

THE CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

PETITION NO:

IN THE MATTER OF:

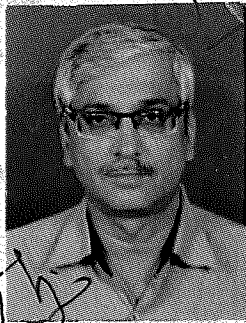
Petition under Section 62 and 79 (1) (b) of the Electricity Act, 2003 and read with Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2019 and Central Electricity Regulatory Commission (Procedure of making of application and other related matters) Regulations 2004 and amendment thereof for determination of generation Tariff of 1200 MW Dgen Mega Power Project of Torrent Power Limited, (hereinafter called "Petitioner" or 'the Generating Station' or "DGEN Plant") for the period 1st April 2019 to 31st March 2024 (hereinafter referred to as 'Tariff Period')

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INDIA NON JUDICIAL
Government of Gujarat

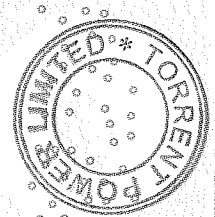


सत्यमेव जयते

Rs.
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Certificate of Stamp Duty

Certificate No. : IN-GJ28353869908904R
Certificate Issued Date : 17-Oct-2019 12:06 PM
Account Reference : IMPACC (SV)/ gj13000404/ SURAT2/ GJ-SU
Unique Doc. Reference : SUBIN-GJGJ1300040499158722084531R
Purchased by : TORRENT POWER LIMITED
Description of Document : Article 4 Affidavit
Description : FOR AFFIDAVIT
Consideration Price (Rs.) : 0
(Zero)
First Party : TORRENT POWER LIMITED
Second Party : NA
Stamp Duty Paid By : TORRENT POWER LIMITED
Stamp Duty Amount(Rs.) : 100
(One Hundred only)



Serial... 1797 of 30/19...
Date... 23 OCT 2019...

My Commission
Expires on 11-2-2024



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SR 0000746931

Statutory Alert:

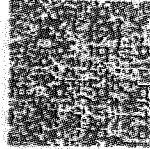
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भारत सरकार
GOVERNMENT OF INDIA



जोषी नरेश कलदीदास
Joshi Naresh Kalidas
जन्म तारीख/ DOB: 14/08/1967
पुरुष / MALE
2601 8523 1889



भारतीय विशिष्ट पहचान प्राधिकरण
UNIQUE IDENTIFICATION AUTHORITY OF INDIA

संरनामं :

पिता/माता/पति नाम: जोषी
कलदीदास शंकरदास सी/79,
इमंयाती नगर-1, सरस्वती
संगीत क्लबस पास, रानापार्क
घाटलोदीया, अहमदाबाद शहर,
अहमदाबाद,
गुजरात - 380061

Address:

S/O: Joshi Kalidas Shankerlal,
C/79, KARMACHARI NAGAR-1,
NR. SARASWATI SANGEET
CLASS, RANAPARK
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Serial 1797 19
Date 23 OCT 2019

My Commission
Expires on 11-2-2024

BEFORE THE HON'BLE CENTRAL ELECTRICITY REGULATORY
COMMISSION, NEW DELHI

PETITION NO.: _____

IN THE MATTER OF

Petition under Section 62 and 79 (1) (b) of the Electricity Act, 2003 and read with Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 ("Tariff Regulations 2019") and Central Electricity Regulatory Commission (Procedure of making of application and other related matters) Tariff Regulations, 2004 as amended thereof for approval of generation Tariff of 1200 MW DGEN MEGA POWER PROJECT of TORRENT POWER LIMITED (hereinafter called "Petitioner" or 'the Generating Station' or "DGEN Plant") for the period 1st April, 2019 to 31st March, 2024 (hereinafter referred to as 'Tariff Period').

AND IN THE MATTER OF

Petitioner

Torrent Power Limited,
[Unit:- 1200 MW Dgen Mega Power Project]
"Samanvay", 600, Tapovan, Ambavadi,
Ahmedabad, Gujarat – 380 015

Respondents

1. Torrent Power Limited-Distribution,
"Samanvay", 600, Tapovan, Ambavadi,
Ahmedabad, Gujarat – 380 015

2. Torrent Power Limited,
[Unit: Dahej Distribution]
Plot Z-21, Dahej SEZ Limited,
Tal. Vagra, Dist. Bharuch – 392130



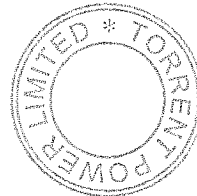
3. PTC India Limited
2nd Floor, NBCC Tower,
Bhikhaji Cama Place,
New Delhi – 110066

Affidavit verifying the submission:

I, Shri Naresh K Joshi, son of Shri Kalidas Joshi, aged 52 years, working in Torrent Power Limited having office at “Samanvay”, 600, Tapovan, Ambavadi, Ahmedabad, Gujarat – 380 015, do solemnly affirm and say that:-

- A. I am working as Vice President with Torrent Power Limited, the Petitioner Company in the above matter and am duly authorized to make this Affidavit.
- B. That the facts stated in the Petition are based on record and files of the Petitioner Company and they are true and correct to my knowledge, information and belief and I believe the same to be true.

