

**BEFORE THE CENTRAL ELECTRICITY REGULATORY COMMISSION,
6TH, 7TH & 8TH FLOORS, TOWER B, WORLD TRADE CENTRE,
NAUROJI NAGAR, NEW DELHI- 110029
PETITION NO. /GT/2024**

IN THE MATTER OF:

Petition under Section 79 (1) (a) read with Sections 62 (1) (a) and 64 of the Electricity Act, 2003 and Regulation 8, 9, 10, 36 and 97 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024.

AND

IN THE MATTER OF:

Determination of tariff of Generating Stations operated and managed by Bhakra Beas Management Board (**BBMB**) for the control period 1.04.2024 to 31.03.2029

AND

IN THE MATTER OF:

Bhakra Beas Management Board (BBMB)
Sector 19-B, Madhya Marg,
Chandigarh - 160019

- Petitioner

Versus

1. Punjab State Power Corporation Limited
The Mall, Patiala (Punjab)
2. Haryana Vidyut Prasaran Nigam Limited
Shakti Bhawan, Sector-6, Panchkula (Haryana)
3. Rajasthan Rajya Vidyut Prasaran Nigam Limited
Janpath, Jaipur (Rajasthan)
4. Himachal Pradesh State Electricity Board Limited
Vidyut Bhawan, Shimla (H. P)
5. Union Territory of Chandigarh Through the
Finance Secretary, Sector-9,


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UT Secretariat, Chandigarh

6. Rajasthan Urja Vikas Nigam Limited
Vidyut Bhawan, Janpath, Jyoti Nagar
Jaipur (Rajasthan)
7. Haryana Power Purchase Centre
Uttar Haryana Bijli Vitran Nigam Limited (UHBVNL)
Vidyut Sadan, IP No. : 3 & 4, Sector-14,
Panchkula, (Haryana)-134113, India - Respondents

PETITION UNDER SECTION 79 (1) (A) READ WITH SECTIONS 62 (1) (A) AND 64 OF THE ELECTRICITY ACT, 2003 AND REGULATION 8, 9, 10, 36 AND 97 OF THE CENTRAL ELECTRICITY REGULATORY COMMISSION (TERMS AND CONDITIONS OF TARIFF) REGULATIONS, 2024

MOST RESPECTFULLY SHOWETH:

1. By this Petition, the Petitioner – Bhakra Beas Management Board (herein after referred to as '**BBMB**' or the '**Petitioner**' as the case may be) is seeking the tariff determination and approval for the generating stations operated and managed by BBMB for generation and supply of electricity to the Respondents herein, the Participating States which owns such generating stations.
2. The Petition is being filed in terms of the provisions of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024 (hereinafter referred to as '**Tariff Regulations, 2024**') and in particular Regulations 36 and 97 which, *inter-alia*, read as under:

"36. Operation and Maintenance Expenses

(2) Hydro Generating Station:

The following operations and maintenance expense norms shall be applicable for hydro generating stations which have been operational for three or more years as on 1.4.2024:

.....


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f) The operation and maintenance expenses of the generating station and the transmission system of Bhakra Beas Management Board (BBMB) and Sardar Sarovar Project (SSP) shall be determined after taking into account provisions of the Punjab Reorganization Act, 1966 and Narmada Water Scheme, 1980 under Section-6 A of the Inter-State Water Disputes Act, 1956 respectively

.....
97. Special Provisions relating to BBMB and SSP: The tariff of the generating station and the transmission system of Bhakra Beas Management Board (BBMB) and Sardar Sarovar Project (SSP) shall be determined after taking into consideration, the provisions of the Punjab Reorganization Act, 1966 and Narmada Water Scheme, 1980 under Section 6-A of the Inter-State Water Disputes Act, 1956, respectively."

The above special provisions in the Tariff Regulations, 2024 as read with the Tariff Filing Forms (Hydro) Part II Annexure I - have been notified by this Hon'ble Commission for the Control Period 2024-29.

3. In the Order dated 24.12.2021 in Petition No. 72/GT/2021 dealing with determination of tariff for the period 2019-24, this Hon'ble Commission had decided that the Operation & Maintenance ('O&M') Expenses relating to the generating stations shall be subject to the normative O&M Expenses. The relevant extracts from the Order dated 24.12.2021 passed in Petition No. 72/GT/2021, *inter-alia*, read as under:

"26. The 2019 Tariff Regulations do not provide for O&M expenses for the generating stations of the Petitioner. However, Regulation 35(2)(a) of the 2019 Tariff Regulations, specifies the normative O&M expenses allowable for other hydro projects, whose tariff is determined by the Commission. It is observed that the normative O&M expenses specified under Regulation 35(2)(a) of the 2019 Tariff Regulations, have been arrived at by normalizing the actual O&M expenses of the 2014-19 tariff period, with an escalation rate of 5%.

27. In line with the above methodology, the normalized O&M expenses arrived for the year 2018-19 are as follows:

.....
28. Since, normative O&M expenses have not been specified for the projects of the Petitioner, as stated earlier, we are inclined to adopt the methodology [as considered while framing Regulation 35(2)(a)], for


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determining the normative O&M expenses for the projects of the Petitioner for the 2019-24 tariff period.

29. The normalized expenses thus arrived at for each station for the year 2018-19, has been further escalated with an escalation factor of 4.77% per year to arrive at the normative O&M expenses for the 2019-24 tariff period. Based on the above, the normative O&M expenses for the projects of the Petitioner have been worked out and allowed as follows:

.....
30. Accordingly, the Petitioner is permitted to recover the aforesaid normative O&M expenses or the actual O&M expenses incurred, for the 2019-24 tariff period, whichever is less, directly from the partner States/ State utilities.

31. Petition No. 72/GT/2021 is disposed of in terms of the above."

A copy of the Order dated 24.12.2021 passed in Petition No. 72/GT/2021 by this Hon'ble Commission is attached hereto and marked as **Annexure 'A'**.

4. The special provisions - Regulation 36 and 97 of the Tariff Regulations, 2024 provides for the consideration of the Punjab Reorganization Act, 1966. Sections 78 to 80 of the said Act, *inter-alia*, read as under:

"78. Rights and liabilities in regard to Bhakra-Nangal and Beas Projects.

(1) Notwithstanding anything contained in this Act but subject to the provisions of sections 79 and 80, all rights and liabilities of the existing State of Punjab in relation to Bhakra Nangal Project and Beas Project shall, on the appointed day, be the rights and liabilities of the successor States in such proportion as may be fixed, and subject to such adjustments as may be made, by agreement entered into by the said States after consultation with the Central Government or, if no such agreement is entered into within two years of the appointed day, as the Central Government may by order determine having regard to the purposes of the Projects:

Provided that the order so made by the Central Government may be varied by any subsequent agreement entered into by the successor States after consultation with the Central Government.

(2) An agreement or order referred to in sub-section (1) shall, if there has been an extension or further development of either of the projects referred to in that sub-section after the appointed day, provide also for the rights and

liabilities of the successor States in relation to such extension or further development.

(3) The rights and liabilities referred to in sub-sections (1) and (2) shall include-

(a) the rights to receive and to utilise the water available for distribution as a result of the projects, and

(b) the rights to receive and to utilise the power generated as a result of the projects, but shall not include the rights and liabilities under any contract entered into before the appointed day by the Government of the existing State of Punjab with any person or authority other than Government.

(4) In this section and in sections 79 and 80, -

(A) "Beas Project" means the works which are either under construction or are to be constructed as components of the Beas-Sutlej Link Project (Unit I) and Pong Dam

Project on the Beas river (Unit II) including-

(i) Beas-Sutlej Link Project (Unit I) comprising-

(a) Pandoh Dam and works appurtenant thereto,

(b) Pandoh-Baggi Tunnel,

(c) Sundernagar Hydel Channel,

(d) Sundernagar-Sutlej Tunnel,

(e) By-pass Tunnel,

(f) four generating units each of 165 M.W. capacity at Dehar Power House on the right side of Sutlej river,

(g) fifth generating unit of 120 M.W. capacity at Bhakra Right Bank Power House,

(h) transmission lines,

(i) Balancing Reservoir;

(ii) Pong Dam Project (Unit II) comprising-

(a) Pong Dam and works appurtenant thereto,

(b) Outlet Works,

(c) Penstock Tunnels,


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(d) Power plant with four generating units of 60 M.W. each;

(iii) such other works as are ancillary to the works aforesaid and are of common interest to more than one State;

(B) "Bhakra-Nangal Project" means-

(i) Bhakra Dam, Reservoir and works appurtenant thereto;

(ii) Nangal Dam and Nangal-Hydel Channel;

(iii) Bhakra Main Line and canal system;

(iv) Bhakra Left Bank Power House, Ganguwal Power House and Kotla Power House, switchyards, sub-stations and transmission lines;

(v) Bhakra Right Bank Power House with four units of 120 M.W. each.

79. Bhakra Management Board

(1) The Central Government shall constitute a Board to be called the Bhakra Management Board for the administration, maintenance and operation of the following works, namely:-

(a) Bhakra Dam and Reservoir and works appurtenant thereto;

(b) Nangal Dam and Nangal-Hydel Channel up to Kotla Power House;

(c) the irrigation headworks at Rupar, Harike and Ferozepur;

(d) Bhakra Power Houses:

Provided that the administration, maintenance and operation by the said Board of the generating units of the Right Bank Power House as have not been commissioned shall commence as and when any such unit has been commissioned;

(e) Ganguwal and Kotla Power Houses;

(f) Sub-stations at Ganguwal, Ambala, Panipat, Delhi, Ludhiana, Sangrur and Hissar and the main 220 KV transmission lines connecting the said sub-stations with the power stations specified in clauses (d) and (e); and

(g) such other works as the Central Government may, by notification in the Official Gazette, specify.

