CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. 118/TT/2017

Coram:

Shri P. K. Pujari, Chairperson
Shri A. K. Singhal, Member
Dr. M. K. Iyer, Member

Date of Order: 03.10.2018

In the matter of:

Approval under Regulation- 86 of CERC (Conduct of Business) Regulations, 1999 and CERC (Terms and Conditions of Tariff) Regulations, 2014 for determination of Transmission Tariff from DOCO to 31.03.2019 for 400 kV D/C Kakrapar APP-Navsari T/L along with associated bays at Navsari GIS & 400 kV D/C Kakrapar APP-Vapi T/L along with associated bays at Vapi S/S.

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 MAHARASHTRA STATE ELECTRICITY DISTRIBUTION CO. LTD.
PRAKASHGAD, 4TH FLOOR
ANDHERI (EAST), MUMBAI - 400 052

3 GUJARAT URJA VIKAS NIGAM LTD.
SARDAR PATEL VIDYUT BHAWAN,
RACE COURSE ROAD
VADODARA - 390 007

4 ELECTRICITY DEPARTMENT
GOVT. OF GOA
VIDYUT BHAWAN, PANAJI,
NEAR MANDVI HOTEL, GOA - 403 001

5 ELECTRICITY DEPARTMENT
ADMINISTRATION OF DAMAN & DIU
DAMAN - 396 210

6 ELECTRICITY DEPARTMENT
ADMINISTRATION OF DADRA NAGAR HAVELI U.T.,
SILVASSA - 396 230

7 CHHATTISGARH STATE ELECTRICITY BOARD
P.O.SUNDER NAGAR, DANGANIA, RAIPUR
CHHATISGARH-492013

8 MADHYAPRADESH AUDYOGIK KENDRA
VIKAS NIGAM (INDORE) LTD.
3/54, PRESS COMPLEX, AGRA-BOMBAY ROAD,
INDORE-452 008

9 NUCLEAR POWER CORPORATION OF INDIA LIMITED
09-N-33, VIKRAM SARABHAI BHAVAN,
ANUSHAKTINAGAR
MUMBAI-400094

…...**Respondents**

For Petitioner:

ShriVivek Kumar Singh, PGCIL
Shri S. K. Venkatesan, PGCIL
Shri S. S. Raju, PGCIL
Shri V. P. Rastogi, PGCIL
ShriRakesh Prasad, PGCIL
Shri B. Dash, PGCIL
ShriPankaj Sharma, PGCIL

For Respondents: Shri Narender Hooda, Senior Advocate, NPCIL
Shri Sandeep Sarwate, NPCIL
Shri Rajeev Kumar Gupta, MPPMCL

ORDER

The present petition has been filed by the petitioner, Power Grid Corporation of India Ltd. ("PGCIL") seeking approval of transmission tariff for 400 kV D/C Kakrapar APP-Navsari transmission line along with associated bays at Navsari GIS & 400 kV D/C Kakrapar APP-Vapi transmission line along with associated bays at Vapi S/S 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 “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, the completion cost for the assets covered under instant Petition is within the overall project cost.

(iv) 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.

(v) 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.

(vi) 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.

(vii) 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.

(viii) 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.

(ix) Allow provisional tariff in accordance with clause: 7 (i) of Regulation: 7 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014.

(x) Allow the petitioner to bill Tariff from actual DOCO and also the petitioner may be allowed to submit revised Management Certificate and Tariff Forms (as per the Relevant Regulation) based on actual DOCO.

(xi) Allow reimbursement of any tax Payable by the petitioner on account of implementation of GST.

3. The Investment Approval (IA) for implementation of "transmission system associated with Kakrapar Atomic Power project 3&4 in Western Region" was accorded by the Board of Directors of the petitioner ON 26.02.2014 vide the Memorandum No. C/ CP/ Investment/KAPP 3&4 dated 04.03.2014 with an estimated cost of ₹ 378.71 Crore including Interest during Construction of ₹ 24.25 Crore based on December 2013 price level.

4. The scope of work covered under transmission system associated with kakrapar atomic power project 3&4 is as follows:

A. <u>Transmission line:</u>

I. Kakrapar APP-Navsari 400 kV D/C line
II. Kakrapar APP-Vapi 400 kV D/C line

B. <u>Substation</u>

I. Extension of 400/220 kV Navsari GIS substation.
II. Extension of 400/220 kV Vapi substation

The entire scope of the subject project is covered in the instant petition.

5. Transmission Charges was granted for assets under instant petition vide order dated 05.04.2018 under the first proviso to Regulation 7(7) of the 2014 Tariff Regulations, for inclusion in the PoC charges. It was directed that the transmission charges allowed for the instant assets shall be considered in the PoC charges from the date of actual COD of the associated bays at Kakrapar Switchyard and start of flow of power through the lines. NPCIL, vide its affidavit dated 23.07.2018 has submitted that the 400kV associated bays at Kakrapar Switchyard were operational w.e.f. 29.06.2017 and in service since then.

6. Vide Affidavit dated 09.03.2018, the petitioner has submitted the Auditor certificate and revised tariff forms based on actual DOCO. Vide Affidavit dated 21.08.2018, the petitioner has submitted Form-4A, Form-5B and Form 5 based on actual DOCO. Further, the petitioner has submitted the details sought vide our ROP dated 28.08.2018.