Place: Surat *Joshi Naresh K*
Date: 23rd October, 2019



Naresh K Joshi

DEPONENT
For Torrent Power Limited



Authorised Signatory

Serial... 1797 of 19
Date... 23 OCT 2019
My Commission
Expires on 11-2-2024

VERIFICATION

I, Naresh K. Joshi solemnly affirm at Surat on this 23rd October, 2019 that the contents of the above Affidavit are true to my knowledge, no part of it is false and nothing material has been concealed there from.

For Torrent Power Limited


Authorised Signatory



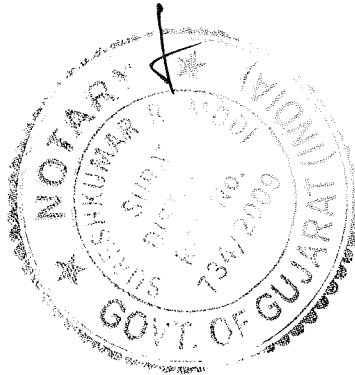
DEPONENT



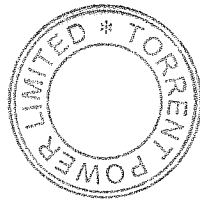
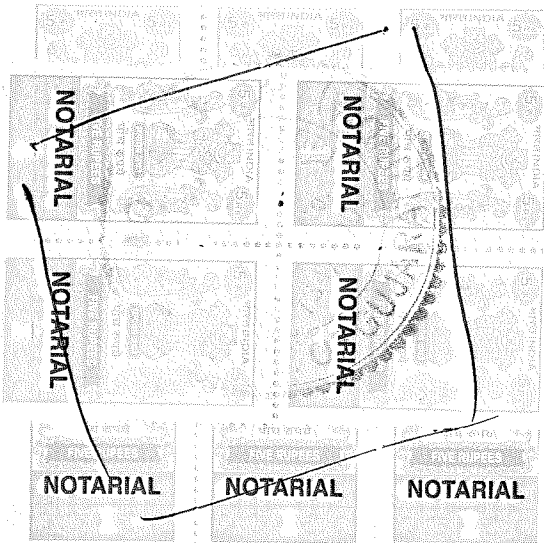
Solemnly affirmed
before me

 23/10/19

SH. ESTHONIA. P. MUR



Solemnly affirmed before me by Naresh K. Joshi with my signature as Notary before me by Wipkenson Aitel whom I personally know this 23rd Oct day of 2019



Serial	1797	19
Date	23 OCT 2019	
My Commission Expires on 11-2-2024		

BEFORE THE CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

PETITION NO: -----

IN THE MATTER OF:

Petition under Section 62 and 79 (1) (b) of the Electricity Act, 2003 and read with Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (“Tariff Regulations 2019”) and Central Electricity Regulatory Commission (Procedure of making of application and other related matters) Regulations 2004 as amended thereof for determination of generation Tariff of 1200 MW Dgen Mega Power Project of Torrent Power Limited, (hereinafter called “Petitioner” or ‘the **Generating Station**’ or “**DGEN Plant**”) for the period 1st April 2019 to 31st March 2024 (hereinafter referred to as ‘Tariff Period’)

AND

IN THE MATTER OF:

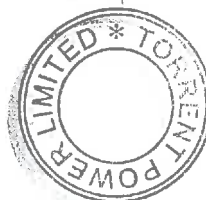
Petitioner:

Torrent Power Limited,
Unit: 1200 MW DGEN MEGA POWER PROJECT
“Samanvay”, 600, Tapovan, Ambavadi,
Ahmedabad, Gujarat – 380 015

Respondents:

1. Torrent Power Limited-Distribution,
“Samanvay”, 600, Tapovan, Ambavadi,
Ahmedabad, Gujarat – 380 015

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2. Torrent Power Limited,
[Unit: Dahej Distribution]
Plot Z-21,
Dahej SEZ Limited, Tal. Vagra,
Dist. Bharuch - 392130

3. PTC India Limited
2nd Floor, NBCC Tower,
Bikhaji Cama Place,
New Delhi – 110 066

The Petitioner files this Petition for determination of generation Tariff for the Tariff period in terms of provisions of CERC (Terms & Conditions of Tariff), Regulations, 2019.

THE PETITIONER MOST RESPECTFULLY SUBMITS THAT:

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CHAPTER 1: Historical Perspective

1. The Hon'ble Commission has notified the Central Electricity Regulatory Commission (Terms & Conditions of Tariff) Regulations, 2019 (hereinafter called "**Tariff Regulations 2019**") which has come into force from 1st April 2019.
2. Torrent Power Limited, (Hereinafter called the 'Petitioner') is submitting this Petition for determination of generation Tariff of 1200 MW Dgen Mega Power Project (hereinafter called "**Dgen Plant**" or "**Generating Station**") for the period 01.04.2019 to 31.03.2024 ("**Tariff Period**") as per provisions under Regulation 9(2) of Tariff Regulations, 2019.
3. Torrent Power Limited (hereinafter called "TPL") the Petitioner Company is a Public Limited Company within the meaning of the Companies Act, 2013 and carrying on the business of generation, transmission and distribution of power (in the cities of Ahmedabad, Gandhinagar, Surat, Dahej & Dholera in Gujarat, Bhiwandi, Shil, Mumbra & Kalwa area in Maharashtra and Agra in Uttar Pradesh) and manufacturing and supply of power cables. Further it is a "Generating Company" as defined under Section 2(28) of the Electricity Act 2003. The present thermal based generation capacity of TPL is around 3,152 MW including 2,730 MW of Gas based plants and 422 MW of Coal based plants. Further, the present renewable generation capacity, including under construction projects, of TPL is over 1,500 MW.
4. The Unit wise commercial operation date (hereinafter called "**COD**") of Dgen Plant is as below:

Table 1: Statement showing Unit wise COD

Unit 51	07/09/2014
Unit 52	12/09/2014
Unit 53	13/11/2014

5. The Tariff for the period from COD of block 51 (first block) to 31st March 2019 has been determined by the Hon'ble Commission vide its Tariff Order dated 31st

March, 2017 in Petition No. 281/GT/2015 (hereinafter called “**Tariff Order or Order**”).

6. The capital cost allowed by the Commission for the period COD of block 51 (first block) to 31st March 2019 vide Tariff Order under para 47 is as below:

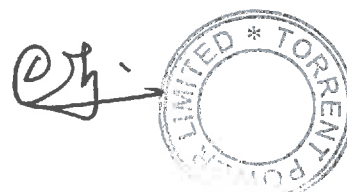
Table 2: Capital cost allowed for the period COD of block 51 (first block) to 31st March 2019 vide Tariff Order dated 31st March 2017 in Petition No. 281/GT/2015

Rs. In lakh

	2014-15			2015-16	2016-17	2017-18	2018-19
	7.9.2014 to 11.9.2014	12.9.2014 to 12.11.2014	13.11.2014 to 31.3.2015				
Opening Capital Cost	2,74,414.86	3,80,662.70	5,07,545.92	5,19,247.89	5,37,255.57	5,40,022.36	5,40,022.36
Add: Additional Capital Expenditure	0.00	0.00	11,701.97	18007.68	2766.79	0.00	0.00
Closing Capital Cost	2,74,414.86	3,80,662.70	5,19,247.89	5,37,255.57	5,40,022.36	5,40,022.36	5,40,022.36
Average Capital Cost	2,74,414.86	3,80,662.70	5,13,396.91	5,28,251.73	5,38,638.97	5,40,022.36	5,40,022.36

7. Regulation 9(2) of the under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter called **Tariff Regulations 2019**) states about Application for determination of tariff for the period 1st April 2019 to 31st March 2024, which is extracted as below:

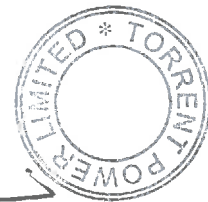
“(2) In case of an existing generating station or unit thereof, or transmission system or element thereof, the application shall be made by the generating company or the transmission licensee, as the case may be, by 31.10.2019, based on admitted capital cost including additional capital expenditure already admitted and incurred up to 31.3.2019 (either based on actual or projected additional capital expenditure) and estimated additional capital expenditure for the respective years of the tariff period 2019-24 along with the true up petition for the period



2014-19 in accordance with the CERC (Terms and Conditions of Tariff) Regulations, 2014.”

8. In terms of the above, the current Petition is filed for the determination of tariff for 1200 MW Dgen Mega Power Project for the period 01st April 2019 to 31st March 2024.

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CHAPTER 2: Capital Cost

1. Regulation 19 (1) of Tariff Regulations, 2019 provide that

“19. Capital Cost: (1) The Capital cost of the generating station or the transmission system, as the case may be, as determined by the Commission after prudence check in accordance with these regulations shall form the basis for determination of tariff for existing and new projects.”

Further, Regulation 19 (3) of Tariff Regulations, 2019 provide that

“(3) The Capital cost of an existing project shall include the following:

(a) Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;”

2. The Petitioner submits that the Hon’ble Commission has determined the capital cost for the period COD of block 51 (first block) to 31st March 2019 vide Tariff Order dated 31st March 2017 in Petition no. 281/GT/2015.
3. Further, the Petitioner has also filed Truing up Petition for the period COD of block 51 (first block) to 31st March 2019 based on actual additional capital expenditure incurred during COD of block 51 (first block) to 31st March 2019.
4. **Determination of Capital Cost as on 1st April 2019**
Petitioner has filed Truing up Petition for the period COD of block 51 (first block) to 31st March 2019 and following table shows the Project Capital Cost (PCC) as on 1st April 2019 as per True up Petition filed by petitioner.



A handwritten signature in black ink, appearing to be "O. J. S." or similar.

