

1. The Petitioner respectfully submits as under:

1.1. The Petitioner, i.e., M/s Madhya Bharat Power Corporation Ltd., is a company incorporated under the Companies Act 1956 having its Registered Office at E-585, Greater Kailash-II, Ground floor, New Delhi - 110048. The Petitioner is a Generating Company under Section 2(28) of the Electricity Act 2003 (hereinafter referred to as the 'Act'). The Petitioner is a Special Purpose Vehicle (SPV) of Sarda Energy and Minerals Ltd. and has developed a 113 MW (2X56.5 MW) Rongnichu Hydro Power Project on Rongnichu river in East Sikkim ('Project') with details of unit-wise COD of the Project at Table 1 below:

Table 1: Unit-Wise details of Commercial Operation

Unit	Actual Date of Commercial Operation
Generating Unit #1	25.06.2021
Generating Unit #2	30.06.2021

Copies of proof of COD of the Project and/or units are collectively annexed herewith as **ANNEXURE P-1**.

1.2. The petitioner had filed a petition (Petition No. 22 of 2021) for the approval of Provisional Tariff of the project based on the anticipated date of COD (i.e. 15.05.2021). Meanwhile during the pendency of above mentioned petition, Unit – 1 and Unit – 2 of the petitioner's power station had achieved COD on 25.06.2021 and 30.06.2021 respectively. Considering the Actual COD, the Hon'ble Commission passed the order dated 22.09.2021 and determined the Provisional Tariff for sale of power to Chhattisgarh State Power Distribution Company Limited from actual COD up to 31.03.2022. The Order will be applicable till the issue of Final Tariff Order. (Copy of order dated 22.09.2021 is enclosed at **ANNEXURE P-2**).

1.3. The Respondent, Chhattisgarh State Power Distribution Company Limited (hereinafter referred to as the "Respondent"), is a body corporate registered under the Companies Act, 1956 and functions as distribution licensee in the State of Chhattisgarh for supply of electricity in accordance with the provisions of the Act.

1.4. The Petitioner is filing this instant petition for the approval of the following aspects:

1.4.1. Final Capital Cost of the Project as on COD (i.e. 30.06.2021);

1.4.2. Final Tariff/Truing-Up of tariff for the period from actual COD till 31st March 2022;

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1.4.3. Capital Investment Plan (CIP) for 4th control period i.e. from FY 2022-23 to FY 2024-25;

1.4.4. MYT for 4th control period i.e. from FY 2022-23 to FY 2024-25.

1.5. The petitioner has relied on the following Regulations: -

S. No.	Aspects	Regulations
1	Approval of Capital Cost as on COD	CSERC (Terms and Conditions for Determination of Tariff according to Multi-Year Tariff Principles and Methodology and Procedure for Determination of Expected Revenue from Tariff and Charges) Regulations, 2015
2	Approval of Tariff/Truing-Up of tariff for the period from COD till 31 st March 2022	
3	Approval of Capital Investment Plan for 4 th Control Period (FY23 to FY25)	CSERC (Terms and Conditions for Determination of Tariff according to Multi-Year Tariff Principles and Methodology and Procedure for Determination of Expected Revenue from Tariff and Charges) Regulations, 2021
4	Approval of MYT for 4 th Control Period (FY23 to FY25)	



2. Background

- 2.1. Pursuant to the 50,000 MW Hydroelectric initiative launched by the Government of India (GoI) to harness India's abundant hydropower resources, the Government of Sikkim (GoS) awarded several hydroelectric projects to various Independent Power Producers (IPPs) during the period 2004-06.
- 2.2. The Project, located in East Sikkim was a potential run of river (ROR) generating station located around Rongnichu, a tributary of Teesta River. The project scheme was investigated by the National Hydroelectric Power Corporation Ltd. (NHPC) and the Preliminary Feasibility Report (PFR) was prepared in year 2004.
- 2.3. On 01.03.2005, the Government of Sikkim issued Letter of Intent (LoI) to the Petitioner/ M/s Madhya Bharat Power Corporation Ltd. (erstwhile M/s Chhattisgarh Electricity Company Limited) for implementation of the 95 MW Rongnichu Hydro Electric Project on Build, Own, Operate and Transfer ('BOOT') basis. The Petitioner, vide letter dated 06.05.2005, confirmed its acceptance for implementation of the Project. The project was later conceived to be of 96 MW Capacity.
- 2.4. On 01.03.2006, the Petitioner entered into an Implementation Agreement ('IA') with the Government of Sikkim for the development of 96 MW Rongnichu Hydro Electric Project.
- 2.5. In March 2005, the Petitioner engaged M/s SMEC International Private Limited to carry out broad geo-technical site investigation, topographic survey and engineering studies in order to prepare Detailed Project Report (DPR) of the Project, for obtaining the Government of Sikkim's approval. The DPR was approved and TEC was granted on dated 01.10.2008 by the Energy & Power Department, Government of Sikkim for project capacity of 96 MW.