7. The details of the transmission charges claimed by the petitioner are as under:-

(₹ in lakh)

Particulars	**Asset**	
	2017-18	**2018-19**
Depreciation	1153.19	1628.71
Interest on Loan	1231.68	1619.52
Return on Equity	1283.95	1813.42
Interest on Working Capital	97.05	133.69
O&MExpenses	326.47	446.45
Total	**4092.34**	**5641.79**

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

(₹ in lakh)

Particulars	2017-18	2018-19
Maintenance Spares	36.01	37.20
O&M expenses	64.81	66.97
Receivables	902.72	940.30
Total	1003.54	1044.47
Interest	97.05	133.69
Rate of Interest	12.80%	12.80%

9. The petitioner has served the petition to the respondents and notice of this application has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. 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 has filed a reply vide affidavit dated 18.08.2017. In response, the Petitioner has filed its rejoinder vide affidavit dated 11.09.2017. The issues raised by the MPPMCL and the clarifications given by the Petitioner are addressed in the relevant paragraphs of this order.

10. This order has been issued after considering the respondent's and petitioner's affidavits dated 06.07.2017, 18/08/2017, 11.09.2017, 09.03.2018, 18.04.2018, 23.07.2018, 21.08.2018 and 05.09.2018.

11. Having heard the representatives of the petitioner present at the hearing and perused the material on record, we proceed to dispose of the petition.

12. **Date of Commercial Operation ("COD")**

i) Initially, the petitioner had claimed the anticipated COD of the instant asset as 30.04.2017. The petitioner, vide affidavit dated 09.03.2018, has submitted that the actual COD of the instant asset was 29.06.2017. The petitioner has also submitted the certificate of RLDC as per the 2014 Tariff Regulations, certificate of CEA under Regulation 43 of CEA (Measures Related to Safety and Electric Supply) Regulations, 2010 as well as certificate of CMD as required under the Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010.

ii) We have considered the submissions of the petitioner and have also gone through the certificate of CMD and the certificates issued by RLDC and CEA. On the basis of the submissions of the petitioner supported by documentary evidence, we approve the COD of subject asset as 29.06.2017 for the purpose of tariff calculation.

13. <u>Time over-run</u>

a) As per the investment approval, the schedule completion is within 32 months progressively from the date of approval of Board of Directors. The date of BoD approval is 26.02.2014. Hence, the commissioning schedule comes to 26.10.2016. Thus there is time over-run of 8 months and 3 days in COD of instant asset.

b) The reasons for delay submitted by the petitioner are as under:

i. As per Zero Date agreement dated 21.2.2014 (Annexure-II as in main petition to agreement for Indemnification signed on 13.12.2004 between NPCIL and POWERGRID) the scheduled commissioning of Unit 3

(700MW) of Kakrapar Atomic Power Plant is October 2016 and Unit 4 (700MW) thereafter. The scheduled commissioning of the ATS for KAPP 3&4 to be implemented by POWERGRID is October 2016. It was agreed that the Zero Date shall be 1.11.2016 for the purpose of indemnification of NPCIL or POWERGRID as the case may be, in line with clause 2 of the agreement for Indemnification dated 13.12.2004.

ii. The petitioner has stated that there was a keen emphasis on matching the commissioning of transmission system with that of the Generation units. Matching with the commissioning of Generation unit was even more significant in case of subject assets since these lines are part of Associated Transmission system and are evacuation lines. The intent has been to be able to make available the service while optimizing the investments. As per Zero date agreement dated 21.2.2014, the scheduled commissioning of Unit 3 (700MW) of Kakrapar Atomic Power Plant is October 2016 and Unit 4 (700MW) thereafter. The petitioner has accordingly placed awards on agencies to meet the above completion schedule.

iii. In the 31st WRPC meeting held on 30.3.2016 and 31.3.2016 at Raipur, NPCIL representative stated that KAPP is examining and assessing the situation of both the units. Only after assessing the situation fully, KAPP would be able to tell the program of commissioning of units. Managing Secretary, WRPC informed that at least approximate date by when the units are going to come should be available. GM WRLDC informed that in the next quarter PoC calculations KAPP generation has been considered and this may require modification. NPCIL representative agreed to give the details after collecting the field position at KAPP. Subsequently, vide letter dated 10.5.2016, ACE(Transmission), NPCIL informed, that 1st unit of Kakrapar generation is expected to be commissioned by November, 2017. Further, Petitioner continued its coordination efforts with NPCIL in order to match the commissioning of transmission lines with that of Generation units.

iv. In a meeting in Mumbai on 12.10.2016, POWERGRID informed NPCIL that the subject assets are targeted for completion by Oct'16 and suggested NPCIL to expedite the associated bays at KAPP 3&4. Further, NPCIL requested POWERGRID for procurement and installation of some equipment on behalf of NPCIL on deposit basis. POWERGRID informed that procurement time required for material is about 3 months from date of signing of MoU and deposition of amount by NPCIL. Accordingly, earliest commissioning dates comes out to be Feb'17.

v. It is also submitted that the delay in commissioning of subject assets w.r.t. Investment Approval is on account of delay in commissioning of associated Generating Station i.e. KAPP 3&4. The Petitioner had commenced the work of Transmission lines keeping in view the parallel time lines of the Generation. With the subsequent shift/delay in generation project, the petitioner had to slow down the work resulting in delay in commissioning of subject assets from the scheduled COD as per IA. However, it was not feasible to delay the petitioner's project to this extent as these time extensions would mean obvious implications for the petitioner which would have a bearing on the project cost. The Petitioner was constrained to complete the construction activity and subject assets are being commissioned.

