CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

Petition No. 236/TT/2018

Coram: Shri P. K. Pujari, Chairperson Dr. M. K. Iyer, Member Shri I. S. Jha, Member

Date of Order: 6.8.2019

In the matter of:

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 for determination of Transmission Tariff from COD to 31.3.2019 for **Asset 1** - Part of 400 kV D/C Navsari-Boisar T/L from AP 18 to AP 38/0 through LILO point of 400 kV D/C Navsari-Boisar at Magarwada GIS (23B/0) (D/C portion strung on M/C Twin-Twin portion comprising of 400 kV D/C Navsari - Boisar and 400 kV D/C Vapi-Kudus) & Part of 400 kV D/C Vapi - Kudus T/L from AP 38/0 to AP 44 - COD – 1.3.2015 and **Asset 2** - Part of 400 kV D/C Vapi - Kudus T/L from 104/0 to Kudus (MSETCL) S/S and associated bays at Kudus (MSETCL) S/S - COD – 31.12.2017 under "Western Region System Strengthening Scheme- V" for tariff block 2014-19 in Western Region.

And in the matter of:

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

.....Petitioner

Vs

- 1. MADHYA PRADESH POWER MANAGEMENT COMPANY LTD. SHAKTI BHAWAN, RAMPUR, JABALPUR 482 008
- 2. MADHYA PRADESH POWER TRANSMISSION COMPANY LTD. SHAKTI BHAWAN, RAMPUR, JABALPUR 482 008
- MADHYA PRADESH AUDYOGIC KENDRA, VIKAS NIGAM (INDORE) LTD.
 3/54, PRESS COMPLEX, AGRA-MUMBAI ROAD, INDORE-452 008
- 4. MAHARASHTRA STATE ELECTRICITY DISTRIBUTION CO. LTD. HONGKONG BANK BUILDING, 3RD FLOOR, M.G.ROAD, FORT, MUMBAI 400 001



- MAHARASHTRA STATE ELECTRICITY TRANSMISSION CO. LTD. PRAKASHGANGA, 6TH FLOOR, PLOT NO. C-19, E-BLOCK, BANDRA-KURLA COMPLEX, BANDRA (EAST), MUMBAI - 400 051
- GUJARAT URJA VIKAS NIGAM LTD.
 SARDAR PATEL VIDYUT BHAWAN,
 RACE COURSE ROAD, VADODARA 390 007
- 7. GUJARAT ENERGY TRANSMISSION CORPORATION LTD. SARDAR PATEL VIDYUT BHAWAN, RACE COURSE ROAD, VADODARA 390 007
- 8. ELECTRICITY DEPARTMENT GOVT. OF GOA, VIDYUT BHAWAN, PANAJI, NEAR MANDVI HOTEL, GOA - 403 001
- 9. ELECTRICITY DEPARTMENT ADMINISTRATION OF DAMAN & DIU, DAMAN - 396 210
- 10. ELECTRICITY DEPARTMENT
 ADMINISTRATION OF DADRA NAGAR HAVELI
 U.T., SILVASSA 396 230
- 11. CHHATTISGARH STATE ELECTRICITY BOARD P.O.SUNDER NAGAR, DANGANIA, RAIPUR, CHHATISGAARH 492 013
- 12. CHHATTISGARH STATE POWER TRANSMISSION CO. LTD. STATE LOAD DISPATCH BUILDING, DANGANIA, RAIPUR, CHHATISGARH 492 013
- 13. CHHATTISGARH STATE POWER DISTRIBUTION CO. LTD. P.O.SUNDER NAGAR, DANGANIA, RAIPUR, CHHATISGARH 492 013

----- Respondent

The following were present:

For Petitioner: Shri S.S. Raju, PGCIL

Shri Vivek Kumar Singh, PGCIL Shri S.K. Venkatesh, PGCIL Shri Amit Yadav, PGCIL Shri Zafrul Hasan, PGCIL

For Respondent: Shri Mukesh Kori, MPPMCL



ORDER

The present petition has been filed by the petitioner, Power Grid Corporation of India Ltd. ("PGCIL") seeking approval of Transmission Tariff from DOCO to 31.03.2019 for **Asset 1** - Part of 400 kV D/C Navsari - Boisar T/L from AP 18 to AP 38/0 through LILO point of 400 kV D/C Navsari - Boisar at Magarwada GIS (23B/0) (D/C portion strung on M/C Twin - Twin portion comprising of 400 kV D/C Navsari - Boisar and 400 kV D/C Vapi - Kudus) & Part of 400 kV D/C Vapi - Kudus T/L from AP 38/0 to AP 44- DOCO – 1.3.2015 and **Asset 2** - Part of 400 kV D/C Vapi - Kudus T/L from 104/0 to Kudus (MSETCL) S/S and associated bays at Kudus (MSETCL) S/S - DOCO – 31.12.2017 under "Western Region System Strengthening Scheme- V" for tariff block 2014-19 in Western Region (hereinafter referred to as "transmission system") for 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations").

- 2. The petitioner has made the following prayer:-
 - (i) Approve the Transmission Tariff for the tariff block 2014- 19 block for the assets covered under this petition.
 - (ii) Admit the capital cost as claimed in the petition and approve the Additional Capitalisation incurred/ projected to be incurred.
 - (iii) Tariff may be allowed on the estimated completion cost since the completion cost for the assets covered under instant petition are within the overall project cost.
 - (iv) 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.
 - (v) 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.

- (vi) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, expenditure on publishing of notices in newspapers in terms of Regulation: 52 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and other expenditure (if any) in relation to the filing of petition.
- (vii) 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.
- (viii) Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the respondents in terms of Regulation: 52 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014.
- (ix) 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.
- (x) Allow the petitioner to bill and recover GST on Transmission charges separately from the respondents, if GST on Transmission of electricity is withdrawn from the exempted (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.
- (xi) Allow 90% of the Annual Fixed Charges as tariff 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.

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.



3. The Investment Approval (IA) for implementation of WRSSS-V in Western Region was accorded by the Board of Directors of the petitioner vide Memorandum Ref: C/CP/WRSSS-V dated 26.12.2007 in 203rd meeting held on 30.11.2007 at an estimated cost of ₹ 47769 lakh including IDC of ₹ 3497 lakh based on 3rd quarter, 2007 price level. Further, the Revised Cost Estimate (RCE) of the project was approved by the Board of Directors of the petitioner vide Memorandum Ref: C/CP/RCE/WRSS-V dated 1.11.2012 in 277th meeting held on 26.9.2012 at an estimated cost of ₹ 72181 lakh including IDC of ₹ 9162 lakh based on April, 2012 price level. Subsequently, the Revised Cost Estimate - II (RCE-II) was also approved by the Board of Directors of the petitioner vide Memorandum Ref: C/CP/RCE/RCE-II WRSS-V dated 20.1.2016 in 324th meeting held on 12.1.2016 at an estimated cost of ₹ 73848 lakh including IDC of ₹ 15287 lakh based on June, 2015 price level. The scheme has been discussed and agreed in various WRPC and SCM as mention below:

- a) 2nd WRPC meeting held on 12.10.2006;
- b) 28th SCM of WR held on 6.12.2008;
- c) 29th SCM of WR held on 10.9.2009;
- d) 30^{th} SCM of WR held 8.7.2010;
- e) 32nd SCM of WR held on 13.5.2011;
- f) 33rd SCM of WR held 21.10.2011;
- g) 34^{th} SCM of WR held on 9.5.2012;
- h) 35th SCM of WR held on 3.1.2013;
- i) 36th SCM of WR held on 29.8.2013;
- j) 37th SCM of WR held on 5.9.2014;
- k) 38th SCM of WR held on 17.7.2015;
- I) 39th SCM of WR held on 30.11.2015;
- m) 40th SCM of WR held on 1.6.2016;
- n) 41st SCM of WR held on 21.12.2016.

4. The broad scope of work covered under WRSSS V in Western Region is as follows:-

Transmission Line

- (i) Vapi Kudus (MSETCL) 400 kV D/C line
- (ii) LILO of Lonikhand (MSETCL) Kalwa (MSETCL) 400 kV S/C line at Navi-Mumbai
- (iii) Vapi-Khadoli (UT of DNH) 220 kV D/C line

Substations

- (i) 400/220 kV, 2x315 MVA New sub-station (GIS) at Navi Mumbai*
- (ii) Extension of 400/220 kV Vapi sub-station
- (iii) Extension of 220/66 kV Khadoli (UT of DNH) sub-station
- (iv) Extension of 400/220 kV Kudus (MSETCL) sub-station*
- *2 Nos. 400 kV GIS bays surplus available, due to termination of 400 kV D/C Vapi-Navi Mumbai line at Kudus (MSETCL) substation instead of Navi Mumbai (originally envisaged) shall be utilized in future.
- 5. The status of various Petitions filed under the subject project WRSS-V is detailed below :-

SI. No.	Scope as Approved in Investment Approval	Petition No.	Order Date
140.	Transmission Line		
1	Vapi – Kudus (MSETCL) 400 kV D/C line - Portions of transmission line filed under various Petitions	60/TT/2013, 412/TT/2014, 207/TT/2017 (Mundra) & Instant Petition	9.10.2015 (60/TT/2013) 22.3.2016 (412/TT/2014) 23.7.2018 (207/TT/2017)
2	LILO of Lonikhand (MSETCL) – Kalwa (MSETCL) 400 kV S/C line at Navi Mumbai - To be re-filed after actual commissioning in line with order dated 22.3.2016 in 412/TT/2014	85/TT/2012 412/TT/2014	24.9.2014 (85/TT/2012) 22.3.2016 (412/TT/2014)
3	Vapi - Khadoli (UT of DNH) 220 kV D/C line	241/TT/2013	29.2.2016
	Sub-Station		

1	400/220 kV, 2x315 MVA New substation (GIS) at Navi Mumbai - To be re-filed after actual commissioning in line with order dated 22.3.2016 in 412/TT/2014	85/TT/2012 412/TT/2014	24.9.2014 (85/TT/2012) 22.3.2016 (412/TT/2014)
2	Extension of 400/220 kV Vapi substation	60/TT/2013	9.10.2015
3	Extension of 220/66 kV Khadoli (UT of DNH) substation	241/TT/2013	29.2.2016
4	Extension of 400/220 kV Kudus (MSETCL) substation	Instant	Petition

- 6. Following two Transmission Lines under Mundra UMPP TS, WRSSS-V and TS for Generation Projects in Chhattisgarh (IPP-D) are being implemented:
 - (i) 400 kV D/C Navsari Boisar T/L (Mundra UMPP TS)
 - (ii) 400 kV D/C Vapi Kudus T/L (WRSSS V)
- 7. The Petitioner has submitted that there are several stretches where portions of these lines are passing approximately parallel to each other. During execution of the Projects, there have been severe ROW issues in implementation of these transmission lines. To overcome the ROW issues, it was decided and agreed upon to construct the lines on Multi-Circuit towers at several stretches. Further, there has been change in scope and contingency arrangements from time to time which have also been approved and ratified at various forums.
- 8. The Multi-Circuit stretches have been constructed to accommodate 400 kV D/C Navsari Boisar T/L under Mundra UMPP TS and 400 kV D/C Vapi Kudus T/L under WRSSS V TS and the portion of T/Ls have been booked in either of the projects, i.e. either under Mundra UMPP TS or under WRSSS-V TS.
- 9. The details of assets, submitted by the petitioner in the instant petition is mentioned as below:-

Asset	Name of the Asset	COD		
1	Part of 400 kV D/C Navsari - Boisar T/L from AP 18 to			
	AP 38/0 through LILO point of 400 kV D/C Navsari			
	Boisar at Magarwada GIS (23B/0) (D/C portion strung on	1.3.2015		
	M/C Twin-Twin portion comprising of 400 kV D/C Navsari	(Actual)		
	- Boisar and 400 kV D/C Vapi - Kudus) & Part of 400 kV			
	D/C Vapi - Kudus T/L from AP 38/0 to AP 44			
2	Part of 400 kV D/C Vapi - Kudus T/L from 104/0 to	04 40 0047		
	Kudus (MSETCL) S/S and associated bays at Kudus (Actual Actual Ac			
	(MSETCL) S/S	(Actual)		

10. Annual Fixed Cost under the first proviso to Regulation 7(7) of the 2014 Tariff Regulations for inclusion in the PoC charges was granted vide order dated 4.1.2019.

