

Petition before the
Hon'ble Uttarakhand Electricity Regulatory Commission
For
Filing of Petition for approval of Project Cost & Annual Fixed
Charges for the FY 2022-23, FY 2023-24 & FY 2024-25.
For
Vyasi Hydro Electric Project
(2x60 MW)

By
UJVN Limited.
Dehradun, Uttarakhand.
November - 2023



UJVN Limited
(A Govt. of Uttarakhand Enterprise)



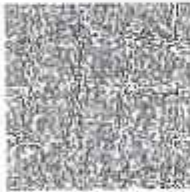
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Government of Uttarakhand

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BEFORE THE HON'BLE UTTARAKHAND ELECTRICITY REGULATORY COMMISSION

In the matter of:

Filing of petition for approval of Project Cost & Annual Fixed Charges for the FY 2022-23, FY 2023-24 & FY 2024-25 for Vyasi Hydro Power Project (2x60 MW) under Section 62 and 86 of the Electricity Act, 2003 read with the relevant regulations and guidelines of the Hon'ble Commission.

(Suresh Chandra Beluni)
Director (Project)
UJVN Limited

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(i)

Affidavit

I, Suresh Chandra Baluni S/o Sh. Narayan Prasad Baluni, aged 59 years, working as Director (Projects), UJVN Ltd., residing at 175, Phase-I, Engineers Enclave, GMS Road, Dehradun, the deponent named above, do hereby solemnly affirm and state on oath as under: -

1. That the deponent, the petitioner in the matter, is the Director (Projects) of UJVN Ltd., Maharani Bagh, G.M.S. Road, Dehradun, and is acquainted with the facts deposed below.
2. I, the deponent named above do hereby verify that the contents of the Paragraph No. 1 of the affidavit and those of the Paragraph No. A to L of the accompanying petition are true and correct to my personal knowledge and based on the perusal of official records, information received and the legal advice which I believe to be true and verify that no part of this affidavit is false and nothing material has been concealed.


(Suresh Chandra Baluni)
Director (Project)
UJVN Limited
(Deponent)

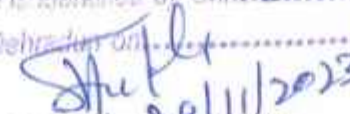
I, B. S. Bisht Advocate, D. Dun., do hereby declare that the person making this affidavit is known to me and I am satisfied that he is the same person alleging to be deponent.


V.L. SHUKLA
Advocate & Notary
Reg. No. 101/2003

Solemnly affirmed before me on this 29th day of Nov. 2023 at _____ a.m./ p.m. by the deponent who has been identified by the aforesaid advocate.


B.S. BISHT
Advocate
Court Compound, Dehradun.
Reg. No.-UP-3478/83, UA-94/2004
Mob.-9411155771 (Advocate)

I have satisfied myself by examining the deponent that he understood the contents of the affidavit, which has been read over and explained to him. He has also been explained about Section 193 of Indian Penal Code that whosoever intentionally gives false evidence in any of the proceedings of the Commission or fabricates evidence for purpose of being used in any of the proceedings shall be liable for punishment as per law.

(This affidavit is sworn before me by
Shri. Suresh Chandra Baluni
who is identified by Shri. B.S. Bisht
at Dehradun on 29/11/2023

Smt. Viley Laxmi Shukla
Advocate & Notary, D. Dun.

