMITED
Western Region

System Strengthening-XVII in Southern Region

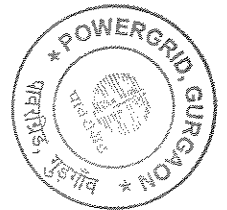
Name of the Petitioner:
Name of the Region
Name of the Project :

Name of the Transmission Element
or Communication System :
Anticipated DOCO

LLO of 400 KV D/C Kolhapur-Mapusa at 400 KV Kolhapur GIS (New) S/S along with associated bays
1-Sep-2015

Particulars	Units	2013-14		2014-15		2015-16		2016-17		2017-18		2018-19	
		%		%		%		%		%		%	
Base Rate of Return on Equity	%	15.50%		15.50%		15.50%		15.50%		15.50%		15.50%	
Tax Rate	%	20.960%		20.960%		20.960%		20.960%		20.960%		20.960%	
Effective Tax Rate	%												
Grossed up rate of ROE	%												
Target Availability	%			96.000%		96.000%		96.000%		96.000%		96.000%	
Target Availability - HVDC System	%												
Normative O & M per Km	Rs. Lakh												
Single Circuit (Bundled Conductor with four Sub-Conductors)	S/C			0.606		0.627		0.647		0.669		0.691	
Single Circuit (Twin & Three Conductor)	S/C			0.404		0.418		0.432		0.446		0.461	
Single Circuit (Single Conductor)	S/C			0.202		0.209		0.216		0.223		0.230	
Double Circuit (Bundled Conductor with four Sub-Conductors)	D/C			1.062		1.097		1.133		1.171		1.210	
Double circuit (Twin & Three Conductor)	D/C			0.707		0.731		0.755		0.780		0.806	
Double Circuit (Single Conductor)	D/C			0.303		0.313		0.324		0.334		0.346	
Single Circuit (6 Conductor)	S/C			0.707		0.731		0.755		0.780		0.806	
Multi Circuit with two or three Conductors	M/C			1.240		1.282		1.324		1.368		1.413	
Multi Circuit with four or more Conductors	M/C			1.863		1.925		1.989		2.055		2.123	
Normative O & M per bay	Rs.. Lakh												
765 KV Sub-station	Rs. Lakh			84.420		87.220		90.120		93.110		96.200	
400 KV Sub-station	Rs. Lakh			60.300		62.300		64.370		66.510		68.710	
220 KV Sub-station	Rs. Lakh			42.210		43.610		45.060		46.550		48.100	
132 KV Sub-station and below	Rs. Lakh			30.150		31.150		32.180		33.250		34.360	
400 GIS Sub-station	Rs. Lakh			51.540		53.250		55.020		56.840		58.730	
HVDC Back to Back Stations	Rs. Lakh			578.000		627.000		679.000		736.000		797.000	
Rihand-Dadri HVDC Bipole Scheme	Rs. Lakh			1,511.000		1,637.000		1,774.000		1,922.000		2,082.000	
Talcher-Kolar HVDC Bipole Scheme	Rs. Lakh			1,173.000		1,271.000		1,378.000		1,493.000		1,617.000	
Balia Bhiwadi HVDC Bipole Scheme	Rs. Lakh			1,537.000		1,666.000		1,805.000		1,955.000		2,119.000	
Spares for WC as Percentage of O & M	%			15.000%		15.000%		15.000%		15.000%		15.000%	
Receivables in Months for WC	Months			2.000		2.000		2.000		2.000		2.000	
Bank Rate as on	%			13.500%		13.500%		13.500%		13.500%		13.500%	

(Petitioner)



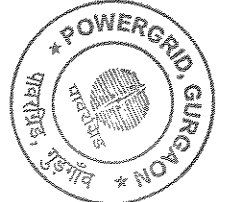
Statement of Capital Cost

Name of the Petitioner: POWERGRID CORPORATION OF INDIA LTD.
 Name of Region : Western Region
 Name of the Project : System Strengthening-XVII in Southern Region
 Name of the Transmission Element LILO of 400 kV D/C Kolhapur-Mapusa at 400 kV Kolhapur GIS (New) S/S along with
 or Communication System: associated bays
 Anticipated DOCO 1-Sep-2015

Statement of Capital Cost

(To be given for relevant dates and year wise)

Particulars	(Amount in Rs.Lakh)						
	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	
A							
a) Opening Gross Block Amount as per books			15,985.87	17,200.87	21,621.73	22,006.73	
b) Amount of capital liabilities in A (a) above							
c) Amount of IDC, FC, FERV, & Hedging cost included in A (a) above		419.64					
d) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost included in A (a) above		997.05					
B							
a) Addition in Gross Block Amount during the period			1,215.00	4,420.86	385.00		
b) Amount of capital liabilities in B (a) above							
c) Amount of IDC, FC, FERV, & Hedging cost included in B (a) above							
d) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost included in B (a) above							
C							
a) Closing Gross Block Amount as per books			17200.87	21621.73	22006.73	22006.73	
b) Amount of capital liabilities in C (a) above							
c) Amount of IDC, FC, FERV, & Hedging cost included in C (a) above			0.00	0.00	0.00	0.00	
d) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost included in C (a) above			0.00	0.00	0.00	0.00	



Abstract of Capital Cost Estimates and Schedule of Commissioning for the New projects

Name of the Transmission Licensee : POWER GRID CORPORATION OF INDIA
Name of Region: WESTERN REGION

Name of the Project :	System Strengthening -XVII in Southern Region	
Name of Element:	LILO of 400kV D/C Kolhapur- Mapusa at 400kV Kolhapur GIS (new) S/S along with associated bays	
Capital Cost Estimates		
Board of Director/ Agency approving the Capital cost estimates:	Board of Director 273rd meeting	
Date of approval of the Capital cost estimates:	27.06.2012	
	Present Day Cost	Completed Cost
Price level of approved estimates	As of April 2012	As on Scheduled COD of the transmission system/transmission element/ Communication System
Foreign Exchange rate considered for the Capital cost estimates		
Capital Cost excluding IDC, IEDC & FC		
Foreign Component, if any (In Million US \$ or the relevant Currency)		
Domestic Component (Rs. Lakhs)		
Capital cost excluding IDC, FC, FERV & Hedging Cost (Rs. Lakhs)	17189.06	18969.36
IDC, IEDC, FC, FERV & Hedging Cost		
Foreign Component, if any (In Million US \$ or the relevant Currency)		
Domestic Component (Rs Lakh)		
Total IDC, FC, FERV & Hedging Cost (Rs Lakh)	631.31	696.70
Rate of taxes & duties considered		
Capital cost Including IDC, IEDC, FC, FERV & Hedging Cost		
Foreign Component, if any (In Million US \$ or the relevant Currency)		
Domestic Component (Rs. Lakhs.)		
Capital cost Including IDC, IEDC& FC (Rs Lakh)	17820.37	19666.05
Schedule of Commissioning		
(Scheduled DOCO elementwise)		
COD of transmission system 1 /transmission element 1/Communication System 1	26-Mar-15	01-09-2015 (Ant.)
COD of transmission system 1/ transmission element 2/ Communication System 2		
COD of transmission system 1/ transmission element 3/ Communication System 3		
COD of last transmission system /transmission element / Communication System		

(Petitioner)



Element wise Break-up of Project Cost for Transmission System

PART-III
Form 5

Name of the Transmission Licensee :
 Name of Region: Western Region-I
 Name of the Project :System Strengthening -XVII in Southern Region
 Name of the Element:LLO of 400kV D/C Kolhapur- Mapusa at 400kV Kolhapur GIS (new) SS along with associated bays
 Ant. DOCC: 01.09.2015

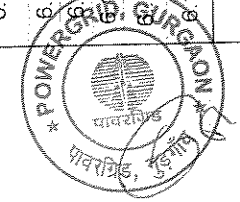
Sl.No.	Particulars	As per Original Estimate			As on COD			Liabilities / Provision	Variation	Reasons for Variation	Admitted Cost
		Quantity	Rate	Estimated Amount	Quantity	Rate	Estimated Amount				
1	2			3			4	5	6=3-4-5	7	8
A	TRANSMISSION LINE										
1.0	Preliminary works										
1.1	Design & Engineering										
1.2	Preliminary investigation, Right of way, forest clearance, PTCC, general civil works, compensation etc.	1 (LS)	79.91	79.91	1 (LS)	500.00	472.90	27.10	-420.09	As per site requirement	
1.3	Total Preliminary works			79.91			472.90	27.10	-420.09		
2.0	Transmission Lines material										
2.1	Towers Steel	2659	0.76	2022.00	2782.84	0.76	1843.20	281.27	-102.47		
2.2	Conductor	555	2.98	1653.39	554.13	3.50	1851.08	87.77	-285.45		
2.3	Earth Wire	87	0.56	48.32	87.20	0.68	51.45	7.85	-10.98		
2.4	Insulators	41009	0.01	270.40	44394	0.01	292.90	32.54	-55.05		
2.5	Hardware Fittings	1 (LS)	160.47	160.47	1 (LS)	239.55	207.83	31.72	-79.08		
2.6	Conductor & Earthwire accessories	1 (LS)	114.11	114.11	1 (LS)	158.28	137.32	20.96	-44.17		
2.7	Spares			0.00			0.00	0.00	0.00		
2.8	Erection, Stringing & Civil works including foundation	1 (LS)	961.24	961.24	1 (LS)	1369.19	923.94	445.24	-407.95	Due to increase in no of tension towers as compared to FR cost towards tower weight, no of insulators and HW fittings increased. Further there is increase in award cost, PV, taxes & duties as compared to FR cost.	
2.9	Total Transmission Lines material			5229.93			5307.72	907.35	-985.15		
3.0	Taxes and Duties										
3.1	Custom Duty								0.00		
3.2	Other Taxes & Duties								0.00		
	Total Taxes & Duties			0.00			0.00	0.00	0.00		
	Total -Transmission lines			5309.84			5780.62	934.45	-1405.24		