(2) The Bhakra Management Board shall consist of-


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(a) a whole-time Chairman and two whole-time members to be appointed by the Central Government;

(b) a representative each of the Governments of the States of Punjab, Haryana and Rajasthan and the Union territory of Himachal Pradesh to be nominated by the respective Governments or Administrator, as the case may be;

(c) two representatives of the Central Government to be nominated by that Government.

(3) The functions of the Bhakra Management Board shall include-

(a) the regulation of the supply of water from the Bhakra-Nangal Project to the States of Haryana, Punjab and Rajasthan having regard to-

(i) any agreement entered into or arrangement made between the Governments of the existing State of Punjab and the State of Rajasthan, and

(ii) the agreement or the order referred to in sub-section (1) of section 78;

(b) the regulation of the supply of power generated at the power houses referred to in sub-section (1) to any Electricity Board or other authority in charge of the distribution of power having regard to-

(i) any agreement entered into or arrangement made between the Governments of the existing State of Punjab and the State of Rajasthan,

(ii) the agreement or the order referred to in sub-section (1) of section 78; and

(iii) any agreement entered into or arrangement made by the existing State of Punjab or the Punjab Electricity Board or the State of Rajasthan or the Rajasthan Electricity Board with any other Electricity Board or authority in charge of distribution of power before the appointed day in relation to the supply of power generated at the power houses specified in sub-section (1)

(c) the construction of such of the remaining works connected with the Right Bank Power House as the Central Government may specify;

(d) such other functions as the Central Government may, after consultation with the Governments of the States of Haryana, Punjab and Rajasthan, entrust to it.

(4) The Bhakra Management Board may employ such staff as it may consider necessary for the efficient discharge of its functions under this Act:


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Provided that every person who immediately before the constitution of the said Board was engaged in the construction, maintenance or operation of the works in sub-section (1) shall continue to be so employed under the Board in connection with the said works on the same terms and conditions of service as were applicable to him before such constitution until the Central Government by order directs otherwise:

Provided further that the said Board may at any time in consultation with State Government or the Electricity Board concerned and with the previous approval of the Central Government return any such person for service under that Government or Board.

(5) The Governments of the successor States and of Rajasthan shall at all times provide the necessary funds to the Bhakra Management Board to meet all expenses (including the salaries and allowances of the staff) required for the discharge of its functions and such amounts shall be apportioned among the successor States, the State of Rajasthan and Electricity Boards of the said States in such proportion as the Central Government may, having regard to the benefits to each of the said States or Boards, specify.

(6) The Bhakra Management Board shall be under the control of the Central Government and shall comply with such directions, as may from time to time, be given to it by that Government.

(7) The Bhakra Management Board may with the approval of the Central Government delegate such of its powers, functions and duties as it may deem fit to the Chairman of the said Board or to any officer subordinate to the Board.

(8) The Central Government may, for the purpose of enabling the Bhakra Management Board to function effectively, issue such directions to the State Governments of Haryana, Punjab and Rajasthan and the Administrator of the Union territory of Himachal Pradesh or any other authority, and the State Governments, Administrator or authority shall comply with such directions.

(9) The Bhakra Management Board may, with the previous approval of the Central Government and by notification in the Official Gazette, make regulations consistent with this Act and the rules made thereunder, to provide for-

(a) regulating the time and place of meetings of the Board and the procedure to be followed for the transaction of business at such meetings;


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(b) delegation of powers and duties to the Chairman or any officer of the Board;

(c) the appointment, and the regulation of the conditions of service, of the officers and other staff of the Board;

(d) any other matter for which regulations are considered necessary by the Board."

80. Construction of Beas Project. (1) Notwithstanding anything contained in this Act or in any other law, the construction (including the completion of any work already commenced) of the Beas Project shall, on and from the appointed day, be undertaken by the Central Government on behalf of the successor States and the State of Rajasthan:

Provided that the Governments of the successor States and the State of Rajasthan shall at all times provide the necessary funds to the Central Government for the expenditure on the project [including the expenses of the Board referred to in sub-section (2)] and such amounts shall be apportioned among the successor States and the State of Rajasthan in such proportion as may be fixed by the Central Government after consultation with the Governments of the said States.

(2) For the discharge of its functions under sub-section (1), the Central Government may—

(a) by notification in the Official Gazette and in consultation with the Governments of the successor States and the State of Rajasthan, constitute a Board to be called the Beas Construction Board with such members as it may deem fit and assign to the Board such functions as it may consider necessary; and

(b) issue such directions to the State Governments of Haryana, Punjab and Rajasthan and the Administrator of the Union territory of Himachal Pradesh or any other authority, and the State Governments, Administrator or other authority shall comply with such directions.

(3) The notification constituting a Board under clause (a) of sub-section (2) may empower the Board to appoint such staff as may be necessary for the efficient discharge of its functions:

Provided that every person who immediately before the constitution of the Board was engaged in the construction or any work relating to the Beas Project shall continue to be so employed by the


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Board in connection with the said works on the same terms and conditions of service as were applicable to him before such constitution until the Central Government by order directs otherwise:

Provided further that the Board may at any time in consultation with the State Government or the Electricity Board concerned and with the previous approval of the Central Government return any such person for service under that Government or Board.

(4) Nothing contained in this section shall be construed as enabling the Central Government to reduce or enlarge the scope of the Beas Project as agreed to between the Governments of the State of Rajasthan and the existing State of Punjab except after consultation with the Governments of the States of Haryana, Punjab and Rajasthan.


(5) Any component of the Beas Project in relation to which the construction has been completed after the appointed day may be transferred by the Central Government to the Board constituted under section 79 whereupon the provisions of that section shall apply as if it were a work included in sub-section (1) of that section.

(6) The Bhakra Management Board constituted under Section 79 shall be re-named as the Bhakra Beas Management Board when any of the components of the Beas Project has been transferred under sub-section (5), and the Beas Construction Board shall cease to exist when all the components of the Beas Project have been so transferred."

(emphasis supplied)

A copy of the Punjab Re-organization Act, 1966 is attached hereto and marked as **Annexure 'B'**.

5. In terms of the provisions of the Punjab Re-organization Act, 1966, BBMB is not the owner of any of the hydro generating stations or any of the assets, properties or interest in properties pertaining to generation and supply of electricity. BBMB does not invest in the hydro generating stations either by deployment of equipment or by borrowings. BBMB, being not the owner is not entitled to any depreciation on the asset. All expenditure required by BBMB is contributed by the participating/Partner States and these include the expenditure in the form of working capital requirements, employees cost,


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repair and maintenance cost, other administrative and general expenses, additional capital expenditure, Renovation, Modernization & Upgrading ('R,M&U') expenditure. BBMB does not have any Profit and Loss Account. BBMB does not earn return on equity. BBMB does not maintain a business account in the shape of Profit and Loss Account and Balance Sheet. There is no accretion to the asset in the hands of BBMB. BBMB only maintains a statement of revenue contributed by the participating States and a statement of expenses incurred on behalf of the participating/Partner States. BBMB has, therefore, no independent risk or reward of maintaining the business of the hydro generating stations. BBMB acts only as a manager of the participating States by virtue of the authority given to BBMB under the Punjab Re-organization Act, 1966.

6. Therefore, BBMB is a statutory body constituted under the provisions of the Punjab Reorganization Act 1966, on the reorganization of the erstwhile State of Punjab as on 01.11.1966.
7. BBMB has been engaged in the activities of regulation of supply of water and generation of power from Bhakra Nangal and Beas Projects and the power being made available to the States of Punjab, Haryana, Rajasthan, Himachal Pradesh and Union Territory of Chandigarh, as a statutory body authorised to act on behalf of the Partner States in terms of the Punjab Re-Organization Act, 1966, as detailed herein.
8. As per the Indus Water Treaty, 1960 signed between India and Pakistan, the waters of three Eastern rivers, namely, Sutlej, Beas and Ravi were allotted to India for exclusive use. A master plan was then drawn to harness the potential of these rivers for irrigation, power generation and also to achieve flood control.