vi. Since both 400kV D/C Kakrapar-Navsari TL and 400kV D/C Kakrapar-Vapi TL were expected to be charged in Jan/Feb-17, the issue of utilization of lines was discussed in 41st SCM of Power System Planning of Western Region held on 21.12.2016 in New Delhi. It was agreed that both the lines shall be connected through Kakrapar bays thereby enhancing the reliability of power supply in south Gujarat.

vii. Further, in a meeting dated 12.1.2017, during the joint visit of POWERGRID, GETCO and NPCIL to the Kakrapar switchyard, it was observed that charging of the Vapi – Kakrapar (KAPP) - Navsari 400 kV line would require some modification in switchyard stringing at Kakrapar (KAPP), which NPCIL would take up only after concurrence of their designer. Considering the time involved in modification, NPCIL agreed to complete the generation switchyard by 30.4.2017. In the meeting, it was agreed that charging of Vapi – Kakrapar (KAPP) - Navsari 400 kV D/C line (using Kakrapar generation switchyard) could be taken up as system strengthening by POWERGRID after commissioning of the lines and switchyard bays at Kakrapar. Therefore, in line of proceedings of 41st SCM, Vapi – Kakrapar - Navsari transmission line was anticipated to be declared under commercial operation on 30.04.2017 using the bays at Kakrapar as system strengthening scheme.

viii. Petitioner has further submitted that 400kV KAPP-Vapi Ckt 1 and 2 have been charged (Anti-theft charging) on 1.1.2017 and 18.1.2017 respectively and 400kV Kakrapar- Navsari Ckt 1 and 2 have been charged (Anti-theft charging) on 20.3.2017 with a marginal delay of 2-4 months. The WRLDC and CEA certificate for antitheft charging for instant assets has been submitted in main petition. However, in absence of associated Generation, subject assets were anticipated to be put under commercial operation by 30.4.2017 as System Strengthening Scheme as agreed in 41st SCM and detailed below.

ix. Based on information furnished by NPCIL in 31st Standing Committee Meeting the commissioning schedule of Unit 3 was Dec 2015 and Unit 4 was June-2016. Looking into the criticalities in the ROW for lines in future, it was agreed in 38th Standing Committee Meeting dated 17.7.2015, and discussed in 30th WRPC meeting dated 24.11.2015 to implement 400kV D/C KAPP-Navsari and 400kV D/C KAPP-Vapi transmission lines on multi-circuit towers at Navsari and Vapi. Accordingly, 3.24 kM stretch inclusive of 10 towers for 400kV D/C Kakrapar - Navsari TL and 0.831 kM stretch inclusive of 3 Towers for 400kV D/C Kakrapar - Vapi TL has been implemented on multi circuit towers. Also, there is delay in commissioning of subject assets due to delay in Forest clearance in some areas. The chronology of events as regards delay on account of forest clearance is furnished below:

Dates	Activity	Remarks
1.5.2014	Letter to DCF, Valsad for Forest Clearance	
	3 forest divisions involved viz. Surat, Valsad and Navasari and four Districts involved.	
27.6.2014	Letter to the Collector, Surat and Valsad for Forest Clearance	
26.7.2014	Letter to the Collector, Navsari and Valsad for Forest Clearance	
26.7.2014, 12.8.2014	Proposal for all the divisions submitted	
i.27.6.14 ii. 29.6.14 iii. 10.7.14 iv. 26.7.14	Request for FRA certificate submitted to respective DCs on: i. DC, Surat: ii.DC, Tapi: iii.DC, Valsad: iv.DC, Navasari:	
26.7.14	Proposal for 2.3 ha was uploaded online.	Necessitated due to MoEF Circular dated 24.7.14 regarding online submission and insistence of State Govt. for compliance of the same.
17.9.2014	Letter to DCF, Surat to expedite Forest clearance Approval	
23.9.14	Nodal Officer raised certain queries	This activity has taken almost 57 days against the prescribed timeline of 10 days as per MoEF Notification dated 14.3.14
25.9.14	Letter to DCF, Navsari to expedite Forest clearance Approval	
	Valsad Division	
	Based on Jt. verification with forest officials, the area in Valsad division was reduced from 0.414 ha to 0.276 ha.	
12.6.15	Certificate under FRA 2006 was issued by DC, Valsad for 0.276 ha.	FRA Certificate was issued after 11 months.
19.10.2015	Letter to Nodal officer to expedite approval of Forest Clearance	
15.12.15	Site Inspection by DCF, Valsaddone	DCF, Valsad inspection was done in Dec'15 which led to delay in formulation of proposal at DCF level.
16.12.15	Proposal forwarded to CF	This activity has taken more than 1 year against the prescribed timeline of 30 days as per MoEF

		Notification.
	Navasari Division	
20.5.15	Site Inspection by DCF, Navasari	
19.12.15	Proposal forwarded to CF	This activity has taken more than 1 year against the prescribed timeline of 30 days as per MoEF Notification.
	Surat Division	
22.9.15	Site Inspection by DCF, Surat	
16.11.15	Proposal forwarded to CF	This activity has taken more than 1 year against the prescribed timeline of 30 days as per MoEF Notification.
26.8.15	CA scheme prepared by DCF, Surat and DCF inspection of identified CA land was done.	
30.9.15	CA Scheme approved by CCF, Surat.	
19.1.16	Proposal forwarded to Nodal Officer	Submission of combined proposal for a State, mandated by MoEF circular dated 7.1.13.
20.2.16	Proposal forwarded to State Govt.	This activity has taken more than 30 days against the prescribed timeline of 10 days as per MoEF Notification.
22.3.16	Proposal forwarded to RMoEFCC, Bhopal.	
12.5.16	RMoEFCC raised certain queries	
25.5.16	Letter to the Collector, Surat and Navsari to issue FRA certificate in new format	
17.6.16	Certificate under FRA 2006 was issued by DC, Navasari for 0.483 ha.	The DC certificates under FRA 2006 were issued after considerable delay. However, it may be pertinent to mention that POWERGRID was able to convince State Forest Deptt to process the proposal parallely along with processing of FRA Certificate. FRA Certificates were issued after substantial delay of 23 months against the prescribed timeline of 30 days as per MoEF
8.6.16	Certificate under FRA 2006 was issued by DC, Tapi for 1.334 ha.	
26.6.16	Certificate under FRA 2006 was issued by DC, Surat for 0.069 ha.	