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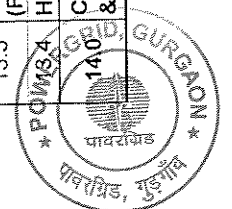
Sl.No.	Particulars	As per Original Estimate			As on COD			Liabilities / Provision	Variation	Reasons for Variation	Admitted Cost
		Quantity	Rate	Estimated Amount	Quantity	Rate	Estimated Amount				
1	2			3			4	5	6=3-4-5	7	8
2											
B. SUBSTATIONS											
4.0	Preliminary works & land										
4.1	Design & Engineering	1 (LS)	240.00	240.00			250.05	0.00	0.00	As per actual	
4.2	Land	1 (LS)	725.00	725.00	1 (LS)	540.63	287.72	252.90	184.37	As per site condition	
4.3	Site preparation										
	Total Preliminary works & land			965.00			537.77	252.90	174.32		
5.0	Civil Works										
5.1	Control Room & Office Building including HVAC	1 (LS)	442.00	442.00	1 (LS)	609.54	316.68	292.85	-167.54		
5.2	Township & Colony	1 (LS)	1201.00	1201.00	1 (LS)	1854.80	963.66	891.14	-653.80	Actual execution as per detailed Engg and site condition.	
5.3	Roads and Drainage	1 (LS)	162.00	162.00	1 (LS)	696.33	361.78	334.55	-534.33		
5.4	Foundation for structures	1 (LS)	31.80	31.80	1 (LS)	479.71	249.23	230.48	-447.91		
5.5	Misc. civil works			0.00	1 (LS)	12.25	6.36	5.89	-12.25		
	Total Civil Works			1836.80			1897.71	1754.91	-1815.83		
6.0	Substation Equipments										
6.1	Switchgear (CT,PT, Circuit Breaker, Isolator etc)	12	6.27	75.23	12.00	10.70	103.09	25.31	-53.17		
6.1.1	GIS Equipments	10	632.06	6320.64	10.00	635.41	5101.53	1252.60	-33.50		
6.2	Transformers			0.00			0.00	0.00	0.00		
6.3	Compensating Equipment (Reactor, SVCs etc)			0.00			38.32	9.41	-47.73	Increase in award cost as compared to FR. There is no change in scope.	
6.4	Control, Relay & Protection Panel	2	88.96	177.91	2.00	140.50	225.61	55.40	-103.09		
6.5	PLCC	1 (LS)	116.48	116.48	1 (LS)	165.28	115.69	49.58	-48.79		
6.6	HVDC package			0.00			0.00	0.00	0.00		
6.7	Bus Bars/ conductors/Insulators	1 (LS)	24.40	24.40	1 (LS)	64.94	52.14	12.80	-40.54		
6.8	outdoor lighting	1 (LS)	65.00	65.00	1 (LS)	157.44	126.41	31.04	-92.44		
6.9	Emergency DG set	1	43.90	43.90	1	51.21	41.12	10.10	-7.31		
6.10	Grounding System			0.00			0.00	0.00	0.00		
6.11	Structure for Switch yard	1 (LS)	469.45	469.45	1 (LS)	302.09	242.54	59.55	167.37	Decrease in award cost as compared to FR	
6.12	Auxiliary System	1 (LS)	526.79	526.79	1 (LS)	399.43	321.85	77.58	127.36		
	Total Substation Equipments			7819.81			6368.29	1583.37	-131.85		

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Sl.No.	Particulars	As per Original Estimate			As on COD			Liabilities / Provision	Variation	Reasons for Variation	Admitted Cost
		Quantity	Rate	Estimated Amount	Quantity	Rate	Estimated Amount				
1				3		4	5	6=3-4-5	7	8	
7.0	Spares (incl.in eqpt. cost)										
8.0	Taxes and Duties					0.00	0.00	0.00			
8.1	Custom Duty					0.00	0.00	0.00			
8.2	Other Taxes & Duties					0.00	0.00	0.00			
8.3	Total Taxes & Duties			0.00							
	Total (Sub-station)			10621.61			8803.78	3591.19	-1773.36		
9.0	Communication System										
9.1	Preliminary Works										
9.2	Communication System equipment's										
9.3	Taxes and Duties										
	Total (Communication System)										
10.0	Construction and pre-commissioning expenses					0.00	0.00	0.00			
10.1	Site supervision & site admn.etc.			0.00			0.00	0.00			
10.2	Tools and Plants			0.00			0.00	0.00			
10.3	construction Insurance			0.00			0.00	0.00			
	Total Construction and pre commissioning expenses			0.00			0.00	0.00			
11.0	Overheads										
11.1	Establishment	1 (LS)	1257.61	1257.61	1 (LS)	997.67	997.67	259.94	As per actual / anticipated		
11.2	Audit & Accounts			0.00			0.00	0.00			
11.3	Contingency			0.00			0.00	0.00			
	Total Overheads			1257.61			997.67	259.94			
12.0	Cost of Plant & Machinery			17189.06			15582.07	4525.64	-2918.65		
13.0	Capital Cost including Plant & Machinery										
13.1	Interest During Construction (IDC)	1 (LS)	631.31	631.31	1 (LS)	419.68	419.68	211.63	As per actual / anticipated		
13.2	Financing Charges (FC)			0.00			0.00	0.00			
13.3	Foreign Exchange Rate Variation (FERV)			0.00			0.00	0.00			
	Hedging Cost			0.00			0.00	0.00			
	Capital cost including IDC, FC, FERV & Hedging Cost			17820.37			16001.75	4525.64	-2707.02		



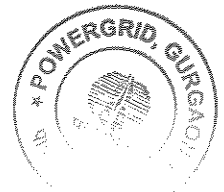
(Petitioner)

Break-up of Construction / Supply / Service packages

Name of the Petitioner: Power Grid Corporation of India Ltd.
 Name of the Region : Western Region
 Name of the Project : System Strengthening - XVII in Southern Region
 Name of the Element: L1LO of 400KV DIC Kolhapur - Mapusa at 400KV Kolhapur GIS (new) SS along with associated bays
 Communication System
 Art. DCCO: 01.09.2015

Sl	Name/No. of Construction/supply/service package		Scope of work (in line with head of cost break-up as applicable)	Whether awarded through ICB/OCB/ Departmental/ Deposit Work, etc.	No of bids received	Date of award	Date of Start of work	Date of Completion of Work	Awarded value INR	Firm or with escalation in prices	Expenditure excluding Taxes & Duties as on COD	Taxes & duties and IEDC	IDC, FC, FERV & Hedging cost	Sub-total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	400KV Kolhapur GIS S/S (New)- Off shore supply	ABB	Off-shore supply -400KV GIS			12.02.14	12.02.14	31.08.15	CHF-8840400	FIRM	4,517.12	182.07	13.34	4,712.53
2	400KV Kolhapur GIS S/S (New)- On shore supply	ABB	On-shore supply -400KV GIS			12.02.14	12.02.14	31.08.15	3127,04,980	With Escalation	1,566.03	65.21	4.44	1,635.68
3	400KV Kolhapur GIS S/S (New)- On shore services	ABB	On-shore service -400KV GIS			12.02.14	12.02.14	31.08.15	1822,94,588	With Escalation	932.85	36.15	2.65	971.66
4	L1LO of 400KV Kolhapur - Mapusa TL at Kolhapur (GIS)- Supply	Bajaj Electricals	Supply of 400KV tower	ICB	7	26.11.13	26.11.13	31.08.15	232,64,350	With Escalation	2,177.58	421.49	260.37	2,859.44
5	L1LO of 400KV Kolhapur - Mapusa TL at Kolhapur (GIS)- Erection	Bajaj Electricals	Erection of 400KV tower	ICB	7	26.11.13	26.11.13	31.08.15	1190,35,049	With Escalation	949.38	38.27	2.81	990.45
6	Supply of ACSR Moose conductor	Stelrite	Supply of Moose conductor			05.03.14	05.03.14	31.08.15	2599,44,912	With Escalation	1,851.09	74.61	5.47	1,931.17
7	Supply of 120KN & 160KN insulators	BHEL	Supply of insulator	ICB	3	02.04.13	02.04.13	31.08.15	326,01,676	With Escalation	286.80	17.90	0.87	305.57
8	LAND of Kolhapur GIS (26 Hrs Govt Land, 2.328Ha Pvt Land)		None/Sheet								250.05			250.05
9	Construction of roads under community development work at Kolhapur-SS	M/s Radhika Constructions, Shop No 1 & 5, Plot No 106, Near Kalewadi, Pimpri, Pune-17	Road Construction	Open	4	15.07.09	15.07.09	31.08.15	45,39,842	FIRM	47.04			47.04
10	Supply of mementoes for high profile function at Pune & Kolhapur	M/s B.D. Agrawal Jewellers, Golchha Mang. Sadar, Nagpur-440001	Supply of mementoes	Open	4	03.04.08	03.04.08	31.08.15	57,000	FIRM	0.57			0.57
11	R&R Works		ESTIMATED											
12	Survey & soil investigation													
12.1	Brief LOA for Consultancy Contract for works towards preparation of master plan, infrastructural works like roads & storm water drainage system, water supply and sewerage system, landscaping work etc. and improvement of elevation, false ceiling work for Control Room Building for Kolhapur and Aurangabad	M/s Shipi Architect & Planner, KPCC House, Unit No.6, 2nd Floor, Right Bhushar Colony, Above BOM, Paud Road, Kothrud, Pune-411029	Civil works	Open	5	23.03.10	23.03.10	31.08.15	4,36,620	FIRM	3.07			3.07

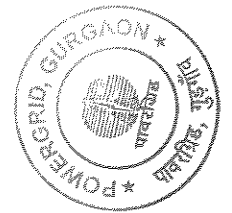
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Sl	Name/No. of Construction/supply/service package	2	3	4	5	6	7	8	9	10	11	12	13	14
			Scope of works (in line with head of cost break-ups as applicable)	Whether awarded through ICB/DCB/ Departmentally/ Deposit Work, etc.	No of bids received	Date of award	Date of Start of work	Date of Completion of Work	Awarded value (INR)	Firm or with escalation in prices	Expenditure excluding Taxes & Duties as on COD	Taxes & duties and JEDC	IDC, FC, FERV & Hedging cost	Sub-total
1									INR-9					
12.2	LOA for supply & installation of safe earthing Electrode Model F-84 at Loc 123 & 118 of 400 kv Kolhapur-Mapusa Line	M/s SVA Electricals, 48, Maharashtra Naktan, Opp. Shanwar wada, Shaniwar Peth, Pune	supply & installation of safe earthing Electrode	Open	3	12.08.10	12.08.10	31.08.15	30,000	FIRM	0.21			0.21
13	Infrastructure for S/S Levelling & Site surfacing	B. S. Pawar, Shop no. 4, Siddhant Arcade, Ganesh Nagar, Old Ausa Rd., Latur - 413 531 (Maharashtra)	Site levelling	Open	5	18.02.12	13.02.12	31.08.15	138,32,834	FIRM	96.83			96.83
14.1	Site leveling work of 765/400 KV GSE Sub-station at Kalamba, Kolhapur (MS)	M/s Kahyap Constructors, Plot No 7, Swaganti Shivdani Apprt., Flat No 504, Opp. UAD College, Nagpur-440010	Boundary wall / fencing	Open	4	27.04.09	27.04.09	31.08.15	155,53,622	FIRM	108.88			108.88
14.2	Site surfacing	Shivraj Constructors Pvt.Ltd., Govind Complex, Maulana Azad Chowk, N-8, CIDCO, Aurangabad-431003	Slope protection	Open	5	30.01.14	30.01.14	31.08.15	141,33,023	FIRM	98.93			98.93
15	Boundary wall / fencing													
16.1	Construction of Boundary Wall & security post at HVDC B/B Kolhapur S/S													
16.2	Slope Protection work at 765/400 KV GIS Substation at Kolhapur													
17	Roads & Drainage													
17.1	Brief Letter of Award for "Construction of Approach Road (5.5m wide) at 765/400 KV GIS Sub-station at Kalamba, Kolhapur (MS)	M/S S. Pawar, Shop no. 4, Siddhant Arcade, Ganesh Nagar, Old Ausa Rd. Latur- 413 531	Approach road	Open	4	20.01.15	20.01.15	31.08.15	101,86,244	FIRM	89.83			89.83
18	Construction of Store Shed cum TL Office, Open Store Yard, Spare Equipment Foundation and Welcome Gate at Vill. Kalamba, Kolhapur	M/S SMC Infrastructures Private Limited, 101, Akruti-SMC, Khopat, 185, Marg, Thane (W), 400601	Store shed	Open	3	22.08.12	22.08.12	31.08.15	126,80,407	FIRM	76.94			76.94