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9. Bhakra - Beas Project form major part of the above scheme and were established as a Joint Venture of Rajasthan and the erstwhile State of Punjab.
10. On reorganization of the erstwhile State of Punjab, BBMB was constituted and the administration, maintenance and operation of Bhakra Nangal Projects were handed over to the Bhakra Management Board with effect from 01.11.1966.
11. The Beas Project works, on completion were transferred by the Government of India from the Beas Construction Board to BMB and it was renamed as BBMB as per the provisions of Section 80 of the Punjab Re-organization Act, 1966.
12. In pursuance of the above, BBMB has been engaged in the activities of regulation of supply of water, generation and transmission of power from Bhakra Nangal and Beas Projects and the power being made available to the States of Punjab, Haryana, Rajasthan, Himachal Pradesh and Union Territory of Chandigarh in the defined ratio.
13. The status of hydro generation assets, their ownership, interest of the participating States (the Respondents herein), role of BBMB and all matters connected therewith are statutorily provided for under Sections 78 to 80 of the Punjab Reorganization Act 1966.
14. BBMB operates three (3) hydroelectric power projects which have a total installed capacity of 2954.73 MW. The details of installed capacity and date of commissioning of various generating stations operated by the Petitioner is summarised in the following Table:-1


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Table 1: Details regarding Hydro Generating Stations

Genera ting Station	Category	Original Installed Capacity	COD	1 st Stage RMU		2 nd Stage RMU		Present Installe d Capacit y
Bhakra HEP		MW	Date	Date	M W	Date	MW	MW
Unit 1	Bhakra Left Bank	90	14.11.1960	22.02.1985	108	27.09.2023	126	126
Unit 2	Bhakra Left Bank	90	02.02.1961	11.03.1984	108	19.07.2013	126	126
Unit 3	Bhakra Left Bank	90	07.07.1961	10.04.1983	108	19.12.2021	126	126
Unit 4	Bhakra Left Bank	90	08.11.1961	06.02.1982	108	05.08.2015	126	126
Unit 5	Bhakra Left Bank	90	10.12.1961	21.01.1981	108	02.10.2013	126	126
Unit 6	Bhakra Right Bank	120	24.05.1966	16.10.1980	132	18.06.1997	157	157
Unit 7	Bhakra Right Bank	120	05.12.1966	16.10.1980	132	12.02.2001	157	157
Unit 8	Bhakra Right Bank	120	13.03.1967	16.10.1980	132	05.04.1998	157	157
Unit 9	Bhakra Right Bank	120	13.11.1967	16.10.1980	132	26.02.1996	157	157
Unit 10	Bhakra Right Bank	120	19.12.1968	16.10.1980	132	08.06.2000	157	157
Total Bhakra HEP		1050			120 0			1415
Ganguw al								
Unit 1	Ganguwa I	29.25	23.01.1962					27.99
Unit 2	Ganguwa I	24.2	02.01.1955					24.2
Unit 3	Ganguwa I	24.2	02.01.1955					24.2
Total Ganguw al		77.65						76.39
Kotla								
Unit 1	Kotla	29.25	14.07.1961					28.94
Unit 2	Kotla	24.2	27.08.1956					24.2
Unit 3	Kotla	24.2	23.05.1956					24.2

Total Kotla		77.65						77.34
G.Total Bhakra Comple x		1205.30						1568.73
Pong								
Unit 1	Pong	60	20.01.1978	15.02.2002	66			66
Unit 2	Pong	60	30.03.1978	11.04.2000	66			66
Unit 3	Pong	60	26.10.1978	23.02.1998	66			66
Unit 4	Pong	60	06.03.1979	11.02.2001	66			66
Unit 5	Pong	60	19.09.1982	25.01.2003	66			66
Unit 6	Pong	60	25.02.1983	07.02.2004	66			66
Total Pong		360			396			396
Dehar								
Unit 1	Dehar	165	02.11.1977					165
Unit 2	Dehar	165	03.03.1978					165
Unit 3	Dehar	165	12.06.1979					165
Unit 4	Dehar	165	12.06.1979					165
Unit 5	Dehar	165	17.07.1983					165
Unit 6	Dehar	165	10.11.1983					165
Total Dehar		990						990
Total BBMB		2555.30						2954.73

15. In addition to the above, by Order dated 06.09.2019, the Ministry of New & Renewable Energy, Government of India has assigned the BBMB with Solar Power Project target of 500 MW. To meet the Solar Power target set by Government of India, BBMB has installed 3375.90 kWp Roof Top Solar Power Plants at various project stations & substations under the control of BBMB for own consumption. Further, BBMB intends to install more Roof-Top Solar Power Plants & Ground/ Floating Solar Power Plants at various Project stations and substations. All expenditure incurred on these projects shall be approved by the BBMB Board (which includes the representatives of the Partner States) and shall be apportioned amongst the partner states of BBMB in the agreed ratio and power generated from these projects is also scheduled/apportioned amongst the partner states in the agreed ratio. The


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following Floating/Ground Mounted Solar Power projects of BBMB are at various stages of execution and likely to be commissioned in the next Financial Year:

Sr. No.	Upcoming Solar Power projects of BBMB	Capacity	Status
1.	Floating Solar Power project at Nangal Dam Reservoir, BBMB	15MW	Projects are being Build, Owned and Operated by Solar Power Developer selected by BBMB through competitive bidding process. Tariff has been adopted by this Hon'ble Commission vide its orders dated 23.09.2023 & 10.07.2024 respectively.
2.	Ground Mounted Solar Power plant at four different locations at Talwara/Nangal of BBMB	18MW	
3.	Ground Mounted Solar project at 400kV substation, Bhiwani	10MW	Project is being developed by BBMB through EPC contract and will be owned & operated by BBMB.
4.	Ground Mounted Solar project at 220kV substation, Hissar	1.5MW	

16. In terms of the provisions of the Punjab Re-organization Act, 1966 the main features of the formation and working of BBMB are as under:

- i) BBMB is only a manager of the participating States and their respective power utilities to manage, maintain, operate the generating stations and assets as provided in Sections 78 to 80 of the Punjab Re-organization Act, 1966;


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- ii) As per Sections 78 to 80 of the Punjab Re-organization Act, the ownership of the generating stations are with the participating/partner states and have not been given to BBMB;
- iii) The ownership of the assets was vested in the erstwhile composite State of Punjab and in terms of the above provisions of the Punjab Re-organization Act, 1966 came to be vested in the successor participating States and in some respects in the State of Rajasthan by operation of law;
- iv) The electricity boards/ entities of the above participating States have also been recognised as the beneficiaries of the electricity generated by the hydro generation projects and assets managed by BBMB;
- v) BBMB only acts as an operator for and on behalf of the participating/partner States. The ownership in the electricity generated vests in the participating States in a fixed proportion as agreed in the historical agreements/determined by the Central Government. The ownership in the electricity generated does not vest in BBMB;
- vi) BBMB does not therefore generate and supply electricity to the participating States on a principal to principal basis but only as an agent of the participating states;
- vii) BBMB has no financial risk attached to its working. All expenses are paid by the participating States as provided in Section 79 (5) of the Punjab Reorganization Act, 1966;
- viii) There is no concept of return on equity or interest on loan or depreciation or incentive or disincentive etc., which are the basic tariff elements in the case of generation of electricity;
- ix) All expenses of BBMB are paid by the participating states. There is no equity capital contributed by the participating States to BBMB; and

- x) Even the consultancy work undertaken by BBMB is with the approval of the participating States and the revenues earned therefrom is accounted for the benefit of the participating States;
- 17.** In the above circumstances, BBMB had not been maintaining gross block of assets in its books in the past and no capital expenditure including any additional capitalization takes place in the books of BBMB. All such capital expenditures are to the account of the participating/partner States only.
- 18.** In the premise, the units of electricity generated from the hydro generation facilities operated and managed by BBMB vest in the participating States from the beginning. The ownership of hydro generating stations being of the participating States and BBMB, being only an operation and management entity, the generated units belong to the participating States without there being any sale or transfer of ownership in the electricity generated by BBMB to the participating states in any manner.
- 19.** Accordingly, there has never been any capital investment in the books of BBMB in any of the assets. The capital assets were created by the beneficiary States and have been given under the possession and control of BBMB only for the purpose of operation and maintenance. Any additional capitalisation required for the Projects including any renovation and modernisation scheme and other up-gradation scheme are also funded by the beneficiary States.
- 20.** In view of the above, the tariff determination of BBMB in regard to the capital cost and tariff elements specified in the Tariff Regulations, 2024 is as detailed herein.
- 21.** BBMB respectfully submits that the tariff elements specified in the Tariff Regulations, 2024 in regard to the Capacity Charges, namely, the Return on

Equity, Depreciation, Interest on Working Capital etc. which are related to the capital assets or borrowings have no application to BBMB.

22. In so far as the hydro generating stations are concerned, BBMB does not own any capital assets, it does not borrow loan or funding from any banks, financial institutions or others, there is no repayment of loan or servicing of interest on loan. There is no equity investments by the shareholders of the partner States in the BBMB and, therefore, none of these tariff elements have any bearing on the activities of BBMB.
23. BBMB cannot therefore, be treated as the owner of the hydro generating stations and, therefore, there is no need for determination of the other tariff elements, namely, interest on loan, return on equity, depreciation, interest on working capital, incentive or disincentive, tax reimbursement or post-tax return etc. BBMB therefore cannot per-se seek any tariff determination in respect of the above tariff elements.
24. Thus, on consideration of the provisions of the Punjab Re-organization Act, 1966 the only element which would be applicable to BBMB is the Operation and Maintenance Expenses. Even in regard to O&M Expenses, Regulation 36 of the Tariff Regulations, 2024 specifically states in the proviso that the provisions of the Punjab Re-organization Act, 1966 will be taken into consideration. The same is also in consonance with the principle followed by this Hon'ble Commission in the Tariff Regulations, 2019. Reference in this regard may be made to the Order dated 24.12.2021 passed in Petition No. 72/GT/2021 determining the O&M expenses for the control period 2019-24.

"22. We have considered the submissions of the Petitioner. It is evident from the provisions of the 1966 Act that BBMB is functioning under the control of the Central Government and has been vested with the responsibilities to supply power from its projects to the States of Punjab, Rajasthan, Haryana, Himachal Pradesh, Delhi and Union Territory of Chandigarh, through its

network of transmission lines and substations. All expenses of the Petitioner including working capital requirements, additional capital expenditure, RM&U expenditure etc. are being paid for by the partner States/ State utilities. Therefore, on a careful consideration of the 1966 Act read with Regulation 35 and Regulation 73 of the 2019 Tariff Regulations, we allow to recover the actual O&M expenses from the participating/ partner states, after normalization, as calculated in the subsequent paragraphs."