Table 3: Statement of Project Capital Cost as on 1st April 2019

	2014-15			2015-16	2016-17	2017-18	2018-19
	7.9.2014 to 11.9.2014	12.9.2014 to 12.11.2014	13.11.2014 to 31.3.2015				
Opening Capital Cost	2,75,876.44	3,81,567.29	5,19,964.57	5,32,931.24	5,44,702.11	5,68,517.76	5,68,987.36
Add: Additional Capital Expenditure	-	-	12,966.67	11,770.87	23,815.65	469.60	-5.09
Closing Capital Cost	2,75,876.44	3,81,567.29	5,32,931.24	5,44,702.11	5,68,517.76	5,68,987.36	5,68,982.27
Average Capital Cost	2,75,876.44	3,81,567.29	5,26,447.91	5,38,816.67	5,56,609.93	5,68,752.56	5,68,984.82

Rs. In lakh

5. Additional Capital Expenditure during the period FY 2019-20 to FY 2023-24

The Petitioner Company submits that there is no additional capital expenditure has been envisaged during the year FY 2019-20 to FY 2023-24 except discharge of undischarged liability.

6. Discharge of Liability

Additional Capital Expenditure will be in the form of discharged of Capital liability as below:

Table 4: Discharge of Capital liability during FY 2019-20 to FY 2023-24

	Rs in Lakhs				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening undischarged liability as per Auditor's Certificate for FY 2018-19 (Annexure A)	212.92	-	-	-	-
Less: Capital Advance given as per Auditor's Certificate for FY 2018-19 (Annexure A1)	4.00				
Less: Closing undischarged liability	-	-	-	-	-
Discharged of liability	208.92	-	-	-	-

The undischarged liability and Capital Advances as on 31st March 2019 is supported by Certificate from M/s Price Waterhouse & Co. LLP, Auditor of the Company ("Auditor") and annexed under Annexure-A & Annexure A1.



7. On consideration of Additional Capital Expenditure and discharge of Un-discharged Liability, year wise, Project Capital Cost during the period 01.04.2019 to 31.03.2024 is summarised as below:

Table 5: Statement of Add Cap during FY 2019-20 to FY 2023-24

	Rs in Lakhs				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Capital Cost	5,68,982.27	5,69,191.19	5,69,191.19	5,69,191.19	5,69,191.19
Additional Capital Expenditure	208.92	-	-	-	-
Closing Capital Cost	5,69,191.19	5,69,191.19	5,69,191.19	5,69,191.19	5,69,191.19
Average Capital Cost	5,69,086.73	5,69,191.19	5,69,191.19	5,69,191.19	5,69,191.19



CHAPTER 3: Debt-Equity Ratio

1. Regulation 18 (3) of Tariff Regulations, 2019 provide that

“(3) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2019, debt: equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2019 shall be considered.”

2. The Hon’ble Commission vide para 49 of its Tariff Order dated 31st March 2017 in the Petition no. 281/GT/2015 has considered debt-equity ratio of 70:30 for the purpose of determination of Tariff for the period COD of Unit 51 to 31.03.2014. The same is also reproduce as below:

“Debt-Equity Ratio

49. The petitioner has considered debt-equity ratio of 70:30 for purpose of tariff. The petitioner has not indicated the debt position as on COD of Block-51 & Block-52 in the petition. However, considering the debt position as on COD of Block-53 / generating station along with the position of capital expenditure on cash basis, the debt-equity ratio as on COD of Block-53, works out to 67.93:32.07, which is well within the normative debt-equity ratio of 70:30. Accordingly, the debt equity ratio of 70:30 has been considered for the purpose of tariff as on the COD's along with for the purpose of additional capital expenditure. This subject to truing-up in terms of Regulation 8 of the 2014 Tariff Regulations.”

3. Hence, the debt-equity ratio for determination of tariff for the period 01.04.2019 to 31.03.2024 has been considered as 70:30.

Oh:



CHAPTER 4: Annual Fixed Charge

1. Determination of Annual Fixed Cost

The Annual Fixed Cost are an aggregate of cost estimates on following items:

- a. Return on Equity
- b. Interest on Loan
- c. Depreciation
- d. Interest on Working Capital
- e. Operation and Maintenance (O&M) Expenses

2. Return on Equity

- a. As per Regulations 31 of Tariff Regulations 2019, ROE shall be grossed up with the effective tax rate of the respective financial year.
- b. Accordingly ROE as allowed has been grossed up with MAT rate, as applicable to respective year as shown hereunder, as generating company will remain under MAT during the tariff period 01.04.2019 to 31.03.2024.

Table 6: MAT rate calculation

	2019-20	2020-21	2021-22	2022-23	2023-24
Base Rate (%)	15	15	15	15	15
Surcharge (%)	12	12	12	12	12
Edu Cess (%)	4	4	4	4	4
	17.472	17.472	17.472	17.472	17.472

- c. The ROE has been worked out as below for the tariff period on account of the Add Cap and de-capitalization of assets as stated in Chapter 2 above.