(Petitioner)



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DETAILS OF ELEMENTWISE COST

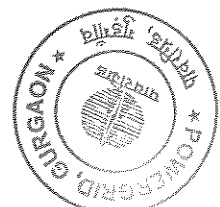
Name of the Petitioner: Power Grid Corporation of India Limited
 Name of the Region: Western Region & Southern Region
 Name of the Project: SRSS XVII
 Name of Transmission element or Communication System:

Date of Commercial Operation:
 Transmission lines

S.No.	Name of Asset	Apportioned approved Cost (Rs. Crores)	Completed Cost (Rs. Crores)	Covered in the Present Petition	
				Yes / No	If No, Petition No.
1	Kudgi-Narendra 400 kV D/C Quad Line along with New 765/400 kV GIS at Kudgi and bay extension at Narendra	131701.28	48751.99	No	61/TT/2015
2	Kudgi - Kolhapur 765 kV D/C Line (initially charged at 400 kV) along with associated bays at Kudgi & Kolhapur		76219.82	No	61/TT/2015
3	LILO of 400kV D/C Kolhapur- Mapusa at 400kV Kolhapur GIS (new) SS	5990.07	7546.05	Yes	
	Total	137691.35	132517.86		

Substations

S.NO.	Name of Asset	Apportioned approved Cost (Rs. Crores)	Completed Cost (Rs. Crores)	Covered in the Present Petition	
				Yes / No	If No, Petition No.
1	765/400 kV GIS at Narendra (New, Kudgi) (initially charged at 400 kV) - (covered under S. Nos. 1 & 2 of transmission line above)				61/TT/2015
2	765/400 kV GIS at Kolhapur (New), (initially charged at 400 kV) (partially covered under S. Nos. 1 & 2 of transmission line above)	11636.8	12981.34	Yes	61/TT/2015 (partial-Bays for Kudgi at Kolhapur)
a	Bus reactor at Kolhapur (New)	1545.92	1586.25	Yes	
3	Extension of 400/220 kV Substation at Narendra (AIS) (covered under S. No. 1 of transmission line above)				61/TT/2015
	Total	13182.72	14567.59		
	GRAND TOTAL FOR PROJECT	150874.07	147085.45		

Petitioner 

Financial package upto COD

Name of the Petitioner:

POWERGRID CORPORATION OF INDIA LIMITED

Name of Project :

System Strengthening-XVII in Southern Region

Name of Transmission Element or

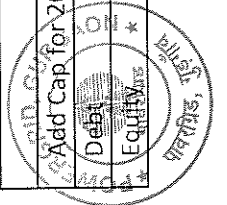
LILO of 400 kV D/C Kolhapur-Mapusa at 400 kV Kolhapur-GIS (New) S/S along with associated bays
1-Sep-15

Communication System:

Anticipated DOCO

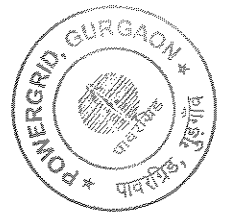
(Amount in Rs.Lakh)

Particulars	Financial package as apporportioned/ Approved		Financial Package as on COD		As Admitted on COD Currency and Amount
	Currency and Amount		Currency and Amount		
Loans			INR	860.42	
Loans- Domestic			INR	10,340.80	
Loans- Foreign			INR	11,201.22	
Total Loans	INR	12,338.81			
Equity					
Foreign Equity					
Equity as DOCO			INR	4,800.53	
Notional					
Total Equity	INR	5,288.06	INR	4,800.53	
Debt Equity Ratio	INR	70:30	INR	70:30	
Total Cost	INR	17,626.87	INR	16,001.75	
	Debt	Equity	Total		
Add Cap for 2015-16			2,126.43		
Add Cap for 2016-17			2,064.21		
Add Cap for 2017-18			335.00		
	Actual	Normative			
	0.00	1,488.50			
	2,126.43	637.93			



Total	2,126.43	2,126.43	
Add Cap for 2016-17	Actual	Normative	
Debt	0.00	1,444.95	
Equity	2,064.21	619.26	
Total	2,064.21	2,064.21	
Add Cap for 2017-18	Actual	Normative	
Debt	0.00	234.50	
Equity	335.00	100.50	
Total	335.00	335.00	
Total Capital Cost with Add Cap	20,527.39	20,527.39	

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Statement of Additional Capitalisation after COD

Name of the Petitioner: **POWEGRID CORPORATION OF INDIA LIMITED**
 Name of the Region: **Western Region**
 Name of the Project: **System Strengthening-XVII in Southern Region**

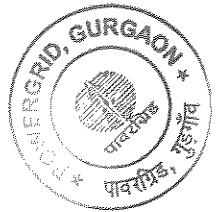
Name of the Transmission Element: **LILO of 400 kV D/C Kolhapur-Mapusa at 400 kV Kolhapur GIS (New) S/S along with associated bays**
 or Communication System: **1-Sep-2015**
 Anticipated DOCO

Year	Work/Equipment proposed to be added after COD upto cut off date/ beyond cut off date	Amount capitalised and proposed to be capitalised	Justification as per purpose	Regulation under which covered	Admitted Cost
1	2	3	4	5	6
2015-16	BUILDING	722.65	Balance & Retention Payments	14 (1)	
2015-16	TRANSMISSION LINE	934.46	Balance & Retention Payments		
2015-16	SUB STATION	469.32	Balance & Retention Payments	14 (1)	
Total		2,126.43			
2016-17	BUILDING	950.16	Balance & Retention Payments	14 (1)	
2016-17	TRANSMISSION LINE	0.00	Balance & Retention Payments	14 (1)	
2016-17	SUB STATION	1,064.47	Balance & Retention Payments	14 (1)	
2016-17	PLCC	49.58	Balance & Retention Payments	14 (1)	
Total		2,064.21			
2017-18	BUILDING	335.00	Balance & Retention Payments	14 (1)	
Total		335.00			

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SPR

Petitioner



Financing of Additional Capitalisation

Name of the Petitioner:

POWEGRID CORPORATION OF INDIA LIMITED

Name of the Region

Western Region

Name of the Project :

System Strengthening-XVII in Southern Region

Name of the Transmission Element or

LILO of 400 kV D/C Kolhapur-Mapusa at 400 kV Kolhapur GIS (New) S/S along with associated

Communication System

bays

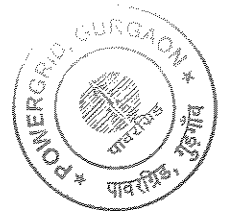
Anticipated DOCO

1-Sep-2015

	Projected/Actual										Admitted		
	2014-15	2015-16	2016-17	2017-18	2018-19	2014-15	2015-16	2016-17	2017-18	2018-19	2016-17	2017-18	2018-19
Financial Year (Starting from COD)													
Amount capitalised in Work/Equipment		2,126.43	2,064.21	335.00									
Financing Details													
Loan-1													
Loan-2													
Loan-3 and so on													
Total Loan		1,488.50	1,444.95	234.50									
Equity													
Internal Resources		637.93	619.26	100.50									
Others													
Total		2,126.43	2,064.21	335.00									

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Calculation of Return on Equity

Name of the Petitioner:

POWERGRID CORPORATION OF INDIA LTD.

Name of the Region:

Western Region

Name of the Project:

System Strengthening-XVII in Southern Region

Name of the Transmission Element

LIL0 of 400 KV D/C Kolhapur-Mapusa at 400 KV Kolhapur GIS (New) S/S along with associated bays

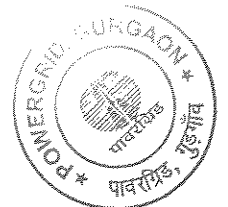
or Communication System:

1-Sep-2015

Anticipated DOCO

Particulars	[Amount in Rs. Lakh]						
	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	
Equity as DOCO			4,800.53	5,438.45	6,057.72	6,158.22	
Notional Equity for ADD Cap			637.93	619.26	100.50		
Total Equity			5,438.45	6,057.72	6,158.22	6,158.22	
Average Equity	-	-	5,119.49	5,748.09	6,107.97	6,158.22	
Rate of Return on Equity			19.61%	19.61%	19.61%	19.61%	
Return on Equity	-	-	1,003.93	1,127.20	1,197.77	1,207.63	
Pro rata return on equity			585.63	1,127.20	1,197.77	1,207.63	
Calculation of Grossed up Rate of ROE							
Rate of ROE			15.50%	15.50%	15.50%	15.50%	
Time Line Incentive(%)			0.000	0.000	0.000	0.000	
Communication Disincentive(%)							
Effective Rate of Interest			15.50%	15.50%	15.50%	15.50%	
MAT Rate			20.96%	20.96%	20.96%	20.96%	
Grossed up Rate of ROE			19.61%	19.61%	19.61%	19.61%	

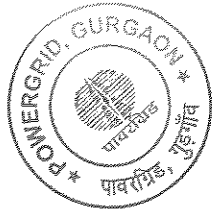

 (Petitioner)



Calculation of Weighted Average Rate of Interest on Actual Loans

Name of the Petitioner: POWERGRID CORPORATION OF INDIA LTD.
 Name of the Region : Western Region
 Name of the Project: System Strengthening-XVII in Southern Region
 Name of the Transmission Element or LIO of 400 KV D/C Kolhapur-Mapusa at 400 KV Kolhapur GIS (New) S/S along with
 Communication System: associated bays
 Anticipated DOCO 1-Sep-2015

Particulars	(Amount in Rs. Lakh)						
	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	
BOND XXXVIII							
Gross Loan Opening			200.00	200.00	200.00	200.00	200.00
Cumulative Repayments of Loans upto Previous Year							
Net Loans Opening			200.00	200.00	200.00	200.00	200.00
Add: Drawal(s) during the year							
Less: Repayment (s) of Loans during the year							
Net Loan Closing			200.00	200.00	200.00	200.00	200.00
Average Net Loan			200.00	200.00	200.00	200.00	200.00
Rate of Interest on Loan			9.25%	9.25%	9.25%	9.25%	9.25%
Interest on Loan			18.50	18.50	18.50	18.50	18.50
Loan under IBRD-V Loan No. 7787-IN							
Gross Loan Opening			10,340.80	10,340.80	10,340.80	10,340.80	10,340.80
Cumulative Repayments of Loans upto Previous Year			375.37	564.61	946.18	1,331.90	
Net Loans Opening			9,965.43	9,776.19	9,394.62	9,008.90	
Add: Drawal(s) during the year							
Less: Repayment (s) of Loans during the year			189.24	381.58	385.71	387.78	
Net Loan Closing			9,776.19	9,394.62	9,008.90	8,621.12	
Average Net Loan			9,870.81	9,585.40	9,201.76	8,815.01	
Rate of Interest on Loan			1.69%	1.69%	1.69%	1.69%	
Interest on Loan			166.82	161.99	155.51	148.97	
Proposed Loan 2015-16 (Bond L)							
Gross Loan Opening			660.42	660.42	660.42	660.42	660.42
Cumulative Repayments of Loans upto Previous Year							
Net Loans Opening			660.42	660.42	660.42	660.42	660.42
Add: Drawal(s) during the year							
Less: Repayment (s) of Loans during the year							
Net Loan Closing			660.42	660.42	660.42	660.42	660.42
Average Net Loan			660.42	660.42	660.42	660.42	660.42
Rate of Interest on Loan			8.40%	8.40%	8.40%	8.40%	8.40%
Interest on Loan			55.48	55.48	55.48	55.48	55.48
Total Loan							
Gross Loan Opening			11,201.22	11,201.22	11,201.22	11,201.22	11,201.22
Cumulative Repayments of Loans upto Previous Year			375.37	564.61	946.18	1,331.90	
Net Loans Opening			10,825.85	10,636.61	10,255.04	9,869.32	
Add: Drawal(s) during the year							



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Calculation of Weighted Average Rate of Interest on Actual Loans

Name of the Petitioner:

POWERGRID CORPORATION OF INDIA LTD.