A copy of the Order dated 24.12.2021 in Petition No. 72/GT/2021 is attached hereto. **Refer Annexure 'A'.**

25. In this regard also, all the expenses of BBMB are being paid by the partner States/State Utilities, including the working capital requirements, the additional capital expenditure, R,M&U expenditure etc. It is submitted that so long the O&M Expenses of BBMB is within the normative allowed under Regulation 36 of the Tariff Regulations, 2024, the same can be allowed to be recovered by the partner States from the consumers at large without there being any necessity to determine such O&M Expenses.
26. In addition to O&M expenditure, additional capital expenditure, R, M&U expenditure are also to be allowed to be recovered from partner States as per provisions of Punjab Re-Organization Act, 1966.
27. BBMB submits that the obligation of the partner States/State Utilities to contribute to the expenditure incurred by BBMB from time to time will continue in terms of the provisions of the Punjab Re-organization Act, 1966 since BBMB is only a statutory agency to undertake activities of generation and transmission of electricity for and on behalf of the partner States/State Utilities. In their status as principal, partner States/State Utilities have to bear such expenses of BBMB.
28. In the circumstances mentioned above, BBMB submits that most of the information required under the Tariff Regulations, 2024, particularly, those

related to Regulation 15, 30, 31, 32, 33, 34 and related Regulations and the filing format being Form 1 (barring the O&M expenses under Form 17), 4 to 18 will have no application to BBMB. In regard to O&M expenditure, BBMB is giving the actual O&M expenditure from FY 2019-24, as filed herewith as **Annexure 'C'**.

In line with the methodology followed in the Order dated 24.12.2021 in Petition No. 72/GT/2021, the actual O&M expenses of BBMB for the previous control period along with escalation factor of 5.47% may be applied for determining the O&M expenses.

29. It is submitted that BBMB had, pursuant to the directions contained in the Orders passed by this Hon'ble Commission in regard to the previous control period, assimilated the financial details of BBMB operation. The statement of receipt and payment of BBMB for the financial years 2019-24 is filed herewith as **Annexure 'D'**.

RECOVERY OF TARIFF FROM THE PARTNER STATES:

30. As mentioned hereinabove, BBMB has been undertaking its statutory functions as specified under the relevant provisions of the Punjab Re-Organization Act 1966. Section 79 (5) of the Punjab Re-Organization Act, 1966 specified that:

"(5) The Governments of the successor States and of Rajasthan shall at all times provide the necessary funds to the Bhakra Management Board to meet all expenses (including the salaries and allowances of the staff) required for the discharge of its functions and such amounts shall be apportioned among the successor States, the State of Rajasthan and Electricity Boards of the said States in such proportion as the Central Government may, having regard to the benefits to each of the said States or Boards, specify."

31. Section 80 of the Punjab Re-Organization Act, 1966 provided for the methodology for provision of funds for construction of the Beas Projects and

the transfer of all components of Beas projects to the BBMB on completion of Beas projects.

32. Section 97 of the Punjab Re-Organization Act, 1966 provides for the Central Government to notify the rules specifying the methodology for preparation and approval of budget estimates of BBMB and the recovery of expenses incurred by the BBMB. The provisions of the Companies Act, 2013 has no application to BBMB.
33. In line with the provisions of the Punjab Re-Organization Act, 1966 the Ministry of Power, Government of India vide various notifications issued from time to time specified the methodology for apportionment of expenses incurred by each of the projects under BBMB amongst the successor states. Copies of these notifications have been attached hereto and marked as **Annexure 'E' (colly)**. The methodology for such apportionment is summarized below:

Table: The methodology for apportionment of expenditure between irrigation and power functions for each of the projects is as per the following table:

S. No.	Name	Power		Irrigation	
		Share of Power	Share of Irrigation	Share of Power	Share of Irrigation
1.	Bhakra Power Project	100%	0%	Unit 1, 2 and 3: 50%	50%
				Unit 4: 100%	0%


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S. No.	Name	Power		Irrigation	
		Share of Power	Share of Irrigation	Share of Power	Share of Irrigation
2.	Dehar Power Project	94%	6%	94%	6%
3.	Pong Power Project	23.50%	76.5%	23.50%	76.5%

Table : Sharing of Partner States Power Utilities in BBMB Projects – Power Wing

Project Name	PSPCL	HVPNL	RRVPNL	HPSEBL	U.T Chd.
Bhakra Power Plant	51.8% (after deducting share of Rajasthan)	37.51% (after deducting share of Rajasthan)	15.22%	7.19% (after deducting share of Rajasthan)	3.5% (after deducting share of Rajasthan)
Dehar Power Plant	51.8% (after deducting share of Rajasthan)	37.51% (after deducting share of Rajasthan)	20%	7.19% (after deducting share of Rajasthan)	3.5% (after deducting share of Rajasthan)
Pong Power Plant	51.8% (after deducting share of Rajasthan)	37.51% (after deducting share of Rajasthan)	58.50%	7.19% (after deducting share of Rajasthan)	3.5% (after deducting share of Rajasthan)

Table: Sharing of Partner States in BBMB Projects – Irrigation Wing

Project Name	Punjab	Haryana	Rajasthan
Bhakra Unit- I	60% (after deducting share of Rajasthan)	40% (after deducting share of Rajasthan)	15.22%


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Project Name	Punjab	Haryana	Rajasthan
Bhakra Unit- II & III	60% (after deducting share of Rajasthan)	40% (after deducting share of Rajasthan)	19.06%
BSL, Sunder Nagar	51%	34%	15%
Pong Dam, Talwara	24.9%	16.9%	58.5%

34. Accordingly, BBMB raises demand notes (copies attached **at Annexure 'F'-colly**) with respect to the O&M charges (both Power Wing & Irrigation wing) in the respective share of partner power utilities/ States as follows.
- In the power wing, demand note on the basis of net actual expenditure i.e. O&M expenses including salary, transfer to and from IW, capital expenditure chargeable to Revenue plus difference of one month budget minus revenue received from common pool consumers attributable to the respective State Power Utilities are raised monthly in their respective share ratio; and
 - In Irrigation-wing, the demand for release of funds from Partner State Governments are raised quarterly on the basis of the approved annual budget in their respective share ratio.
35. It is submitted that major capital works such as R, M & U works on the Hydro Electric Power Projects once approved by the Board of the BBMB are financed by the partner States as per the respective sharing ratios.
36. In addition to the above, a select quantum of power is sold to common pool consumers. The revenue derived from these common pool consumers is passed on to the participating States including Union Territory Chandigarh in proportion to their shares in BBMB Projects. A brief note explaining the


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methodology for billing of common pool consumers is attached at **Annexure 'G'**.

37. Further, the respective State Electricity Regulatory Commissions of the Partner States duly consider the expenditure incurred by the State Power Utilities in line with their share in BBMB in their respective Aggregate Revenue Requirement (**'ARR's**).

COMMON POOL CONSUMERS:

38. The Petitioner has the following common pool consumers in the Bhakra Nangal Project:
- a) National Fertilizer Limited, Naya Nangal (5 MW at 85% Load Factor - 1.02 LU/day);
 - b) Rajasthan Fertilizer Factory (RFF) in Rajasthan - (25 MW at 85 % Load Factor - 5 LU/day);
 - c) UT Chandigarh (1 LU/day- Adhoc Assistance) + 10 LU/day Special Assistance); and
 - d) Old HP (10 MW at 50 % Load Factor- 1.2 LU/Day)
39. The supply to these Common Pool Consumers is first charged on the electricity generated and the balance electricity is shared among the partner entities as per prescribed ratio. The Petitioner shall continue the process in which the revenue derived from these common pool consumers is passed on to the participating States including UT Chandigarh in proportion to their shares in BBMB Projects.

40. **PRAYER:**

It is, therefore, respectfully prayed that this Hon'ble Commission may be pleased to:

- (a) Admit the petition;


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- (b) direct that BBMB shall be entitled to operate the generating station in terms of the provisions of the Punjab Re-organization Act, 1966 and shall be allowed to recover O&M expenditure, additional capital expenditure, R, M& U expenditure from partner States based on the statement of receipt and payment settled between BBMB and the Partner States/State Power Utilities as per the terms of the Punjab Re-organization Act, 1966.
- (c) relax the requirement to pay the court fees on the petition in view of the nature of the petition not involving detailed tariff determination in the peculiar circumstances of BBMB being governed by the provisions of the Punjab Re-organization Act, 1966;
- (d) pass such further order or orders as this Hon'ble Commission may deem just and proper in the circumstances of the case.