The relevant extracts of the approved DPR are as under:

"Section 7, Power Potential Study, Point No 7.10 Unit Size 193

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.....
There are 9 (nine) 10-daily blocks in monsoon period in which river flows are higher and power more than 96 MW can be generated during these 10-daily blocks. In order to utilize their high inflows during monsoon period it is proposed to provide 10% and 20% overload capacity in each



of the two units resulting in $2 \times (48+10\%)=105.6$ say 106 MW and $2 \times (48+20\%)=115.2$ MW.”

It may be appreciated that at the DPR stage, maximum continuous generation capacity of 115.2 MW was found technically possible with regards to the inflows available. However, at that stage, considering capital cost considerations station capacity of 96 MW (2x48 MW) was considered for further evaluation.

- 2.6. Subsequently, the petitioner revisited the water availability/ inflow of the Rognichu River and criteria for selection of station capacity as provided in the original DPR approved by the Energy & Power Department, Government of Sikkim for project capacity of 96 MW vide TEC dated 01.10.2008.
- 2.7. Based on this Hydrological Data (inflows/river discharge) and the prevailing e-flow norms of Ministry of Environment, Forest and Climate Change (MoEF&CC), the power potential of the Project was re-assessed to be 115 MW with 10% Overload capacity.
- 2.8. The higher inflows available during Five to Eight, 10 daily blocks in monsoon period make it feasible to install capacity of 115 MW. Accordingly, the petitioner approached the Government of Sikkim (GoS) seeking approval of enhancement of the Installed Capacity and a revised power potential w.r.t 115 MW.
- 2.9. Further, such additional/enhanced generation would also benefit the Government of Sikkim (beneficiary of higher royalty i.e., free power of the deliverable energy) and the State of Chhattisgarh as well.
- 2.10. The Government of Sikkim granted a “No Objection Certificate” (NOC) vide its letter dated 02.08.2019 for enhancement of the Installed Capacity from 96 MW to 115 MW based on the Original DPR subject to amendment in Environment clearance.
- 2.11. Accordingly, the petitioner applied for amendment in the Environment Clearance at MoEF&CC. The proposal was considered and TORs have been granted by MoEF&CC vide letter no J-12011/14/2019-IA-I(R) dated 16.01.2020.
- 2.12. The condition no XII of TOR required that “A copy of TEC of the revised DPR for 115 MW should be submitted with the EIA/EMP report”.



- 2.13. Accordingly, the petitioner submitted the 3rd Supplementary DPR, Energy & Power Department vide letter no 91/GOS/E&O/2004-05/Part-IV/20 dated 15.06.2020 granted TEC for 115 MW.
- 2.14. The matter was deliberated in the 1st meeting of the Expert Appraisal Committee (EAC) for River Valley & Hydroelectric Projects held on 29.07.2020. EAC directed the Petitioner to submit further information including Pre-DPR Chapters viz., Hydrology and Layout Map and Power Potential Studies duly approved by CWC/CEA.
- 2.15. Accordingly, the petitioner, applied to Central Electricity Authority (“CEA”) for approval of Pre-DPR Chapters viz., Hydrology and Layout Map and Power Potential Studies application with station capacity of 113 MW +10% Overload (Based on the Guaranteed Technical Parameters of the Generator and the test results provided by the manufacturer, the rated capacity (name plate capacity) of each of the two generators worked out as 56.489 MW with 10% continuous overload).
- 2.16. CEA in its response, vide letter dated 17.11.2020, communicated that since TEC has been initially granted by the Government of Sikkim, the requisite approval may be obtained from the Government of Sikkim only. As such TEC dated 15.06.2020 mentioned in point 2.13 was already available with the Petitioner and therefore no further action was required on this aspect.
- 2.17. The Design Energy of the Project, based on station capacity of 113 MW, works out as 340.66 MU [computed as per provisions of Chhattisgarh State Electricity Regulatory Commission (Terms and Conditions for determination of Tariff according to Multi-Year Tariff Principles and Methodology and Procedure for determination of Expected revenue from Tariff and Charges) Regulations, 2015, (hereinafter “CSERC MYT Tariff Regulations, 2015”)].
- 2.18. Further, on 25th January 2021, the Petitioner entered into an additional/supplementary Implementation Agreement with the Government of Sikkim, wherein the following amendments were incorporated:
- Partial deferment of free power entitlement of GoS to provide relief to the petitioner during the initial 10 years’ period from COD where there would be heavy Cash outflow towards Loan Repayment (on account of high cost of the project due to Force Majeure reasons).
 - Enhanced Station Capacity of 115 MW.