11. The details of the Annual Fixed Cost claimed by the petitioner are as under:-(₹ in lakh)

Particulars			Asset-1		
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	11.98	145.60	147.76	148.20	148.32
Interest on Loan	14.17	165.01	154.02	140.91	127.47
Return on Equity	13.35	162.23	164.64	165.13	165.26
Interest on Working Capital	1.01	12.11	12.00	11.76	11.50
O&M Expenses	1.79	22.19	22.91	23.67	24.46
Total	42.30	507.14	501.33	489.67	477.01

(₹in lakh)

Particulars	Asset-2		
Particulars	2017-18	2018-19	
Depreciation	238.51	969.05	
Interest on Loan	270.22	1043.13	
Return on Equity	265.75	1079.72	
Interest on Working Capital	18.90	75.64	
O&MExpenses	38.54	157.57	
Total	831.92	3325.11	

12. The details of the interest on working capital claimed by the Petitioner are as under:-

(₹ in lakh)

Particulars	Asset-1				
	2014-15	2015-16	2016-17	2017-18	2018-19
O&M expenses	1.79	1.85	1.91	1.97	2.04
Maintenance Spares	3.22	3.33	3.44	3.55	3.67
Receivables	84.60	84.52	83.56	81.61	79.50
Total working capital	89.61	89.70	88.90	87.13	85.21
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on working capital	12.10	12.11	12.00	11.76	11.50
Pro-rata interest on working capital	1.01	12.11	12.00	11.76	11.50

(₹in lakh)

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Particulars	Asset-2		
Faiticulais	2017-18	2017-18	
O&M expenses	12.71	13.13	
Maintenance Spares	22.88	23.64	
Receivables	548.71	554.19	
Total working capital	584.30	590.95	
Rate of Interest	12.80%	12.80%	
Interest on working capital	74.79	75.64	
Pro-rata interest on working capital	18.90	75.64	

13. No comments or suggestions have been received from the general public in response to the notices published by the petitioner under Section 64 of the Electricity Act, 2003. MPPMCL, Respondent No. 1, has filed a reply vide affidavit dated 7.1.2019. In response, the petitioner has filed its rejoinder vide affidavit dated 14.2.2019. The issues raised by MPPMCL and the clarifications given by the petitioner are addressed in the relevant paragraphs of this order. Having heard the representatives of the petitioner present at the hearing and perused the material on record, we proceed to dispose of the petition.

14. This order has been issued after considering the main petition and petitioner's affidavits dated 3.8.2018, 7.12.2018, 25.1.2019, 13.3.2019, reply filed by the respondent (MPPMCL) vide affidavit dated 7.1.2019 and rejoinder of petitioner vide affidavit dated 14.2.2019.

Commercial Operation Date (COD)

15. As mentioned at para 9 above, the date of commercial operation (COD) claimed by the petitioner for Asset-1 and Asset-2 are 1.3.2015 and 31.12.2017 respectively. In support of COD of the Asset-1 and Asset-2, the petitioner has submitted CEA Energisation Certificates dated 20.10.2014 and 23.12.2017 respectively, under Regulation 43 of CEA (Measures Related to Safety & Electricity Supply) Regulations, 2010, RLDC charging certificates dated 19.3.2015 & 9.1.2018 respectively, COD letters dated 1.3.2015 and 12.1.2018 respectively and CMD certificate as required under Grid Code. Accordingly, COD of Asset-1 and Asset-2 is approved as 1.3.2015 and 31.12.2017 respectively.

Capital Cost

- 16. Clause (1) and (2) of Regulation 9 of the 2014 Tariff Regulations provide as follows:-
 - "(1) The Capital cost as determined by the Commission after prudence check in accordance with this regulation shall form the basis of determination of tariff for existing and new projects"
 - (2) The Capital Cost of a new project shall include the following:
 - (a) The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;

- (b) Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;
 - (c) Increase in cost in contract packages as approved by the Commission;
- (d) Interest during construction and incidental expenditure during construction as computed in accordance with Regulation 11 of these regulations;
- (e) Capitalised Initial spares subject to the ceiling rates specified in Regulation13 of these regulations;
- (f) Expenditure on account of additional capitalization and de-capitalisation determined in accordance with Regulation 14 of these regulations; 39
- (g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the COD as specified under Regulation 18 of these regulations; and
- (h) Adjustment of any revenue earned by the transmission licensee by using the assets before COD."
- 17. The petitioner has submitted Auditor's certificate for expenditure dated 21.9.2017 & 1.3.2018 for Asset-1 and Asset-2 respectively. The details of approved apportioned cost, capital cost as on the date of commercial operation and estimated additional capital expenditure incurred or projected to be incurred during 2014-15 to 2019-20 along with estimated completion cost for the assets covered in the petition as claimed by the petitioner and considered for the purpose of computation of tariff are as under:-

(₹ in lakh)

Asset	Apportioned Cost up		Projected Exp. for FY				Estimated		
	Approved Cost		to COD						Completion
	FR	RCE-II		2015-	2016-	2017-	2018-	2019-	Cost
				16	17	18	19	20	
1	1986.10	2850.00	2765.97	26.54	12.00	4.67	0.00	0.00	2809.18
2	17296.06	18948.00	17991.47	0.00	0.00	210.89	467.27	242.75	18912.38
Total	19282.16	21798.00	20757.44	26.54	12.00	215.56	467.27	242.75	21721.56

18. We have considered the submissions of the petitioner. It is observed that the estimated completion cost claimed for subject Assets is within the Revised Cost Estimate-II (RCE-II).

Time over-run

- 19. As per the investment approval dated 26.12.2007, the assets under subject project were scheduled to be put into commercial operation within 33 months from the date of investment approval. Accordingly, the scheduled date of commercial operation was 25.9.2010 against which, the Asset-1 and Asset-2 were put into commercial operation on 1.3.2015 and 31.12.2017 respectively. Thus there is time overrun of 53 months 6 days (1618 days) and 87 months 6 days (2654 days) in case of Asset-1 and Asset-2 respectively.
- 20. The petitioner has submitted the following reasons for time overrun in Commissioning of the assets:-
- (i) Delay due to change in termination point of 400 kV D/C Navsari Mumbai (New location) to Boisar instead of Mumbai (New location) and Shifting of Zero Date for the purpose of implementation of transmission Line: As per Investment Approval dated 26.12.2007, the transmission system was approved as 400 kV D/C Navsari – Mumbai (new location) under Mundra UMPPS

associated transmission scheme. Rigorous efforts were made to identify land as per the original scheme and the process of land identification for acquisition under Section 68 of Electricity Act, 2003 was started soon after approval of Ministry of Power on 21.8.2007, well before Investment Approval dated 26.12.2007. Efforts for identification and finalization of land for Mumbai (new location) sub-station were started, prior to IA, as early as 13.3.2008 with a request letter dated 13.3.2008 to Chief Engineer (SP & PA), CEA, New Delhi from GM (Engg.), of petitioner to convene a meeting of CEA, MSETCL and petitioner for discussion on location of proposed new sub-station near Mumbai. Meanwhile, efforts were being made by petitioner by approaching various authorities vide its letters dated 17.4.2008, 22.5.2008, 20.6.2008, 26.9.2008 and 8.10.2008. Further, in the Joint Inspection Meeting on 14.10.2008, it was expressed by the Power Utilities that identification of land near Ghodbunder / Nalasopara shall be more suitable for establishment of Mumbai GIS # 2 so as to enable power supply to Mumbai area. It was decided in this meeting to constitute a team consisting of officials from Tata Power Ltd., Reliance Energy Ltd and petitioner to identify suitable alternative site latest by 15.11.2008. However, even after several meetings and correspondence, continuous efforts and co-ordination with the State Authorities and State DISCOMs, allocation of land for Mumbai (new location) could not materialize as evident from documents dated 4.11.2008, 6.11.2008 and 11.11.2008. The difficulties faced in finalizing land for Mumbai (new location) such as ROW issues, non-availability of adequate corridor, lack of proper approach/connectivity specifically for transportation of heavy equipment were also discussed, in the 28th and 29th SCM of Power System Planning of WR Constituents held on 6.12.2008 (MOM issued on 23.12.2008) and 10.9.2009 respectively. Simultaneously, efforts were also being made to identify private land

in view of difficulty in obtaining Government land as per letter dated 11.4.2009 and project review dated 1.6.2009 and subsequent follow up vide document dated 21.8.2009, 17.9.2009, 1.10.2009 and 22.10.2009. Finally, approval for change in termination point of Navsari – Mumbai (new location) to Boisar was agreed and approved in the 30th Standing Committee of Power System planning of Western Region held on 8.7.2010 (MoM issued on 8.8.2010). Thus, around 30 months were taken for finalization of the location thereby shifting the zero date from 26.12.2007 (as per IA) to August 2010. Considering the completion time schedule of 33 months, the revised completion schedule works out to May 2013. Chronology of events leading to the change in termination point from Mumbai (New location) to Boisar (existing sub-station) is detailed below:-

SI.No.	Event/ Meeting/ Letter	Date
1	Approval by Ministry of Power under Section 68 of Electricity Act, 2003	21.8.2007
2	Request to Chief Engineer (SP&PA), CEA, New Delhi from GM(Engg.), PGCIL to convene of CEA, MSETCL and PGCIL for discussion on location of proposed new S/S near Mumbai	13.3.2008
3	Letter to the CEO, Ministry of Dairy development, Goregaon, Mumbai from ED (WR-1), PGCIL to explore the possibility of allotment of land and corridor clearance for routing of 400 kV lines around the proposed station in the AAREY Colony under their jurisdiction	17.4.2008
4	Letter to the PCCF (Wild Life), Nagpur from Chief Manager, PGCIL regarding permission for carrying out preliminary survey for 400 kV T/L corridor in Sanjay Gandhi National Park & Wild Life Sanctuary in Thane District for termination of the same in the identified land for S/S at AAREY colony	22.5.2008
5	Communication from ED (WR-1) PGCIL to GM (SEF, Engg.), PGCIL regarding extreme difficulties in finding out suitable site due to Space/Corridor Constraints and ROW problems in the near vicinity of Mumbai (specifically with a point of view to have connectivity with major load centres of Mumbai). Navi Mumbai GIS under WRSS-V Scheme and existing S/S at Boisar proposed for termination of 400 kV D/C Navsari – Mumbai (New location). Request to convene a meeting of CEA, MSETCL & PGCIL in this regard	20.6.2008
6	Letter to Chief Engineer (STU), MSETCL, Mumbai from AGM (Projects), PGCIL regarding intimation for Joint Site Inspection (proposed for 14.10.2008) to explore various	26.9.2008

SI.No.	Event/ Meeting/ Letter	Date
	alternatives	
7	Letter from Chief Engineer (STU), MSETCL, Mumbai to Tata Power Company, Reliance energy Ltd, BEST regarding date and venue of Joint inspection with PGCIL	8.10.2008
8	In the Joint inspection Meeting dated 14.10.2008 it was expressed by the Power Utilities that identification of land near Ghodbunder/ Nalasopara shall be more suitable for establishment of Mumbai GIS#2 so as to enable power supply to Mumbai area. Team consisting of officials from Tata Power Ltd. Reliance Energy Ltd & PGCIL to identify suitable alternative site within by 15.11.2008	14.10.2008
9	Investment Approval for Mundra UMPP TS by BoD, PGCIL	15.10.2008
10	Alternatives identified and further it was observed that suitable location may be decided after looking into availability of line corridor and clearance from local authorities/environment authorities/other statutory permissions	4.11.2008
11	Mail from GM (Reliance) to Tata Power & PGCIL regarding certain alternatives and necessary action	6.11.2008
12	Letter from TATA Power to ED, PGCIL, WR-I	11.11.2008
13	In the 28 th SCM of Power System Planning of WR Constituents held on 6.12.2008, it was discussed and agreed that in case land for termination of Navsari – Mumbai new location is not available, then the line should be terminated at Boisar and in that case the line would be Navsari-Boisar 400 kV D/C	6.12.2008
14	Communication to The District Collector, Thane from Chief Manager (HR), PGCIL requesting to hold a meeting with private land owners in presence of State Land Acquisition/Revenue Authorities to discuss, negotiate and finalise the land compensation rates for various categories of land	11.4.2009
15	Constraints regarding availability of suitable land in Bhiwandi area and ROW for the transmission lines discussed during 29 th SCM of Power System Planning of WR Constituents held on 10.9.2009	10.9.2009
16	Survey near the vicinity of proposed Mumbai S/S near Kalher, Bhiwandi Taluka. It was observed that real estate and construction activities were going on and infringement of corridor was anticipated	17.9.2009
17	A brief report on Line Corridor for New Sub-station at Mumbai: Proposed Road indicated by MMRDA officials on the west side of the proposed land at Kalher. Line corridor available from only one side of the S/S Real Estate development a major issue in and around the proposed S/S Land	1.10.2009
18	Communication to Chief Engineer (SP & PA), CEA, New Delhi from ED (SEF & CE), PGCIL regarding confirmation for change of termination point from Mumbai (new location) to Boisar (existing S/S) in line with discussions already held in 28 th & 29 th SCM of PSP of WR Constituents. It was also	22.10.2009