(Notary Public)

INDEX

Sl. No.	Particulars	Page No.
A.	Specific Legal Provisions under which the Petition is being filed	5
B.	Limitation	5
C.	Facts of the case	5-6
C.1.	Chapter : 1 Approval of Project Cost	7-44
a.	Background of the Vyasi Project development	8-14
b.	Revision of the Project cost	14-27
c.	Revised Salient Features	28-33
d.	Norms of Operation	34
e.	Normative Annual Plant Availability Factor (NAPAF)	34-41
f.	Auxiliary Energy Consumption	41-42
g.	Capital Costs	42-43
h.	Means of Financing	43
i.	Debt - Equity Ratio	43-44
C.2.	Chapter : 2 Determination of Tariff Petition for the FY 2022-23 (COD to March 2023)	45-58
a.	Capital Cost	46
b.	Additional Capitalisation	46
c.	Interest on loan	47-48
d.	Depreciation	48-50
e.	Operation & Maintenance Expenses	50-51
f.	Return on Equity (ROE)	51-52
g.	Interest on Working Capital	52-53
h.	Non-Tariff Income	53-54
i.	Total Annual Fixed Charges (AFC) For the HEP	55
j.	Capacity Charge & Energy Charge	55-58
k.	Infirm Power	58
C.3.	Chapter : 3 True-up for the FY 2022-23 (from COD i.e. 24.05.2022 to 31.03.2023)	59-73
a.	Capital Cost	60

**Final Cost & AFC for FY 2022-23, FY 2023-24 & FY 2024-25 for 2x60 MW Vyasi Hydro
Power Project**

Sl. No.	Particulars	Page No.
b.	Additional Capitalisation	60-61
c.	Interest on loan	61-63
d.	Depreciation	63-65
e.	Operation & Maintenance Expenses	65-67
f.	Return on Equity (ROE)	68-69
g.	Interest on Working Capital	69-70
h.	Non-Tariff Income	70-71
i.	Total Annual Fixed Charges (AFC) For the HEP	71-72
j.	Gap in AFC	72-73
C.4.	Chapter : 4 Annual Performance Review for the FY 2023-24 (H1 Actual - H2 Projected)	74-86
a.	Capital Cost	75
b.	Additional Capitalisation	75-76
c.	Interest on loan	76-77
d.	Depreciation	77-79
e.	Operation & Maintenance Expenses	79-80
f.	Return on Equity (ROE)	80-81
g.	Interest on Working Capital	81-82
h.	Non-Tariff Income	82-84
i.	Total Annual Fixed Charges (AFC) For the HEP	84
j.	Capacity Charge & Energy Charge	84-86
C.5.	Chapter : 5 Aggregate Revenue Requirement for the FY 2024-25	87-99
a.	Capital Cost	88
b.	Additional Capitalisation	88-89
c.	Interest on loan	89-90
d.	Depreciation	90-92
e.	Operation & Maintenance Expenses	92-93

**Final Cost & AFC for FY 2022-23, FY 2023-24 & FY 2024-25 for 2x60 MW Vyasi Hydro
Power Project**

Sl. No.	Particulars	Page No.
f.	Return on Equity (ROE)	93-94
g.	Interest on Working Capital	94-95
h.	Non-Tariff Income	96-97
i.	Total Annual Fixed Charges (AFC) For the HEP	97
j.	Capacity Charge & Energy Charge	97-99
C.6.	Income Tax	100
D	Cause of Action	100
E	Ground of Relief	101
F	Detail of Remedies Exhausted	101
G	Matter Not Previously Filed or Pending With any Court	101
H	Relief Sought	101-102
I	Interim Order, if any, prayed for	102
J	Details of Index	102
K	Particulars of Fee Remitted	103
L	List of Enclosures	103
Details of Fromats		
Details of Annexure		

BEFORE THE HON'BLE UTTARAKHAND ELECTRICITY REGULATORY
COMMISSION

At "Vidyut Niyamak Bhawan", Near ISBT, Dehradun, Uttarakhand.

FILING NO. _____

CASE NO. _____

In the matter of: Filing of petition for approval of Project Cost & Annual Fixed Charges for the FY 2022-23, FY 2023-24 & FY 2024-25 for Vyasi Hydro Power Project (2x60 MW) under Section 62 and 86 of the Electricity Act, 2003 read with the relevant regulations and guidelines of the Hon'ble Commission.