Name of the Region :

Western Region

Name of the Project:

System Strengthening-XVII in Southern Region

Name of the Transmission Element

or LULO of 400 KV D/C Kolhapur-Mapusa at 400 KV Kolhapur GIS (New) S/S along with

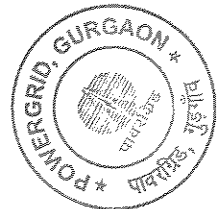
Communication System:

associated bays

Anticipated DOCO

1-Sep-2015

Particulars	(Amount in Rs. Lakh)						
	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	
Less: Repayment (s) of Loans during the year			189.24	381.58	385.71	387.78	
Net Loan Closing			10,636.61	10,255.04	9,869.32	9,481.54	
Average Net Loan			10,731.23	10,445.82	10,062.18	9,675.43	
Interest on Loan			240.79	235.97	229.49	222.95	
Weighted Average Rate of Interest on Loan			2.24%	2.26%	2.28%	2.30%	


 Petitioner


Loans in Foreign Currency

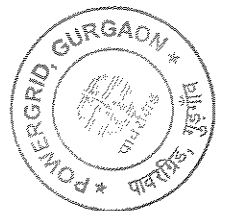
Name of the Petitioner: POWERGRID CORPORATION OF INDIA LTD.
 Name of the Region : Western Region
 Name of the Project : System Strengthening-XVII in Southern Region

Name of the Transmission Element or LILO of 400 kV D/C Kolhapur-Mapusa at 400 kV Kolhapur GIS (New) S/S along with
 Communication System : associated bays
 Anticipated DOCO 1-Sep-2015

Particulars	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Loan under IBRD-V Loan No. 7787-IN(USD in LACs)EXCHANGE RATE:64.6:						
Gross Loan Opening			160.00	160.00	160.00	160.00
Cumulative Repayments of Loans upto Previous Year			5.81	8.74	14.64	20.61
Net Loans Opening			154.19	151.26	145.36	139.39
Add: Drawal(s) during the year						
Less: Repayment (s) of Loans during the year			2.93	5.90	5.97	6.00
Net Loan Closing			151.26	145.36	139.39	133.39
Average Net Loan			152.73	148.31	142.38	136.39
Rate of Interest on Loan			1.69%	1.69%	1.69%	1.69%
Interest on Loan			2.58	2.51	2.41	2.31

SO

Petitioner



Calculation of Interest on Normative Loan

Name of the Petitioner:
Name of the Region :
Name of the Project:

POWERGRID CORPORATION OF INDIA LTD.
Western Region

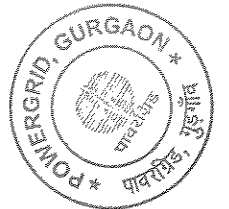
Name of the Transmission Element
or Communication System:
Anticipated DOCO

System Strengthening-XVII in Southern Region
LULO of 400 kV D/C Kolhapur-Mapusa at 400 kV Kolhapur GIS (New) S/S along with
associated bays
1-Sep-2015

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan-Opening			11,201.23	12,689.73	14,134.67	14,369.17
Cumulative repayment of Normative Loan upto previous year				486.19	1,414.32	2,393.59
Net Normative loan- Opening			11,201.23	12,203.54	12,720.35	11,975.59
Increase/Decrease due to ACE during the Year			1,488.50	1,444.95	234.50	
Repayments of Normative Loan during the year			486.19	928.13	979.27	984.86
Net Normative loan- Closing			12,203.54	12,720.35	11,975.59	10,990.73
Average Normative Loan			11,702.38	12,461.95	12,347.97	11,483.16
Weighted average Rate of Interest on actual Loans			2.2438%	2.2590%	2.2807%	2.3043%
Interest on Normative Loan			262.58	281.51	281.62	264.60
Pro rata Interest on Normative Loan			153.17	281.51	281.62	264.60

(Amount in Rs. Lakh)

SP
(Petitioner)



Calculation of Depreciation Rate

Name of the Petitioner:
Name of the Region :
Name of the Project:
Name of the Transmission Element
or Communication System:
Anticipated DOCO

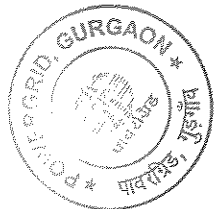
POWERGRID CORPORATION OF INDIA LTD.
Western Region
System Strengthening-XVII in Southern Region
LIL0 of 400 kV D/C Kolhapur-Mapusa at 400 kV Kolhapur GIS (New) S/S along with associated bays
1-Sep-2015

		(Amount in Rs. Lakh)				
	Sub Station	8,047.39	8,047.39	8,047.39	5.28%	424.90
	PLCC	170.05	170.05	170.05	6.33%	10.76
	Leasehold Land				3.34%	0.00
	Total	20,192.39	20,527.39	20,359.89		979.27
	Weighted Average Rate of Depreciation (Percentage)					4.81
	Elapsed Life					2
					0.00%	0.00
2018-19	Freehold Land	250.05	250.05	250.05	0.00%	0.00
	Building	4,513.85	4,513.85	4,513.85	3.34%	150.76
	Transmission Line	7,546.05	7,546.05	7,546.05	5.28%	398.43
	Sub Station	8,047.39	8,047.39	8,047.39	5.28%	424.90
	PLCC	170.05	170.05	170.05	6.33%	10.76
	Leasehold Land				3.34%	0.00
	Total	20,527.39	20,527.39	20,527.39		984.86
	Weighted Average Rate of Depreciation (Percentage)					4.80
	Elapsed Life					3
					0.00%	0.00

Calculation of Total Life of Asset			
Name of the Assets	Gross Block of Assets	Useful Life	Weighted Life
Freehold Land	250.05	0	
Building	2506.04	25	62651.00
Transmission Line	6611.59	35	231405.65
Sub Station	6513.60	25	162840.00
PLCC	120.47	15	1807.05
Leasehold Land		25	
Total	16007.75		458703.70
Weighted Useful Life			29

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(Petitioner)



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Calculation of Depreciation Rate

Name of the Petitioner:
 Name of the Region :
 Name of the Project:
 Name of the Transmission Element
 or Communication System:
 Anticipated DOCO

POWERGRID CORPORATION OF INDIA LTD.

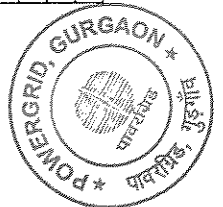
Western Region

System Strengthening-XVII in Southern Region

LILO of 400 kV D/C Kolhapur-Mapusa at 400 kV Kolhapur GIS (New) S/S along with associated bays

1-Sep-2015

Year	Name of the Assets	Gross Block at the beginning of the year	Addcap during the year	Gross Block at the end of the year	Average Gross Block	Dep. Rate	Amount
2014-15	Freehold Land			250.05		0.00%	0.00
	Building			967.28		3.34%	0.00
	Transmission Line			2,358.33		5.28%	0.00
	Sub Station			721.53		5.28%	0.00
	PLCC			55.47		6.33%	0.00
	Leasehold Land					3.34%	0.00
	Total			4,352.66			0.00
	Weighted Average Rate of Depreciation (Percentage)						#DIV/0!
	Elapsed Life						0
2015-16	Freehold Land	250.05		250.05	250.05	0.00%	0.00
	Building	2,506.04	722.65	3,228.69	2,867.37	3.34%	95.77
	Transmission Line	6,611.59	934.46	7,546.05	7,078.82	5.28%	373.76
	Sub Station	6,513.60	469.32	6,982.92	6,748.26	5.28%	356.31
	PLCC	120.47		120.47	120.47	6.33%	7.63
	Leasehold Land					3.34%	0.00
	Total	16,001.75	2,126.43	18,128.18	17,064.97		833.47
	Weighted Average Rate of Depreciation (Percentage)						4.88
	Elapsed Life						0
2016-17	Freehold Land	250.05		250.05	250.05	0.00%	0.00
	Building	3,228.69	950.16	4,178.85	3,703.77	3.34%	123.71
	Transmission Line	7,546.05	0.00	7,546.05	7,546.05	5.28%	398.43
	Sub Station	6,982.92	1,064.47	8,047.39	7,515.16	5.28%	396.80
	PLCC	120.47	49.58	170.05	145.26	6.33%	9.19
	Leasehold Land					3.34%	0.00
	Total	18,128.18	2,064.21	20,192.39	19,160.29		928.13
	Weighted Average Rate of Depreciation (Percentage)						4.84
	Elapsed Life						1
2017-18	Freehold Land	250.05		250.05	250.05	0.00%	0.00
	Building	4,178.85	335.00	4,513.85	4,346.35	3.34%	145.17
	Transmission Line	7,546.05		7,546.05	7,546.05	5.28%	398.43



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Statement of Depreciation

Name of the Petitioner:
Name of the Region :
Name of the Project:

POWERGRID CORPORATION OF INDIA LTD.
Western Region

Name of the Transmission Element
or Communication System:
Anticipated DOCO

System Strengthening-XVII in Southern Region
LILO of 400 kV D/C Kolhapur-Mapusa at 400 kV Kolhapur GIS (New) S/S along with associated
bays
1-Sep-2015

Particulars	(Amount in Rs. Lakh)						
	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	
Opening Capital Cost			15,001.75	18,128.18	20,192.39	20,527.39	20,527.39
Closing Capital Cost			18,128.18	20,192.39	20,527.39	20,527.39	20,527.39
Average Capital Cost			17,064.97	19,160.29	20,359.89	20,527.39	20,527.39
Freehold Land (Avg Cost)			250.05	250.05	250.05	250.05	250.05
Rate of Depreciation			0.05	0.05	0.05	0.05	0.05
Depreciable Value			15,133.42	17,019.21	18,098.86	18,249.61	18,249.61
Balance Useful Life of the Asset (at the beginning of the year)			29	28	27	26	26.00
Elapsed Life of the Asset (at the beginning of the year)				1.00	2.00	3.00	3.00
Remaining Depreciable Value			15,133.42	16,533.02	16,684.54	15,856.02	15,856.02
Depreciation during the year			486.19	928.13	979.27	984.86	984.86
Depreciation upto previous year				486.19	1,414.32	2,393.59	2,393.59
Cumulative depreciation(Incl of AAD)			486.19	1,414.32	2,393.59	3,378.45	3,378.45