SI.No.	Event/ Meeting/ Letter	Date
	informed that PGCIL is going ahead with the change.	
19	Approval for change in termination point of Mumbai (new	8.7.10
	location) to Boisar was agreed and approved in the 30 th	
	Standing Committee Standing Committee of Power System	
	planning of Western Region	

(ii) Delay due to Forest Approval: There were severe ROW problems in 400 kV D/C Navsari – Boisar Transmission Line due to forest involvement of 12.399 km (57.035 Ha). Around 101 nos. of locations and approximately 40 km of stringing in 400 kV D/C Navsari – Boisar Transmission Line are affected on account of forest clearance. Further, the difficulties due to ROW were also discussed during various SCMs from 32nd to 40th as indicated in the chronology below:

Refere	Reference to various Standing Committee Meetings wherein ROW issues were						
brough	t out to the	e notice of ben	eficiaries				
SI.No.	SCM	Meeting	Remarks/ Details				
	No.	Date					
1	32 nd	13.5.2011	ROW issues encountered in the commissioning of 400 kV D/C Navsari – Boisar T/L and 400 kV Vapi – Navi Mumbai T/L. Commissioning of these lines on multi-circuit towers at several stretches recorded and agreed.				
2	34 th	9.5.2012	Severe ROW issues being encountered in the commissioning of 400 kV D/C Navsari – Boisar T/L and 400 kV Vapi – Navi Mumbai T/L. Contingency arrangement of inter-connection of Vapi - Navi Mumbai and Navsari – Boisar at the multi-circuit point discussed and agreed till the commissioning of onward portion of both the T/Ls.				
3	35 th	3.1.2013	Termination of Vapi – Navi Mumbai 400 kV D/C T/L at upcoming Kudus S/S of MSETCL discussed and agreed because if severe ROW issues and involvement of eco-sensitive zones.				
4	37 th	5.9.2014	Severe ROW issues being encountered beyond KALA GIS towards Boisar S/S and Kudus S/S. Contingency arrangement in and around KALA GIS and Magarwada GIS discussed and agreed. Configuration being - Vapi → KALA GIS → Magarwada GIS → Navsari S/S, so as to energise KALA GIS in UT D&NH and Magarwada GIS in UT D&D.				

(iii) Delay due to change in Termination Point of part of 400 kV Vapi Kudus T/L:

Approval for change in termination point of Vapi – Mumbai (new location) to Kudus was agreed and approved in the 35th Standing Committee of Power System planning of Western Region held on 3.1.2013. It took around 60 months for finalization of the location thereby shifting the zero date from 26.12.2007 (as per IA) to 3.1.2013. Considering the completion time schedule of 33 months, the revised completion schedule works out to 1.10.2015. Efforts were made to complete the erection and stringing of the instant line and finally, "Part of 400 kV D/C Vapi - Kudus T/L from AP 38/0 to AP 44" was completed and put under commercial operation on 1.3.2015. Thus there is no time delay in COD of Asset-1. As regard time overrun in case of Asset-2, the petitioner has submitted that severe ROW issues and forest issues were encountered in execution of the instant line which were discussed in various SCMs of WR as detailed below:

Standing Committee Meeting of PSP of WR Constituents	Dated	Remarks/Brief
28 th	6.12.2008	Target dated given as September 2010
30 th		Implementation schedule given as March 2011
32 nd	13.5.2011	Laying of 400 kV D/C Vapi – Navi Mumbai and 400 kV D/C Navsari – Boisar on MC towers at certain stretches due to severe ROW issues
33 rd	21.10.2011	Implementation schedule given as March 2013
34 th	9.5.2012	Interconnection of Navsari 400 kV (GIS) and Vapi 400 kV substation as an interim arrangement because of severe ROW issues in commissioning of 400 kV D/C Navsari – Boisar and 400 kV D/C Vapi – Navi Mumbai
35 th	3.1.2013	Termination of Vapi – Navi Mumbai 400 kV D/c line at upcoming Kudus substation of MSETCL discussed and agreed
36 th	26.9.2013	Termination of Vapi – Navi Mumbai 400 kV D/c line at upcoming Kudus substation of MSETCL discussed and agreed
37 th	5.9.2014	Severe ROW and Forest issues

38 th	17.7.2015	Issues related 400/220 kV Navi Mumbai (PGCIL) S/s and associated 220 kV interconnection with MSETCL
39 th	30.11.2015	Commissioning status given as June 2016
40 th	1.6.2016	Additional ISTS feed to Navi Mumbai 400/220 kV substation of PGCIL as termination of Vapi-Navi Mumbai 400 kV D/C changed to Kudus instead of Navi Mumbai because of severe ROW issues. Status of commissioning given as March 2017
41 st	21.12.2016	Contingency arrangements of Navsari – Boisar 400 kV D/C line (associated with Mundra UMPP System strengthening Scheme) and interconnection of Padghe (PG) (765/400 kV) – Kudus (MSETCL) (400 kV) D/c line with Kala-Kudus 400 kV D/C line- agenda by PGCIL. Status of commissioning given as May 2017

(iv) Delay due to ROW issues: The Chronology of the correspondence with regard to ROW issues is detailed below:

19.6.2008	Letter from DGM, PGCIL to Collector, Thane for necessary co-		
	operation and administrative support from time to time related to the		
	execution of the Project, assessment of damage of crops and trees		
	for payment of compensation		
2.11.2008	Letter from DGM, PGCIL to Additional District Collector, Thane for		
	intervention to resolve hindrance during construction in locations in		
	taluka Wada		
5.1.2009	Letter from Chief Manager, PGCIL to the Tahasildar, Talaseri Taluka		
	to expedite and forward the assessment so that payment to the		
	affected farmers could be released without further delay.		
5.1.2009	Letter from DGM PGCIL to SDO, Wada to take necessary action to		
	remove illegal obstruction from land owners		
15.2.2009	Letter from DGM, PGCIL to Additional District Collector, Thane for		
	intervention to resolve hindrance during construction in locations in		
	taluka Wada with reference to letter dated 2.11.2008		
18.3.2009	Letter from DGM, PGCIL to Additional District Collector, Thane for		
	intervention to resolve hindrance during construction in locations in		
	taluka Wada with reference to letter dated 15.2.2009		
2.4.2009	Letter from Chief Manager, PGCIL to the Tahasildar and Executive		
	Magistrate, Taluka Bhiwandi to intervene and take necessary action		
	to remove the obstruction at various locations		
13.4.2009	Letter from Chief Manager, PGCIL to the Tahasildar and Executive		
	Magistrate, Taluka Bhiwandi to intervene and take necessary action		
	to remove the obstruction at location 121/1		
20.5.2009	Letter from DGM, PGCIL to Collector, Thane for necessary co-		
	operation and administrative support for assessment of damage of		
	crops and trees for payment of compensation		

27.5.2009	Letter from CM, PGCIL to District Collector, Thane for necessary co-
	operation and administrative support to resolve ROW issues at various locations
29.6.2009	Letter from Chief Manager, PGCIL to District Collector, Thane to
	intervene and take necessary action
8.7.2009	Letter from ED, PGCIL to The Secretary (Energy), Govt. of
	Maharashtra regarding Right of Way problems in Thane and Raigad
	districts and seeking support to complete these projects in time
10.7.2009	Letter from Power Minister, GOI to Chief Minister, Maharashtra to
	intervene in the matter of construction of Vapi - Navi Mumbai 400 kV
	D/C and other elements under WRSS V Project and extension of
40.0.0000	necessary support to PGCIL for timely completion of Projects
12.8.2009	MoM of Meeting held on 5.8.2009 for discussion on difficulties and
	problems experienced by PGCIL in laying of 400 kV Transmission lines.
1.9.2009	Reminder letter from DGM, PGCIL to Tahsildar, Bhiwandi to take
	appropriate action for resolving of ROW issues under their area
24.9.2009	Order in Special Civil Application against PGCIL
30.10.2009	Reminder letter from DGM, PGCIL to The Superintendent of Police,
	Thane Rural, Thane District regarding requirement of Police
	protection at construction site against obstruction by land owners
12.12.2009	Letter from CM, PGCIL to Tahsildar, Wada to take up the assessment
	as per provisions of the Telegraph Act, 1885 of the cases already
	submitted to them so that due compensation may be released to the
	affected farmers.
18.1.2010	Meeting held at Mantralaya, Govt. of Maharshtra chaired by Minister
	of Energy and Water resources, Maharashtra regarding ROW issues
	faced by PGCIL in construction of several ongoing Projects including
45.0.0040	400 kV D/C Vapi - Navi Mumbai causing delay in completion
15.2.2010	Minutes of Meeting issued of the Meeting held on 18.1.2010
2.3.2010	Letter from Senior Engr., PGCIL to Tahsildar, Wada regarding
	abnormal compensation amount demanded by land owners and to intervene and remove the obstruction
12.4.2010	Reminder letter from AGM, PGCIL to the Superintendent of Police,
12.4.2010	Thane Rural, Thane District regarding requirement of Police
	protection at construction site against obstruction by land owners with
	references to letter dated 30.10.2009 and Meeting dated 18.01.2010
18.4.2010	Letter from CM, PGCIL to Additional District Collector, Jawahar,
	Thane for intervention to resolve hindrance during construction at
	village Mangatane, Taluka Wada
18.04.2010	Letter from CM, PGCIL to Additional District Collector, Jawahar,
	Thane for intervention to resolve hindrance during construction at
	village Khanivli, Taluka Wada
18.4.2010	Letter from CM, PGCIL to Additional District Collector, Jawahar,
	Thane for intervention to resolve hindrance during construction at
	village Ambsite, Taluka Wada
6.5.2010	Letter from Additional District Collector, Jawahar, Thane to Deputy
	Divisional Commissioner, Jawahar division instructing to remove
	impediments/hurdles coming in the way of laying of 400 kV Vapi -
	Navi Mumbai line in Mangathane, Taluka Wada

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20.7.2010	Letter from CM, PGCIL to Police Inspector, Police Station Wada requesting for police protection regrding obstruction by land owner of location 105A/3
25.8.2010	Letter from CM, PGCIL to Additional District Collector, Jawahar, Thane for intervention and support to resolve hindrance during construction and compensation issues
10.9.2010	Letter from AGM, PGCIL to District Collector, Thane for intervention and support to resolve hindrance during construction and compensation issues and depute one Tahsildar and Two Circle Officers to communicate and resolve above mentioned issues
14.9.2010	Letter from CM, PGCIL to the Tahsildar, TalukaBhiwandi, Thane district requesting removal of obstruction at tower locations 116/0, 116/1, 116/2, 120/0 & 121/1
26.9.2010	Letter from CM, PGCIL to Additional District Collector, Jawahar, Thane for intervention and support to resolve hindrance during construction and compensation issues giving reference of letter dated 25.08.2010 and Meeting held at Office of Minister of Power and Irrigation, Govt. of Maharashra on 18.01.2010
10.11.2010	Letter from CM, PGCIL to the Tahsildar, Wada Taluka requesting his presence and police protection for the period 15.11.2010 to 30.11.2010 for smooth execution and construction activities
10.11.2010	Letter from CM, PGCIL to Police Inspector, Police Station Ganeshpuri, District Thane requesting for police protection along with 2 police constables w.e.f. 15.11.2010
12.11.2010	Reminder letter from AGM, PGCIL to The Superintendent of Police, Thane District regarding requirement of Police protection at construction site against obstruction by land owners with references to letters dated 16.9.2009, 30.10.2009, 12.4.2010, 23.6.2010 and all past incidents.
7.12.2010	Reminder letter from AGM, PGCIL to the Superintendent of Police, Thane Distict regarding requirement of Police protection at construction site against obstruction by land owners with references to letters dated 16.9.2009, 30.10.2009, 12.4.2010, 23.6.2010 & 12.11.2010 and all past incidents.
12.12.2010	Reminder Letter from CM, PGCIL to Additional District Collector, Jawahar, Thane for intervention and support to resolve hindrance during construction and compensation issues giving reference of letters dated 25.8.2010, 26.9.2010, 27.9.2010, 8.10.2010 & 12.10.2010 and Meeting held at Office of Minister of Power and Irrigation, Govt. of Maharashtra on 18.1.2010
12.12.2010	Application under Section 16 of the Indian Telegraph Act, 1885 seeking permission to exercise the powers under the Act during construction of Vapi-Navi Mumbai 400 kV D/C Transmission Line associated with WRSS-V scheme
21.12.2010	Letter from land owner of land bearing Survey No 379 in village Sutrakar, Taluka Talasari regarding re-routing of the T/L and shifting of tower to other suitable location
28.12.2010	Letter from CM, PGCIL to the Tahsildar, Taluka Bhiwandi, Thane district requesting direct intervention for removal of obstruction at tower locations 116/0

