

UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION LUCKNOW

Petition No. 1790 of 2025

FILED BY

U.P. Jal Vidyut Nigam Limited (UPJVNL)

IN THE MATTER OF:

Determination of Multi Year Tariff (MYT) and approval of Annual Revenue Requirement(ARR) for Hydro Power Stations of U.P. Jal Vidyut Nigam Limited (UPJVNL) for F.Y. 2019 to 2024

For Obra,Khara, UGC, Belka, Babail, and Sheetla

Lucknow

Dated: 15.03...2023



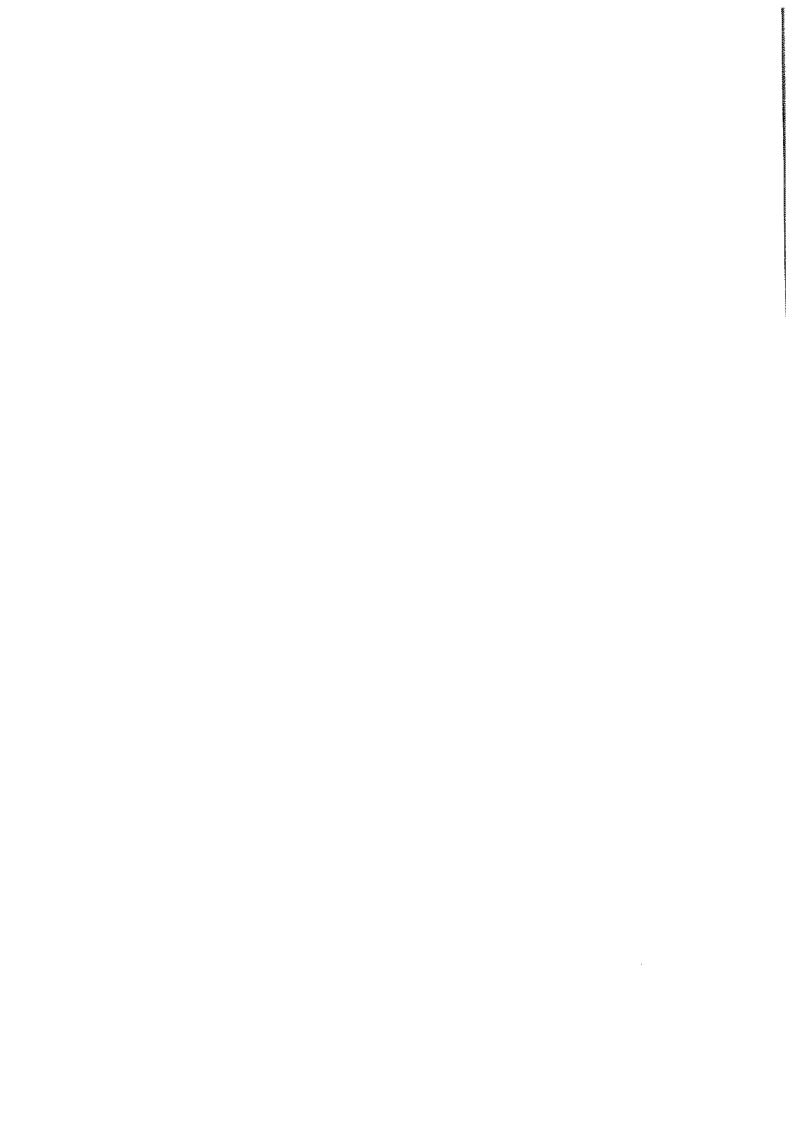




Table of Contents

4	
1. Foreword	4
1.1. Introduction	
1.2. Installed Capacity of the Petitioner	6
1.3. R&M, Refurbishment & Up-rating Program	е
1.4. Regulatory Framework	
3. Obra Hydro Power Station ARR & MYT	18
3.1. UPJVNL Submission	18
3.2. Commission Analysis	18
Gross Fixed Asset	18
Depreciation	19
Interest on Loan	20
Return on Equity	21
Operation and Maintenance	21
Interest on Working Capital	22
Annual Fixed Cost	22
Plant Availability factor	23
4. Khara Hydro Power Station ARR & MYT	25
4.1. UPJVNL Submission	25
4.2. Commission Analysis	25
Gross Fixed Asset	25
Depreciation	26
Interest on Loan	27
Return on Equity	28
Operation and Maintenance	28
Interest on Working Capital	29
Annual Fixed Cost	29
Plant Availability factor	30
5. Upper Ganga Hydro Station ARR & MYT	31
5.1. UPJVNL Submission	31
5.2. Commission Analysis:	31
Gross Fixed Asset	31
Depreciation	32