(Petitioner)



Calculation of Interest on Working Capital

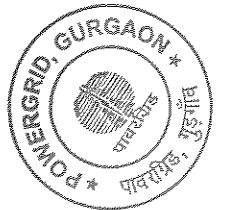
Name of the Petitioner:
Name of the Region :
Name of the Project:

POWERGRID CORPORATION OF INDIA LTD.
Western Region

Name of the Transmission Element or System Strengthening-XVII in Southern Region
Communication System: LLO of 400 kV D/C Kolhapur-Mapusa at 400 kV Kolhapur GIS (New) S/S along with associated bays
Anticipated DOCO 1-Sep-2015

Particulars	(Amount in Rs. Lakh)						
	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	
O&M Expenses			24.93	25.76	26.61	27.50	
Maintenance Spares			44.88	46.37	47.90	49.49	
Receivables			410.67	452.80	475.37	476.97	
Total Working Capital			480.48	524.93	549.88	553.96	
Rate of Interest			13.50%	13.50%	13.50%	13.50%	
Interest on Working Capital			64.86	70.87	74.23	74.79	
Pro rata interest on Working Capital			37.84	70.87	74.23	74.79	


(Petitioner)



Incidental Expenditure during Construction

Name of the Petitioner:

Name of the Region:

Name of the Project:

WESTERN REGION-I

SYSTEM STRENGTHENING IN SR XVII- WR1 Portion

Asset 1: L1LO of 400kV D/C Kolhapur- Mapusa at 400kV Kolhapur GIS (new) SS along with associated bays

Sl. No.	Parameters	Year -1 2010-11	Year-2 2011-12	Year 3 2012-13	Year-4 2013-14	Year-5 2014-15 Q3	2014-15 SAP Q4	2015-16	TOTAL
A	Expenses:								
1	Employees' Remuneration & Benefits		161.00	73.22	46.82	94.79	81.93	70.39	528.15
2	Finance Costs		0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	Water Charges		0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	Communication Expenses		0.40	0.51	0.22	0.34	0.10	0.24	1.82
5	Power Charges		0.02	10.06	1.55	1.52	1.11	2.19	16.45
6	Other Office and Administrative Expenses		73.63	29.68	33.46	66.08	74.31	42.62	319.78
7	Others (Please Specify Details)		0.00	0.00	0.00	0.00	8.49	1.31	9.79
8	Other pre-Operating Expenses		0.00	0.00	0.00	0.00	0	0.00	0.00
9	CC IEDC		5.03	0.60	2.40	14.27	0	3.43	25.73
10	RO IEDC		7.68	0.85	1.18	73.78	0	12.79	96.30
								
B	Total Expenses	0.00	247.78	114.92	85.64	250.78	165.94	132.97	998.03
	Less: Income from sale of tenders								0.00
	Less: Income from guest house								0.00
	Less: Income recovered from Contractors								0.00
	Less: Interest on Deposits						0.37		0.37
								

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Note: IEDC should be duly reconciled with the correspo 0.00 247.78 114.92 85.64 250.78 165.58 132.97 997.67
Auditor's Certificate.



**PART-III
FORM- 13**

Breakup of Initial Spares

Name of the Petitioner: POWER GRID CORPORATION OF INDIA
Name of Region: WESTERN REGION 1
Name of the Project : System Strengthening -XVII in Southern Region
Name of the Transmission Element : LILO of 400kV D/C Kolhapur- Mapusa at 400kV Kolhapur GIS (new) SS along with associated bays
DOCO: 01.09.2015

(Amount in Rs. Lakh)

Particulars	Plant & Machinery Cost (excluding IDC and IEDC) upto DOCO	IDC	IEDC	Year wise additional Capital expenditure up to cut off date		Total Cost	Initial spares claimed	
				From 01.09.15 to 31.03.16	2016-17		2017-18	Amount
Transmission Line	5780.63	273.07	557.89	934.45	0.00	6715.08	60.33	0.90
Transmission Substation (Green Field/Brown Field)	6246.73	18.23	248.64	469.32	1064.47	7780.52	392.60	5.05
PLCC	115.69	0.33	4.45	0.00	49.58	165.27	4.40	2.66
Series Compensation devices								
HVDC Station								
Gas Insulated Substation								
Communication System								

Note:

1. Details to be furnished as per Regulation 13.
2. Corresponding figures of initial spares included in each transmission system may be provided separately.



(Petitioner)

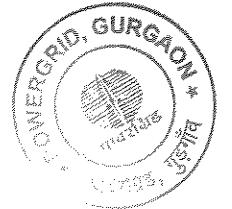
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Summary Sheet

Name of the Petitioner: POWERGRID CORPORATION OF INDIA LTD.
 Name of the Region : Western Region
 Name of the Project: System Strengthening-XVII in Southern Region
 Name of the Transmission Element or Communication System : 125 MVAR Bus Reactor along with associated bays at 400 kV Kolhapur GIS (New) S/S
 Anticipated DOCO 1-Sep-2015

Particulars	FORM-No.	(Amount in Rs. Lakh)						
		2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	
Depreciation	Form 10A			36.45	74.95	81.72	81.72	
Interest on Loan	Form 9E			10.83	21.32	21.86	20.19	
Return on Equity	Form 8			42.78	88.25	96.33	96.33	
Interest on Working Capital	Form 11			3.79	7.29	7.74	7.81	
O & M Expenses	Form 2			31.06	55.02	56.84	58.73	
Total				124.91	246.83	264.49	264.78	

[Signature]
 (Petitioner)



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Details of Transmission Lines And Substations

Name of the Petitioner:
 Name of the Region :
 Name of the Project:
 Name of the Transmission Element
 or Communication System:
 Anticipated DOCO

POWERGRID CORPORATION OF INDIA LTD.
 Western Region
 System Strengthening-XVII in Southern Region
 125 MVAR Bus Reactor along with associated bays at 400 kV Kolhapur GIS (New) S/S

1-Sep-2015

Transmission Lines

Name of Line	Type of Line AC/HVDC	S/C or D/C	No. of Sub- Conductors	Voltage level (kV)	Line Length Ckt Km.	Line Length (Km.)	Anticipated DOCO	Covered In the present petition	
								Yes/No	If No,petition No.

Substations

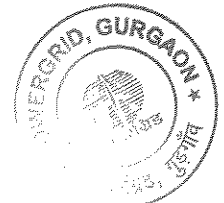
Name of Sub-Station	Type of Substation Conventional/ GIS/HVDC terminal/HVDC Back to Back	Voltage level (kV)	No. of Transformers/ Reactors/SVC etc (with Capacity)	No. of Bays			Anticipated DOCO	Covered in the present petition	
				765 (kV)	400 (kV)	220 (kV)		132 (kV) & below	Yes/No
Kolhapur GIS	GIS	400							
Bus Reactor Bay	GIS	400	1.00		1		1-Sep-2015	Yes	

Communication System

Name of Communication System	Type of Communication System	Technical Particulars	Number/ length	Anticipated DOCO	Covered in the present	
					Yes/No	If No,petition No.

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(Petitioner)



Name of the Petitioner: **POWEGRID CORPORATION OF INDIA LIMITED**
 Name of the Region: **Western Region**
 Name of the Project: **System Strengthening-XVII in Southern Region**
 Name of the Transmission Element: **125 MVAR Bus Reactor along with associated bays at 400 kV Kolhapur GIS (New) S/S**
 Anticipated DOCO: **1-Sep-2015**

Particulars	Units	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Base Rate of Return on Equity	%		15.50%	15.50%	15.50%	15.50%	15.50%
Tax Rate	%		20.960%	20.960%	20.960%	20.960%	20.960%
Effective Tax Rate	%						
Grossed up rate of ROE	%						
Target Availability	%		96.000%	96.000%	96.000%	96.000%	96.000%
Target Availability - HVDC System	%						
Normative O & M per Km	Rs. Lakh						
Single Circuit (Bundled Conductor with four Sub-Conductors)	S/C		0.606	0.627	0.647	0.669	0.691
Single Circuit (Twin & Three Conductor)	S/C		0.404	0.418	0.432	0.446	0.461
Single Circuit (Single Conductor)	S/C		0.202	0.209	0.216	0.223	0.230
Double Circuit (Bundled Conductor with four Sub-Conductors)	D/C		1.062	1.097	1.133	1.171	1.210
Double circuit (Twin & Three Conductor)	D/C		0.707	0.731	0.755	0.780	0.806
Double Circuit (Single Conductor)	D/C		0.303	0.313	0.324	0.334	0.346
Single Circuit (6 Conductor)	S/C		0.707	0.731	0.755	0.780	0.806
Multi Circuit with two or three Conductors	M/C		1.240	1.282	1.324	1.368	1.413
Multi Circuit with four or more Conductors	M/C		1.863	1.925	1.989	2.055	2.123
Normative O & M per bay	Rs., Lakh						
765 KV Sub-station	Rs. Lakh		84.420	87.220	90.120	93.110	96.200
400 KV Sub-station	Rs. Lakh		60.300	62.300	64.370	66.510	68.710
220 KV Sub-station	Rs. Lakh		42.210	43.610	45.060	46.550	48.100
132 KV Sub-station and below	Rs. Lakh		30.150	31.150	32.180	33.250	34.360
400 GIS Sub-station	Rs. Lakh		51.540	53.250	55.020	56.840	58.730
HVDC Back to Back Stations	Rs. Lakh		578.000	627.000	679.000	736.000	797.000
Rihand-Dadri HVDC Bipole Scheme	Rs. Lakh		1,511.000	1,637.000	1,774.000	1,922.000	2,082.000
Talcher-Kolar HVDC Bipole Scheme	Rs. Lakh		1,173.000	1,271.000	1,378.000	1,493.000	1,617.000
Balia Bhiwadi HVDC Bipole Scheme	Rs. Lakh		1,537.000	1,666.000	1,805.000	1,955.000	2,119.000
Spares for WC as Percentage of O & M	%		15.000%	15.000%	15.000%	15.000%	15.000%
Receivables in Months for WC	Months		2.000	2.000	2.000	2.000	2.000
Bank Rate as on	%		13.500%	13.500%	13.500%	13.500%	13.500%

(Petitioner)



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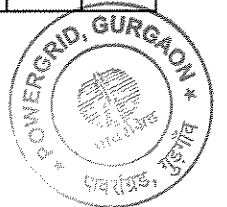
Statement of Capital Cost

Name of the Petitioner: POWERGRID CORPORATION OF INDIA LTD.
 Name of Region : Western Region
 Name of the Project : Line Bays and Reactor provisions at POWERGRID Substations associated with
 Name of the Transmission Element
 or Communication System: 125 MVAR Bus Reactor along with associated bays at 400 KV Kolhapur GIS (New) S/S
 Anticipated DOCO 1-Sep-2015