AND

In the matter of: UJVN Ltd. a Company incorporated under the provisions of the Companies Act, 1956 and having its registered office at "UJJWAL", Maharani Bagh, GMS Road, Dehradun -
Petitioner.



(Suresh Chandra Baluni)
Director (Project)
UJVN Limited

A. Specific Legal Provisions under which the Petition is being filed

The UJVN Ltd. under Section 62 and 86 of the Electricity Act, 2003 read with Regulation 42(5) of the Uttarakhand Electricity Regulatory Commission (Terms and Conditions for Determination of Multi Year Tariff) Regulations, 2021 is filing this Tariff Petition before the Hon'ble Commission for approval of Project Cost & Final Tariff for Vyasi HEP.

Further, the UJVN Ltd. in accordation with Regulation 1(3), 11(1) and 12 of Uttarakhand Electricity Regulatory Commission (Terms and Conditions for Determination of Multi Year Tariff) Regulations, 2021 is filing this petition for approval of Annual Fixed Charges for the FY 2022-23, FY 2023-24 & FY 2024-25.

B. Limitation

This petition is not barred by Limitation.

C. Facts of the case

1. The Petitioner, UJVN Ltd. is a company incorporated under the provisions of the Companies Act, 1956, having its registered office at UJJWAL, Maharani Bagh, GMS Road, Dehradun.
2. Vyasi Hydro Electric Project is a Run-of-River (RoR) with pondage scheme on river Yamuna, in District Dehradun (Uttarakhand).
3. The powerhouse of Vyasi HEP is located near Hathiari village in Dehradun district of Uttarakhand at about 52 Km away from the city of Dehradun and is on the downstream of the proposed Lakhwar dam at Juddo.
4. The Dam is situated near Judo Village at about 58 kms from Dehradun with a headrace tunnel having diameter of 7.0 m and length 2.7 Km and design discharge of 119.78 m³/second.
5. The Petitioner filed petition before the Hon'ble Commission for approval of Provisional Tariff for Vyasi HEP under Section 62 and 86 of the Electricity Act, 2003 read with Regulation 42(4) of the Uttarakhand Electricity Regulatory Commission


(Suresh Chandra Baluni)
Director (Project)
UJVN Limited

(Terms and Conditions for Determination of Multi Year Tariff) Regulations, 2021 on 09.11.2022.

6. The Petition was taken on record by the Hon'ble Commission as Case No.32 of 2022.
7. The Hon'ble Commission vide its letter dated 21.10.2022 sought comment/reply from the Respondent on the Petition filed by the Petitioner and allowed the Respondent time till 07.11.2022 for submitting its reply in the matter. However, the Respondent did not make any submission before the Hon'ble Commission during the said time frame.
8. The Hon'ble Commission vide Order Dt. 09.11.2022 allowed Provisional Tariff of Rs. 7.60 per unit, to meet/recover the expenses till determination of final tariff and directed the Petitioner to file the petition for determination of final tariff in accordance with the MYT Regulations.
9. In view of the above, the Petitioner is filing the instant petition for approval of project cost, Final Tariff & determination of Annual Fixed Charges for the FY 2022-23, FY 2023-24 & FY 2024-25 in respect of the Vyasi HEP.