28.12.2010	Letter from CM, PGCIL to the Tahsildar, Taluka Bhiwandi, Thane
	district requesting direct intervention for removal of obstruction at
	tower locations and intimation and copy of Special GR published by
	Govt. of Maharashtra dated 1.11.2010 which intends to
	minimise/avoid all sort of hindrance causing delay in execution of
	subject transmission Projects.
29.12.2010	Request by CM, PGCIL for appointment with Principal Secretary to
	brief the situation related to the ROW constraints
3.1.2011	Letter from Chief Manager, PGCIL to the Tahasildar and Executive
	Magistrate, Taluka Bhiwandi to intervene and take necessary action
	to remove the obstruction at various locations giving reference of past
	letters and Meetings and for deployment of Police from 5.1.2011
3.1.2011	Letter from Chief Manager, PGCIL to the SDO, Taluka Bhiwandi to
	intervene and take necessary action to remove the obstruction at
	various locations giving reference of past letters and Meetings
13.1.2011	Letter from AGM, PGCIL to District Collector, Thane for intervention
	and support to resolve hindrance during construction and
	compensation issues and to convene a Meeting with concerned
	SDOs and Police Officials to discuss and sort out issues related to
04.4.004.4	Right of Way
24.1.2011	Letter from CM, PGCIL to Additional District Collector, Jawahar,
	Thane for intervention and support to resolve ROW issues and to
	convene a Meeting with concerned SDOs and Police Officials to
0.0.0044	discuss and sort out issues related to Right of Way
2.2.2011	Instruction to Additional District Collector, Jawahar, Thane from
	Additional Commissioner Controller, Konkan Division to extend all
4.2.2011	necessary co-operation and assistance to PGCIL
4.2.2011	Letter from STA to ED(WR-1) to land owner of land bearing Survey No 379 in village Sutrakar, TalukaTalasari
7.2.2011	
7.2.2011	Instruction from District Magistrate, Thane to Police Commissioner, Thane and SP, Thane Rural to take prompt and necessary action with
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22.2.2011	regard to providing Police protection Letter from AGM, PGCIL to Minister of State for Tribal Development,
22.2.2011	Govt. of Maharashtra, Mantralaya, Mumbai regarding support to
	resolve hindrance during construction and compensation issues and
	mentioning the severe ROW issues being faced
23.2.2011	Reminder Letter from AGM, PGCIL to District Collector, Thane to
20.2.2011	letter dated 13.1.2011 for intervention and support to resolve
	hindrance during construction
25.2.2011	Notice of Hearing from the Office of ADC and Court of Jawahar in the
20.2.2011	Appeal lodged by PGCIL against Bhaskar D Patil and Sanjay V Patil
20.4.2011	Letter from CM, PGCIL to the Tahsildar, Wada Taluka requesting his
	presence and police protection for smooth execution of construction
	activites. Also to release the assessment for crop compensation
20.4.2011	Letter from CM, PGCIL to the Police Inspector, Wada-1 requesting
	his presence and police protection for smooth execution of
	construction activites
20.4.2011	Letter from CM, PGCIL to the Tahsildar, BhiwandiTaluka requesting
	his presence and police protection for smooth execution of
	construction activites. Also to release the assessment for crop
	compensation
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20.4.2011	Letter from CM, PGCIL to the Police Inspector, Padghe Police Station, Bhiwandi Taluka, District Thane requesting his presence and police protection for smooth execution of construction activites	
13.5.2011	Letter from AGM, PGCIL to The Superintendent of Police, Thane	
	Rural, Thane requesting him to advise Station heads of Wada and	
	Padghe Police Stations to provide police protection for execution of	
	subject work	
30.7.2011	Letter from Engineer, PGCIL to provide necessary security	
00.7.2011	arrangement	
13.9.2011	Letter from Tahsildar, Bhiwandi to Sr. Police Inspector, Ganeshpuri	
10.0.2011	Police Station, Bhiwandi to take necessary and provide security	
	arrangement to PGCIL giving reference of letter dated 30.07.2011	
10.1.2012	Meeting of AGM, PGCIL with IG Police (Konkan Region) and SP,	
10.1.2012	Thane Rural regarding resolving of severe ROW issues at various	
	locations under Wada and Bhiwandi taluka and provision for Police	
	protection	
22.2.2012	Letter from AGM, PGCIL to the Superintendent of Police, Thane	
22.2.2012		
	Rural, Thane highlighting various ROW issues and giving reference of Meeting dated 10.1.2012	
23.2.2012	<u> </u>	
23.2.2012	Notice of Hearing from the Office of ADC and Court of Jawahar in the	
	Appeal lodged by PGCIL against Shri Shashikant Chaudhari	
29.2.2012	Letter from AGM, PGCIL to the Inspector, District Special Branch,	
	Police Office of SP, Thane regarding program schedule for March	
	2012 and requirement of Police officials at Wada and Bhiwandi	
	Taulkas	
20.3.2012	Hearing held in above mentioned case	
9.8.2012	Letter to the Private Secretary, Hon'ble Chief Minister, Maharahtra for	
	a Meeting between CM, Maharashtra and CMD PGCIL for apprising	
	the Project details and requesting administrative/Police support for	
	completion of the Project	
16.1.2013	In-principle approval given by CEA for termination of Vapi - Navi	
	Mumbai T/L at Kudus S/S of MSETCL in view of sever ROW issues	
26.4.2015	Letter to land owner at Taluka Viramgarh, District Palghar denying the	
	re-routing of remaining portion of 400 kV D/C Vapi - Kudus line	
26.4.2015	Letter to land owner at Taluka Wada, District Palghar denying the re-	
	routing of remaining portion of 400 kV D/C Vapi - Kudus line	
23.8.2015	Letter from Asst. GM, PGCIL to District Collector, Palghar for	
	providing police protection against severe obstructions and ROW	
	being faced in Viramgarh and Wada Talukas	
26.8.2015	Instruction from District Magistrate, Palghar to SP, Palghar to take	
	prompt and necessary action with regard to providing Police	
	protection giving reference of letter dated 23.8.2015	
22.11.2015	Letter to Collector, Palghar regarding earliest assessment to	
	damages in order to expedite payment of compensation	
4.12.2015	Letter to Collector, Palghar from DGM, PGCIL for issuance of	
	Revised FRA Certificates as per MoEF guidelines	
14.12.2015	Instruction from District Collector, Palghar to DFO Dahanu/Jawahar,	
17.12.2013	Dy. Div. Officer Dahanu/Palghar/wada/Jawahar and Tahsildar	
	Palghar/Mokhada/Jawahar/Vikramgadh/Dahanu/wada/Talsari	
	regarding assessment of damages to be caused to the crops and	
	trees of farmers so that necessary compensation may be	
	nees of faithers so that hecessary compensation may be	

	claimed/recovered from PGCIL
4.1.2016	Application under Section 16 of the Indian Telegraph Act, 1885 against Sh. Dundu Shiva Patil of Taluka Wada, District Palghar seeking permission to exercise the powers under the Act during construction of Vapi-Navi Mumbai 400 kV D/C Transmission Line associated with WRSS-V scheme
4.1.2016	Application under Section 16 of the Indian Telegraph Act, 1885 against Sh. Ramesh Babu Adhikari of Taluka Wada, District Palghar seeking permission to exercise the powers under the Act during construction of Vapi-Navi Mumbai 400 kV D/C Transmission Line associated with WRSS-V scheme
4.1.2016	Application under Section 16 of the Indian Telegraph Act, 1885 against Sh. Madhukar Daulat Adhikari of Taluka Wada, District Palghar seeking permission to exercise the powers under the Act during construction of Vapi-Navi Mumbai 400 kV D/C Transmission Line associated with WRSS-V scheme
4.1.2016	Application under Section 16 of the Indian Telegraph Act, 1885 against Sh. AnantaTolu Patil of Taluka Wada, District Palghar seeking permission to exercise the powers under the Act during construction of Vapi-Navi Mumbai 400 kV D/C Transmission Line associated with WRSS-V scheme
13.1.2016	Forwarding of Application filed under Section 16 to Collector and DM, Palghar - location 104/1
13.1.2016	Forwarding of Application filed under Section 16 to Collector and DM, Palghar - location 110/2
13.1.2016	Forwarding of Application filed under Section 16 to Collector and DM, Palghar - location 104A/0
30.4.2016	Instruction from District Magistrate, Palghar to SDO, Wada and Asst GM, PGCIL to submit report with regard to complaint made against PGCIL and other companies
25.7.2016	Letter from Asst. GM, PGCIL to District Collector, Palghar to resolve long pending issue of severe obstructions and ROW being faced by land owners at tower locations 105A/0 & 105A/1 even after filing of Application under Section 16
25.7.2016	Application under Section 16 of the Indian Telegraph Act, 1885 against M/s Nagnath Trust of Taluka Wada, District Palghar seeking permission to exercise the powers under the Act during construction of Vapi-Navi Mumbai 400 kV D/C Transmission Line associated with WRSS-V scheme
28.7.2016	Letter to Tahsildar, Vikramgarh from Asst GM, PGCIL requesting to consider our written submission dated 12.01.2016 into their letter dated 30.04.2016 (received by PGCIL on 31.5.2016)
12.8.2016	Request by DGM, PGCIL to the Collector, Palghar for administrative support for (i) settlement of cases filed under Sec16 of Indian Telegraph Act, resolving ROW problems and timely assessment of crop/tree compensation
16.8.2016	Letter from Asst GM, PGCIL to District Magistrate and Collector, Palghar for conducting early hearings w.r.t. tower locations 100/1 & 100/2

16.8.2016	Application under Section 16 of the Indian Telegraph Act, 1885 against Sh SudhakarTakre and others of Taluka Vikramgarh, District Palghar seeking permission to exercise the powers under the Act during construction of Vapi-Navi Mumbai 400 kV D/C Transmission Line associated with WRSS-V scheme
6.9.2016	Instruction from District Magistrate, Palghar to the SP, Palghar for providing security arrangements and Police protection from 12.09.2016 to 11.12.2016 on request of Asst. GM (PGCIL)
7.9.2016	Letter from Asst GM, PGCIL to District Collector, Palghar for providing Police protection against obstruction and hindrance by land owners at locations 104B & 110/2
12.9.2016	Written submission by PGCIL before Tahsildar Vikramgarh, Dist. Plaghar in the Application filed under Section 16 against Sh. SudhakarThakre and others
4.1.2017	Letter from Asst GM, PGCIL to District Collector, Palghar for providing Police protection against obstruction and hindrance by land owners at various locations under Talukawada and Taluka Vikramgarh for deployment from 10.1.2017 to 30.3.2017
7.1.2017	Instruction from Tahsildar (Revenue){for District Magistrate, Palghar} to the SP, Palghar for providing security arrangements and Police protection from 10.01.2017 to 30.3.2017 on request of Asst. GM (PGCIL)
25.1.2017	Letter from Asst GM, PGCIL to Jigar Ramesh Bafna replying to objection against construction of subject T/L along land bearing gut nos. 410, 334
28.1.2017	Letter from Asst GM, PGCIL to Police Inspector, Wada to provide police protection on urgent basis at work site spread under Wada police station of Taluka Wada and Vikramgarh and to take immediate action against the individual named in the FIR
29.1.2017	Letter from Asst GM, PGCIL to Police Inspector, Vikramgarh to provide police protection on urgent basis at various villages coming under Police Station, Vikramgarh
14.2.2017	Letter from Asst GM, PGCIL to Police Inspector, Wada to provide police protection and to take further action against manhandling of PGCIL representative at work site
20.2.2017	Letter from Asst GM, PGCIL to Sh. Ashwani Gupta, M/s MPIL Structure replying to objection against contraction of subject T/L along land bearing gut nos. 228, 229, location No. 101/3
20.2.2017	Letter from Asst GM, PGCIL to Jigar Ramesh Bafna replying to objection against construction of subject T/L along land bearing gut nos. 410, 334 and location no. 95/2 also ensuring that the compensation as applicable against the laying if the transmission line will be released after receipt of assessment from concerned Revenue Authority
27.2.2017	Application under Section 16 of the Indian Telegraph Act, 1885 against ShJigar Ramesh Bafna and others of Taluka Palghar, District Palghar seeking permission to exercise the powers under the Act during construction of Vapi-Navi Mumbai 400 kV D/C Transmission Line associated with WRSS-V scheme