A copy of the Supplementary Implementation Agreement dated 25.01.2021 executed between the Petitioner and the Government of Sikkim is annexed herewith and marked as **ANNEXURE P-3**.

Power Purchase Agreement with the State of Chhattisgarh

2.19. The Petitioner has executed a Power Purchase Agreement dated 04.01.2020 with the Respondent for supply of 96 MW of power, generated from the Project, over a period of 35 years (hereinafter referred to as the "PPA").

A copy of the PPA dated 04.01.2020 is annexed herewith and marked as **ANNEXURE P-4**.

2.20. As per Article 10 of the PPA, the tariff for supply of contracted energy in any contract year shall be the tariff as determined by this Hon'ble Commission. The relevant extracts of the PPA are as under:

"Article-10: Energy Purchase and Sale

10.1 Tariff and Sale of Energy by the Supplier:

10.1.1 The Procurer shall purchase the number of Units in accordance with the provisions of Article 6.10.

10.1.2 The "tariff" for supply of Contracted Energy in any contract year shall be the tariff as determined by CSERC.

10.1.3 The Supplier shall ensure exclusive sale of the Contracted Energy to the Procurer and shall not sell such Contracted Energy at any time to any third party during the period of this Agreement, subject to the provisions of Article 11.5"

2.21. Article 9 of the PPA obligates the Petitioner to enter into Transmission Service Agreement with the CTU in accordance with the CERC (Sharing of inter State Transmission Charges and Losses) Regulations, 2010. The said Article further states that the Petitioner shall be responsible for seeking necessary permissions for open access. Accordingly, the Petitioner entered into a Transmission Service Agreement dated 17.06.2020 with PGCIL.

A copy of the Transmission Service Agreement dated 17.06.2020 is annexed herewith and marked as **ANNEXURE P-5**.

2.22. On 04.06.2020, the Respondent filed Petition No. 52 of 2020 under Section 86(1)(b) of the Electricity Act 2003, seeking approval the PPA, executed with the Petitioner, and also purchase of power from the 96



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[Signature]

MW Installed Capacity Rongnichu Hydro-electric Project located in the East Sikkim District of Sikkim.

The matter was last listed on 23.01.2021 on which date the Petitioner submitted that it had withdrawn all its objections except the one relating to supply of 12% free power to Sikkim and other regarding relaxation in scheduled COD. The Respondent stated that decision qua the aforementioned issues will be taken by its Board of Directors. Accordingly, this Hon'ble Commission allowed six weeks' time for obtaining the approval from the Board of Director.

- 2.23. The Petitioner, vide Letter Nos. 156 and 157 dated 24.02.2021 informed the Respondent about the approved revised Installed Capacity, of 113 MW, requesting it to procure the entire power, corresponding to the revised capacity of 113 MW, and accordingly make appropriate amendments to the PPA. The Hon'ble Commission vide order dated 31.03.2021 approved the PPA with mentioned changes/amendments, as approved by the Board of Directors of the Respondent.

A copy of Letter dated 24.02.2021 and Hon'ble Commission order dated 31.03.2021 are annexed herewith and marked as **ANNEXURE P-6 (Colly)**.

- 2.24. Further a Supplementary Agreement dated 28.05.2021 has been signed between the Petitioner and the Respondent to substituted 96 MW Installed Capacity with 113 MW Installed Capacity, wherever mentioned in PPA signed dated 04.01.2020. Copy of Supplementary Agreement signed between the Petitioner and the Respondent is annexed herewith and marked as **ANNEXURE P-7**.