Table 7: Statement of ROE

Rs in Lakhs

	2019-20	2020-21	2021-22	2022-23	2023-24
Normative Equity - Opening	1,70,694.68	1,70,757.36	1,70,757.36	1,70,757.36	1,70,757.36
Addition of Equity due to Add. Capital Expenditure	62.68	-	-	-	-
Normative Equity - Closing	1,70,757.36	1,70,757.36	1,70,757.36	1,70,757.36	1,70,757.36
Average Normative Equity	1,70,726.02	1,70,757.36	1,70,757.36	1,70,757.36	1,70,757.36
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%	15.50%
Effective Tax Rate for respective years	17.472%	17.472%	17.472%	17.472%	17.472%
Rate of Return on Equity (Pre-Tax)	18.782%	18.782%	18.782%	18.782%	18.782%
Return on Equity (Pre Tax)- annualized	32,065.76	32,071.65	32,071.65	32,071.65	32,071.65

3. Interest on Loans

- a. Clause 32 of Tariff Regulation 2019 provides as under



- i. The normative loan outstanding as on 01.04.2019 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31st March 2019 from the gross normative loan.
 - ii. The repayment of each year shall be equal to the depreciation allowed for the corresponding year/period.
 - iii. The rate of interest on loan shall be the weighted average Rate of interest (ROI) calculated on the basis of actual loan portfolio after providing appropriate accounting adjustment for the interest capitalized.
 - iv. The interest on loan is calculated on the normative average loan for respective year by applying the weighted average rate of interest, which calculation is based on application of ROI on actual loan portfolio of each lender.
- b. As per the agreements with Banks and Financial Institution, the applicable ROI and weighted average RoI have been calculated under Tariff Form-13 under **Appendix-I**. The Loan account wise applicable weighted average rate of interest working for FY 2019-20 has been also shown under **Annexure-B**. The same is rate is considered for FY 2019-20 to FY 2023-24.
- c. The weighted average Interest Rate considered for the period 1st April, 2019 to 31st March 2024 is based on prevailing Interest Rate in FY 2019-20 and summarised as below:-

Table 8: Weighted average Interest (ROI) on actual term loans

	2019-20	2020-21	2021-22	2022-23	2023-24
WROI	9.1000%	9.1000%	9.1000%	9.1000%	9.1000%

- d. Depreciation amount for respective financial year has been considered as the annual repayment of normative loan for the year. In case of de-capitalization of assets, the repayment has been adjusted by taking into account cumulative repayment on a pro-rata basis and the adjustment has not exceeded cumulative depreciation recovered upto date of de-capitalization of such asset.

e. Based on the above, the calculations of Interest on normative loans are as under:

Table 9: Interest on Term Loan

	Rs in Lakhs				
	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	3,98,287.59	3,98,433.83	3,98,433.83	3,98,433.83	3,98,433.83
Cumulative Repayment	1,27,850.60	1,56,834.48	1,85,823.69	2,14,812.89	2,43,802.10
Net Normative Loan-Opening	2,70,436.99	2,41,599.35	2,12,610.15	1,83,620.94	1,54,631.74
Addition due to Additional capital expenditure	146.24	-	-	-	-
Repayment adjustment on account of de-capitalization	0.00	0.00	0.00	0.00	0.00
Depreciation during the year=Repayment	28,983.88	28,989.21	28,989.21	28,989.21	28,989.21
Net Loan Closing	2,41,599.35	2,12,610.15	1,83,620.94	1,54,631.74	1,25,642.53
Average Loan	2,56,018.17	2,27,104.75	1,98,115.54	1,69,126.34	1,40,137.13
Weighted Average Rate in Interest on Loan	9.1000%	9.1000%	9.1000%	9.1000%	9.1000%
Interest on Loan	23,297.65	20,666.53	18,028.51	15,390.50	12,752.48

4. Depreciation

- a. Regulation 33 of Tariff Regulation 2019 provides that the value base for the purpose of computation of Depreciation shall be computed from COD of the Generating Station on taking into consideration the depreciation of individual units.
- b. Depreciation on cost of assets has been calculated based on straight line method and at the rates prescribed under **Appendix-I** of Tariff Regulation 2019.
- c. Dgen Plant, being an existing Plant, the balance depreciation value as on 01.04.2019 is worked out by deducting the cumulative depreciation as admitted by the Commission.

- d. In case of de-capitalization of asset, the cumulative depreciation is to be adjusted by taking into account the depreciation recovered in tariff by de-capitalization of asset during the useful service.
- e. Land is not depreciable asset and the same is to be excluded from the Capital cost for purpose of computation of depreciation.
- f. The rate of depreciation has been arrived at taking into account the weighted average rate of depreciation computed on gross value of assets as on 31st March 2019 which is 5.0995% p.a. The Auditor Certificate certifying the same is also enclosed under **Annexure-C**. Necessary adjustment has been made on account of de-capitalization of assets during the tariff period.
- g. The applicable calculation for depreciation for the Tariff Period is as under.

Table 10: Calculation of depreciation

Rs in Lakhs

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Capital Cost	5,68,982.27	5,69,191.19	5,69,191.19	5,69,191.19	5,69,191.19
Additional Capital expenditure	208.92	0.00	0.00	0.00	0.00
Closing Capital Cost	5,69,191.19	5,69,191.19	5,69,191.19	5,69,191.19	5,69,191.19
Average Capital Cost	5,69,086.73	5,69,191.19	5,69,191.19	5,69,191.19	5,69,191.19
Freehold Land & Land Development exps.	719.67	719.67	719.67	719.67	719.67
Depreciable Value	5,68,367.06	5,68,471.52	5,68,471.52	5,68,471.52	5,68,471.52
Depreciable value @ 90%	5,11,530.35	5,11,624.37	5,11,624.37	5,11,624.37	5,11,624.37
Remaining useful life at the beginning of the year	19.50	18.50	17.50	16.50	15.50
Balance depreciable value at the end of previous year	3,83,679.75	3,54,789.89	3,25,800.68	2,96,811.48	2,67,822.27
Depreciation%	5.100%	5.100%	5.100%	5.100%	5.100%
Depreciation for the period	28,983.88	28,989.21	28,989.21	28,989.21	28,989.21
Cumulative depreciation at the end of the period	1,56,834.48	1,85,823.69	2,14,812.89	2,43,802.10	2,72,791.30
Less: Cumulative depreciation adjustment on account of decapitalization	0.00	0.00	0.00	0.00	0.00
Cumulative depreciation adjustment at the end	1,56,834.48	1,85,823.69	2,14,812.89	2,43,802.10	2,72,791.30