27.2.2017	Application under Section 16 of the Indian Telegraph Act, 1885 against Smt. Sugandha Dilip Patil of Taluka Bhiwandi, District Thane seeking permission to exercise the powers under the Act during construction of Vapi-Navi Mumbai 400 kV D/C Transmission Line associated with WRSS-V scheme
27.2.2017	Application under Section 16 of the Indian Telegraph Act, 1885 against Sh. Shriam Arjun Patil of Taluka Bhiwandi, District Thane seeking permission to exercise the powers under the Act during construction of Vapi-Navi Mumbai 400 kV D/C Transmission Line associated with WRSS-V scheme
27.2.2017	Application under Section 16 of the Indian Telegraph Act, 1885 against Sh. Ashwani Gupta of Andheri, Mumbai seeking permission to exercise the powers under the Act during construction of Vapi-Navi Mumbai 400 kV D/C Transmission Line associated with WRSS-V scheme
27.2.2017	Letter from Asst GM, PGCIL to Sh. Ashwani Gupta, M/s MPIL Structure replying to objection against construction of subject T/L along land bearing gut nos. 228, 229, location No. 101/3
16.3.2017	Letter from Asst GM, PGCIL to Jigar Ramesh Bafna replying to objection against construction of subject T/L along land bearing gut nos. 410, 334 and location no. 95/2 also ensuring that the compensation as applicable against the laying if the transmission line will be released after receipt of assessment from concerned Revenue Authority
25.3.2017	Letter from Asst GM, PGCIL to Binani Industries Ltd. Mumbai replying to objection against construction of subject T/L along land bearing gut nos. 410 and location no. 108/0 also ensuring that the compensation as applicable against the laying if the transmission line will be released after receipt of assessment from concerned Revenue Authority
25.3.2017	Letter from Asst GM, PGCIL to SDM, Wada requesting to intervene regarding non-cooperation from the owner party at location no. 108/0
27.3.2017	Letter from Asst GM, PGCIL to SDO, Wada, District Palghar requesting to intervene regarding non-cooperation from the owner party at location no. 107/0 also requesting to make necessary assessment so that the compensation payment may be made
27.3.2017	Letter from Asst GM, PGCIL to Tahsildar, Vikramgarh, District Palghar requesting to intervene and removal of obstruction at tower location 96/4 also requesting to make necessary assessment so that the compensation payment may be made
2.4.2017	Letter to owner at location no. 109/0 to extend co-operation to carry our extension work
8.5.2017	Letter from Asst GM, PGCIL to District Collector, Palghar regarding assessment of fruit and non-fruit bearing trees and request to speed up the assessment activites so that the payment of compensation may be expedited
11.5.2017	Letter to owner at location no. 109/0 to extend co-operation to carry our construction work
15.5.2017	Letter from Asst GM, PGCIL to District Collector, Palghar regarding removal of obstruction against the construction of T/L at location 109/0 and to take up hearing of application filed under Section 16

15.5.2017	Application under Section 16 of the Indian Telegraph Act, 1885 against Sh. Sher Singh Om Prakash Aggarwal of Chembur, Mumbai seeking permission to exercise the powers under the Act during construction of Vapi-Navi Mumbai 400 kV D/C Transmission Line associated with WRSS-V scheme
15.5.2017	Letter to owner at location no. 109/0, gut no. 46/1 to extend co- operation to carry our construction work
20.5.2017	Application under Section 16 of the Indian Telegraph Act, 1885 against 1) Shri Ashok Gaikwad and others, 2) Rupesh Dole and others.
29.7.2017	police protection - letter to SP, Palghar from Collector, Palghar- deployment of police for construction
22.8.2017	loc.116/0,117/0- Order under sec.16 of IT Act 1885 issued (against application under sec. 16 submitted dataed 25/5/2017- Ms.Jotsna Prabjakar patil and others).
22.8.2017	loc.105a,105a/1 - Order under sec.16 of IT Act 1885 issued(against application under submitted dated 25.7.2016- M/s Nagnath trust)
24.8.2017	Loc. 100/1,100/2 - Order under sec.16 of IT Act 1885 issued (against application under sec.16 submitted dated 26/08/2016- Sri. Kasinath takare and others).
6.9.2017	Tower location 104A- Order under sec.16 of IT Act 1885 issued (against application under sec.16 submitted dated 13/1/2016- Sri. Ananta Tolupatil).
6.9.2017	Tower location 110/2- Order under sec.16 of IT Act 1885 issued (against application under sec.16 submitted dated 13/1/2016- Sri.Dondu Siva Patil).
6.9.2017	Tower loc. 97/1- Order under sec.16 of IT Act issued (agaisnt application under sec.16 submitted dated 20/05/2017- Sri Asok gaikwad and others)
6.9.2017	Tower loc. 94/6- Order under sec.16 of IT act issued (agaisnt application under sec.16 submitted dated 20/05/2017- Sri. Rupesh dole and others)
22.9.2017	Police protection - letter to PI from SDM/wada , Palghar distt. deployment of police for construction

(v) **Delay due to Forest issues:** The Chronology of the correspondence with regard to Forest issues is detailed below:

S. No.	Date	Details
1	27.1.2013	Letter to DCF Jawahar from Asst GM, Boisar
2	31.1.2013	Letter to Director, Archaeological & Material Conservation
		Deptt, Mumbai from DGM (ESM) Nagpur
3	5.2.2013	Forest proposal submitted to DCF Jawahar
4	27.2.2013	Letter to DGM (ESM), Nagpur from Regional Director,
		MOEF, Nagpur
5	1.3.2013	Letter to regional Director, MOEF, Nagpur from DGM (ESM),
		Nagpur
6	5.3.2013	Letter to DGM (ESM), Nagpur from Regional Director,

		MOEF, Nagpur
7	4. 7.2014	Letter to FDCM, Nasik from FDCM, Nagpur
8	9.8.2014	Letter to DCF, Dahanu from Asst GM, Boisar
9	10.8.2014	Letter to DCF, Dahanu from Asst GM, Boisar
10	18.9.2014	Letter to DCF, Jawahar from Asst GM, Boisar
11	7.10.2014	Letter to PCCF, Nagpur from FDCM Nagpur
12	16.12.2014	Letter to Addl PCCF, Nagpur from CCF Thane
13	20.1.2015	Letter to CCF Thane from Addl PCCF, nagpur
14	24.1.2015	Letter to DCF Jawahar from DCF, Dahanu
15	27.1.2015	Letter to CCF, Thane from DCF, Jawahar
16	24.2.2015	Letter to Secretary (Forest), Mantralaya , Mumbai from Addl
		PCCF, Nagpur
17	29.6.2015	Letter to Addl. PCCF, Nagpur
18	7.8.2015	Stage-I approval for Kala-Kudus TL
19	14.8.2015	Letter to CCF, Thane from PCCF, Nagpur
20	31.8.2015	Letter to DCF, Dahanu from Asst GM, Boisar
21	6.9.2015	Letter to FDCM, Thane from Asst GM, Boisar
22	8.9.2015	Appl No 118-2015 between PGCIL & MOEF-National Green Tribunal
23	11.9.2015	Letter to DCF Jawahar from Asst GM, Boisar
24	30.9.2015	Letter to DCF Jawahar from Asst GM, Boisar
25	19.10.2015	Affidavit before the National Green Tribunal
26	30.11.2015	Letter to PCCF, Nagpur from FDCM, nagpur
27	3.12.2015	Letter to PCCF, Nagpur from FDCM, nagpur
28	27.1.2016	Letter to Divisional Manager, FDCM,-Dahanu from Asst. GM,
		Boisar
29	30.1.2016	Letter from FDCM, Nagpur to PCCF, Nagpur
30	16.3.2017	Letter to Secretary, Mumbai from MOEF, Nagpur

21. MPPMCL, vide affidavit dated 7.1.2019, has submitted in respect of time overrun as mentioned below:

a) Delay due to change in termination point of 400 kV GP Novsari - Mumbai to Boisar:

The line under consideration is not a terminating line but is a middle part of the line. It has nothing to do with the change in termination point. In other words, the change in termination point has a meagre effect and it is clearly an afterthought to hide high slackness on part of the petitioner.

b) Delay in forest approval of 400 kV D/C Novsari - Boisar transmission line:

The petitioner has not submitted any documents showing that delay in forest approval has effected this line because the span considered under the instant petition was effected worst. The alternate site for substation was identified in the month of August 2010, while the first discussion on ROW issue for line is shown to be held on 13.5.2011 in the 32nd SCM. This shows that, the petitioner was not sincere to put the fact before appropriate forum well in time and hence the delay in this part shall be fully attributable to the petitioner.

c) Portion of 400 kV Vapi - Kudus line:

The completion schedule includes the genuine period for finalization of location etc. and same has not been deducted/taken care of while calculating the revised completion schedule and further, petitioner has not submitted PERT and also, no admissible reason has been given in the matter of forest approval.

- 22. The petitioner, in response to MPPMCL, has filed its rejoinder vide affidavit dated 14.2.2019 and reiterated the submissions as made in the petition.
- 23. The petitioner, vide affidavit dated 25.1.2019, has made the following submissions in response to the Commission's queries vide order dated 4.1.2019:
 - a) The bays at Kudus (MSETCL) Sub-station for 400 kV Kala Kudus line 1 and line 2 was put under commercial operation w.e.f 31.12.2017. COD letter, CEA, CMD certificate etc. has already been submitted along with the petition. The copies of COD letter along with RLDC trial operation certificate for bays at Kudus (MSETCL) sub-station are submitted.

b) The Chronology of execution of the instant assets is as follows:

Asset	Activity Schedule		Actual			Reason (s) of delay
	Asset-1	From	То	From	То	
Asset 1: Part of 400 kV D/C	Project completion Schedule	26.12.2007	25.9.2010	26.12.2007	1.3.2015	Severe ROW
Navsari- Boisar T/L	LOA	25.6.2008		28.12.2007		
through LILO point of 400 kV D/C Navsari- Boisar at	change in termination point of 400 kV D/C Navsari –Mumbai (New location) to Boisar instead of Mumbai (New location)			8.7.2010		
Magarwada GIS (23B/0) (D/C portion	Shifting of Zero Date for the purpose of implementation of transmission Line			8.7.2010		
strung on M/C Twin- Twin	Supplies of structure, equipment etc.	28.8.2008	25.9.2010	8.4.2008	13.1.2014	
portion comprising	Foundation	19.9.2008	17.4.2010	1.3.2008	28.2.2014	
of 400 kV D/C	Tower Erection	20.12.2008	25.6.2010	1.12.2008	14.11.2014	
Navsari- Boisar and	Stringing	16.4.2009	25.8.2010	1.4.2012	18.2.2015	
400 kV D/C Vapi-	Testing and commissioning	25.8.2010	25.9.2010	10.10.2014	1.3.2015	
Kudus) and Part of 400 kV D/C Vapi - Kudus T/L from AP 38/0 to AP 43/0	Forest proposal submission and clearance (*) for Entire 400 kV D/C Navsari–Boisar TL	11.2.2013	7.1.2014	11.2.2013	16.4.2016	
	ROW issues (*) for Entire 400 kV D/C Navsari– Boisar TL			19.6.2008	5.12.2017	
Asset 2 - Part of 400	Any other reasons for delay, if any					
kV D/C Vapi - Kudus T/L from 104/0 to Kudus (MSETCL)	Asset -2	26.12.2007	25.9.2010	26.12.2007	31.12.2017	Severe ROW
S/S and LOA		25.6.2008	<u>l</u>	28.12.2007		

bays at Kudus (MSETCL) S/S	change in termination point of 400 kV D/C Navsari – Mumbai (New location) to Boisar instead of Mumbai (New location)			8.7.2010		
	Shifting of Zero Date for the purpose of implementation of transmission Line			8.7.2010		
	Supplies of structure, equipment etc.	28.8.2008	25.9.2010	8.4.2008	30.9.2017	
	Foundation	19.9. 2008	17.4.2010	1.3.2008	27.11.2017	
	Tower Erection	20.12.2008	25.6.2010	1.12.2008	18.12.2017	
	Stringing	16.4.2009	25.8.2010	1.4.2012	27.12.2017	
	Testing and commissioning	25.8.2010	25.9.2010	19.12.2017	31.12.2017	
	Forest proposal submission and clearance (*) for Entire 400 kV D/C Navsari–Boisar TL	11.2.2013	7.1.2014	11.2.2013	16.4.2016	
	ROW issues (*) for Entire 400 kV D/C Navsari– Boisar TL			19.6.2008	5.12.2017	
	Any other reasons for delay , if any					

24. We have considered the submissions made by petitioner and MPPMCL. We are of the view that the time over-run should be considered with reference to the timeline approved in the original Investment Approval. As per the investment approval, the schedule completion is within 33 months from the date of Investment Approval. The date of Investment Approval was 26.12.2007. Hence, the commissioning schedule comes to 25.9.2010, against which, the subject assets were put into commercial operation on 1.3.2015 and 31.12.2017 respectively with time over-run of 53 months 6 days (1618 days) in case of Asset-1 and 87 months 6 days (2654 days) in case of Asset-2. Asset-wise time overrun is discussed under the subsequent para.