		Notification.
2.8.16	Clarifications have been forwarded to State Govt.	
29.8.16	Clarifications forwarded to RMoEFCC	
28.11.16	Stage-I issued by RMoEFCC	This activity has taken almost 90 days (after submission of clarifications) against the prescribed timeline of 35 days as per MoEF Notification.
20.12.16	Demand note for monetary compliance of Stage-I approval was issued and payment deposited for issuance of working permission.	Working Permission Granted.

x. Petitioner has further submitted that from above, it may be seen that process of issuance of Stage-I approval has taken 851 days against timeline of 175 days prescribed by MoEF i.e. with a delay of 22 months in spite of best efforts and constant follow up by powergrid which was beyond its control. Though the forest clearance approval was received with a delay of 22 months, because of proper planning and best efforts of the petitioner, 400kV KAPP-Vapi Ckt 1 and 2 have charged (Anti-theft charging) on 1.1.2017 and 18.1.2017 respectively and 400kV Kakrapar-Navsari Ckt 1 and 2 have been charged (Anti-theft charging) on 20.3.2017 with a marginal delay of 2-4 months. However, in absence of associated Generation system, subject assets were put under commercial operation on 29.06.2017 as System Strengthening Scheme as agreed in 41st SCM. Hence, commission is requested to condone the entire delay and allow the transmission tariff as claimed under instant petition.

c) Respondent no. 1, MPPMCL vide affidavit dated 18.8.2017 has submitted that point of connection charges shall be borne by the generator for the delay and shall not be made recoverable from respondent. Further, it is also submitted that the meeting which was held on 12.1.2017 between petitioner, GETCO and NPCIL after 3 months of SCOD of 26.10.2016, should have been held earlier. Condoning such delay will create obvious financial burden on beneficiary and therefore should not be allowed at all. It is also submitted that the competent authority of the petitioner is revising the schedule as per the convenience of generator and/or on their own wish and it seems that the petitioner is covering up the mistakes in the name of generator by revising the schedule and therefore Commission may disallow the time overrun as well as IDC and IEDC claimed by the petitioner. Further, it is submitted that petitioner should have completed works of T/L as per schedule and should have made only theft charging at the cost of generator and instead the petitioner is taking plea that since generator was not ready the implementation schedule was delayed even without taking prior consent of beneficiaries. It is also submitted that petitioner has also failed to submit the statutory documents of CPM Analysis and PERT Chart in support of their claim for condonation of time overrun to establish why the work of the area has been affected and has not been completed on time. It shows that petitioner is not taking this issue seriously and also has not been able to indicate a timeline for completion of project. It cannot be left to the sweet will of petitioner to complete the project and to claim charges due to delay and therefore such claim should be rejected.

d) In Response, the petitioner has filed its rejoinder vide affidavit dated 11.9.2017 and submitted that the detailed justification of delay in commissioning of subject asset along with supporting documents has already been furnished at page 9-13 in main petition. Further, it is also submitted that it has already been clarified in the petition that the reasons of delay were beyond the control of the petitioner. Furthermore, the petitioner has made best efforts that, in absence of associated generation system, the assets do not stay unutilized, but are used to improve the stability and reliability of the power system as agreed in the 41st SCM on power system planning in WR. Further, the PERT Chart and CPM analysis have already been submitted at page 42 of the subject petition and since the delay is beyond the control of the petitioner, it has prayed to condone the entire delay of 8 months and allow full cost tariff as claimed in instant petition.

e) The Commission vide order dated 5.4.2018 directed petitioner to submit the details of reason for the assets covered in the instant petition for time overrun and chronology of the time over-run along with documentary evidence. In response, petitioner vide affidavit dated 18.4.2018 has submitted required details.

f) We have considered the submissions of the petitioner and respondents. As per the investment approval, the schedule completion is within 32 months progressively from the date of approval of Board of Directors (BODs). The date of BoD approval is 26.2.2014. Hence, the commissioning schedule comes to 26.10.2016 against which the petitioner has claimed actual COD as 29.6.2017. Hence, based on actual COD there is a delay of 8 months 3 days. As per agreement signed between Powergrid and NPCIL dated 13.12.2004, Kakrapar Atomic Power Plant (KAPP-3&4; 2X700MW) was scheduled to be implemented by NPCIL and the components of associated transmission system (ATS) for KAPP-3&4 was to be implemented by Powergrid. NPCIL vide its letter dated 10.5.2016 intimated Powergrid that KAPP-3 is scheduled to be commissioned by