5. Interest on Working Capital

- a. Regulation 34(b) of Tariff Regulation 2019 provides that the interest on working capital shall be worked out as per the norms in the CERC Tariff Regulations 2019. The following are considered for determining the base for working capital in a year:

i. **Fuel cost:** Fuel Cost is based on fuel for 30 days corresponding to the normative annual plant availability factor (NAPAF), duly taking into account mode of operation of the generating station on gas fuel. A statement showing the fuel cost for 30 days corresponding to NAPAF for each year of the Tariff Period is as below:-

Table 11: Fuel Cost for 30 days corresponding to Normative Annual Plant Availability Factor (NAPAF)

Rs in Lakhs

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Fuel Cost (30 days)	37,227.92	37,227.92	37,227.92	37,227.92	37,227.92

The above fuel cost is derived in terms of Provisions of Regulation 34 (b) (i) and Regulation 34 (2) of Tariff Regulation 2019. Further, the Petitioner submits that the domestic fuel is not allocated to the Dgen plant and the plant was not in operation during the period October 2018 to December 2018 in the absence of allocation of domestic fuel and therefor there is no landed cost of fuel for the period October 2018 to December 2018. So the Petitioner has considered landed fuel cost in line with the actual landed cost of LNG procured by Petitioner company at its Sugan plant at Rs. 697.47 per MMBTU.

ii. **Liquid fuel Stock:**

Regulation 34(b) (ii) allows Liquid fuel stock for 15 days corresponding to the normative annual plant availability factor. Hence, the subject provision provides for Liquid NG stock of gas based power plants for 15 days in

IOWC. A statement showing the liquid stock of 15 days corresponding to NAPAF for each year of the Tariff Period is as below:-

Table 12: Liquid Fuel Stock for 15 days corresponding to Normative Annual Plant Availability Factor (NAPAF)

Rs in Lakhs

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Liquid fuel stock (15 days)	18,613.96	18,613.96	18,613.96	18,613.96	18,613.96

iii. **Maintenance spares:** The computation is based on @ 30% of operation and maintenance expenses including water charges and security expenses which is provided under Regulation 34 (b) (iii) of Tariff Regulation 2019. A statement showing the amounts regarding maintenance spares for each year of the Tariff Period is as below:-

Table 13: Maintenance Spares [30% of O&M Expenses]

Rs in Lakhs

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Maintenance Spares	11,104.55	11,547.95	12,014.03	12,499.58	13,010.47

iv. **Receivables:** In line with Regulations 34 (b) (iv) of Tariff Regulation 2019, receivables amount is equivalent to 45 days of capacity charge and energy charges calculated on NAPAF.

The receivable amount represent for 45 days of (i) variable charges and (ii) fixed charges for sale of electricity and the same is calculated at NAPAF @ 85%. Finally the, receivable are worked out on the basis of 45 days of (i) variable charges and (ii) fixed charges, the synopsis is as below:



Table 14: Receivables component of working capital

Rs in Lakhs

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Variable Charges (45 days)	55,847.18	55,847.18	55,847.18	55,847.18	55,847.18
Fixed Charges (45 days)	17,039.02	16,952.04	16,825.31	16,707.08	16,553.87
	72,886.20	72,799.22	72,672.49	72,554.26	72,401.05

- v. **O&M Expenses:** In terms of Regulations 34 (b) (v) of Tariff Regulation 2019, Operation and maintenance expenses for one month is considered for the purpose of computation of Working Capital during the Tariff Period

Table 15: O&M Expenses for one month for working capital

Rs in Lakhs

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses (1 month)	3,084.60	3,207.76	3,337.23	3,472.11	3,614.02

- b. Regulation 34 (3) provides that the Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2019 or as on 1st April of the year during the tariff period 2019-24 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.
- c. The Bank Rate of 12.05%, as shown below, has been considered for purpose of computation of interest on working capital in line with Regulation 34 (3) of Tariff Regulations 2019.