25. Asset-1 was put into commercial operation on 1.3.2015 with time overrun of 53 months 6 days. After investment approval on 26.12.2007, the letter of award LOA was placed on 28.12.2007. As discussed at para 20 above in detail, the petitioner has submitted that delay is mainly on account of change in termination point of 400 kV D/C Navsari - Mumbai (new location) to Boisar instead of Mumbai (new location), delay in forest clearance and ROW issues.

26. This Commission vide order dated 23.7.2018 in Petition No. 207/TT/2018, in a similar case of time overrun due to change in termination point of 400 kV D/C Navsari-Mumbai (New location) to Boisar instead of Mumbai (New Location) has condoned the time overrun. The relevant para is as follows:

"36. After the Investment Approval dated 15.10.2008, the work was delayed due to change in termination point of 400 kV D/C Navsari-Mumbai (New location) to Boisar instead of Mumbai (New Location) from 4.11.2008 to 8.7.2010 i.e. a total time period of 20 months 5 days were affected. We are of the view that the total delay of 20 months 5 days due to change in termination point of 400 kV D/C Navsari-Mumbai (New location) to Boisar instead of Mumbai (New Location) from date 4.11.2008 to 8.7.2010 were beyond the control of the petitioner and accordingly, the time over-run of 20 months 5 days i.e. from date 4.11.2008 to 8.7.2010 is condoned".

27. Accordingly, in present case also, after the Investment Approval dated 26.12.2007, the work was delayed due to change in termination point of 400 kV D/C Navsari-Mumbai (New location) to Boisar instead of Mumbai (New Location) from investment approval dated 26.12.2007 to 8.7.2010 i.e. time period of 30 months 13 days were affected. We are of the view that the time overrun of 30 months 13 days due to change in termination point of 400 kV D/C Navsari-Mumbai (New location) to

Boisar instead of Mumbai (New Location) from 26.12.2007 to 8.7.2010 were beyond the control of the petitioner and accordingly, the time over-run of 30 months13 days i.e. from date 26.12.2007 to 8.7.2010 is condoned.

28. With regard to ROW issues, it is observed that, for the first time, the petitioner in 32nd meeting of SCM dated 13.5.2011 raised the issues and difficulties coming due to ROW issues in commissioning of 400 kV D/C Navsari - Boisar T/L and 400 kV D/C Vapi - Navi Mumbai transmission line and difficulties due to ROW were also discussed during various SCMs from 32nd to 37th (32nd SCM dated 13.5.2011, 34th dated 9.5.2012, 35th dated 3.1.2013 and 37th dated 5.9.2014). Thus, based on various discussions made in SCM meetings dated 32nd, 34th, 35th and 37th in which ROW issues were raised, we are of the view that, the time overrun on account of ROW issues from 13.5.2011 to 5.9.2014 i.e. 39 months 23 days is beyond the control of the petitioner and hence same is condoned.

29. With regard to forest clearance, it is observed that the petitioner made forest proposal on 11.2.2013 for entire 400 kV D/C Navasari - Boisar Transmission line and forest clearance was received on 16.4.2016. However, actual COD of the Asset-1 is 1.3.2015. The period from 11.2.2013 to 5.9.2014 is subsumed in ROW issue under para 28 above and has already been condoned under ROW issue.

30. Further, from the activity-wise details submitted by petitioner in affidavit dated 25.1.2019, it is observed that after ROW Issues were resolved in month of September 2014, the balance work like Tower erection, Stringing, Testing and commissioning was completed upto March 2015 and the asset was put into commercial operation on 1.3.2015.

31. It is evident that due to shifting of zero date remaining activities to achieve commercial operation were also shifted, therefore period from September 2014 to March 2015 would also be required to be condoned. It may also be added that part of time taken for forest clearance up to date of commercial operation for this asset would also be subsumed in this period. As a result, total delay from 25.9.2010 to 1.3.2015 would workout to 53 months and 06 days which is condoned due to reasons mentioned in preceding paras.

32. Asset-2 was put into commercial operation on 31.12.2017 with time overrun of 87 months 6 days. After investment approval dated 26.12.2007, the LOA was placed on 28.12.2007. The petitioner has submitted that delay is mainly on account of change in termination point of Vapi-Mumbai(new location) to Kudus, forest clearances and ROW issues. The detailed analysis of time overrun due to these above factors are discussed in subsequent paras.

33. From the chronology submitted by petitioner in affidavit dated 26.3.2018, it is observed that, the approval for change in termination point of Vapi - Mumbai (new location) to Kudus was agreed in 35th Standing Committee of Power System Planning of WR held on 3.1.2013 and therefore, it took around 60 months 8 days for finalization of the location thereby shifting the zero date from 26.12.2007 (as per IA) to 3.1.2013.

34. This Commission vide order dated 23.7.2018 in Petition No. 207/TT/2018 in a similar case of time overrun due to change in termination point of 400 kV D/C Navsari - Mumbai (New location) to Boisar instead of Mumbai (New Location) has condoned the time overrun as referred in para 26.

35. Accordingly, in present case also, after the Investment Approval dated 26.12.2007, the work was delayed due to change in termination point of Vapi-Mumbai (new location) to Kudus from investment approval dated 26.12.2007 to 3.1.2013 i.e. time period of 60 months 8 days were affected. We are of the view that the time overrun of 60 months 8 days due to change in termination point of Vapi - Mumbai (new location) to Kudus from date 26.12.2007 to 3.1.2013 were beyond the control of the petitioner and accordingly, the time over-run of 60 months 8 days i.e. from date 26.12.2007 to 3.1.2013 is condoned.

36. From the submissions and chronology of events placed on record, w.r.t. ROW issues in respect to Asset-2 by petitioner in affidavit dated 26.3.2018, it is observed that, the above stringing works in non-forest area for which efforts were made and regular follow-up with State Authorities was undertaken including request for deployment of police protection at several locations. Further, the difficulties due to ROW were also discussed during various SCMs from 32nd to 41st as indicated in the chronology of events submitted by the petitioner. Thus, due to ROW issues, the work was affected between 19.6.2008 to 22.9.2017 i.e. a total time of 111 months 3 days.

37. This Commission vide order dated 23.7.2018 in Petition No. 207/TT/2018 has condoned the time overrun due to ROW issues for 400 kV D/C Vapi-Kudus transmission line (from 44/0 upto 45A/0) (Part of M/C transmission line)-Asset-4; 400 kV D/C Vapi-Kudus transmission line (from 45A/0 upto 69/0) (Part of M/C transmission line) and 400 kV D/C Vapi-Kudus transmission line (from 69/0 upto 104/0) -Asset-5B; The relevant extract are as below:

"43. The petitioner has submitted that the 400 kV D/C Navsari-Boisar portion is delayed mainly due to delay faced in finalizing land for Navi Mumbai (new location)

such as ROW issues, non-availability of adequate corridor and lack of proper approach/ connectivity specifically for transportation of heavy equipments and therefore, it was proposed to change the termination point from Navi Mumbai to Kudus and approval was granted in the 35th SCM held on 3.1.2013 i.e. 38 months after the investment approval dated 15.10.2008. The petitioner has further submitted that the reasons of delay of 400 kV D/C Vapi-Kudus from 44/0 to 45A/0 are same as the reasons of delay of 400 kV D/C Navsari-Boisar from 44/0 to 45 A/0 as they are both strung on same M/C towers. As regards, Asset5A, the petitioner has submitted that 400 kV M/C transmission line from location from 313/0 upto 332/0 comprises of 400 kV D/C Navsari-Boisar from 313/0 upto 332/0 and 400 kV D/C Aurangabad-Boisar from 313/0 upto 332/0 and the 400 kV D/C Navsari-Boisar portion was complete on 18.12.2016. The Aurangabd-Boisar portion from 313/0 upto 332/0 was commissioned with complete AurangabadBoisar Line. As regards, Asset-5B, the petitioner has submitted that 400 kV M/C transmission line from 45A/0 upto 69/0 comprises of 400kV D/C Navsari-Boisar from 45A/0 upto 69/0 and the 400 kV D/C Navsari-Boisar portion was put into commercial operation on 31.12.2016. Therefore, the stringing was already completed on 31.12.2016 and the Vapi-Kudus portion was put into commercial operation with complete Vapi-Kudus line. The petitioner has also submitted that the 400 kV D/C Vapi-Kudus line beyond location 104/0 was not ready therefore, 400 kV D/C Vapi-Kudus line from 69/0 to 104/0 was put into commercial operation on 31.12.2017. We have considered the submissions of the petitioner. The delay in case of Asset-4, Asset-5A and Asset-5B is mainly due to delay in finalizing land for Navi Mumbai (new location) such as ROW issues, non availability of adequate corridor and lack of proper approach/connectivity specifically for transportation of heavy equipments. We have already condoned the delay based on this same issues in case of Asset-1. We are of the view of that the delay of 28 months 15 days in case of Asset-4, 62 months and 15 days in case of Asset-5A and 62 months 17 days in case of Asset-5B is beyond the control of the petitioner and hence the same is condoned".

38. In line with the Commission order dated 23.7.2018 in Petition No. 207/TT/2018, the Asset-2, in instant petition, i.e. Part of 400 kV D/C Vapi - Kudus T/L from 104/0 to Kudus (MSETCL) S/S and associated bays at Kudus (MSETCL) S/S are both strung on same M/C towers of 400 kV D/C Vapi-Kudus transmission, the time overrun

affected from period 19.6.2008 to 22.9.2017 i.e. a total time of 111 months 3 days is beyond the control of the petitioner due to ROW issue. However, it observed that the period from 19.6.2008 to 3.1.2013 i.e., 54 months and 15 days have been subsumed and condoned due to change in termination point of Vapi - Mumbai (new location) to Kudus. Thus, the remaining period from 4.1.2013 to 22.9.2017 i.e., 56 months and 18 days are condoned due to ROW issue.

39. With regard to forest clearance, it is observed that Petitioner made forest proposal on 11.2.2013 for entire 400 kV D/C Navasari - Boisar Transmission line and forest clearance was received on 16.4.2016. However, the complete period from 11.2.2013 to 16.4.2016 is subsumed in ROW issue under para 38 above and has already been condoned due to ROW issue.

40. Further, from the activity-wise details submitted by petitioner in affidavit dated 25.1.2019, it is observed that, after ROW Issues was resolved in month of September 2017, the balance work like supplies of structure, equipment, tower erection, Stringing, Testing and commissioning was completed between September 2017 to December 2017 and the asset was put into commercial operation on 31.12.2017.

41. It is evident that due to shifting of zero date remaining activities to achieve commercial operation were also shifted, therefore period from September 2017 to December 2017 would also be required to be condoned. As a result, total delay from 25.9.2010 to 31.12.2017 would work out to 87 months and 6 days which is condoned due to reasons mentioned in preceding paras.

Cost Variation

42. Initially, the Board of directors of PGCIL in its 203rd meeting held on 30.11.2007, approved FR cost of ₹ 47769 lakh for whole project under "Western Region System Strengthening Scheme-V". Later, in meeting held on 26.9.2012, RCE-1(revised cost estimate-1) of ₹ 72181 lakh was approved and subsequently, revised apportioned approved cost (RCE-2) of ₹ 73848 lakh was approved by Board of Directors of PGCIL in its 324th meeting held on 12.1.2016. Petitioner in instant petition has claimed total capital expenditure of ₹ 21721.56 lakh against the apportioned approved cost for Asset-I and Asset-II under RCE-2 cost of ₹ 21798 lakh. The capital expenditure as on COD is ₹ 20757.44 lakh and total completion cost including additional capital expenditure is ₹ 21721.56 lakh as mentioned above.

43. Petitioner has made submissions that, the main reasons for cost variation w.r.t. FR are Commissioning of lines from Double Circuit (D/C) to Multi Circuit (M/C). Initially, FR was prepared for D/C lines, however, due to severe ROW issues; configuration of transmission line was changed to M/C due to which FR cost cannot be match with completion cost. It is observed from Form-5, submitted in petition, that cost variation in case of Asset-1 and Asset-2 is mainly due to particulars as cited below:-

Asset-1					
Particulars	FR Cost as per estimate (A)	Actual Cost incurred as on COD (B)	Liabilities/provision (C)	Cost Variation w.r.t. FR Cost (D)= (A)-(B+C)	Reason(s) for Variation
Tower Steel	172.11	276.80	22.47	-127.16	The qty. has
Conductor	1083.25	1089.30	1.58	-7.63	been taken on cost
Earth wire	10.66	8.71	0.71	1.24	proportionate
Insulators	248.78	410.00	1.53	-162.75	basis for
Hardware Fittings	77.72	77.85	6.32	-6.45	total amended
Conductor & earth wire	41.16	42.57	3.46	-4.87	qty. for Vapi- Navi Mumbai

accessories Erection, Stringing & Civil works including foundation	62.71	88.02	7.15	-32.46	T/L (M/C portion) from AP 18 to AP 38.
Asset-2					
Particulars	FR Cost as per estimate (A)	Actual Cost incurred as on COD (B)	Liabilities/provision (C)	Cost Variation w.r.t. FR Cost (D)= (A)-(B+C)	Reason(s) for Variation
Tower Steel	4321.13	2108.63	131.70	2080.80	The qty. has
Conductor	5193.90	760.00	2.59	4431.31	been taken on cost
Earth wire	105.86	48.04	3.00	54.82	proportionate
Insulators	1021.93	220.00	14.06	787.87	basis for
Hardware Fittings	492.88	250.05	15.62	227.21	total amended
Conductor & earth wire accessories	341.00	127.21	7.95	205.84	qty. for Vapi- Navi Mumbai T/L (M/C portion) from
Erection, Stringing & Civil works including foundation	1990.04	1012.71	58.25	919.08	AP 104 to Kudus S/s.