Nov'2017 and KAPP-4 to be commissioned thereafter. As per 41st SCM held on 21.12.2016, it was agreed that charging of Vapi-Kakrapar (KAPP)-Navsari 400kV D/C line (using Kakrapar generation switchyard) could be taken up by Powergrid after commissioning of the lines and switchyard bays at Kakrapar. Further, looking into the criticalities in the ROW for lines in future, it was agreed in 38th Standing Committee Meeting dated 17.7.2015, and discussed in 30th WRPC meeting dated 24.11.2015 to implement 400kV D/C KAPP-Navsari and 400kV D/C KAPP-Vapi transmission lines on multi-circuit towers at Navsari and Vapi. Accordingly, 3.24 kM stretch inclusive of 10 towers for 400kV D/C Kakrapar-Navsari TL and 0.831 kM stretch inclusive of 3 Towers for 400kV D/C Kakrapar-Vapi TL was implemented on multi circuit towers. From the activity-wise details submitted by the petitioner vide affidavit dated 18.4.2018, it is observed as under:

S.no.	Activity	Envisaged		Actual time taken		Additional time consumed	Remarks
		From -to	Period	From -to	Period		
1	LOA	31.3.2014 to 30.4.2014	31 days	19.5.2014 to 16.3.2016	21 months 27 days	22 months 15 days	LOA was envisaged to be completed by 30.4.2014 however, it was completed on 16.3.2016. Thus, it took 21 months and 27 days beyond the envisaged date of completion.
2	Forest Clearance	1.8.2014 to 25.9.2015	13 months 25 days	1.5.2014 to 7.2.2017	33 months 7 days	16 months 14 days	Forest clearance was envisaged to be completed by 25.9.2015 however, it was completed on 7.2.2017. Thus, it took 16 months and 14 days beyond the envisaged date of completion.
3	RoW Issues	-	-	-	_	_	_
4	Material Supply	1.7.2014 to 27.7.2016	24 months 27 days	19.5.2014 to 1.2.2017	32 months 14 days	6 months 6 days	Material supply was envisaged to be completed by 27.7.2016 however, it was completed on 1.2.2017 Thus, it took 6 months and 6 days beyond the envisaged completion.
5	Foundation	2.9.2014 to 30.5.2016	20 months 29 days	25.5.2014 to 5.2.2017	32 months 12 days	8 months 7 days	Foundation was envisaged to be completed by 30.5.2016 however, it was completed on 5.2.2017. Thus, it took 8 months and 7 days beyond the envisaged completion.

6	Tower Erection	4.11.2014 to 1.8.2016	20 months 29 days	10.6.2014 to 13.2.2017	32 months 4 days	6 months 13 days	Tower erection was envisaged to be completed by 1.8.2016 however, it was completed on 13.2.2017. Thus, it took 6 months and 13 days beyond the envisaged completion.
7	Stringing	2.1.2015 to 29.9.2016	20 months 27 days	1.11.2015 to 20.2.2107	15 months 20 days	4 months 23 days	Stringing was envisaged to be completed by 29.9.2016 however, it was completed on 20.2.2017. Thus, it took 4 months and 23 days beyond the envisaged completion.
8	Transmission Line	30.9.2016 to 25.10.2016	26 days	25.3.2017 to 29.6.2017	3 months 5 days	8 months 5 days	Transmission line was envisaged to be completed by 25.10.2016 however, it was completed on 29.6.2017. Thus, it took 8 months and 5 days beyond the envisaged completion.
9	Sub-station Works	22.9.2016 to 25.10.2016	1 month 4 days	20.3.2017 to 29.6.2017	3 months 10 days	8 months 5 days	Sub-station works was envisaged to be completed by 25.10.2016 however, it was completed on 29.6.2017. Thus, it took 8 months and 5 days beyond the envisaged completion.

g) Based on above submissions, it is observed just after investment approval dated 26.2.2014, within 2-3 months, petitioner approached for forest clearance and started activity for LOA that was envisaged to be completed by 30.4.2014. However, it was completed on 16.3.2016. Thus, it took 21 months and 27 days beyond the envisaged date. Similarly, forest clearance was envisaged to be completed by 25.9.2015. However, it was accorded by forest authorities on 7.2.2017. Thus, it took 16 months and 14 days beyond the envisaged date. Thus, overall time overrun of 8 months 3 days is less than the delay due to forest clearance. Hence, the delay of 8 months 3 days is not attributable to the petitioner as it is within the overall delay in obtaining forest clearance and accordingly, total delay of 8 months 3 days is condoned

14. Capital Cost

i) This has been dealt in line with Clause (1) and (2) of Regulation 9 of the 2014 Tariff Regulations.

ii) The details of apportioned approved cost, capital cost as on COD and incurred/projected additional capital expenditure and the estimated completion cost of the instant assets as per Auditor Certificate dated 24.02.2018 are as follows:-

(₹ in lakh)

Apportioned Approved Cost (FR)	Exp. Up to DOCO	Projected Exp. for FY			Estimated Completion Cost
		2017-18	2018-19	2019-20	
37871.21	29811.92	1637.60	478.45	78.25	32006.22

iii) The capital cost mentioned in Auditor certificate is derived as per books of account but the liability details are not mentioned in the certificate. It creates difficulties in reconciliation with the cost and liability given in Form 4A and Form 5. Therefore liability amount mentioned in tariff forms are relied upon to determine the allowable cost. The petitioner is directed to submit the asset wise Auditor certificate by clearly mentioning the liability amount and whether the certified cost is inclusive of liability or exclusive of liability at the time of true up of 2014-19 petition.