Statement of Capital Cost

(To be given for relevant dates and year wise)

Particulars	(Amount in Rs.Lakh)							
	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19		
A								
a) Opening Gross Block Amount as per books			1,095.19	1,320.19	1,586.25	1,586.25		
b) Amount of capital liabilities in A (a) above								
c) Amount of IDC, FC, FERV, & Hedging cost included in A (a) above		9.91						
d) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost included in A (a) above		40.96						
B								
a) Addition in Gross Block Amount during the period			225.00	266.06				
b) Amount of capital liabilities in B (a) above								
c) Amount of IDC, FC, FERV, & Hedging cost included in B (a) above								
d) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost included in B (a) above								
C								
a) Closing Gross Block Amount as per books			1320.19	1586.25	1586.25	1586.25		
b) Amount of capital liabilities in C (a) above								
c) Amount of IDC, FC, FERV, & Hedging cost included in C (a) above			0.00	0.00	0.00	0.00		
d) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost included in C (a) above			0.00	0.00	0.00	0.00		


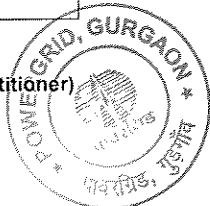


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Abstract of Capital Cost Estimates and Schedule of Commissioning for the New projects

Name of the Transmission Licensee : POWER GRID CORPORATION OF INDIA
Name of Region: WESTERN REGION

Name of the Project :	System Strengthening -XVII in Southern Region	
Name of Element:	125 MVAR Bus reactor along with associated bays at 400kV Kolhapur GIS (new) S/S	
Capital Cost Estimates		
Board of Director/ Agency approving the Capital cost estimates:	Board of Director 273rd meeting	
Date of approval of the Capital cost estimates:	27.06.2012	
	Present Day Cost	Completed Cost
Price level of approved estimates	As of April 2012	As on Scheduled COD of the transmission system/transmission element/ Communication System
Foreign Exchange rate considered for the Capital cost estimates:		
Capital Cost excluding IDC, IEDC & FC		
Foreign Component, if any (In Million US \$ or the relevant Currency)		
Domestic Component (Rs. Lakhs)		
Capital cost excluding IDC, FC, FERV & Hedging Cost (Rs. Lakhs)	1280.08	1507.35
IDC, IEDC, FC, FERV & Hedging Cost		
Foreign Component, if any (In Million US \$ or the relevant Currency)		
Domestic Component (Rs Lakh)		
Total IDC, FC, FERV & Hedging Cost (Rs Lakh)	65.84	77.53
Rate of taxes & duties considered		
Capital cost Including IDC, IEDC, FC, FERV & Hedging Cost		
Foreign Component, if any (In Million US \$ or the relevant Currency)		
Domestic Component (Rs. Lakhs.)		
Capital cost Including IDC, IEDC& FC (Rs Lakh)	1345.92	1584.88
Schedule of Commissioning		
(Scheduled DOCO elementwise)		
COD of transmission system 1 /transmission element 1/Communication System 1	26-Mar-15	01-09-2015 (Ant.)
COD of transmission system 1/ transmission element 2/ Communication System 2		
COD of transmission system 1/ transmission element 3/ Communication System 3		
COD of last transmission system /transmission element / Communication System		


 (Petitioner)


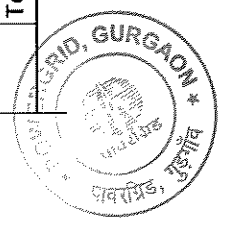
Element wise Break-up of Project Cost for Transmission System

PART-III
Form5

Name of the Transmission Licensee :
 Name of Region: Western Region-I
 Name of the Project :System Strengthening -XVII in Southern Region
 Name of the Element: 125 MVAR Bus reactor along with associated bays at 400kV Kolhapur GIS (new) SS
 Transformer from Wardha to Solapur)
 Ant. DOCO: 01.09.2015

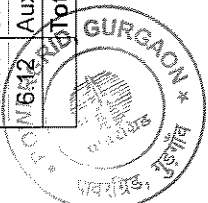
Sl.No.	Particulars	As per Original Estimate			As on COD			Liabilities / Provision	Variation	Reasons for Variation	Admitted Cost
		Quantity	Rate	Estimated Amount	Quantity	Rate	Estimated Amount				
1	2			3			4	5	6-3-4-5	7	8
A	TRANSMISSION LINE										
1.0	Preliminary works										
1.1	Design & Engineering										
1.2	Preliminary investigation, Right of way, forest clearance, PTCC, general civil works, compensation							0.00			
1.3	Total Preliminary works			0.00			0.00	0.00	0.00		
2.0	Transmission Lines material										
2.1	Towers Steel								0.00		
2.2	Conductor								0.00		
2.3	Earth Wire								0.00		
2.4	Insulators								0.00		
2.5	Hardware Fittings								0.00		
2.6	Conductor & Earthwire accessories								0.00		
2.7	Spares								0.00		
2.8	Erection, Stringing & Civil works including foundation								0.00		
2.9	Total Transmission Lines material			0.00			0.00	0.00	0.00		
3.0	Taxes and Duties										
3.1	Custom Duty								0.00		
3.2	Other Taxes & Duties								0.00		
	Total Taxes & Duties			0.00			0.00	0.00	0.00		
	Total - Transmission lines			0.00			0.00	0.00	0.00		

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Sl.No.	Particulars	As per Original Estimate			As on COD			Liabilities / Provision	Variation	Reasons for Variation	Admitted Cost
		Quantity	Rate	Estimated Amount	Quantity	Rate	Estimated Amount				
1	2			3			4	5	6=3-4-5	7	8
	B. SUBSTATIONS										
4.0	Preliminary works & land										
4.1	Design & Engineering			0.00					0.00		
4.2	Land			0.00					0.00		
4.3	Site preparation			0.00					0.00		
	Total Preliminary works & land			0.00			0.00	0.00	0.00		
	Civil Works										
5.0	Control Room & Office Building including HVAC			0.00					0.00		
5.1	Township & Colony			0.00					0.00		
5.2	Roads and Drainage	1(LS)		27.00	1(LS)		9.91	9.91	7.18	As per actual execution and site condition	
5.3	Foundation for structures	1(LS)		5.30	1(LS)		41.17	41.17	-77.04		
5.4	Misc. civil works			0.00			0.00	0.00	0.00		
	Total Civil Works			32.30			51.08	51.08	-69.86		
	Substation Equipments										
6.0	Switchgear (CT,PT, Circuit Breaker	12		4.70	12.00		5.25	2.33	-2.88		
6.1	GIS Equipments			567.37			402.57	178.33	-13.53		
6.2	Transformers			0.00			0.00	0.00	0.00	Increase in award cost as compared to FR	
6.3	Compensating Equipment(Reactor, SVCs etc)			481.04			514.69	227.99	-261.65		
6.4	Control , Relay & Protection Panel	2		25.52	2.00		27.70	12.27	-14.44		
6.5	PLCC	1 (LS)		0.00	1 (LS)		0.00	0.00	0.00		
6.6	HVDC package			0.00			0.00	0.00	0.00		
6.7	Bus Bars/ conductors/insulators	1 (LS)		5.60	1 (LS)		28.26	12.52	-35.17		
6.8	outdoor lighting	1 (LS)		0.00	1 (LS)		0.00	0.00	0.00		
6.9	Emergency DG set	0		0.00			0.00	0.00	0.00		
6.10	Grounding System	0		0.00			0.00	0.00	0.00		
6.11	Structure for Switch yard	1 (LS)		34.02	1 (LS)		1.19	0.53	32.30	Decrease in award cost as compared to FR	
6.12	Auxiliary System	1 (LS)		19.90	1 (LS)		13.58	6.02	0.31		
	Total Substation Equipments			1138.14			993.24	439.98	-295.07		



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Sl.No.	Particulars	As per Original Estimate			As on COD			Liabilities / Provision	Variation	Reasons for Variation	Admitted Cost
		Quantity	Rate	Estimated Amount	Quantity	Rate	Estimated Amount				
1	2			3			4	5	6=3-4-5	7	8
7.0	Spares (incl.in eqpt. cost)										
8.0	Taxes and Duties										
8.1	Custom Duty						0.00	0.00	0.00		
8.2	Other Taxes & Duties						0.00	0.00	0.00		
8.3	Total Taxes & Duties			0.00			0.00	0.00	0.00		
	Total (Sub-station)			1170.44			1044.32	491.06	-364.93		
9.0	Communication System										
9.1	Preliminary Works										
9.2	Communication System equipment's										
9.3	Taxes and Duties										
	Total (Communication System)										
10.0	Construction and pre-commissioning expenses										
10.1	Site supervision & site admn.etc.			0.00			0.00	0.00	0.00		
10.2	Tools and Plants			0.00			0.00	0.00	0.00		
10.3	construction Insurance			0.00			0.00	0.00	0.00		
	Total Construction and pre-commissioning expenses			0.00			0.00	0.00	0.00		
11.0	Overheads										
11.1	Establishment			109.64			40.96		68.68	As per actual / anticipated	
11.2	Audit & Accounts								0.00		
11.3	Contingency								0.00		
	Total Overheads			109.64			40.96	0.00	68.68		
12.0	Cost of Plant & Machinery			1280.08			1085.28	491.06	-296.25		
13.0	Capital Cost including Plant & Machinery										
13.1	Interest During Construction (IDC)			65.84			9.91		62.83	As per actual / anticipated	
13.2	Financing Charges (FC)								0.00		
13.3	Foreign Exchange Rate Variation (FERV)								0.00		
13.4	Hedging Cost								0.00		
14.0	Capital cost including IDC, FC, FERV & Hedging Cost			1345.92				491.06	-233.42		

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(Petitioner)



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Financial package upto COD

Name of the Petitioner:

POWERGRID CORPORATION OF INDIA LIMITED

Name of Project :

Line Bays and Reactor provisions at POWERGRID Substations associated with System Strengthening for Westorn Region

Name of Transmission Element or

125 MVAr Bus Reactor along with associated bays at 400 kV Kolhapur GIS (New) S/S

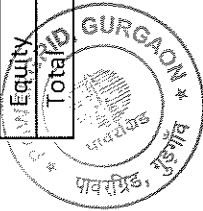
Communication System:

1-Sep-15

Anticipated DOCO

(Amount in Rs. Lakh)

Particulars	Financial package as apportioned/ Approved		Financial Package as on COD		As Admitted on COD	
	Currency and Amount		Currency and Amount		Currency and Amount	
Loans						
Loans- Domestic			INR	66.72		
Loans- Foreign			INR	699.91		
Total Loans	INR	1,082.14	INR	766.63		
Equity						
Foreign Equity						
Equity as DOCO			INR	328.56		
Notional						
Total Equity	INR	463.78	INR	328.56		
Debt Equity Ratio	INR	70:30	INR	70:30		
Total Cost	INR	1,545.92	INR	1,095.19		
	Debt	Equity	Total			
Add Cap for 2015-16			225.00			
Add Cap for 2016-17			266.06			
Add Cap for 2015-16	Actual	Normative				
Debt	0.00	157.50				
Equity	225.00	67.50				
Total	225.00	225.00				