(Suresh Chandra Baluni)
Director (Project)
UJVN Limited

C.1. Chapter: 1

Approval of Project Cost

a. Background of the Vyasi Project Development

1. Lakhwar-Vyasi Project (420 MW) was originally approved by Planning Commission of Government of India under 5th Plan on dated 09-01-1976 as multipurpose scheme. The project was originally approved by Planning Commission with estimated cost of Rs. 140.97 Crore. in January, 1976 as multipurpose scheme in the state sector for execution by Irrigation Deptt. of erstwhile Uttar Pradesh. Environmental clearance and Forest clearance was accorded to the project by MOE&F earlier.
2. The initial work of Lakhwar-Vyasi Project was started in 1979 for infrastructural development and preliminary works. The major civil works such as construction of dam, power house, HRT etc. commenced in 1987 for which three major contracts for main civil works for the construction of the project were signed in July 1987. The work on this project were in progress up to 1992 and construction works, mainly open and underground excavation on both Lakhwar dam scheme and Vyasi project was executed partially. The work on this project was suspended in 1992.
3. With the formation of new state of Uttarakhand in November 2000, State Government of Uttarakhand restarted the work on this project. State Government of Uttarakhand vide letter No. 1547 dated 3rd October 2002 conveyed their decision to allot this project in principle to NHPC. A Memorandum of Understanding (MOU) was signed between Uttarakhand Government, Uttarakhand Jal Vidut Nigam (now UJVN Ltd.) and NHPC on 1st November 2003 regarding further execution of Lakhwar-Vyasi Project through NHPC. As envisaged in the MOU, DPR of Lakhwar-Vyasi project as multipurpose scheme was submitted to CWC, Govt. of India, by NHPC in March 2006.
4. Approval of transfer of 868.08 Ha. Forest land (combined for Lakhwar-Vyasi Project) in favor of Irrigation Department, Govt. of UP was accorded by MoEF in year 1986 vide letter no 8-172/86-FRY(cons), dated 31 August 1986. Out of 868.08 Ha. already transferred forest land, 99.93 Ha. land was for Vyasi HEP and balance 768.15 Ha land was for Lakhwar MPP. MoEF vide letter 8-172/1986-FC(pt) dated 14-10-2013 and letter no 8-172/1986-FC_pt) dated 31-01-2014 accorded the approval of Central Govt. for change of user agency from Irrigation department to UJVN Limited in respect of 99.93

Ha. Forest land for construction of Vyasi HEP and 768.15 Ha. of forest land for Lakhwar MPP respectively.

5. Environment clearance for the combined Lakhwar-Vyasi Multi-purpose project was accorded Environment clearance in 1987 by MoEF vide letter no 3/83/79-HCT/En.V/IA dated 3-02-1987 to Irrigation department of erstwhile Uttar Pradesh. Fresh Environmental clearance for Vyasi HEP was accorded by MoEF vide J-12011/48/2007-IA.1 dated 07-09-2007 to NHPC. Later on, GoU allotted the work of Lakhwar-Vyasi Project to UJVN Limited on 23rd June, 2008. With the permission of state government, Vyasi Project (120 MW) was taken up in first phase. Total power generation from Vyasi HEP was initially envisaged as 375.24 MU and in tandem with Lakhwar Project - as 439.80 MU. The estimated project cost was Rs.936.23 Cr.(Including IDC & Financing Charges) at Feb, 2010 price level excluding transmission cost. In this regard the DPR was submitted for the concurrence of Central Electricity Authority.
6. The Central Electricity Authority accorded concurrence (TEC) to the aforesaid scheme at an estimated cost of US\$0.143+Rs. 935.57 Crores including IDC of Rs. 72.51 Crore & FC of Rs. 6.55 Crores at FE Rate Rs. 46.10/US\$ (February, 2010 level) vide their letter no 2/UTR/20/CEA/10-PAC/7508-38, dated 25/10/2010.
7. Supplementary agreement for Power house and related civil works was executed with M/s NPCC Limited with date of start of work as 17.10.2013 after approval of transfer of forest land in favour of UJVN Limited. Construction of balance civil works of Dam and associated structures was awarded to M/s Gammon India Limited with date of start as 20.01.2014. For E&M works, agreement was signed with M/s BHEL on 10.06.2014. For Hydro Mechanical works, agreement has been signed with M/s OM Metal on 27.01.2016. For installation & operation of stone crusher at Plankhera, the permission was given by GoU to M/s GIL vide letter no779/VII-1/13-stone crusher/2015 on dated 11 June 2015. Permission of reuse of excavated material has been given by GoU vide OM No. 66/1/2016-05/104/on dated 7.1.2016.