15. Cost Variation

We have considered the submission of the petitioner. Against the total approved cost of ₹ 37871.21 lakh, the actual cost as on COD is ₹ 29811.92 lakh and the completion capital cost is ₹ 32006.22 lakh. Hence, there is no cost overrun in the project as per FR cost. However, there is a cost under-run of ₹ 5864.99 lakh (-

15.48%). Petitioner has further submitted that main reasons of decrease in Completion cost with respect to FR cost is decrease in line length from 161 Km to 155 Km based on detailed survey. Detailed reasons of cost variation are furnished below:

a) **Preliminary Investigation, Right of way, forest clearance, PTCC, general civil works etc. (Decrease of ₹ 573 lakh):** Actual forest compensation including afforestation and other charges has decreased as per the assessment done by Revenue authorities as compared to estimated FR cost.

b) **Tower Steel (decrease of ₹ 1134 lakh) –**

  i. For KAPP - Vapi TL, quantity of tower steel has decreased as the no. of Tension towers decreased from 145 to 93 and Suspension Towers increased from 191 to 230 w.r.t. FR. Also, the no. of Multi Circuit Towers decreased from 9 to 3 w.r.t. FR.

  ii. For KAPP - Navsari TL, actual qty of tower steel has increased as the no. of Multi Circuit towers has increased from 0 to 10 w.r.t. FR. However, overall actual quantity of tower steel has decreased due to decrease in line length and decrease in no. of tension towers as per FR resulting in cost under-run of ₹1134 lakh.

c) **Erection, Stringing & Civil works including foundation (decrease of ₹ 2743 lakh):** The cost decreased due to decrease in line length and lower awarded rates received in competitive bidding.

d) **Hardware Fittings, Conductor & Earth wire accessories (decrease of ₹ 268 lakh):** The cost decreased due to decrease in line length and lower awarded rates received in competitive bidding.

e) **Conductor (decrease of ₹ 695 lakh):** Cost has decreased due to decrease in line length and lower price received in competitive bidding.

Based on the submissions above, it is observed that the cost variation is mainly on account of variation in bill of quantity and awarded price in comparison to estimate and the same has resulted in the reduction in capital cost. Accordingly the reduced cost is considered for the grant of tariff.

16. Interest During Construction (IDC)

i) The petitioner has claimed IDC of ₹2496.15 lakh for the instant asset and has submitted the Auditor's certificate dated 24.02.2018 in support of the same. The petitioner has submitted IDC computation statement which consist of the name of the loan, Drawl date loan amount, interest rate and Interest claimed. The IDC worked out based on the details given in the IDC statement. Further the Loan amount as on COD has been mentioned in Form 6 and Form 9C. While going through these documents certain discrepancies have been observed such as mismatch in loan amount between IDC statement and in forms, floating rate of interest details of SBI etc. The allowable IDC has been worked out based on the available information and relying on loan amount as per tariff forms. However the petitioner is directed to submit the detailed IDC statement by rectifying the above mentioned deviations, at the time of true up of 2014-19.

ii) Details of allowed IDC which is subject to true up are shown below

(₹ in lakh)

IDC claimed as per Auditor certificate dated 24.02.2018	IDC Disallowed as on COD due to computation difference	IDC Allowed	IDC Allowed on cash basis as on COD	Un-discharged IDC liability as on COD	Discharge of IDC liability allowed as Add. Cap.	
					2017-18	2018-19
1	2	3=(1-2)	4	5=(3-4)	6	7
2496.15	23.66	2472.49	734.16	1738.33	33.83	1704.50

17. <u>Incidental Expenditure During Construction (IEDC)</u>

The petitioner has claimed IEDC of ₹ 491.48 lakh in respect of instant asset. The claimed IEDC as on COD is within the percentage on hard cost as indicated in the abstract cost estimate. In the instant petition, 10.75% of hard cost is indicated as IEDC in the abstract cost estimate. The petitioner has submitted that the entire IEDC has been discharged as on COD. Therefore, IEDC of ₹ 491.48 lakhs is being considered for determination of tariff in respect of instant asset.

18. <u>Initial spares</u>

a) This has been dealt with in line with Regulation 13 of the 2014 Tariff Regulations. The petitioner has claimed ₹ 294.49 lakh and ₹ 296.45 lakh pertaining to substation and transmission line respectively for instant asset. Further, Petitioner vide affidavit dated 21.08.2018 has submitted the details of year-wise discharge of initial spare.

b) The initial spare has been worked out as per tariff regulation 2014.The allowable and excess initial spares for the asset covered in the instant petition are given below:-

(₹ in lakh)

Element	**Cost as on Cut-off date**	**Initial spares claimed**	**Ceiling Limit as per 2014 Tariff Regulations**	**Initial Spares worked out as per CERC norms**	**Excess Initial Spares**
Substation	5256.49	294.49	5.00%	261.16	33.33
Transmission line	23697.59	296.45	1.00%	236.38	60.07

c) The excess initial spare has been adjusted from COD cost and from respective additional capital expenditure based on its discharge pattern.