Benefits of the Project to the State of Chhattisgarh

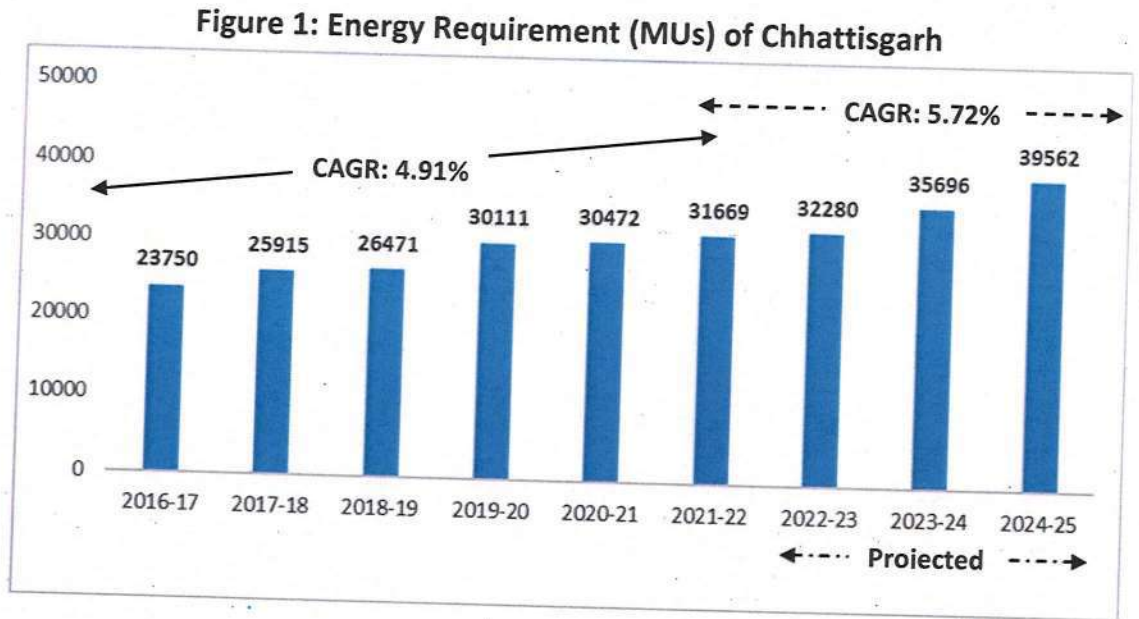
- 2.25. The State of Chhattisgarh had an Energy Requirement of ~31,669 MUs in FY 2021-22. The energy requirement of the State has grown at a CAGR of 4.91% from FY 2016-17 to FY 2021-22.

- 2.26. Further, CSPDCL has projected the energy requirement of ~32,280 MUs, ~35,696 MUs and ~39,562 MUs for FY 2022-23, FY 2023-24 and FY 2024-25 respectively in their MYT Petition for 4th control period (i.e. from FY 2022-23 to FY 2024-25). The energy requirement of the State is projected to grow at a CAGR of 5.72% between FY 2021-22 till FY 2024-



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25. The growth trend of the State's energy requirement is shown in the graph¹ below:



2.27. The State has large portfolio of thermal generating stations which form about ~80% of the total energy mix. The Plant Availability Factor (PAF) of the Thermal Generating Stations is as under:

Table 2: PAF of State Generating Stations for FY 2018-21

	Particulars	No. of units & Capacity (MW)	FY 2018-19	FY 2019-20	FY 2020-21
1	Korba East Thermal Power Station (KTPS)	387.53	61.07%	62.66%	62.03%
2	Hasdeo Thermal Power Station (HTPS)	4x210 = 840	76.45%	69.71%	71.72%
3	Korba West Thermal Power Plant (KWTPP)	1x500 = 500	92.24%	80.21%	92.64%
4	Dr. Shyama Prasad Mukherjee Thermal Power Station (DSPM)	2x250=500	92.62%	93.14%	82.57%
5	Atal Bihari Vajpayee Thermal Power Station (ABVTPP), Janjgir Champa	2x500 = 1000	73.06%	49.05%	55.06%



15/11/23