PETITIONER

Director/Power Regulation
Bhakra Beas Management Board
CHANDIGARH

THROUGH

ADVOCATE

PLACE: CHANDIGARH

DATED: 26.11.2024

PART-II

Checklist of Forms and other information/ documents for tariff filing for Hydro Stations

Form No.	Title of Tariff Filing Forms (Hydro)	Tick
FORM- 1	Summary of Tariff	NA
FORM -1 (I)	Statement showing claimed capital cost	NA
FORM -1 (II)	Statement showing Return on Equity	NA
FORM-2	Details of COD, Type of hydro station, Normative Annual Plant Availability Factor (NAPAF) & Other normative parameters considered for tariff calculation	YES
FORM-3	Salient Features of Hydroelectric Project	YES
FORM- 4	Details of Foreign loans	NA
FORM- 4A	Details of Foreign Equity	NA
FORM-5	Abstract of Admitted Capital Cost for the existing Projects	NA
FORM-5A	Abstract of Capital Cost Estimates and Schedule of Commissioning for the New projects	NA
FORM-5B	Break-up of Capital Cost for Hydro Power Generating Station	NA
FORM-5C	Break-up of Capital Cost for Plant & Equipment	NA
FORM-5D	Break-up of Construction/Supply/Service packages	NA
FORM-5Ei	In case there is cost over run	NA
FORM-5Eii	In case there is time over run	NA
FORM- 6	Financial Package upto COD	NA
FORM- 7	Details of Project Specific Loans	NA
FORM- 8	Details of Allocation of corporate loans to various projects	NA
FORM-9A	Statement of Additional Capitalisation after COD	NA
FORM 9B	Statement of Additional Capitalisation during end of the Project	NA
FORM 9Bi	Details of Asset De-capitalized during the period	NA
FORM- 9C	Statement showing reconciliation of ACE claimed with the capital additions as per books	NA
FORM- 9D	Statement showing items/assets/works claimed under Exclusions	NA

FORM- 9E	Statement of Capital cost	NA
FORM- 9F	Statement of Capital Woks in Progress	NA

Form No.	Title of Tariff Filing Forms (Hydro)	Tick
FORM- 10	Financing of Additional Capitalisation	NA
FORM- 11	Calculation of Depreciation on original project cost	NA
FORM- 12	Statement of Depreciation	NA
FORM- 13	Calculation of Weighted Average Rate of Interest on Actual Loans	NA
FORM- 13A	Calculation of Interest on Normative Loan	NA
FORM- 13B	Calculation of Interest on Working Capital	NA
FORM- 13C	Non-Tariff Income	NA
FORM- 13D	Incidental Expenditure during Construction	NA
FORM- 14	Draw Down Schedule for Calculation of IDC & Financing Charges	NA
FORM- 14A	Actual cash expenditure	NA
FORM- 15A	Design energy and peaking capability (month wise)- ROR with Pondage/Storage type new stations	NA
FORM- 15B	Design energy and MW Continuous (month wise)- ROR type stations	NA
FORM- 16	Statement of Liability Flow	NA
FORM- 17	Operation & Maintenance Expense	NA
FORM- 18	Details of Statutory Charges	NA
FORM- 19	Summary of issue involved in the petition	YES
Other Information/ Documents		
Sl. No.	Information/Document	Tick
1	Certificate of incorporation, Certificate for Commencement of Business, Memorandum of Association, & Articles of Association (For New Station setup by a company making tariff application for the first time to CERC)	NA


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2	A. Station wise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & annexures on COD of the Station for the new station & for the relevant years. B. Station wise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & annexures for the existing station for the relevant years.	NA
3	Copies of relevant loan Agreements	NA
Form No.	Title of Tariff Filing Forms (Hydro)	Tick
4	Copies of the approval of Competent Authority for the Capital Cost and Financial package.	NA
5	Copies of the Equity participation agreements and necessary approval for the foreign equity.	NA
6	Copies of the BPSA/PPA with the beneficiaries, if any	NA
7	Detailed note giving reasons of cost and time over run, if applicable. List of supporting documents to be submitted: a. Detailed Project Report b. CPM Analysis c. PERT Chart and Bar Chart d. Justification for cost and time Overrun	NA
8	Generating Company shall submit copy of Cost Audit Report along with cost accounting records, cost details, statements, schedules etc. for the Generating Unit wise /stage wise/Station wise/ and subsequently consolidated at Company level as submitted to the Govt. of India for first two years i.e. 2024-25 and 2025-26 at the time of mid-term true-up in 2026-27 and for balance period of tariff period 2028-29 at the time of final trueup in 2029-30. In case of initial tariff filing, the latest available Cost Audit Report should be furnished.	NA
9	Any other relevant information, (Please specify)	NA
10.	Reconciliation with Balance sheet of any actual additional capitalization and amongst stages of a generating station	NA
11.	BBMB is maintaining the records as per the relevant applicable Acts. Formats specified herein may not be suitable to the available information with BBMB. BBMB may modify tariff filing forms suitably as per available information to them for submission of required information for tariff purpose.	YES

Note 1: Electronic copy of the petition (in words format) and detailed calculation as per these formats (in excel format) and any other information submitted has to be uploaded in the e-filing website and shall also be furnished in pen drive/flash drive.


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Details of COD, Type of hydro station, Normative Annual Plant Availability Factor (NAPAF) & other normative parameters considered for tariff calculation

Name of the Petitioner : BBMB

Name of Generating Station : Bhakra Left Bank Power House (Bhakra PP-I)

Sr. No.	Particulars	Unit	Existing 2023-24	Year Ending March				
				2024-25	2025-26	2026-27	2027-28	2028-29
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Installed Capacity	MW	630	630	630	630	630	630
2	Free power to home state	%						
3	Free power under Local Area Development Fund (LADF)	%						
4	Date of Commercial operation (actual/anticipated)		After RM & U (126 MW)					
	Unit 1		27.09.2023					
	Unit 2		19.07.2013					
	Unit 3		09.12.2021					
	Unit 4		05.08.2015					
	Unit 5		02.10.2013					
5	Type of Station							
a)	Surface/Underground		Surface					
b)	Purely ROR/Pondage/Storage		Storage					
c)	Peaking/non-peaking		Peaking					
d)	No. of hours of peaking		3 Hrs.					
e)	Overload Capacity (MW) & period		5% overload (132.3 MW)					
6	Type of excitation							
a)	Rotating exciters on generator		-					
b)	Static Excitation		Unit - 1, 2, 3, 4 & 5					
7	Design Energy (Annual) ¹	GWh						

8	Auxiliary Consumption including Transformation losses	%	0.9254						
9	Normative Plant Availability Factor (NAPAF)	%	98.61						
Sr. No.	Particulars	Unit	Existing 2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
9.1	Maintenance Spares for WC	% of O&M in Months							
9.2	Receivables for WC								
9.3	Base Rate of Return on Equity	%							
9.4	Base Rate of Return on Equity on Add. Capitalization								
9.5	Tax Rate ²	%							
9.6	Effective Tax Rate ⁴								
9.7	SBI Base Rate + 325 basis points as on <u> </u> ³	%							
9.8	β-Average Monthly Frequency Response Performance ⁵	0-1							

1. Month-wise 10-day Design Energy figures to be given separately with the petition.
2. Tax rate applicable to the company for the year FY 2023-24 should also be furnished.
3. Mention relevant date.
4. Effective tax rate is to be computed in accordance with Regulation 31.
5. To be submitted at the time of truing up based on RPC certification.

Salient Features of Hydroelectric Project

Name of the Petitioner : BBMB
 Name of Generating Station : Bhakra Left Bank Power House (Bhakra PP-I)

1. Location	
State/Distt.	Himachal Pradesh/Bilaspur
River	Sutlej
2. Diversion Tunnel	2 Numbers
Size, Shape	15.24m Dia. (50 ft) each, Circular
Length (M)	805m each
3. Dam	
Type	Concrete Straight Gravity Dam
Maximum dam height (M)	225.55
4. Spillway	
Type	Centrally Located-Overflow Spillway
Crest level of spillway (M)	501.46 m (1645.21 ft.)
5. Reservoir	
Full Reservoir Level (FRL) (M)	515.11 m
Minimum Draw Down Level (MDDL) (M)	445.62 m
Live storage (MCM)	6007 MCM (4.870-million-acre ft.) at EL-512.07m
6. De-silting Chamber	NA
Type	
Number and Size	
Particle size to be removed (mm)	
7. Head Race Tunnel	NA
Size and Type	
Length (M)	
Design Discharge (Cumecs)	
8. Surge Shaft	NA
Type	
Diameter(M)	
Height (M)	
9. Penstock/Pressure shafts	
Type	Weeded plate steel penstock
Diameter & Length (M)	4.572 m
10. Power House	
Installed Capacity (No. of Units x MW)	630 MW (5 x 126 MW)
Type of Turbine	Vertical Shaft Francis Type
Rated Head (M)	Normal Design Head - 121.92 m (400 ft.)
Rated Discharge (Cumecs)	71 Cumecs

Head at Full Reservoir Level (M)	158.50 m (520 ft.)
Head at Minimum Draw Down Level (M)	79.86 m (262 ft.)
MW capability at FRL	630 MW
MW Capability at MDDL	365 MW
11. Tail Race Tunnel/Channel	
Diameter (M), Shape	Open Tail Race (River)
Length (M)	
Minimum tail water Level (M)	355.40 m (1166 ft.)
12. Switchyard	220 kV & 66 kV
Type of Switchgear	Outdoor SF-6 Breakers
No. Generator Bays	3 Nos. at 220 kV Bhakra Left Syd. + (1 No. at 220 kV Bhakra Right Syd.) & 1 No. at 66 kV Bhakra Left Syd.
No. of Bus Coupler bays	1 No. each at 220 kV and 66 kV Syd.
No. of line bays	3 Nos. feeders at 220 kV Syd. & 4 Nos. feeders at 66 kV Syd. And 2 Nos. for Station Service Transformer at 66 kV Switchyard
Efficiency (overall) Turbine and Generator	Turbine - 93.21% Generator - 98.76%

Note: - Specify limitation on generation during specific time period(s) on account of restrictions on water use due to irrigation, drinking water, industrial, environment consideration etc.

Limitations on Generation

The Multipurpose Bhakra Dam is primarily built for irrigation purposes and water so released is further utilized to generate hydroelectric power during peak demand periods for efficient use of resources.