Period	Sub Station			Transmission line		
	Claimed	Allowed	Excess	Claimed	Allowed	Excess
As on DOCO	278.97	261.16	17.81	205.62	205.62	0.00
2017-18	15.52	0.00	15.52	78.00	30.76	47.24
2018-19	0.00	0.00	0.00	12.83	0.00	12.83
Total	**294.49**	**261.16**	**33.33**	**296.45**	**236.38**	**60.07**

19. Capital Cost allowed as on COD

Based on the above, the capital cost allowed as on COD under Regulation 9 (2) of the 2014 Tariff Regulations is summarized as under:-

(₹in lakh)

Capital Cost claimed as on COD (A)	**IDC Dis-Allowed as on COD due to computation difference (B)**	**Un-discharged IDC liability (C)**	**Excess Initial Spares disallowed as on COD (C)**	**Capital Cost as on COD considered for tariff calculation (D)=A-B-C**
29811.92	23.66	1738.33	17.81	28032.12

20. Additional Capital Expenditure (ACE)

i) The cut-off date for the instant assets is 31.3.2020 as per Clause (13) of Regulation 3 of CERC Tariff Regulations 2014.

ii) The claim of additional capital expenditure has been dealt in accordance with Regulation 14. The petitioner has claimed ACE as per Auditor certificate dated 24.02.2018. In addition, the petitioner has also claimed the discharge of IDC liability for 2017-18 and 2018-19 in respect of instant asset as ACE. These ACE are claimed under Regulation 14(1)(i) towards un-discharge liability and 14(1)(ii) towards work deferred for execution. The ACE claimed by the petitioneras per Form 7 is summarized in the table below:-

(₹ in lakh)

Additional Capital expenditure claimed for Asset I (Auditor's Cert.+Form7)			
Particulars	Regulation	2017-18 (DOCO to 31.03.2018)	2018-19
1. Discharge of liabilities on Hard cost	14(1)(i)	1637.60	212.04
2. Add cap towards works deferred for execution (by addition into gross block)	14(1)(ii)	0.00	266.41
3. Total add-cap as per Auditor Certificate (excluding IDC liability)(1+2)		1637.60	478.45
4. Discharge of IDC Liability	14(1)(i)	33.83	1728.16
5. Total **add-cap claimed as per Form 7 (3+4)**		**1671.43**	**2206.61**

iii) The ACE claimed towards balance and retention payment and the addition to gross block are allowed. The entitled un-discharged IDC liability as on COD has been allowed as ACE during the year of its discharge. The allowed Additional Capital expenditure are summarized below which is subject to true up.

(₹ in lakh)

Additional Capital expenditure Allowed for Asset I			
Particulars	Regulation	**2017-18**	**2018-19**
1. Discharge of liabilities on Hard cost	14(1)(i)	1637.60	212.04
2. Add cap towards works deferred for execution (by addition into gross block)	14(1)(ii)	0.00	266.41
3. Discharge of IDC Liability	14(1)(i)	33.83	1704.50
4. Total add-cap allowed (1+2+3)		1671.43	2182.95
5. Less: Excess Initial Spare		62.76	12.83
6. Total Add. Cap Allowed for tariff (4-5)		**1608.67**	**2170.12**

21. Capital Cost summary from COD to 31.3.2019

The capital cost considered for the purpose of computation of tariff is as follows:-

(₹ in lakh)

Capital cost allowed as COD	**Additional Capitalisation**		**Total Estimated Completion Cost up to 31.3.2020**
	2017-18	**2018-19**	
28032.12	1608.67	2170.12	31810.90

22. Debt-Equity Ratio

Debt: Equity Ratio is considered as per Regulation 19 of the 2014 tariff Regulations. The financial package up to COD as submitted in form 6 has been considered to determine the debt equity Ratio. The capital cost allowed as on the date of commercial operation arrived at as above and additional capitalization allowed have been considered in the debt-equity ratio of 70:30. The details of debt-equity as on dates of commercial operation and 31.3.2019 considered on normative basis are as under:-

(₹ inlakh)

Particular	**Capital cost as on COD**		**Capital cost as on 31.3.2019**	
	Amount	**%**	**Amount**	**%**
Debt	19622.48	70.00%	22267.63	70.00%
Equity	8409.64	30.00%	9543.27	30.00%
Total	**28032.12**	100.00%	**31810.90**	100.00%

23. Return on Equity

i) The petitioner has submitted that RoE has been calculated at the rate of 19.610% after grossing up the RoE with MAT rate of 20.961% as per the above Regulations. The petitioner has further submitted that the grossed up RoE is subject to truing up based on the effective tax rate of respective financial year applicable to the petitioner company.

ii) We have considered the submissions made by the petitioner and respondent. 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:-

(₹inlakh)

Particulars	**2017-18 (pro-rata)**	**2018-19**
Opening Equity	8409.64	8892.23
Addition due to Additional Capitalization	482.60	651.04
Closing Equity	8892.23	9543.27
Average Equity	8650.94	9217.75
Return on Equity (Base Rate)	15.50%	15.50%
MAT rate for the Financial year 2013-14	20.961%	20.961%
Rate of Return on Equity (Pre-tax)	19.610%	19.610%
Return on Equity (Pre-tax)	**1282.79**	**1807.60**

24. <u>Interest on loan (IOL)</u>

i) The petitioner's entitlement to IoL has been calculated as per the provisions of Regulation 26 of the 2014 Tariff Regulations as detailed below:-

a) The Gross Normative loan has been considered as per the Loan amount determined based on the debt equity ratio applied on the allowed capital cost.

b) The depreciation of every year has been considered as Normative repayment of loan of concerned year;

c) The weighted average rate of interest on actual loan portfolio has been worked out by considering the Gross amount of loan, repayment & rate of interest as mentioned in the petition, which has been applied on the normative average loan during the year to arrive at the interest on loan.

ii) The petitioner has submitted that the IoL has been claimed on the basis of rate prevailing as on COD and the change in interest due to floating rate of interest applicable, if any, needs to be claimed/ adjusted over the tariff block 2014-19. We have calculated IoL on the basis of rate prevailing as on the date of commercial operation. Any change in rate of interest subsequent to the date of commercial operation will be considered at the time of truing-up.