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Add Cap for 2016-17	Actual	Normative		
Debt	0.00	186.24		
Equity	266.06	79.82		
Total	266.06	266.06		
Total Capital Cost with Add Cap	1,586.25	1,586.25		

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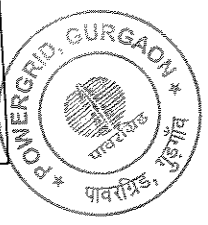
Financing of Additional Capitalisation

Name of the Petitioner: POWERGRID CORPORATION OF INDIA LIMITED
Name of the Region: Western Region
Name of the Project : Line Bays and Reactor provisions at POWERGRID Substations associated with System Strengthening for Western Region
Name of the Transmission Element or Communication System Anticipated DOCO: 125 MVAR Bus Reactor along with associated bays at 400 kV Kolhapur GIS (New) S/S
1-Sep-2015

(Amount in Rs.Lakh)

	Projected/Actual							Admitted		
	2014-15	2015-16	2016-17	2017-18	2018-19	2014-15	2015-16	2016-17	2017-18	2018-19
Financial Year (Starting from COD)										
Amount capitalised in Work/Equipment		225.00	266.06							
Financing Details										
Loan-1										
Loan-2										
Loan-3 and so on		157.50	186.24							
Total Loan										
Equity		67.50	79.82							
Internal Resources										
Others		225.00	266.06							
Total										

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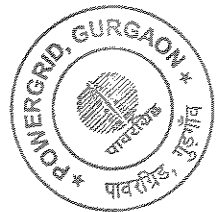
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Statement of Additional Capitalisation after COD

Name of the Petitioner: **POWEGRID CORPORATION OF INDIA LIMITED**
 Name of the Region: **Western Region**
 Name of the Project : **Line Bays and Reactor provisions at POWERGRID Substations associated with System Strengthening for Western Region**
 Name of the Transmission Element : **125 MVAR Bus Reactor along with associated bays at 400 kV Kolhapur GIS (New) S/S**
 or Communication System:
 Anticipated DOCO **1-Sep-2015**

Year	Work/Equipment proposed to be added after COD upto cut off date/ beyond cut off date	Amount capitalised and proposed to be capitalised	Justification as per purpose	Regulation under which covered	Admitted Cost
1	2	3	4	5	6
2015-16	BUILDING	25.00	Balance & Retention payments	14 (1)	
2015-16	SUB STATION	200.00	Balance & Retention payments	14 (1)	
Total		225.00	
2016-17	BUILDING	26.08	Balance & Retention payments	14 (1)	
2016-17	SUB STATION	239.98	Balance & Retention payments	14 (1)	
Total		266.06	


 Petitioner



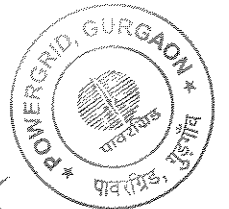
Calculation of Return on Equity

Name of the Petitioner: POWERGRID CORPORATION OF INDIA LTD.
 Name of the Region: Western Region
 Name of the Project: System Strengthening-XVII in Southern Region
 Name of the Transmission Element or Communication System: 125 MVAR Bus Reactor along with associated bays at 400 kV Kolhapur GIS (New) S/S
 Anticipated DOCO 1-Sep-2015

Particulars	(Amount in Rs. Lakh)						
	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	
Equity as DOCO			328.56	396.06	475.88	475.88	
Notional Equity for ADD Cap			67.50	79.82			
Total Equity			396.06	475.88	475.88	475.88	
Average Equity	-	-	362.31	435.97	475.88	475.88	
Rate of Return on Equity			20.24%	20.24%	20.24%	20.24%	
Return on Equity	-	-	73.34	88.25	96.33	96.33	
Pro rata return on equity			42.78	88.25	96.33	96.33	
Calculation of Grossed up Rate of ROE							
Rate of ROE			15.50%	15.50%	15.50%	15.50%	
Time Line Incentive(%)			0.005	0.005	0.005	0.005	
Communication Disincentive(%)							
Effective Rate of Interest			16.00%	16.00%	16.00%	16.00%	
MAT Rate			20.96%	20.96%	20.96%	20.96%	
Grossed up Rate of ROE			20.24%	20.24%	20.24%	20.24%	


 (Petitioner)

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Details of additional RoE

Name of the Petitioner: POWER GRID CORPORATION OF INDIA |
 Name of the Region: WESTERN REGION 1
 Name of the Project: System Strengthening -XVII in Southern Region

Name of the Transmission Element or
 Communication system

Project/ Element	Completion Time as per Investment approval		Actual Completion time		Qualifying time schedule(as per regulation) (in months)
	Start Date	Scheduled COD (Date)	Start Date	Actual/Anti. COD (Date)	
125 MVAR Bus reactor along with associated bays at 400kV Kolhapur GIS (new) SS	27.06.2012	26.03.2015	12.02.2014	01.09.2015	40
					18
					33


 (Petitioner)



Calculation of Weighted Average Rate of Interest on Actual Loans

Name of the Petitioner: POWERGRID CORPORATION OF INDIA LTD.
 Name of the Region : Western Region
 Name of the Project: System Strengthening-XVII in Southern Region

Name of the Transmission Element or Communication System: 125 MVAR Bus Reactor along with associated bays at 400 kV Kolhapur GIS (New) S/S
 Anticipated DOCO 1-Sep-2015

Particulars	(Amount in Rs. Lakhs)					
	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Loan under IBRD-V Loan No. 7787-IN						
Gross Loan Opening			699.91	699.91	699.91	699.91
Cumulative Repayments of Loans upto Previous Year			25.18	37.52	61.74	85.32
Net Loans Opening			674.73	662.39	638.17	614.59
Add: Drawal(s) during the year						
Less: Repayment (s) of Loans during the year			12.35	24.22	23.58	22.83
Net Loan Closing			662.39	638.17	614.59	591.76
Average Net Loan			668.56	650.28	626.38	603.17
Rate of Interest on Loan			1.63%	1.63%	1.63%	1.63%
Interest on Loan			10.90	10.60	10.21	9.83
Proposed Loan 2015-16 (Bond L)						
Gross Loan Opening			66.72	66.72	66.72	66.72
Cumulative Repayments of Loans upto Previous Year						
Net Loans Opening			66.72	66.72	66.72	66.72
Add: Drawal(s) during the year						
Less: Repayment (s) of Loans during the year						
Net Loan Closing			66.72	66.72	66.72	66.72
Average Net Loan			66.72	66.72	66.72	66.72
Rate of Interest on Loan			8.40%	8.40%	8.40%	8.40%
Interest on Loan			5.60	5.60	5.60	5.60
Total Loan						
Gross Loan Opening			766.63	766.63	766.63	766.63
Cumulative Repayments of Loans upto Previous Year			25.18	37.52	61.74	85.32
Net Loans Opening			741.45	729.11	704.89	681.31
Add: Drawal(s) during the year						
Less: Repayment (s) of Loans during the year			12.35	24.22	23.58	22.83
Net Loan Closing			729.11	704.89	681.31	658.48
Average Net Loan			735.28	717.00	693.10	669.89
Interest on Loan			16.50	16.20	15.81	15.44
Weighted Average Rate of Interest on Loan			2.24%	2.26%	2.28%	2.30%


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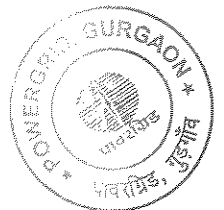


Loans in Foreign Currency

Name of the Petitioner: POWERGRID CORPORATION OF INDIA LTD.
 Name of the Region : Western Region
 Name of the Project : System Strengthening-XVII in Southern Region
 Name of the Transmission Element or Communication System : 125 MVAR Bus Reactor along with associated bays at 400 kV Kolhapur GIS (New) S/S
 Anticipated DOCO : 1-Sep-2015

Particulars	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Loan under IBRD-V Loan No. 7787-IN(USD in LACS)EXCHANGE RATE:64.33						
Gross Loan Opening			10.88	10.88	10.88	10.88
Cumulative Repayments of Loans upto Previous Year			0.39	0.58	0.96	1.33
Net Loans Opening			10.49	10.30	9.92	9.55
Add: Drawal(s) during the year			0.19	0.38	0.37	0.35
Less: Repayment (s) of Loans during the year			10.30	9.92	9.55	9.20
Net Loan Closing			10.39	10.11	9.74	9.38
Average Net Loan			1.63%	1.63%	1.63%	1.63%
Rate of Interest on Loan			0.17	0.16	0.16	0.15
Interest on Loan						


 Petitioner



Calculation of Interest on Normative Loan

Name of the Petitioner: POWERGRID CORPORATION OF INDIA LTD.
 Name of the Region : Western Region
 Name of the Project: System Strengthening-XVII in Southern Region
 Name of the Transmission Element or Communication System: 125 MVAR Bus Reactor along with associated bays at 400 kV Kolhapur GIS (New) S/S
 Anticipated DOCO 1-Sep-2015

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan-Opening			766.63	924.13	1,110.38	1,110.38
Cumulative repayment of Normative Loan upto previous year				36.45	111.40	193.13
Net Normative loan- Opening			766.63	887.68	998.97	917.25
Increase/Decrease due to ACE during the Year			157.50	186.24		
Repayments of Normative Loan during the year			36.45	74.95	81.72	81.72
Net Normative loan- Closing			887.68	998.97	917.25	835.52
Average Normative Loan			827.16	943.33	958.11	876.39
Weighted average Rate of Interest on actual Loans			2.2443%	2.2600%	2.2817%	2.3043%
Interest on Normative Loan			18.56	21.32	21.86	20.19
Pro rata Interest on Normative Loan			10.83	21.32	21.86	20.19

of
 (Petitioner)



Calculation of Depreciation Rate

Name of the Petitioner: POWERGRID CORPORATION OF INDIA LTD.
 Name of the Region : Western Region
 Name of the Project: System Strengthening-XVII in Southern Region
 Name of the Transmission Element 125 MVAR Bus Reactor along with associated bays at 400 kV Kolhapur GIS (New) S/S
 or Communication System: 1-Sep-2015
 Anticipated DOCO