(Suresh Chandra Baluni)
Director (Project)
UJVN Limited

8. Certain statutory clearances were mandatory before execution of Project works. Status of Clearances available are as follows:

- The Environmental clearance of Vyasi HEP was transferred by MoEF in the favor of UJVN Limited vide- J-12011/48/2007-IA.1 dated 22.04.10(Copy enclosed as Annexure - 1).
- Project was approved by CEA vide letter no. 2/UTR/20/CEA/10-PAC/7508-38, Dated 25/10/2011(Copy enclosed as Annexure - 2).
- No objection certificate for construction of Vyasi HEP was received from Ministry of Defence, Government of India vide letter no. 22(5)/2011/D (Coord), Dated 31/10/2011(Copy enclosed as Annexure - 3).
- As per Forest Act, to start the execution of works at site, forest land had to be first transferred to UJVN Ltd. from Irrigation Department. MoEF accorded the approval for change of user agency from Irrigation department to UJVN Limited in respect of 99.93 Ha. forest land for construction of Vyasi HEP on 14/10/2013. After getting approval of change of user agency of forest land, works of project started from January 2014 onwards after lapse of 2 years of concurrence of DPR by CEA(Copy enclosed as Annexure - 4).
- R&R policy- Detail guidelines were issued by GoU in January 2016 on rehabilitation package.
- The environmental impacts of proposed Project have been studied in the light of construction of dam, submergence of land, road construction, dumping of excavated material, quarrying, changes in the land use pattern, etc. EIA & EMP study of Vyasi HEP has been carried out by G.B. Pant Institute of Himalayan Environment and Development in December 2006. The main objective of EIA study was to assess the positive and negative impacts likely to accrue as a result of the construction and operation of the Vyasi HEP and to suggest suitable environmental management plans to ameliorate the adverse impacts and enhance the positive


(Suresh Chandra Baluni)
Director (Project)

impacts. To overcome the impacts of construction of the project various management plans were studied and being developed as below:

- **Catchment Area Treatment Plan-** The catchment area treatment is extremely essential in the context of hydropower development as the life of the reservoir depends on the type of the catchment. Yamuna River is also prone to flash floods and carries a lot of sediments. The objective of CAT plan is to arrest eroded soil in the upstream catchment by taking up adequate and effective soil conservation measures, rehabilitation of degraded forest areas through natural regeneration & afforestation, reduction/control of faulty cultivation practices through suitable and appropriate alternatives acceptable to villagers. The provision of CAT plan in DPR is Rs 1714.33 Lakh. However, the demand of forest Department Rs 1886.43 Lakh has already been released to Compensatory Afforestation Fund (CAF) Uttarakhand account of MoEF against CAT plan Vide letter no. **89/यूजेवीएनलि/निदे० (परियो०)/ई-14 दिनांक. 15-03-2013.**
- **Sustenance of Riverine Fisheries-** As per the finding, Mahseer are the migratory fishes which may get affected by the construction of Vyasi dam. For the conservation of Mahseer fishes present in Yamuna River, habitat, breeding ground and other fish biodiversity is being developed under the supervision of Directorate of Cold-Water Fisheries (DCFR), Bhimtal. It will pave a way in developing management strategies for conservation of Mahseer populations. This will also help in demarcating the refuge and spawning areas/stretches of Mahseer population, thus may be useful in planning the future developmental projects along the river basin. The desired action has already been taken to protect the Mahseer.
- **Resettlement and Rehabilitation Plan-** Vyasi project is located on left bank of river Yamuna. Dam site of Vyasi is situated at place Juddo which belongs to ST category habitants. Power house site of the project is situated at place Hathiari on left bank of river which belongs to SC/OBC category of people. Different committees have been formed by project affected peoples belonging to their habitat. Time to time meetings with these different committees of project affected families have been

(Suresh Chandra Baluni)
Director (P.T. & S.)
UJVN Limited

organized to resolve their demands/issues. SDM, Vikasnagar has been appointed as the Rehabilitation & Resettlement Officer of Vyasi HEP by GoU. A committee has been formed for coordination between project affected villagers.