Table 16: Bank Rate calculations as on 1st April 2019

One year marginal cost of lending rate (MCLR) of State Bank of India	8.55%
Plus 350 basis points	3.5%
Bank Rate as on 1.4.2019	12.05%

- d. Based on the above, the Interest on Working capital for Tariff Period is as under:-

Table 17: Interest on Working Capital

Rs in Lakhs

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Fuel Cost	37,227.92	37,227.92	37,227.92	37,227.92	37,227.92
Liquid fuel stock	18,613.96	18,613.96	18,613.96	18,613.96	18,613.96
O & M expenses	3,084.60	3,207.76	3,337.23	3,472.11	3,614.02
Maintenance Spares	11,104.55	11,547.95	12,014.03	12,499.58	13,010.47
Receivables	72,886.20	72,799.22	72,672.49	72,554.26	72,401.05
Total	1,42,917.24	1,43,396.82	1,43,865.64	1,44,367.83	1,44,867.43
Bank Rate as on 01.04.19 + 350 basis point	12.05%	12.05%	12.05%	12.05%	12.05%
Total Interest on Working Capital	17,221.53	17,279.32	17,335.81	17,396.32	17,456.53

6. Operation & Maintenance Expenses

- a. Regulation 35 (1) (3) of Tariff Regulation 2019 provides the following O&M expenses norms for this Generating Station.

Table 18 : Operation and Maintenance expenses (Regulation 35 (1) (3))

Rs in Lakhs

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	31,608.00	32,724.00	33,876.00	35,064.00	36,288.00

- b. Further, Regulation 35 (3) provides following O&M expenses with reference to dedicated Dgen-Navsari Transmission line.

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Table 19: Operation and Maintenance expenses (Regulation 35 (3))

Rates per Unit	No.	2019-20	2020-21	2021-22	2022-23	2023-24
400kV gas insulated substation (Rs. Lakhs per bay)	2 Bays	32.15	33.28	34.45	35.66	36.91
Double Circuit (Twin & Triple Conductor) (Rs. Lakhs per km)	110 kms	0.881	0.912	0.944	0.977	1.011

Rs. Lakhs

Amount		2019-20	2020-21	2021-22	2022-23	2023-24
400kV gas insulated substation	2 No. of Bays	64.30	66.56	68.90	71.32	73.82
Double Circuit (Twin & Triple Conductor)	110 Kms.	96.91	100.32	103.84	107.47	111.21
		161.21	166.88	172.74	178.79	185.03

- c. The value of water charges claimed is in terms of Regulation 35 (1) (6) of Tariff Regulation 2019 and the same is based on the expected water consumption of the Generating Station on normative basis. The necessary details of the type of Plant, type of cooling water system etc in this regard are provided in Form 2 of **Appendix-I** of Tariff Filing Forms. Further, the calculation has been shown under Form 19 of **Appendix-I** of Tariff Filing Forms.

Table 20: Estimated Water Charges (Regulation 35 (1) (6))

Rs in Lakhs

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Water Charges	5,127.62	5,472.10	5,854.83	6,264.97	6,721.95

- d. The value of Security Expenses claimed is in terms of Regulation 35 (1) (6) of Tariff Regulation 2019 and the same is based on the actual expense incurred for the FY 2018-19 and 10% escalation YoY has been considered thereafter.

Table 21: Estimated Security Expenses (Regulation 35 (1) (6))

Rs in Lakhs

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Security Charges	118.35	130.18	143.20	157.52	173.27



- e. Based on the above, the total estimated O&M expenses (including water & security charges) considered for the Tariff is as below:

Table 22: Total Operation and Maintenance expenses

Rs in Lakhs

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	31,769.21	32,890.88	34,048.74	35,242.79	36,473.03
Water Expenses	5,127.62	5,472.10	5,854.83	6,264.97	6,721.95
Security Expenses	118.35	130.18	143.20	157.52	173.27
	37,015.18	38,493.16	40,046.76	41,665.28	43,368.25

7. Annual Fixed Cost

- a. The summary of the Annual Fixed Cost for the financial years from 2019-20 to 2023-24 in respect of the Generating Station stands as under:-

Table 23: Summary of estimated annual fixed cost

Rs in Lakhs

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	28,983.88	28,989.21	28,989.21	28,989.21	28,989.21
Interest on Loan	23,297.65	20,666.53	18,028.51	15,390.50	12,752.48
Return on Equity	32,065.76	32,071.65	32,071.65	32,071.65	32,071.65
Interest on Working Capital	17,221.53	17,279.32	17,335.81	17,396.32	17,456.53
O & M Expenses	37,015.18	38,493.16	40,046.76	41,665.28	43,368.25
	1,38,584.00	1,37,499.86	1,36,471.94	1,35,512.95	1,34,638.10

All figures are on annualized basis.

All figures under each of head/total column has been rounded off to two decimal

CHAPTER 5: Operating norms & Energy Charge Rate

1. Operating Norms

a. Normative Annual Plant Availability Factor (NAPAF):

NAPAF of the the Generating Station is 85% in terms of Regulation 49 (a) (a) of Tariff Regulations 2019

b. Gross Station Heat Rate:

Gross Station Heat Rate of the Generating Satation is governed by Regulation 49 (C) (c), as the COD of the Generating Station is 13th November 2014. Accordingly, the Gross Station Heat Rate will be 1.050 X Design Heat Rate of the unit/block (Kcal/kwh).

The Hon'ble Commission has vide its Tariff Order dated 31st March 2017 in the Petition no. 281/GT/2015 for approval of Tariff of Generating Station for the period from date of commercial operation of Unit 51 to 31.03.2019, has approved the Gross Station Heat Rate of 1831.63 K.Cal/Kwh based on design heat rate (para 66 & 67).