Interest on Loan	
Return on Equity	
Operation and Maintenance	
Interest on Working Capital	35
Annual Fixed Cost	
6. Babail Hydro Station ARR & MYT	37
6.1. UPJVNL Submission	37
6.2. Commission Analysis:	
Gross Fixed Asset	.,,37
Depreciation	38
Interest on Loan	
Return on Equity	40
Operation and Maintenance	40
Interest on Working Capital	41
Annual Fixed Cost	41
7. Belka Hydro Station ARR & MYT	
7.1. UPJVNL Submission	43
7.2. Commission Analysis:	43
Gross Fixed Asset	43
Depreciation	
Interest on Loan	45
Return on Equity	46
Operation and Maintenance	46
Interest on Working Capital	47
Annual Fixed Cost	47
8. Sheetla Hydro Station ARR and MYT	
9. Summary of Order	50
10. Other Provisions	
11 Implementation of the Order	







Petition No. 1790 of 2023 BEFORE

THE UTTAR PRADESH ELECTRICITY REGULATORY COMMISISON LUCKNOW

(Date of Order:2023)

PRESENT:

Hon'ble Shri Raj Pratap Singh, Chairman Hon'ble Shri Vinod Kumar Srivastava, Member (Law)

IN THE MATTER OF

Petition under Section 62, 86(1)(a) of the Electricity Act, 2003 read Regulation 15(1) of the UPERC (Terms and Conditions of Generation Tariff) Regulations, 2019 for approval of ARR and determination of MYT Tariff for period from 01.04.2019 to 31.03.2024 in respect of Obra, Khara, Upper Ganga Canal, Belka, Babail and Sheetla Hydro Power Stations of UPJVNL. M/s Uttar Jal Vidyut Nigam Limited

Uttar Pradesh Jal Vidyut Nigam Limited (UPJVNL)

Shakti Bhawan, 14 - Ashok Marg, Lucknow - 226001

..... Petitioner

Versus

- Uttar Pradesh Power Corporation Limited (UPPCL) Shakti Bhawan, 14 Ashok Marg, Lucknow - 226001
- Himachal Pradesh Electricity Board Limited (HPEBL)
 Vidyut Bhawan, Shimla, Himachal Pradesh 171004
- Madhya Pradesh Power Management Company Limited (MPPMCL)
 Shakti Bhawan, Vidyut Nagar, Jabalpur (M.P) 482008
- 4. Madhyanchal Vidyut Vitran Nigam Limited (MVVNL) 4A, Gokhale Marg, Lucknow
- Purvanchal Vidyut Vitran Nigam Limited (PuVVNL)
 132 kV Sub-station, Bhikaripur, Vidyut Nagar, Varanasi 221004
- Paschimanchal Vidyut Vitran Nigam Limited (PVVNL)
 Urja Bhawan, Victoria Park, Meerut 250001
- 7. Dakshinanchal Vidyut Vitran Nigam Limited (DVVNL) Galina Road, Sikandara Road, Agra





- 8. Kanpur Electricity Supply Company Limited (KESCL) KESA House, Kanpur
- 9. Noida Power Company Limited (NPCL)
 Commercial Complex, H-Block, Alpha-II Sector, Greater Noida
 Respondent(s)

The following were present:

- 1. Chief Engineer (O&M), UPJVNL
- 2. Shri Syed Saif Nagyi, Consultant, UPJVNL
- 3. Shri Lalit Varshney, UPJVNL
- 4. Shri Vivek Ranjan, Consultant, UPPCL
- 5. Shri Mahendra Singh, S.E(PPA), UPPCL
- 6. Shri Rama Shankar Awasthi, Consumer representative
- 7. Shri Avdhesh Kumar Verma, Adhyaksh U.P.R.U.P

ORDER

(Date of Public Hearing - 13.01.2023)

1. Foreword

1.1. Introduction

- 1.1.1. Uttar Pradesh Jai Vidyut Nigam Limited (UPJVNL), hereinafter referred to as the "Petitioner" is a company incorporated on 15th April 1985 under the Companies Act 1956 in the name of "Uttar Pradesh Alparthak Evam Laghu Jai Nigam (UPAELJVN)" which was subsequently changed to "Uttar Pradesh Jai Vidyut Nigam Limited" on 17th December 1996.
- 1.1.2. UPAELJVN was incorporated to investigate new sites for Mini & Small hydroelectric schemes in hilly & plain regions of the State, formulate detailed project reports, and execute the same. The main objectives to be pursued by the Company were as mentioned below:
 - > To establish, operate and maintain small hydroelectric generating stations and associated transmission lines and sub-stations.
 - > Survey & investigation of New Small Hydro-Electric Schemes and Preparation of Project Reports.
 - > To enter into arrangements for the sale of electricity generated by Nigam to the U.P State Electricity Board or to any other agency with the state government's consent.
 - > Electrification of the villages located near Nigam's Small Hydro-Electric Projects. To promote the participation of the Private sector in the development of Small Hydro-Electric Projects in Uttar Pradesh.