44. Thus, from above we observe that the completion cost including additional capital expenditure is ₹ 21721.56 lakh against the apportioned approved cost for Asset-I and Asset-II under RCE-2 cost of ₹ 21798.00 lakh. Hence, there is no cost overrun.

Incidental Expenditure During Construction (IEDC) & Interest During Construction (IDC)

45. The petitioner has claimed IEDC of ₹188.79 lakh and ₹1475.08 lakh for Asset-1 and Asset-2 respectively. In case of Asset-1, the petitioner has claimed IEDC as on COD, which is within the percentage on hard cost as indicated in the abstract cost estimate. In the instant petition, less then 10.75% of hard cost is indicated as IEDC in the abstract cost estimate. Hence, the IEDC claimed by the petitioner in case of

Asset-1 is allowed. However, the petitioner has claimed excess IEDC by ₹143.18 lakh in respect of Asset-2, which is disallowed as on COD.

- 46. The petitioner has claimed IDC of `583.93 lakh and `4804.78 lakh for for Asset-1 and Asset-2 respectively. Further, the petitioner has submitted the statement showing discharged of IDC liability as on COD. The IDC on cash basis up to allowable dates has been worked out on the basis of the loan details given in statement showing discharge of IDC. It is observed that the loan portfolio as mentioned in IDC statement and as mentioned in Form 9C are not matching. Hence the petitioner is directed to submit clarification for this mismatch at the time of truing up. Petitioner has submitted that there is no default in the payment of interest.
- 47. The IDC claimed and considered as on COD and summary of discharge of IDC liability up to COD and thereafter for the purpose of tariff determination subject to revision at the time of truing up is as below:

(₹ in lakh)

	IDC	IDC	IDC discharged during the year				
Asset	Claimed	Discharged &	2015-16	2016-17	2017-18	2018-19	
Asset	as per	Allowed upto					
	certificate	COD					
1	583.93	540.56	43.37	ı	1	-	
2	4804.78	4529.39	-	-	110.00	165.39	

48. The balance portion of IDC discharged after COD has been considered in additional capital expenditure. The IDC allowed/capitalized shall be reviewed at the time of truing up.

Initial spares

49. Regulation 13(d) of the 2014 Tariff Regulations provides that initial spares shall be capitalized as a percentage of plant and machinery cost up to cut-off date, subject to following ceiling norms:-

"(d) Transmission System Transmission line: 1.00%

Transmission sub-station (Green Field): 4.00%

Transmission sub-station (BROWn Field): 6.00%"

50. The petitioner has not claimed any Initial Spare in case of Asset-1. However, the petitioner has claimed `110.00 lakh as initial spares corresponding to Transmission Line for Asset-2. Initial spare claimed by the petitioner is within the permissible limits and the same is allowed.

51. The petitioner vide affidavit dated 13.3.2019 has submitted that the liability of initial spare discharged up to COD and thereafter, as below:

(₹ in lakh)

	(V III Idikii)
Asset-2: Discharge of initial spares	Transmission line
As per auditor certificate	110.00
Discharged up to COD	102.30
Discharged in year 2017-18	7.70

Capital cost as on COD

52. The following capital cost as on COD, after taking into account the allowable IEDC, IDC and initial spares, is considered for the computation of tariff for the Assets

(₹ in lakh)

А	Asset	Claimed as on COD	Less: Excess IEDC	Less: IDC Un- discharged IDC	Less: Initial Spare un- discharged upto COD	Capital cost upto COD
As	sset-1	2765.97	-	43.37	-	2722.60
As	sset2	17991.47	143.18	275.39	7.70	17565.20

Additional Capital Expenditure (ACE)

- 53. Clause (1) of Regulation 14 of the 2014 Tariff Regulations provides as under:-
 - "(1) The capital expenditure in respect of the new project or an existing project incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:
 - (i) Un-discharged liabilities recognized to be payable at a future date;
 - (ii) Works deferred for execution;
 - (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; 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 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."

54. Clause (13) of Regulation 3 of the 2014 Tariff Regulations defines "cut-off" date as under:-

"cut-off date" means 31st March of the year closing after two years of the year of commercial operation of whole or part of the project, and in case the whole or part of the project is declared under commercial operation in the last quarter of the year, the cut-off date shall be 31st March of the year closing after three years of the year of commercial operation".



55. The cut-off dates for the instant Asset-1 and Asset-2 are 31.3.2018 and 31.3.2020 respectively. The petitioner, vide Auditor Certificates dated 21.9.2017 and 1.3.2018 for Asset-1 and Asset-2 respectively, has claimed estimated Additional Capital Expenditure (ACE) projected to be incurred, as below:

Asset		Estimate	Total ACE as on			
	2015-16	2016-17	2017-18	2018-19	2019-20	31.3.2019
1	26.54	12.00	4.67	-	-	43.21
2	-	-	210.89	467.27	242.75	920.91

- 56. MPPMCL vide affidavit dated 7.1.2019, has submitted that the petitioner has not provided any details along with proper justification and reasoning in Form-7 and in absence of details such payments may be allowed in true-up as per actual expenditure.
- 57. In response, petitioner vide its rejoinder dated 14.2.2019 has submitted that the additional capital expenditure for the subject assets has been claimed under Regulation 14(1)(i) of the 2014 Tariff Regulations against balance and retention payments as mentioned in Form-7 of respective assets. Further, the element wise break-up of cost of all the assets under instant petition have already been furnished in Form-5 of respective assets in the petition. Accordingly, requested to allow the entire cost and tariff as claimed in the petition.
- 58. We are of the view that, the additional capital expenditure claimed by petitioner as discussed above for Asset-1 and Asset-2 for 2014-19 period is allowed on account of balance/ retention payments and claimed under Regulation 14(1)(i) of the 2014 Tariff Regulations, Additional capital expenditure of ₹ 242.75 lakh in case of

Asset-2 for FY 2019-20 is not being considered as the tariff period is ending on 31.3.2019 and same will be considered in tariff period 2019-24 in terms of prevailing Regulation at that time.

Capital cost as on 31.3.2019

59. Accordingly, Capital Cost allowed and considered as on COD, additional capital expenditure allowed along with discharge of liability during 2014-19 period and Capital Cost allowed and considered as on 31.03.2019 for the purpose of computation of tariff is as follows:-

(₹ in lakh)

Capital		ACE Allowed for FY				Total Estimate	
Asset Cost Allowed as on COD	2015-16	2016-17	2017-18	2018-19	Completion Cost as on 31.3.2019		
1	2722.60	69.91	12.00	4.67	0.00	2809.18	
2	17565.20	-	-	328.59	632.66	18526.45	

Debt-Equity Ratio

- 60. Clause 1 and 5 of Regulation 19 of the 2014 Tariff Regulations specifies as follows:-
 - "(1) For a project declared under commercial operation on or after 1.4.2014, the debtequity ratio would be considered as 70:30 as on COD. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

Provided that:

- i. where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:
- ii. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:
- iii. any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt: equity ratio.

Explanation.-The premium, if any, raised by the generating company or the transmission licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, only if such premium



amount and internal resources are actually utilised for meeting the capital expenditure of the generating station or the transmission system."

- "(5) Any expenditure incurred or projected to be incurred on or after 1.4.2014 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation."
- 61. The petitioner has claimed debt: equity ratio of 70:30 as on the date of commercial operation. Debt: equity ratio of 70:30 is considered as provided in Regulation 19 of the 2014 Tariff Regulations. The details of debt: equity ratio in respect of the instant assets as on the date of commercial operation and as on 31.3.2019 are as under:-

(₹ in lakh)

Asset-1						
Particular	Capital cost as on		Capital cost as on			
	COD		31.3.2019			
	Amount	%	Amount	%		
Debt	1,905.82	70.00	1966.43	70.00		
Equity	816.78	30.00	842.75	30.00		
Total	2722.60	100.00	2809.18	100.00		

(₹ in lakh)

Asset-2							
Particular	Capital cost as on		Capital cost as on				
	COD		31.3.2019				
	Amount	%	Amount	%			
Debt	12,295.64	70.00	12968.52	70.00			
Equity	5,269.56	30.00	5557.94	30.00			
Total	17565.20	100.00	18526.45	100.00			

Return on Equity

62. Clause (1) and (2) of Regulation 24 and Clause (2) of Regulation 25 of the 2014 Tariff Regulations specify as under:-

- **"24. Return on Equity:** (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 19.
- (2) Return on equity shall be computed at the base rate of 15.50% for thermal generating stations, transmission system including communication system and run of the river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run of river generating station with pondage:

Provided that:

- (i) in case of projects commissioned on or after 1st April, 2014, an additional return of 0.50 % shall be allowed, if such projects are completed within the timeline specified in Appendix-I:
- (ii) the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever:
- (iii) additional RoE of 0.50% may be allowed if any element of the transmission project is completed within the specified timeline and it is certified by the Regional Power Committee/National Power Committee that commissioning of the particular element will benefit the system operation in the regional/nationalgrid:
- (iv) the rate of return of a new project shall be reduced by 1% for such period as may be decided by the Commission, if the generating station or transmission system is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO)/ Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protectionsystem:
- (v) as and when any of the above requirements are found lacking in a generating station based on the report submitted by the respective RLDC, RoE shall be reduced by 1% for the period for which the deficiencycontinues:
- (vi) additional RoE shall not be admissible for transmission line having length of less than 50kilometers.

"25. Tax on Return on Equity:

(1) The base rate of return on equity as allowed by the Commission under Regulation 24 shall be grossed up with the effective tax rate of the respective financial year. For this purpose, the effective tax rate shall be considered on the

basis of actual tax paid in the respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned generating company or the transmission licensee, as the case may be. The actual tax income on other income stream (i.e., income of non generation or non transmission business, as the case may be) shall not be considered for the calculation of "effective taxrate".

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

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

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

- The petitioner has submitted that it is liable to pay income tax at MAT rate, the RoE has been calculated @ 19.610% after grossing up the RoE with MAT rate of 20.961% as provided under Regulation 25(2)(i) of the 2014 Tariff Regulations. As per Regulation 25(3) of the 2014 Tariff Regulations, the grossed up rate of RoE at the end of the 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 2014-19 period on actual gross income of any financial year.
- 64. We have considered the submissions made by the petitioner. Regulation 24 read with Regulation 25 of the 2014 Tariff Regulations provides for grossing up of return on equity with the effective tax rate for the purpose of return on equity. It further provides that in case the generating company or transmission licensee is paying

Minimum Alternative Tax (MAT), the MAT rate including surcharge and cess will be considered for the grossing up of return on equity. Accordingly, the MAT rate applicable during 2013-14 has been considered for the purpose of return on equity, which shall be trued up with actual tax rate in accordance with Regulation 25 (3) of the 2014 Tariff Regulations. Accordingly, the RoE allowed is as follows:-

65. Accordingly, the RoE allowed is as follows:-

(₹ in lakh)

			Asset-1		
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	816.78	816.78	837.75	841.35	842.75
Addition due to Additional	0.00	20.97	3.60	1.40	0.00
Capitalization					
Closing Equity	816.78	837.75	841.35	842.75	842.75
Average Equity	816.78	827.27	839.55	842.05	842.75
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%	15.50%
MAT rate for the Financial year	20.961%	20.961%	20.961%	20.961%	20.961%
2013-14					
Rate of Return on Equity (Pre-tax)	19.610%	19.610%	19.610%	19.610%	19.610%
Return on Equity (Pre-tax)	13.60	162.23	164.64	165.13	165.26

	Asset-2		
Particulars	2017-18	2018-19	
Opening Equity	5269.56	5368.14	
Addition due to Additional	98.58	189.80	
Capitalization			
Closing Equity	5368.14	5557.94	
Average Equity	5318.85	5463.04	
Return on Equity (Base Rate)	15.50%	15.50%	
MAT rate for the Financial year	20.961%	20.961%	
2013-14			
Rate of Return on Equity (Pre-tax)	19.610%	19.610%	
Return on Equity (Pre-tax)	260.04	1071.30	