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PART-II
FORM-2

Details of COD, Type of hydro station, Normative Annual Plant Availability Factor (NAPAF) & other normative parameters considered for tariff calculation

Name of the Petitioner : BBMB

Name of Generating Station : Bhakra Right Bank Power House (Bhakra PP-II)

Year Ending
March

Sr. No.	Particulars	Unit	Existing 2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Installed Capacity	MW	785	785	785	785	785	785
2	Free power to home state	%						
3	Free power under Local Area Development Fund (LADF)	%						
4	Date of Commercial operation (actual/anticipated)		After RM & U (157 MW)					
	Unit 1		22-06-1997					
	Unit 2		12-02-2001					
	Unit 3		05-04-1998					
	Unit 4		26-02-1996					
	Unit 5		08-06-2000					
5	Type of Station							
a)	Surface/Underground		Surface					
b)	Purely ROR/Pondage/Storage		Storage					
c)	Peaking/non-peaking		Peaking					
d)	No. of hours of peaking		3 Hrs.					
e)	Overload Capacity (MW) & period		5% overload (164.85 MW)					
6	Type of excitation		Static					
a)	Rotating exciters on generator		-					

b)	Static Excitation		Unit - 6,7,8,9 & 10					
7	Design Energy (Annual) ¹	GWh						
8	Auxiliary Consumption including Transformation losses	%	0.58					
9	Normative Plant Availability Factor (NAPAF)	%	99.997					
Sr. No.	Particulars	Unit	Existing 2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
9.1	Maintenance Spares for WC	% of O&M						
9.2	Receivables for WC	in Months						
9.3	Base Rate of Return on Equity	%						
9.4	Base Rate of Return on Equity on Add. Capitalization							
9.5	Tax Rate ²	%						
9.6	Effective Tax Rate ⁴							
9.7	SBI Base Rate + 325 basis points as on ³	%						
9.8	β-Average Monthly Frequency Response Performance ⁵	0-1						

1. Month-wise 10 day Design Energy figures to be given separately with the petition.

Tax rate applicable to the company for the year FY 2023-24 should also be furnished.

Mention relevant date.

Effective tax rate is to be computed in accordance with Regulation 31.

To be submitted at the time of truing up based on RPC certification.

Salient Features of Hydroelectric Project

Name of the Petitioner : BBMB
 Name of Generating Station : Bhakra Right Bank Power House (Bhakra PP-II)

1. Location	
State/Distt.	Himachal Pradesh/Bilaspur
River	Sutlej
2. Diversion Tunnel	2 Numbers
Size, Shape	15.24 m Dia. (50 ft) each, Circular
Length (M)	805 each
3. Dam	
Type	Concrete Straight Gravity Dam
Maximum dam height (M)	225.55
4. Spillway	
Type	Centrally Located-Overflow Spillway
Crest level of spillway (M)	501.46 m (1645.21 ft.)
5. Reservoir	
Full Reservoir Level (FRL) (M)	515.11m
Minimum Draw Down Level (MDDL) (M)	445.62 m
Live storage (MCM)	6007 MCM (4.870-million-acre ft.) at EL-512.07m
6. De-silting Chamber	NA
Type	
Number and Size	
Particle size to be removed (mm)	
7. Head Race Tunnel	NA
Size and Type	
Length (M)	
Design Discharge (Cumecs)	
8. Surge Shaft	NA
Type	
Diameter(M)	
Height (M)	
9. Penstock/Pressure shafts	
Type	Weeded plate steel penstock
Diameter & Length (M)	4.572 m & NA
10. Power House	
Installed Capacity (No. of Units x MW)	785 MW (5 x 157 MW)
Type of Turbine	Vertical Shaft Francis Type
Rated Head (M)	Normal Design Head - 121.92m (400 ft.)
Rated Discharge (Cumecs)	71 Cumecs
Head at Full Reservoir Level (M)	158.50 m (520 ft.)

Head at Minimum Draw Down Level (M)	79.86 m (262 ft.)
MW capability at FRL	785 MW
MW Capability at MDDL	450 MW
11. Tail Race Tunnel/Channel	
Diameter (M), Shape	Open Tail Race (River)
Length (M)	
Minimum tail water Level (M)	355.40 m (1166 ft.)
12. Switchyard	220 kV
Type of Switchgear	Outdoor SF-6 Breakers
No. Generator Bays	6 Nos. at 220 kV Bhakra Right Bank Switchyard.
No. of Bus Coupler bays	2 No. at 220 kV Switchyard.
No. of line bays	6 Nos. feeders at 220 kV Switchyard.
Efficiency (overall) Turbine and Generator	Turbine - 94.60% Generator - 98.30%

Note: - Specify limitation on generation during specific time period(s) on account of restrictions on water use due to irrigation, drinking water, industrial, environment consideration etc.

Limitations on Generation

The Multipurpose Bhakra Dam is primarily built for irrigation purposes and water so released is further utilized to generate hydroelectric power during peak demand periods for efficient use of resources.


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 CHANDIGARH

PART-II
FORM-2

Details of COD, Type of hydro station, Normative Annual Plant Availability Factor (NAPAF) & other normative parameters considered for tariff calculations

Name of the Petitioner : BBMB
Name of Generating Station : Ganguwal Power House.

Sr. No.	Particulars	Unit	Existing 2023-24	Year Ending March				
				2024-25	2025-26	2026-27	2027-28	2028-29
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Installed Capacity	MW	76.39	76.39	76.39	76.39	76.39	76.39
2	Free power to home state	%	Nil	Nil	Nil	Nil	Nil	Nil
3	Free power under Local Area Development Fund (LADF)	%						
4	Date of Commercial operation (actual/anticipated)							
	Unit 1	Original Date	23/01/1992					
		After RMU	20/10/2006					
	Unit 2	Original Date	02/01/1955					
		After RMU	04/01/1998					
	Unit 3	Original Date	02/01/1955					
		After RMU	27/09/2000					
5	Type of Station							
f)	Surface/Underground		Surface					


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g)	Purely ROR/Pondage/Storage		ROR					
h)	Peaking/non-peaking		Non-Peaking					
i)	No. of hours of peaking		NA					
j)	Overload Capacity (MW) & period		NA					
6	Type of excitation							
c)	Rotating exciters on generator		-					
d)	Static Excitation		Static					
7	Design Energy (Annual) ¹	GWh						
8	Auxiliary Consumption including Transformation losses	%	1.541					
9	Normative Plant Availability Factor (NAPAF)	%	96.71					
Sr. No.	Particulars	Unit	Existing 2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
9.1	Maintenance Spares for WC		NA					
9.2	Receivables for WC		NA					
9.3	Base Rate of Return on Equity		NA					
9.4	Base Rate of Return on Equity on Add. Capitalization		NA					
9.5	Tax Rate ²		NA					
9.6	Effective Tax Rate ⁴		NA					
9.7	SBI Base Rate + 325 basis points as on ³		NA					
9.8	Average Monthly Frequency Response Performance ⁵		NA					


Director/Power Regulation
Bhakra Beas Management Board
CHANDIGARH

1. Month-wise 10 day Design Energy figures to be given separately with the petition.

2. Tax rate applicable to the company for the year FY 2023-24 should also be furnished.
3. Mention relevant date.
4. Effective tax rate is to be computed in accordance with Regulation 31.
5. To be submitted at the time of truing up based on RPC certification.


Director/Power Regulation
Bhakra Beas Management Board
CHANDIGARH 4

Salient Features of Hydroelectric Project

Name of the Petitioner : BBMB
 Name of Generating Station : Ganguwal Power House

1. Location	
State/Distt.	Punjab/Ropar
River	Beas, Sutlej through Nangal Hydel Channel
2. Diversion Tunnel	
Size, Shape	-NA-
Length (M)	-NA-
3. Dam	
Type	-NA-
Maximum dam height (M)	-NA-
4. Spillway	
Type	
Crest level of spillway (M)	
5. Reservoir	
Full Reservoir Level (FRL) (M)	-NA-
Minimum Draw Down Level (MDDL) (M)	-NA-
Live storage (MCM)	-NA-
6. De-silting Chamber	
Type	-NA-
Number and Size	-NA-
Particle size to be removed (mm)	-NA-
7. Head Race Tunnel	
Size and Type	-NA-
Length (M)	-NA-
Design Discharge (Cumecs)	-NA-
8. Surge Shaft	
Type	-NA-
Diameter(M)	-NA-
Height (M)	-NA-
9. Penstock/Pressure shafts	
Type	Embedded Steel Penstock
Diameter & Length (M)	5.867 M. 70.25 M
10. Power House	
Installed Capacity (No. of Units x MW)	(1x27.99 + 2x24.2) =76.39 MW
Type of Turbine	I II III
	Propeller Propeller Kaplan
Rated Head (M)	27.40 27.40 27.40
Rated Discharge (Cumecs)	4080 4100 4100

Head at Full Reservoir Level (M)	28.81
Head at Minimum Draw Down Level (M)	27.83
MW capability at FRL	76.39 with sufficient inflow required for machines
MW Capability at MDDL	61.11
11. Tail Race Tunnel/Channel	
Diameter (M), Shape	Canal
Length (M)	
Minimum tail water Level (M)	
12. Switchyard	
Type of Switchgear	132 KV SF-6 breaker outdoor type 33KV VCB Outdoor Type & 11KV VCB Indoor Type
No. Generator Bays	3
No. of Bus Coupler bays	1
No. of line bays	4
Efficiency (overall) Turbine and Generator	


Director/Power Regulation
Bhakra Beas Management Board
CHANDIGARH

4

Details of COD, Type of hydro station, Normative Annual Plant Availability Factor (NAPAF) & other normative parameters considered for tariff calculations