Based on the same, the Gross Station Heat Rate of the Generating Staiton is considered as 1831.63 kCal/kWh.

c. Auxiliary Energy Consumption (AEC):

AEC of the Generating Station is 2.75% in terms of the Regulation 49 (E) (c) of Tariff Regulation 2019.

Based on the a,b & c as above, the Normative Operating Parameters of the Generating Station is summarised below:

Table 24: Normative Operating Parameters for the Generating Station

Description		Normative Parameters
Target NAPAF for recovery of fixed charges and for incentive	%	85
Gross Station Heat Rate	kCal / kWh	1831.63
Auxiliary Energy Consumption (Combined Cycle)	%	2.75

2. Monthly Energy Charge

Energy Charge on month to month basis will be billed by the Petition as per Regulation 43(1) of Tariff Regulation 2019 which is extracted below:

“The energy charge shall cover the primary and secondary fuel cost and limestone consumption cost (where applicable), and shall be payable by every beneficiary for the total energy scheduled to be supplied to such beneficiary during the calendar month on ex-power plant basis, at the energy charge rate of the month (with fuel and limestone price adjustment). Total Energy charge payable to the generating company for a month shall be:

Energy Charges = (Energy charge rate in Rs./kWh) x {Scheduled energy (exbus) for the month in kWh}”

3. The Petitioner respectfully submits that on consideration of Fuel Cost as para 5(a) (i) of Chapter 4 of current Petition and applicable operating parameters prescribed under Tariff Regulations 2019, the base Energy Charge Rate (ECR) in Rupees per KWH on ex bus bar basis and the same is part of **Annexure-I** to the Tariff Petition.



CHAPTER 6: Summary

1. Torrent Power Limited, 1200 MW Dgen Mega Power Project (Petitioner), is filing the Petition along with duly filled in Tariff filing forms as per **Appendix-I** (Part I) to Tariff Regulation 2019 for determination of Tariff for Tariff period 2019-24.
2. The Tariff for the Generating Station had been determined by the Hon'ble Commission vide Tariff Order dated 31st March 2017 to Petition No. 281/GT/2015 for the period COD of Unit 51 to 31st March 2019 and a True up Petition for revision of Annual Fixed Cost has been also submitted to Hon'ble Commission.
3. Project Capital Cost
 - a. The final value of the Project Capital Cost for the period 1st April 2019 to 31st March 2024 is as below:

Table 25: Project Capital Cost for the period 1st April 2019 to 31st March 2024

Rs in Lakhs

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening balance	5,68,982.27	5,69,191.19	5,69,191.19	5,69,191.19	5,69,191.19
Add: Add Cap.	208.92	-	-	-	-
Closing balance	5,69,191.19	5,69,191.19	5,69,191.19	5,69,191.19	5,69,191.19

4. The ROE is considered at 19.758% for Tariff Period, considering the base rate of 15.50% and MAT of 17.472%. However, if the MAT rate of 17.472% is changed in terms of provisions of Finance Act, the ROE may undergo change leading to change in Annual Fixed Charge. Such change in ROE may be allowed to be billed to the beneficiaries directly without approaching the Hon'ble Commission.
5. The Tariff Forms are based on the normative operative parameters as per Tariff Regulation 2019.



6. The Petitioner is submitting details in **Appendix-I** and operating norms for determination of Tariff for the Tariff Period 2019-24. The Petitioner humbly submits that duly filled in forms in **Appendix-I** (Part 1) are submitted in terms of CERC (Terms & Conditions of Tariff) Regulations 2019.
7. The Petitioner respectfully submits that the Base Energy Charge Rate (ECR) in Rupees per KWH is calculated on ex bus bar basis and is based on the normative operating parameters prescribed under Tariff Regulations 2019.
8. The Petitioner also submits that the complete application has been posted at its website www.torrentpower.com.

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CHAPTER 7: Prayer

The present Petition is submitted to the Hon`ble Commission for determination of Tariff for Tariff Period 2019-24. In view of the facts and circumstances as aforesaid, the Petitioner prays to the Hon`ble Commission that it may be pleased to:

1. Approve the additional capital expenditure of Rs 208.92 lakhs in FY 19-20 towards discharge of liability.
2. Approve 15 days liquid fuel stock in calculation of Interest on Working Capital.
3. Approve the Tariff for 1200 MW Dgen Mega Power Project for Tariff Period (FY 2019-24) as per Tariff Filing Forms in **Appendix-I** for the sale of power to the beneficiaries.
4. Allow the petitioner to bill and adjust impact on interest on loan due to change in interest rate or change of base rate as the case may be from time to time from the beneficiaries.
5. Approve recovery of filing fees of this petition from the beneficiaries.
6. Approve the recovery of charges for publication of notices from the beneficiaries.
7. Allow any other relief and/or pass any other order as Hon`ble Commission may deem fit and appropriate under the circumstances of the case.
8. Allow additions/ alterations/ changes/ modifications to the Petition at a future date
9. Pass such order as this Hon`ble Commission deems fit and appropriate in the facts and circumstances of the case in the interest of justice.
10. Condone any inadvertent omissions/ errors.

Place: Surat

Date: 23rd October, 2019



Petitioner