iii) The details of IoL allowed are as under:-

(₹ in lakh)

Particulars	**Asset**	
	2017-18 (pro-rata)	**2018-19**
Gross Normative Loan	19622.48	20748.55
Cumulative Repayment up to previous Year	0.00	1152.16
Net Loan-Opening	19622.48	19596.39
Addition due to Additional Capitalization	1126.07	1519.08
Repayment during the year	1152.16	1623.50
Net Loan-Closing	19596.39	19491.98
Average Loan	19609.44	19544.18
Weighted Average Rate of Interest on Loan	8.2988%	8.2588%
Interest on Loan	**1230.54**	**1614.11**

25. Depreciation

i) The petitioner has claimed the actual depreciation as a component of annual fixed charges as per Regulation 27 of 2014 Tariff Regulations. The instant transmission asset was put under commercial operation on 29.06.2017. Accordingly, it will complete 12 years after 2018-19. As such, depreciation has been calculated annually based on Straight Line Method in accordance with Regulation 27 at the rates specified in Appendix-II to the 2014 Tariff Regulations.

ii) The details of the depreciation worked out are as under:-

(₹ in lakh)

Particulars	**Asset**	
	2017-18 (pro-rata)	**2018-19**
Opening Gross Block	28032.12	29640.78
Additional Capital expenditure	1608.67	2170.12
Closing Gross Block	29640.78	31810.90
Average Gross Block	28836.45	30725.84
Rate of Depreciation	5.2839%	5.2838%
Depreciable Value	25952.81	27653.26
Remaining Depreciable Value	25952.81	26501.10
Depreciation	**1152.16**	**1623.50**

26. Operation and Maintenance Expenses (O&M Expenses)

i) The O&M Expenses claimed by the petitioner based on actual COD 29.6.2017 vide affidavit dated 9.3.2018 is as under:

₹ in Lakh

Particulars	**2017-18**	**2018-19**
O&M Expenses	326.47	446.45

ii) Respondent no. 1, MPPMCL vide affidavit dated 18.8.2017 has submitted that that there is no provision in tariff regulation for revising the normative O&M

charges based on actual. The Commission has arrived at the O&M rates based on past five years actual O&M expenses which includes the wage hikes during the previous five years and 10% margin over and above the effective CAGR of O&M expenses has been allowed. The beneficiaries are over - burdened due to the exorbitant O&M rates when compared to the rates of State transmission utilities. Therefore, the request for revision of O&M rates should not be allowed.

iii) In Response, the petitioner has filed its rejoinder vide affidavit dated 11.9.2017 and submitted that the wage revision of the employees of the petitioner company is due w.e.f. 1.1.2017 and actual impact of wage hike which will be effective from a future date has also not been factored in fixation of the normative O&M rates prescribed for the tariff block 2014-19. Further, the scheme of wage revision applicable to CPUs being binding on the petitioner, the petitioner reserves the right to approach the Commission for suitable revision in the norms for O&M expenditure for claiming the impact of wage hike from 1.1.2017 onwards.

iv) We have considered the submissions submitted by both petitioner and respondents. 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. Accordingly, the O&M Expenses allowed are as under:

(₹ in Lakh)

Particulars	**2017-18**	**2018-19**
O&M Expenses	326.47	446.45

27. Interest on Working Capital ("IWC")

i) As per 2014 Tariff Regulations 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 28.

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 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014, 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.

ii) The interest on working capital allowed for the instant assets is shown in the table given below:-

(₹in lakh)

Particulars	**Asset**	
	2017-18 (pro-rata)	**2018-19**
Maintenance Spares	64.76	66.97
O & M expenses	35.98	37.20
Receivables	900.91	937.14
Total	1,001.65	1,041.32
Rate of Interest (%)	12.60%	12.60%
Interest	**95.43**	**131.21**

28. Annual Fixed Cost

In view of the above, the annual transmission charges being allowed for the instant assets are summarized hereunder:-

(₹in lakh)

Particulars	Asset	
	2017-18 (pro-rata)	2018-19
Depreciation	1152.16	1623.50
Interest on Loan	1230.54	1614.11
Return on Equity	1282.79	1807.60
Interest on Working Capital	95.43	131.21
O&MExpenses	326.47	446.45
Total	**4087.40**	**5622.86**

29. Filing fee and the publication expenses

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 shall be entitled for reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries on pro-rata basis in accordance with clause (1) of Regulation 52 of the 2014 Tariff Regulations.

30. License fee and RLDC Fees and Charges

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 licence fee and RLDC fees and charges in accordance with Clause (2)(b) and (2)(a) respectively of Regulation 52 of the 2014 Tariff Regulations.

31. Goods and Services Tax

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.

32. Sharing of Transmission Charges

The transmission charges allowed for the instant assets shall be considered in the PoC charges from the date of actual COD of the associated bays at Kakrapar Switchyard and start of flow of power through the lines. The associated bay at Kakrapar was available on COD of the asset covered in the instant petition. Accordingly, the transmission charges shall be governed by the provisions of Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations, 2010 as amended from time to time, as provided in Regulation 43 of the 2014 Tariff Regulations.

33. This order disposes of Petition No. 118/TT/2017.

-Sd-	-sd-	-sd-
(Dr. M. K. Iyer)	**(A.K. Singhal)**	**(P.K. Pujari)**
Member	**Member**	**Chairperson**