John



- 1.1.3. The reforms in the power sector of Uttar Pradesh started with the enactment of the Uttar Pradesh Electricity Reforms Act, 1999. Subsequently, Uttar Pradesh Electricity Reforms Transfer Scheme, 2000 (hereinafter referred to as the First Transfer Scheme) was notified vide notification No. 149/P-1/2000-24, Lucknow, on 14th January 2000.
- 1.1.4. Consequent to this, Uttar Pradesh State Electricity Board (UPSEB) was unbundled into three different entities, Uttar Pradesh Power Corporation Limited (UPPCL), Uttar Pradesh Rajya Vidyut Utpadan Nigam Limited (UPRVUNL) and Uttar Pradesh Jal Vidyut Nigam Limited (UPJVNL). Uttar Pradesh Power Corporation Limited (UPPCL) was vested with the responsibility of the transmission and distribution of electricity. Uttar Pradesh Rajya Vidyut Nigam Limited (UPRVUNL) was vested with the responsibility of the generation and sale of electricity from the thermal generating stations and Uttar Pradesh Jal Vidyut Nigam Limited (UPJVNL) was vested with the responsibility of the generation and sale of electricity from the hydro generating assets of erstwhile UPSEB.
- 1.1.5. As part of the scheme all Hydro Power generating stations as set out in Schedule B to the transfer scheme were transferred to and vested with the Petitioner. The transfer Scheme vide GoUP vide notification no. 348/P-1/2001-24 dated 25th January 2001 made the Transfer Scheme effective from 14th January 2000. The modified Scheme provided that the value of gross fixed assets as INR 943.38 Cr. & Rs. 403.18 Cr as total long-term debt and the equity amount to Rs. 372.18 Cr.
- 1.1.6. Pursuant to the reorganization of the state by carving out the state of Uttarakhand from Uttar Pradesh, the generating assets falling under the geographical domain of Uttarakhand were vested in a new company, the Uttarakhand Jal Vidyut Nigam Limited (UJVNL) with effect from 08th November 2001 the date on which the State of Uttarakhand was carved out of Uttar Pradesh. The MoP, GoI in its Order No. 42/7/2000 dated 05th November 2001 laid down the procedure for the division of 'Assets & Liabilities' between UPJVNL & UJVNL, the Board of Directors of UPJVNL accorded their approval for the transfer of balances to UJVNL in its 70th Meeting dated 07th August 2003. The balances were transferred retrospectively dated 08th November 2001. UPJVNL transferred a provisionally GFA balance of INR 676.22 Cr to UJVNL. The transfer of balances to UJVNL has in effect altered the capital cost and cost structures devolved upon it by the First Transfer Scheme. The following shows the changes in the GFA values in context with the Uttarakhand Transfer Scheme





Table 1 Capital Structure as per the Transfer Scheme

Table	1 Capital Structure a	s per the transfer beneme
Ca	apital Structure as pe irst Transfer Scheme	Capital Structure as per
UP Plants	432.49	320.19
UT Plants	510.88	676.22
GFA Balance	943.38	996.42[1]

1.1.7. The First Transfer Scheme had assigned a GFA value of INR 432.49 Cr to the hydro stations of Rihand, Obra, Matatila, Khara, and UGC (pertaining to UP). However, the UPJVNL assigned a higher value at the time of transfer of balances to UJVNL to the hydro stations situated in Uttarakhand, thereby assigning a GFA value of only INR 320.19 Cr as against the erstwhile value of INR 432.49 Cr for hydro stations of UP. The annual accounts of UPJVNL have been prepared considering the transfer of balances to UJVNL (where GFA transferred to UJVNL was INR 676.22 Cr.). The finalization of assets and liabilities between UPJVNL and UJVN is still pending due to some disputes, which are referred to GoI for final settlement.