Name of the Petitioner : BBMB

Name of Generating Station : Kotla Power House

S. No.	Particulars	Unit	Existing 2023-24	Year Ending March				
				2024- 25	2025- 26	2026- 27	2027- 28	2028- 29
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Installed Capacity	MW	77.33	77.33	77.33	77.33	77.33	77.33
2	Free power to home state	%	Nil	Nil	Nil	Nil	Nil	Nil
3	Free power under Local Area Development Fund (LADF)	%						
4	Date of Commercial operation (actual/anticipated)							
	Unit 1	Original Date	14/07/1961					
		After RMU	13/04/2007					
	Unit 2	Original Date	23/05/1965					
		After RMU	14/05/2001					
	Unit 3	Original Date	27/08/1965					
		After RMU	01/01/1998					
5	Type of Station							
a)	Surface/Underground		Surface					
b)	Purely ROR/Pondage/Storage		ROR					
c)	Peaking/non-peaking		Non-Peaking					

d)	No. of hours of peaking								
e)	Overload Capacity (MW) & period								
6	Type of excitation								
a)	Rotating exciters on generator								
b)	Static Excitation								
7	Design Energy (Annual) ¹	GWh							
8	Auxiliary Consumption including Transformation losses	%	1.546						
9	Normative Plant Availability Factor (NAPAF)	%	94.03						
Sr. No.	Particulars	Unit	Existing 2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
9.1	Maintenance Spares for WC	% of O&M in Months	NA						
9.2	Receivables for WC		NA						
9.3	Base Rate of Return on Equity	%	NA						
9.4	Base Rate of Return on Equity on Add. Capitalization		NA						
9.5	Tax Rate ²	%	NA						
9.6	Effective Tax Rate ⁴		NA						
9.7	SBI Base Rate + 325 basis points as on ³	%	NA						
9.8	Average Monthly Frequency Response Performance ⁵	0-1	NA						


 Director/Power Regulation
 Bhakra Beas Management Board
 CHANDIGARH

1. Month-wise 10 day Design Energy figures to be given separately with the petition.
2. Tax rate applicable to the company for the year FY 2023-24 should also be furnished.
3. Mention relevant date.

4. Effective tax rate is to be computed in accordance with Regulation 31.
5. To be submitted at the time of truing up based on RPC certification.



Director/Power Regulation
Bhakra Beas Management Board
CHANDIGARH



Salient Features of Hydroelectric Project

Name of the Petitioner : BBMB
 Name of Generating Station : Kotla Power House

1. Location	
State/Distt.	Punjab/Ropar
River	Beas, Sutlej through Nangal Hydel Channel
2. Diversion Tunnel	
Size, Shape	-NA-
Length (M)	-NA-
3. Dam	
Type	-NA-
Maximum dam height (M)	-NA-
4. Spillway	
Type	
Crest level of spillway (M)	
5. Reservoir	
Full Reservoir Level (FRL) (M)	-NA-
Minimum Draw Down Level (MDDL) (M)	-NA-
Live storage (MCM)	-NA-
6. De-silting Chamber	
Type	-NA-
Number and Size	-NA-
Particle size to be removed (mm)	-NA-
7. Head Race Tunnel	
Size and Type	-NA-
Length (M)	-NA-
Design Discharge (Cumecs)	-NA-
8. Surge Shaft	
Type	-NA-
Diameter(M)	-NA-
Height (M)	-NA-
9. Penstock/Pressure shafts	
Type	Embedded Steel Penstock
Diameter & Length (M)	5.867 M. 70.25 M
10. Power House	
Installed Capacity (No. of Units x MW)	(1x28.93 + 2x24.2) =77.33 MW
Type of Turbine	I II III
	Propeller Propeller Kaplan
Rated Head (M)	27.88 27.88 27.88
Rated Discharge (Cumecs)	4080 4100 4100
Head at Full Reservoir Level (M)	29.6

Head at Minimum Draw Down Level (M)	28.26
MW capability at FRL	77.33 with sufficient inflow required for machines
MW Capability at MDDL	61.86
11. Tail Race Tunnel/Channel	
Diameter (M), Shape	Canal
Length (M)	
Minimum tail water Level (M)	
12. Switchyard	
Type of Switchgear	132 KV SF-6 breaker outdoor type 33KV VCB Outdoor Type & 11KV VCB Indoor Type
No. Generator Bays	3
No. of Bus Coupler bays	1
No. of line bays	4
Efficiency (overall) Turbine and Generator	


 Director/Power Regulation
 Bhakra Beas Management Board
 CHANDIGARH

Details of COD, Type of hydro station, Normative Annual Plant Availability Factor (NAPAF) & other normative parameters considered for tariff calculation

Name of the Petitioner : Superintending Engineer/DPH, Circle BBMB (PW), Slapper.

Name of the Generating Station : Dehar Power House.

S. No.	Particulars	Unit	Existing 2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Installed Capacity	MW	990	990	990	990	990	990
2	Free power to home state	%	Nil	Nil	Nil	Nil	Nil	Nil
3	Free Power under Local Area Development Fund (LADF)	%	Nil	Nil	Nil	Nil	Nil	Nil
4	Date of commercial operation (actual/ anticipated)		Original	Stator/ Stator Bar Changed				
	Unit -1		02.11.1977	13.07.1985				
	Unit -2		03.03.1978	27.09.1993				
	Unit -3		12.06.1979	29.06.2007				
	Unit -4		12.06.1979	20.04.2009				
	Unit-5		14.07.1983	19.07.2018				
	Unit-6		10.11.1983	01.07.2017				
5	Type of Station							
	(a) Surface/ underground		Surface	Surface	Surface	Surface	Surface	Surface
	(b) Purely ROR/ Pondage/Storage		ROR with pondage	ROR with pondage	ROR with pondage	ROR with pondage	ROR with pondage	ROR with pondage
	(c) Peaking/ non-peaking		Both peaking & non-peaking	Both peaking & non-peaking	Both peaking & non-peaking	Both peaking & non-peaking	Both peaking & non-peaking	Both peaking & non-peaking

	(d) No. of hours of peaking		Less than 3 hrs.	Less than 3 hrs.	Less than 3 hrs.	Less than 3 hrs.	Less than 3 hrs.
	(e) Overload capacity (MW) & period		-	-	-	-	-
6	Type of excitation		-	-	-	-	-
	(a) Rotating exciters on generator		-	-	-	-	-
	(b) Static excitation		Static	Static	Static	Static	Static
7	Design Energy (Annual) ¹	MU	3110.00	3110.00	3110.00	3110.00	3110.00
8	Auxiliary Consumption including Transformation losses	%	1.27%	1.00%	1.00%	1.00%	1.00%
9	Normative Plant Availability Factor (NAPAF)		94.09%	100%	100%	100%	100%
S. No.	Particulars	Unit	Existing 2023-24	2024-25	2025-26	2025-27	2027-28
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
9.1	Maintenance Spares for WC	% of O&M	15%	15%	15%	15%	15%
9.2	Receivables for WC	in Months	2	2	2	2	2
9.3	Base Rate of Return on Equity	%	16.50%	16.50%	16.50%	16.50%	16.50%
9.4	Base Rate of Return on Equity on Add. Capitalization						
9.5	Tax Rate ²	%	NA	NA	NA	NA	NA
9.6	Effective Tax Rate ⁴		NA	NA	NA	NA	NA
9.7	SBI Base Rate + 325 basis points as on ³	%	13.50%	13.50%	13.50%	13.50%	13.50%
9.8	β-Average Monthly Frequency Response Performance ⁵	0-1					

1. Monthwise 10 day Design energy figures to be given separately with the petition.
2. Tax rate applicable to the company for the year FY 2023-24 should also be furnished.
3. Mention relevant date.
4. Effective tax rate is to be computed in accordance with Regulation 31.
5. To be submitted at the time of truing up based on RPC certification.

Salient Feature of Hydroelectric Project

Name of the Petitioner : Superintending Engineer/DPH, Circle BBMB (PW), Slapper.

Name of the Generating Station : Dehar Power House.

1. Location	
State/Distt.	Himachal Pradesh/Distt. Mandi
River	Beas
2. Diversion Tunnel	Dehar by pass tunnel
Size, Shape	Diameter-6.71 m, Circular
Length (M)	296.8 m
3. Dam	Pandoh Dam
Type	Earth-cum-Rockfill
Maximum dam height (M)	76.2 m
4. Spillway	Of Pandoh Dam
Type	Orifice Type gate-controlled chute
Crest level of spillway (M)	El. 874.78 m
5. Reservoir	Of Pandoh Dam
Full Reservoir Level (FRL) (M)	El. 896.42 m
Minimum Draw Down Level (MDDL) (M)	El. 883.92 m
Live storage (MCM)	18.55 MCM
6. De-silting Chamber	
Type	-
Number and Size	-
Particle size to be removed (mm)	-
7. Head Race Tunnel	
Size and Type	Diameter- 4.877 m / Type- Steel lined underground & surface penstock
Length (M)	228.06 m to 228.83 m
Design Discharge (Cumecs)	134.506 Cumecs

8. Surge Shaft	
Type	Underground differential
Diameter(M)	Main shaft- 22.86 m Riser shaft- 7.62 m
Height (M)	125 m
9. Penstock/Pressure shafts	
Type	Steel lined underground & surface penstock
Diameter & Length (M)	Diameter - 3.353 m / Length - (503.46 m to 513.67 m)
10. Power House	Dehar Power House
Installed Capacity (No. of Units x MW)	990 MW (6 x 165 MW)
Type of Turbine	Francis Vertical Shaft
Rated Head (M)	282 Meters
Rated Discharge (Cumecs)	67.3 m ³ (2200 Cusecs)
Head at Full Reservoir Level (M)	340 M
Head at Minimum Draw Down Level (M)	325 M
MW capability at FRL	
MW Capability at MDDL	
11. Tail Race Tunnel/Channel	Open Tail Race Level
Diameter (M), Shape	4.862 m (wide) x 2.438 m (height), Rectangular
Length (M)	
Minimum tail water Level (M)	496.824 m
12. Switchyard	
Type of Switchgear	Outdoor 400 KV, 220 KV & 132 KV, SF-6 type
No. Generator Bays	6
No. of Bus Coupler bays	1
No. of line bays 220 KV-3, 400 KV-2 And 132 KV-1	6

Efficiency (overall) Turbine and Generator	Turbine-90.4% at 282 mtr. Head Generator-at full load 98.15%
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Note: Specify limitation on generation during specific time period(s) on account of restrictions on water use due to irrigation, drinking water, environmental considerations etc.