Interest on loan (IOL)

- 66. Regulation 26 of the 2014 Tariff Regulations are provides as under:-
 - "(1) The loans arrived at in the manner indicated in regulation 19 shall be considered as gross normative loan for calculation of interest on loan
 - (2) The normative loan outstanding as on 1.4.2014 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2014 from the gross normativeloan.
 - (3) The repayment for each of the year of the tariff period 2014-19 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of decapitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of decapitalisation of such asset.
 - (4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of theyear.
 - (5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized:

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

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

- (6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest."
- 67. The loL has been calculated as per the provisions of Regulation 26 of the 2014 Tariff Regulations as detailed below:-



- Gross amount of loan, repayment of instalments and rate of interest on actual average loan have been considered as per the petition;
- ii. The yearly repayment for the tariff period 2014-19 has been considered to be equal to the depreciation allowed for that year; and
- iii. Weighted average rate of interest on actual average loan worked out as per(i) above is applied on the normative average loan during the year to arrive at the interest on loan.
- 68. Based on above, details of IOL calculated are as follows:-

(₹ in lakh)

					(V III Idikii)
Particulars			Asset-1		
	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	1905.82	1905.82	1954.76	1963.16	1966.43
Cumulative Repayment upto	0.00	12.21	157.81	305.57	453.77
previous Year					
Net Loan-Opening	1905.82	1893.61	1796.95	1657.59	1512.66
Addition due to Additional	0.00	48.94	8.40	3.27	0.00
Capitalization					
Repayment during the year	12.21	145.60	147.76	148.20	148.32
Net Loan-Closing	1893.61	1796.95	1657.59	1512.66	1364.33
Average Loan	1899.72	1845.28	1727.27	1585.12	1438.49
Weighted Average Rate of	8.9525%	8.9414%	8.9156%	8.8880%	8.8600%
Interest on Loan					
Interest on Loan	14.44	164.99	154.00	140.89	127.45

Particulars	Asset-2	
	2017-18	2018-19
Gross Normative Loan	12295.64	12525.65
Cumulative Repayment upto previous	0.00	233.39
Year		
Net Loan-Opening	12295.64	12292.27
Addition due to Additional Capitalization	230.01	442.86
Repayment during the year	233.39	961.49
Net Loan-Closing	12292.27	11773.63
Average Loan	12293.95	12032.95

Weighted Average Rate of Interest on Loan	8.6279%	8.6037%
Interest on Loan	264.45	1035.27

Depreciation

69. Regulation 27 of the 2014 Tariff Regulations with regard to depreciation specifies as below:-

"27. Depreciation:

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

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

- (2) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station or multiple elements of transmission system, weighted average life for the generating station of the transmission system shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro-rata basis.
- 3) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset:

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

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

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

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

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

- (6) In case of the existing projects, the balance depreciable value as on 1.4.2014 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2014 from the gross depreciable value of the assets."
- 70. The instant transmission assets were put under commercial operation between 1.3.2015 to 31.12.2017. Accordingly, it will complete 12 years after 2018-19. As such, depreciation has been calculated annually based on Straight Line Method at the rates specified in Appendix-II to the 2014 Tariff Regulations.

Particulars	Asset-1				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	2722.60	2722.60	2792.51	2804.51	2809.18
Additional Capital expenditure	0.00	69.91	12.00	4.67	0.00
Closing Gross Block	2722.60	2792.51	2804.51	2809.18	2809.18
Average Gross Block	2722.60	2757.56	2798.51	2806.85	2809.18
Rate of Depreciation	5.2800%	5.2800%	5.2800%	5.2800%	5.2800%
Depreciable Value	2450.34	2481.80	2518.66	2526.16	2528.26

Remaining Depreciable Value	2450.34	2469.59	2360.85	2220.59	2074.49
Depreciation	12.21	145.60	147.76	148.20	148.32

(₹ in lakh)

Particulars	Asset-2		
	2017-18	2018-19	
Opening Gross Block	17565.20	17893.79	
Additional Capital expenditure	328.59	632.66	
Closing Gross Block	17893.79	18526.45	
Average Gross Block	17729.50	18210.12	
Rate of Depreciation	5.2800%	5.2800%	
Depreciable Value	15956.55	16389.11	
Remaining Depreciable Value	15956.55	16155.72	
Depreciation	233.39	961.49	

Operation and Maintenance Expenses (O&M Expenses)

71. Regulation 29(4)(a) of the 2014 Tariff Regulations specifies the norms for O&M Expenses for the transmission system based on the type of sub-station and the transmission line. Norms specified in respect of the elements covered in the instant asset are as under:

(₹ in lakh)

Norms for AC lines	2014-15	2015-16	2016-17	2017-18	2018-19
(in Rs. lakh per km)					
Double Circuit	0.707	0.731	0.755	0.780	0.806
(Twin & Triple Conductor)					
Norms for sub-stations (in Rs. lakh per bay)					
400 kV	_	_	_	66.51	68.71

72. The petitioner has claimed the following O&M expenses in the instant petition:-

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-1	1.79	22.19	22.91	23.67	24.46
Asset-2	-	-	-	38.54	157.57

- 73. The petitioner has submitted that O&M Expenses for the tariff period 2014-19 had been arrived at on the basis of normalized actual O&M Expenses during the period 2008-09 to 2012-13. The petitioner has further submitted that the wage revision of the employees is due during 2014-19 and actual impact of wage hike effective from a future date has not been factored in fixation of the normative O&M rates specified for the tariff block 2014-19. The petitioner has submitted that it would approach the Commission for suitable revision in norms for O&M Expenses for claiming the impact of wage hike during 2014-19, if any.
- 74. MPPMCL vide affidavit dated 7.1.2019 has submitted that the increase in the employee cost, if any, due to wage revision must be taken care by improvement in their productivity levels by the petitioner company so that the beneficiaries are not unduly burdened over and above the provisions made in the 2014 Tariff Regulations.
- 75. In response, the petitioner filed its rejoinder dated 14.2.2019 and submitted that the wage revision of the employees of the petitioner 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 is binding on the petitioner and hence it would approach the Commission for suitable revision in the norms for O&M Expenses for claiming the impact of wage hike from 1.1.2017 onwards.
- 76. The O&M Expenses have been worked out as per the norms of O&M Expenses specified in the 2014 Tariff Regulations. As regards the impact of wage revision, any application filed by the petitioner in this regard will be dealt with in accordance with the appropriate provisions of the 2014 Tariff Regulations.

77. We have considered the submissions of petitioner and MPPMCL. The O&M Expenses have been worked out as per the norms specified in the 2014 Tariff Regulations. Accordingly, the O&M Expenses allowed is given as under:-

Asset-1 (COD: 1.3.2015)

(₹ in lakh)

					(*
Element	2014-15	2015-16	2016-17	2017-18	2018-19
	(pro-rata)*				
Line length of 30.35 Km for	31/365x	0.731x	0.755x	0.780x	0.806x
part of 400 kV D/C Navsari-	0.707x	30.35	30.35	30.35	30.35
Boisar T/L from AP 18 to AP	30.35	=22.18	=22.91	=23.67	=24.46
38/0 through LILO point of	=1.82				
400 kV D/C Navsari-Boisar					
at Magarwada GIS (23B/0)					
(D/C portion strung on M/C					
Twin-Twin portion					
comprising of 400 kV D/C					
Navsari-Boisar and 400 kV					
D/C Vapi-Kudus) & Part of					
400 kV D/C Vapi - Kudus					
T/L from AP 38/0 to AP 44.					
(Double Circuit-(Twin &					
Triple Conductor)					
Total O&M Expenses	1.82	22.18	22.91	23.67	24.46
allowed					

^{*}pro-rata has been considered from 1.3.2015 to 31.3.2015=31 days

Asset-2 (COD: 31.12.2017)

(₹ in lakh)

Element	2017-18	2018-19
	(pro-rata)*	
Line length of 25km for Part of 400	91/365x0.780x25.00	0.806x25.00
kV D/C Vapi - Kudus T/L from 104/0	=4.86	=20.15
to Kudus (MSETCL) S/S		
2 nos. 400 kV bays (Conventional)	91/365x66.51x2	68.71x2
	=33.16	=137.42
Total O&M Expenses Allowed	38.02	157.57

^{*}Pro-rata has been considered from 31.12.2017 to 31.3.2018=91 days

Interest on Working Capital (IWC)

78. Clause 1(c) and clause (3) of Regulation 28 and Clause 5 of Regulation 3 of



the 2014 Tariff Regulations specify as follows:-

"28. Interest on Working Capital

- (1) The working capital shall cover:
- (c) Hydro generating station including pumped storage hydro electric generating station and transmission system including communication system:
- (i) Receivables equivalent to two months of fixed cost;
- (ii) Maintenance spares @ 15% of operation and maintenance expenses specified in regulation 29; and
- (iii) Operation and maintenance expenses for one month"
- (3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2014 or as on 1st April of the year during the tariff period 2014-15 to 2018-19 in which the generating station or a unit thereof or the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later.
- "(5) 'Bank Rate' means the base rate of interest as specified by the State Bank of India from time to time or any replacement thereof for the time being in effect plus 350 basis points;"
- 79. The components of the working capital and the interest thereon are discussed hereinafter:-

a) Maintenance spares:

Maintenance spares @ 15 % of Operation and Maintenance expenses specified in Regulation 29.

b) O & M expenses:

O&M expenses have been considered for one month of the O&M expenses.

c) Receivables:

The receivables have been worked out on the basis of 2 months' of annual fixed cost as worked out above.



d) Rate of interest on working capital:

As per Clause 28 (3) of the 2014 Tariff Regulations, SBI Base Rate (10.00%) as on 01.04.2014 Plus 350 Bps i.e. 13.50% have been considered as the rate of interest on working capital for the Asset-1. Similarly, SBI Base Rate (9.10%) as on 01.04.2017 Plus 350 Bps i.e. 12.60% have been considered as the rate of interest on working capital for the Asset-2.

80. Accordingly, the interest on working capital is summarized as under:-

(₹ in lakh)

Particulars		Asset-1				
	2014-15	2015-16	2016-17	2017-18	2018-19	
Maintenance Spares	3.21	3.33	3.44	3.55	3.67	
O & M expenses	1.79	1.85	1.91	1.97	2.04	
Receivables	84.59	84.52	83.55	81.61	79.50	
Total	89.59	89.69	88.90	87.13	85.21	
Interest	1.03	12.11	12.00	11.76	11.50	

(₹ in lakh)

Particulars	Asset-2		
	2017-18 2018-19		
Maintenance Spares	22.87	23.64	
O & M expenses	12.71	13.13	
Receivables	544.23	549.93	
Total	579.82	586.69	
Interest	18.21	73.92	

Annual Fixed Cost

81. In view of the above, the annual transmission charges being allowed for the instant asset is summarized hereunder:-

(₹ in lakh)

Particulars			Asset-1		
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	12.21	145.60	147.76	148.20	148.32
Interest on Loan	14.44	164.99	154.00	140.89	127.45
Return on Equity	13.60	162.23	164.64	165.13	165.26
Interest on Working Capital	1.03	12.11	12.00	11.76	11.50
O&M Expenses	1.82	22.18	22.91	23.67	24.46
Total	43.10	507.11	501.30	489.65	477.00

(₹ in lakh)

	`	,
Particulars	Asset-2	
	2017-18	2018-19
Depreciation	233.39	961.49
Interest on Loan	264.45	1035.27
Return on Equity	260.04	1071.30
Interest on Working Capital	18.21	73.92
O&M Expenses	38.02	157.57
Total	814.11	3299.56

Filing Fee and Publication Expenses

82. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses, in terms of Regulation 52 of the 2014 Tariff Regulations. The petitioner is entitled for reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries on pro-rata basis in accordance with clause (1) of Regulation 52 of the 2014 Tariff Regulations.

License Fee and RLDC Fees and Charges

83. The petitioner has requested to allow the petitioner to bill and recover License fee and RLDC fees and charges, separately from the respondents. The petitioner shall be entitled for reimbursement of license fee and RLDC fees and charges in accordance with Clause (2)(b) and (2)(a), respectively, of Regulation 52 of the 2014

Tariff Regulations.

Goods and Services Tax

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

Sharing of Transmission Charges

- 85. Transmission charges for all the assets allowed in this order shall be recovered on monthly basis in accordance with Regulation 43 of the 2014 Tariff Regulations. The billing, collection and disbursement of the transmission charges approved shall be governed by the provisions of Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010, as amended from time to time.
- 86. This order disposes of Petition No. 236/TT/2018.

Sd- Sd- Sd
(I.S.Jha) (Dr. M. K. Iyer) (P. K. Pujari)

Member Member Chairperson