1.2. Installed Capacity of the Petitioner

1.2.1. Consequent to the Transfer Scheme, 2000 dated 14th January 2000 the total capacity transferred to and vested with UPJVNL was 1494.35 MW as shown in the table below:

Table 2 Running Hydro Power Stations as per Transfer Scheme, 2000

S. No.	Power Station Detail	Units (Nos)	Unit Capacity (in MW)	Total Capacity (in MW)
. 1	Rihand Power Station	6	50	300
2	Obra Hydel Power Station	3	33	99
3	Matatila Power Station	3	10.2	30.6
4	Khatima Power Station	3	, 13.8	41.4
5	Ramganga Power Station	3	66	198
6	Dhakrani Power Station	3	11.25	33.75
7	Dhalipur Power Station	3	17	51
8	Chibro Power Station	4	60 .	240
9	Kulhal Power Station	3	10	30
10	Chilla Power Station	4	36	144
11	Khodri Power Station	4	30	120

^[1] Includes opening balance as on 14th January 2000 of UP Laghu Jai Vidyut Nigam Limited, Capital additions in FY 2000 and excluding balance of INR 0.71 Cr pertaining to Belka & Babail





12	ManeriBhali Stage I	3	30	90
	Power Station			
13	Khara Power Station	3	24	72
Uppe	r Ganga Canal Power Sta	ations		
		4	0.375	1.5
14 Bh	Bhola Power Stations	2	0.6	1.2
15	Palra Power Station*	3	0.2	0.6
16	Sumera Power Station*	2	0.6	1.2
17	Salwa Power Station	2	1.5	3
1.8	Chitaura Power Station	2	1.5	3
19	Nirgazini Power Station	2	2.5	5
20	Mohammadpur Power	3	3.1	9.3
20	Station		J, I	
21	Pathri Power Station	3	6.8	20.4
	Total	68		1494.35

^{*} Units were abandoned at the time of transfer

1.2.2. On the reorganization of the State of UP and formation of Uttarakhand, assets, with effect from 09th November 2001, Uttar Pradesh was left with an installed capacity of only 515.3 MW. In pursuance of Government of India (GoI) order No. 42/7/2000–R&R dated 05th November 2001 assets and liabilities of the Petitioner were shared between the Petitioner & Uttarakhand Jal Nigam Limited (UJVNL). Accordingly, the details of Installed Capacity and the age of the generating stations retained with Petitioner are listed in the table below:

Table 3 Running Hydro Power Stations vested with UPJVNL pursuant to GoI order dated 05th November 2001

S. No	Hydro Power Station	Unit No.	Derated Capacity (in (MW)	Date of . Commercial Operational	Age of Plant as on 31 st March 2019 (4n Years)
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1	50	1962	57
		2	50	1962	57
		3	50	1962	57
	Rihand Power	.4	50	1962	57.
1		5	50	1962	57
		6	50	1966	53
	relative particular and the second se		300	Average Age	56
		1	33	15-05-1970	49
	Obra Hydel Power Station	2	33	07-12-1970	48
2		3	33	08-04-1971	48
		Sub- Total	99	Average Age	48
3		1	10.2	26-02-1965	54





S. No	Hydro Power Station		Derated Capacity (in MW)	Date of Commercial Operational	Age of Plant as on 31st March 2019 (In Years)
		2	10.2	02-06-1965	54
	Matatila Power	3	10.2	03-09-1965	54
	Station	Sub- Total	30.6	Average Age	54
		1	24	29-12-1992	26
		2	24	29-12-1992	26
4	Khara Power Station	3	24	29-12-1992	26
••	Kildid i Svio. Station	Sub- Total	72	Average Age	26
Hanai	Ganga Canal Power St	<u> </u>			
Opper	danga canar rouge oc	1	2.5	1937	82
	 Nirgazini Power	2	2.5	1931	88
5 Station		Sub- Total	5	Average Age	85
		1	1.5	1938	81
		2	1.5	1938	81.
6 Chitaura Power Station	Sub- Total	3	Average Age	81	
		1	1.5	1937	82
	Salawa Power	2	1,5	1937	82
7 Station	} ,	Sub- Total	3	Average Age	82
		1	0.375		90
		2	0.375	-	89
		3	0.375	Between	88
	Bhola Power Stations	4	0.375	1929-1935	87
8		5	0.6	1	85
		6	0.6	7	84
		Sub- Total	2.7	Average Age	87
	Total		515.3	Average Age	65

1.2.3. In addition to the above, post the Uttarakhand Transfer Scheme, UPJVNL has commissioned the following hydropower stations, taking the total capacity to 524.9 MW:

Table 4 New Hydro Power Commissioned by Cr. 3412				
Name of the Project	District	Year of Commissioning	Capacity (MW)	
Belka	Saharanpur	2002-03	2 x 1.5	
Babail	Saharanpur	2002-03	2 x 1.5	
Sheetla	Jhansi	2006-07	3 x 1.2	