(Petitioner)

**Director/Power Regulation,
Bhakra Beas Management Board
CHANDIGARH**



Details of C Details of COD, Type of hydro station, Normative Annual Plant Availability Factor (NAPAF) & other normative parameters considered for tariff calculation

Name of the Petitioner : Bhakra Beas Management Board
 Name of the Generating Station : Pong Power House, Talwara.

S. No.	Particulars	Unit	Existing 2023-24	Year Ending March				
				2024- 25	2025- 26	2026- 27	2027- 28	2028- 29
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Installed Capacity	MW	396	396	--	--	--	--
2	Free power to home state	%	NA	NA	NA	NA	NA	NA
3	Free Power under Local Area Development Fund (LADF)	%	NA	NA	NA	NA	NA	NA
4	Date of commercial operation (actual/anticipated)							
	Unit-1							
	Unit-2							
	Unit-3							
	Unit-4							
	Unit-5							
	Unit-6							
5	Type of Station							
	a) Surface/underground							
	b) Purely ROR/ Pondage/Storage							
	c) Peaking/non-peaking							
	d) No. of hours of peaking							
	e) Overload capacity (MW) & Period							
6	Type of excitation							
	a) Rotating exciters on generator							
	b) Static excitation							

7	Design Energy (Annual) ¹		GWh	NIL					-
8	Auxiliary Consumption including Transformation losses		%	1.45%					-
9	Normative Plant Availability Factor (NAPAF)		%	68%					-
S. No.	Particulars		Unit	Existing 2023-24	2024- 25	2025- 26	2026- 27	2027- 28	2028- 29
(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)	(9)
9.1	Maintenance Spares for WC		% of O&M				N.A.		
9.2	Receivables for WC		in Months				N.A.		
9.3	Base Rate of Return on Equity		%				N.A.		
9.4	Base Rate of Return on Equity on Add. Capitalization						N.A.		
9.5	Tax Rate ²		%				N.A.		
9.6	Effective Tax Rate ⁴						N.A.		
9.7	SBI Base Rate + 325 basis points as on _____ ³		%				N.A.		
9.8	β- Average Monthly Frequency Response Performance ⁵		0-1				N.A.		

1. Monthwise 10 day Design energy figures to be given separately with the petition.
2. Tax rate applicable to the company for the year FY 2023-24 should also be furnished.
3. Mention relevant date
4. Effective tax rate is to be computed in accordance with Regulation 31.
5. To be submitted at the time of truing up based on RPC certification.

Salient Features of Hydroelectric Project

Name of the Petitioner : Bhakra Beas Management Board

Name of the Generating Station : Pong Power House, Talwara.

1. Location	
State/Dist.	Himachal Pradesh / Kangra
River	Beas
2. Diversion Tunnel	
Size, shape	9.14 M
Length (M)	Power Tunnel P1: 610 M, Irrigation Tunnel T1: 1363.37 M Power Tunnel P2: 592 M, Irrigation Tunnel T2: 1336.36 M Power Tunnel P3: 573 M
3. Dam	
Type	Earth Core-cum-Gravel Shell
Maximum dam height (M)	132.59 M
4. Spillway	
Type	Over flow gate Chute Spillway.
Crest level of spillway (M)	416.05 M
5. Reservoir	
Full Reservoir Level (FRL) (M)	EL 426.72 M
Minimum Draw Down Level (MDDL) (M)	EL 384 M
Live storage (MCM)	7290 x 10 ⁶ m ³
6. De-silting Chamber	
Type	N.A.
Number and Size	N.A.
Particle size to be removed(mm)	N.A.
7. Head Race Tunnel	
Size and type	P1, P2, P3 = 9.14 m (30 ft.)
Length (M)	P1 = 808.02m, P2 = 772.67m, P3 = 734.26m
Design discharge (Cumecs)	1340 m ³ /sec
8. Surge Shaft	
Type	N.A.
Diameter (M)	N.A.

Height (M)	N.A.
9. Penstock/Pressure shafts	
Type	Steel Liner (Embedded)
Diameter & Length (M)	7.28m (23.885 ft)
Penstock Tunnels	
Number	5
Dia	9.14 m
Aggregate Length of 5 Tunnels	5022.80 m
Penstock Header	
Number	3
Dia	7.28 m
Discharge through each penstock header	215 m ³ / sec
Penstock Branches	
Number	6
Dia	5.025 m
10. Power House	
Installed capacity (No of units x MW)	Original capacity = 6X66 MW Uprated capacity = 6X66 MW
Type of turbine	Vertical Francis
Rated Head(M)	Original rated head = 65.5 Uprated head = 70
Rated Discharge (Cumecs)	106.4 Cumecs
Head at Full Reservoir Level (M)	95.1
Head at Minimum Draw down Level (M)	47.5
MW Capability at FRL	6 X 66 = 396 MW
MW Capability at MDDL	6 X 40 = 340 MW
11. Tail Race Tunnel/Channel	
Diameter (M), shape	Size dia. bed w m = 107 Section shape = Channel
Length (M)	142 M upto Central structure.
Minimum tail water level (M)	EL 330.708 M
12. Switchyard	
Type of Switch gear	Outdoor
No. of generator bays	6 Nos.
No. of Bus coupler bays	2 Nos.
No. of line bays	6 Nos. + 1 No. for 220/66 KV 40 MVA Transformer
Efficiency (overall) Turbine and	Overall efficiency Generator : 97.8%

generator	Average Turbine efficiency : 89.6%
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Note: Specify limitation on generation during specific time period(s) on account of restrictions on water use due to irrigation, drinking water, industrial, environmental considerations etc.


Director/Power Regulation
 Bhakra Beas Management Board
 CHANDIGARH 

PART II

FORM 19 Summary of issue involved in the petition

1.	Petitioner: Bhakra Beas Management Board				
2.	Subject	Determination of Tariff of Generating Stations operated and managed by Bhakra Beas Management Board (BBMB) for the control period 01.04.2024 to 31.03.2029			
3.	Prayer	<p>a) Direct that BBMB shall be entitled to operate the generating station in terms of the provisions of the Punjab Re-organization Act, 1966 and shall be allowed to recover O&M expenditure, additional capital expenditure, R, M& U expenditure from partner States based on the statement of receipt and payment settled between BBMB and the Partner States/State Power Utilities as per the terms of the Punjab Re-organization Act, 1966.</p> <p>b) Relax the requirement to pay the court fees on the petition in view of the nature of the petition not involving detailed tariff determination in the peculiar circumstances of BBMB being governed by the provisions of the Punjab Re-organization Act, 1966.</p> <p>c) Pass such further order or orders as this Hon'ble Commission may deem just and proper in the circumstances of the case.</p>			
4	Respondents				
	Name of Respondents:				
	a.	Punjab State Power Corporation Limited			
	b.	Haryana Vidyut Prasaran Nigam Limited			
	c.	Rajasthan Rajya Vidyut Prasaran Nigam Limited			
	d.	Himachal Pradesh State Electricity Board Limited			
	e.	Union Territory of Chandigarh			
	f.	Haryana Power Purchase Centre			
			Bhakra-Nangal	Dehar	Pong
5.	Project Scope	IC	1568.73 MW	990 MW	396 MW
		DE	5282 MU	3110 MU	1123 MU
		FEHS	NA	NA	NA
		AUX	-	-	-
		NAPAF	NA	NA	NA
	Cost	Sanction Cost Latest RCE			


Director/Power Regulation
Bhakra Beas Management Board
CHANDIGARH

	Commissioning		Unit/Station COD			
	Bhakra (Left)	Bhakra (Right)	Ganguwal	Kotla	Dehar	Pong
Unit 1	14/11/1960	24/05/1966	23/01/1962	14/07/1961	02/11/1977	20/01/1978
Unit 2	02/02/1961	05/12/1966	02/01/1955	23/05/1956	03/03/1978	30/03/1978
Unit 3	07/07/1961	13/03/1967	02/01/1955	27/08/1956	12/06/1979	26/10/1978
Unit 4	08/11/1961	13/11/1967			12/06/1979	06/03/1979
Unit 5	10/12/1961	19/12/1968			14/07/1983	19/09/1982
Unit 6					10/11/1983	25/02/1983
Claim						
	AFC	NA				
	Capital cost	NA				
	Initial spare	NA				
	NAPAF	NA				
	Design Energy	-				
	Any Specific	-				


 Director/Power Regulation.
 Bhakra Beas Management P. Ltd.
 CHANDIGARH