Year	Name of the Assets	Gross Block at the beginning of the year	Addcap during the year	Gross Block at the end of the year	Average Gross Block	Dep. Rate	Amount
2014-15	Freehold Land					0.00%	0.00
	Building			21.92		3.34%	0.00
	Transmission Line					5.28%	0.00
	Sub Station			265.73		5.28%	0.00
	PLCC					6.33%	0.00
	Leasehold Land					3.34%	0.00
	Total				287.65		0.00
	Weighted Average Rate of Depreciation (Percentage)						0.00
	Elapsed Life						0
2015-16	Freehold Land					0.00%	0.00
	Building	53.56	25.00	78.56	66.06	3.34%	2.21
	Transmission Line					5.28%	0.00
	Sub Station	1,041.63	200.00	1,241.63	1,141.63	5.28%	60.28
	PLCC					6.33%	0.00
	Leasehold Land					3.34%	0.00
	Total	1,095.19	225.00	1,320.19	1,207.69		62.48
	Weighted Average Rate of Depreciation (Percentage)						5.17
	Elapsed Life						0
2016-17	Freehold Land					0.00%	0.00
	Building	78.56	26.08	104.64	91.60	3.34%	3.06
	Transmission Line					5.28%	0.00
	Sub Station	1,241.63	239.98	1,481.61	1,361.62	5.28%	71.89
	PLCC					6.33%	0.00
	Leasehold Land					3.34%	0.00
	Total	1,320.19	266.06	1,586.25	1,453.22		74.95
	Weighted Average Rate of Depreciation (Percentage)						5.16
	Elapsed Life						2
2017-18	Freehold Land					0.00%	0.00
	Building	104.64		104.64	104.64	3.34%	3.49
	Transmission Line					5.28%	0.00



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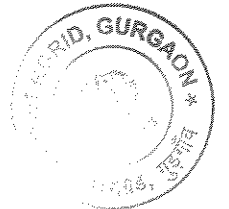
Calculation of Depreciation Rate

Name of the Petitioner: POWERGRID CORPORATION OF INDIA LTD.
 Name of the Region : Western Region
 Name of the Project: System Strengthening-XVII in Southern Region
 Name of the Transmission Element or Communication System: 125 MVAR Bus Reactor along with associated bays at 400 kV Koihapur GIS (New) S/S
 Anticipated DOCO 1-Sep-2015

	Sub Station	1,481.61	1,481.61	1,481.61	1,481.61	5.28%	78.23
	PLCC					6.33%	0.00
	Leasehold Land					3.34%	0.00
	Total	1,586.25	1,586.25	1,586.25	1,586.25		81.72
	Weighted Average Rate of Depreciation (Percentage)						5.15
	Elapsed Life						3
2018-19	Freehold Land					0.00%	0.00
	Building	104.64	104.64	104.64	104.64	0.00%	0.00
	Transmission Line					3.34%	3.49
	Sub Station	1,481.61	1,481.61	1,481.61	1,481.61	5.28%	0.00
	PLCC					6.33%	0.00
	Leasehold Land					3.34%	0.00
	Total	1,586.25	1,586.25	1,586.25	1,586.25		81.72
	Weighted Average Rate of Depreciation (Percentage)						5.15
	Elapsed Life						4
						0.00%	0.00

Calculation of Total Life of Asset			
Name of the Assets	Gross Block of Assets	Useful Life	Weighted Life
Freehold Land		0	
Building	53.56	25	1339
Transmission Line		35	
Sub Station	1041.63	25	26040.75
PLCC		15	
Leasehold Land		25	
Total	1095.19		27379.08
Weighted Useful Life			25

OR
 (Petitioner)



Statement of Depreciation

POWERGRID CORPORATION OF INDIA LTD.
Western Region
System Strengthening-XVII in Southern Region

Name of the Petitioner:
Name of the Region :
Name of the Project:
Name of the Transmission Element
or Communication System:
Anticipated DOCO

125 MVAR Bus Reactor along with associated bays at 400 kV Kolhapur GIS (New) S/S
1-Sep-2015

Particulars	(Amount in Rs. Lakh)						
	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	
Opening Capital Cost			1,095.19	1,320.19	1,586.25	1,586.25	1,586.25
Closing Capital Cost			1,320.19	1,586.25	1,586.25	1,586.25	1,586.25
Average Capital Cost			1,207.69	1,453.22	1,586.25	1,586.25	1,586.25
Freehold Land (Avg Cost)							
Rate of Depreciation			0.05	0.05	0.05	0.05	0.05
Depreciable Value			1,086.92	1,307.90	1,427.63	1,427.63	1,427.63
Balance Useful Life of the Asset (at the beginning of the year)			25	23.00	23.00	23.00	23.00
Elapsed Life of the Asset (at the beginning of the year)				2.00	3.00	4.00	4.00
Remaining Depreciable Value			1,086.92	1,271.45	1,316.22	1,234.50	1,234.50
Depreciation during the year			36.45	74.95	81.72	81.72	81.72
Depreciation upto previous year				36.45	111.40	193.13	193.13
Cumulative depreciation(Incl of AAD)			36.45	111.40	193.13	274.85	274.85



(Petitioner)



Calculation of Interest on Working Capital

Name of the Petitioner: POWERGRID CORPORATION OF INDIA LTD.
 Name of the Region : Western Region
 Name of the Project: System Strengthening-XVII in Southern Region
 Name of the Transmission Element 125 MVAR Bus Reactor along with associated bays at 400 kV Kolhapur GIS (New) S/S
 or Communication System:
 Anticipated DOCO 1-Sep-2015

Particulars	(Amount in Rs. Lakh)							
	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19		
O&M Expenses			4.44	4.59	4.74	4.89		
Maintenance Spares			7.99	8.25	8.53	8.81		
Receivables			35.69	41.14	44.08	44.13		
Total Working Capital			48.11	53.98	57.34	57.83		
Rate of Interest			13.50%	13.50%	13.50%	13.50%		
Interest on Working Capital			6.50	7.29	7.74	7.81		
Pro rata interest on Working Capital			3.79	7.29	7.74	7.81		


 (Petitioner)



Incidental Expenditure during Construction

Name of the Petitioner:

Name of the Region: WESTERN REGION-I

Name of the Project: SYSTEM STRENGTHENING IN SR XVII- WR1 Portion

Asset 2: 125 MVAR Bus reactor along with associated bays at 400kV Kolhapur GIS (new) SS

Sl. No.	Parameters	Year -1	Year-2	Year 3	Year-4	Year-5	2014-15	2015-16	TOTAL
A	Expenses:	2010-11	2011-12	2012-13	2013-14	2014-15 Q3	2014-15 SAP Q4	2015-16	
1	Employees' Remuneration & Benefits		6.61	3.01	1.92	3.89	3.36	2.89	21.68
2	Finance Costs		0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	Water Charges		0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	Communication Expenses		0.02	0.02	0.01	0.01	0.00	0.01	0.07
5	Power Charges		0.00	0.41	0.06	0.06	0.05	0.09	0.68
6	Other Office and Administrative Expenses		3.02	1.22	1.37	2.71	3.05	1.74	13.12
7	Others (Please Specify Details)		0.00	0.00	0.00	0.00	0.35	0.05	0.40
8	Other pre-Operating Expenses		0.00	0.00	0.00	0.00	0	0.00	0.00
9	CC IEDC		0.21	0.02	0.10	0.59	0	0.14	1.06
10	RO IEDC		0.32	0.03	0.05	3.03	0	0.52	3.95
								
B	Total Expenses	0.00	10.17	4.72	3.52	10.30	6.81	5.44	40.96
	Less: Income from sale of tenders								0.00
	Less: Income from guest house								0.00
	Less: Income recovered from Contractors								0.00
	Less: Interest on Deposits								0.00
								
	Note: IEDC should be duly reconciled with the correspo	0.00	10.17	4.72	3.52	10.30	6.81	5.44	40.96

Auditor's Certificate.



**PART-III
FORM- 13**

Breakup of Initial Spares

Name of the Petitioner: POWER GRID CORPORATION OF INDIA
Name of Region: WESTERN REGION 1
Name of the Project : System Strengthening -XVII in Southern Region
Name of the Transmission Element : 125 MVAR Bus reactor along with associated bays at 400kV Kolhapur GIS (new) SS

DOCO: 01.09.2015

(Amount in Rs. Lakh)

Particulars	Plant & Machinery Cost (excluding IDC and IEDC) upto DOCO	IDC	IEDC	Year wise additional Capital expenditure up to cut off date			Total Cost	Initial spares claimed	
				From 01.09.15 to 31.03.16	2016-17	2017-18		Amount	%
Transmission Line									
Transmission Substation (Green Field/Brown Field)	993.25	9.36	39.02	200.00	239.98	1433.23	70.00	4.88	
PLCC									
Series Compensation devices									
HVDC Station									
Gas Insulated Substation									
Communication System									

Note:

1. Details to be furnished as per Regulation 13.
2. Corresponding figures of initial spares included in each transmission system may be provided separately. 
(Petitioner)

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INDEX		CHECK LIST PART-III
Name of the Company :	Power Grid Corporation of India Ltd.	
Name of the Project :	System Strengthening – XVII in Southern Regional Grid	
Name of the Transmission Element :	Asset-I: LILO of 400 kV D/C Kolhapur – Mapusa at 400 kV Kolhapur GIS (New) along with associated bays	
	Asset-II: 125 MVAr Bus Reactor along with associated bays at 400 kV Kolhapur GIS (New)	
Checklist of Forms and other information/ documents for tariff filing for Transmission System		
Form No.	Tariff Filing Formats (Transmission)	Tick
FORM- 1	Summary Sheet	Yes
FORM-2	Details of TL,SS & Communication System	Yes
FORM-3	Normative parameters considered for tariff computation	Yes
FORM- 4	Abstract of admitted parameters for the existing transmission assets/elements under project	Not applicable and hence not enclosed
FORM-4A	Statement of capital cost	Yes
FORM-4B	Statement of capital works in progress	Not applicable and hence not enclosed
FORM-4C	Abstract of capital cost estimates and schedule of commissioning for the new project/Element	Yes
FORM-5	Element wise Breakup of Project/Asset/Element cost for Transmission System	Yes
FORM-5A	Breakup of construction/Supply/Service package	Yes
FORM-5B	Details of element wise cost of the project	Yes
FORM-6	Financial package up to COD	Yes
FORM- 7	Statement of additional capitalisation	Yes
FORM-7A	Financing of additional capitalization	Yes
FORM-7B	Statement of Additional capitalization during fag end of the project	Not applicable and hence not enclosed
FORM-8	Calculation of Return on Equity	Yes
FORM-8A	Details of foreign equity	Not applicable and hence not enclosed
FORM-8B	Details of additional RoE	Yes
FORM-9	Details of allocation of corporate loans to various transmission elements	Not applicable and hence not enclosed
FORM-9A	Details of project specific loan	Not applicable and hence not enclosed
FORM-9B	Details of foreign loan	Not applicable and hence not enclosed
FORM-9C	Calculation of weighted average rate of interest on actual Loans	Yes
FORM-9D	Loans in Foreign currency	Yes
FORM-9E	Calculation of Interest on Normative Loan	Yes
FORM-10	Calculation of depreciation rate	Yes
FORM-10A	Statement of Depreciation	Yes
FORM-10B	Statement of Decapitalization	Not applicable and hence not enclosed
FORM-11	Calculation of interest on working capital	Yes
FORM-12	Details of time over run	No
FORM-12A	IEDC	Yes
FORM-12B	Draw down schedule for calculation of IDC & Financing Charges	Not applicable and hence not enclosed
FORM-13	Breakup of Initial Spares	Yes
FORM-14	Other Income as on COD	Not applicable and hence not enclosed
FORM-15	Actual Cash Expenditure	Not applicable and hence not enclosed