- During 1974 to 1990, land acquisition for Lakhwar Vyasi HEP in different stages was done by UP Irrigation Department through Special Land Acquisition Officer, Dehrdaun/Tehri, Garhwal. Total 37.4882 hect. land acquisition of Tehsil Vikasnagar & Tehsil Kalsi was done. 0.637 hect. land (0.355 hect. in district Dehradun & 0.282 hect. in district Tehri) in submergence area of Lohari Village has been acquired lately as per the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013.

After restart of the project in 2014, on different demand of Project Affected People, GoU vide order no.66/1/2016-05/104/2005 dated 13-01-2016 issued certain directions pertaining to R&R issues of Lakhwar and Vyasi Project in which it is also directed to grant ex-gratia payment of @Rs.75 lakh/hectare against already acquired land.

- For execution of works following five major contracts of Vyasi HEP (120 MW) were signed and are detailed as under:

Description of Contract	Brief details of contract	Name of the agency to whom contract awarded	Value of contract (Rs. in Crore)
Consultancy services for Detailed Design Engineering	Agreement No-01/UJVNL/DGM (CD)/CD&H/2012-13, Dated 09/07/2012 for the Consultancy services for Detailed Design Engineering Date of Contract-16.07.2012	Tractabel Engineering Pvt Ltd. formerly known as M/s Lahmeyer International India Pvt Ltd. Intec House, 37, Institutional Area, Sector - 44, Gurgaon - 122002, NCR, Haryana - India	6.22 Cr.


(Suresh Chandra Baluni)
Director (Project)
UJVNL Limited

Power Project

Dam Contract	Agreement No- 01/DGM (Civil)/VP/UJVNL/DAM/2013-14, Dated 03/01/2014 for the Execution of balance Civil Works related to concrete dam, diversion works, intake and 1.35 km. HRT of Vyasi hydroelectric project (120 MW) in District Dehradun, Uttarakhand. Date of Contract-20.01.2014	M/s Gammon India Limited/ M/s GECPL Veer Savarkar Marg, P.O. Box 9129, Prabha Devi, Mumbai-400025 India	317.05 Cr. (At PL April 2013)
Power house contract	Construction of Hathiri Surface Power House Along with surge Tank, Penstock, 7 M Dia 1.35 Km. Long Head Read tunnel from Hathiri and appurtenant works of Vyasi hydroelectric project (120 MW) in District Dehradun, Uttarakhand. Date of start -17.10.2013 Date of Contract - 13.03.2012	M/s NPCC Limited Plot No.67-68, sector 25, Faridabad-121004	114.59 Cr. (At PL Nov 2009)
H.M. Works			
Description of Contract	Brief details of contract	Name of the agency to whom contract awarded	Value of contract (Rs. in Crore)
Supply & services of HM Equipment of 2x60 MW Vyasi HEP	Detailed Design & engineering, procurement, manufacturing, inspection, shop assembly, shop testing, painting, transportation, site storage, site erection, Installation, testing & commissioning of Hydro mechanical works of Vyasi HEP. Date of Contract - 30.12.2015	OM Metals Infraprojects Ltd. NBCC Plaza, Tower-III, 4th Floor, Sector-5, Pushp Vihar, Saket, New Delhi-110017.	Supply 93.30 Cr. (Taxes Extra) Supply 12.61 Cr. (Taxes Extra)
Supply & services of E&M Equipment of 2x60 MW Vyasi HEP on EPC Basis	Design, engineering, manufacture, quality assurance, quality control, shop assembly, shop testing, transportation, delivery at site, site storage & preservation, erection, testing, commissioning, performance testing, field acceptance testing, training & handing over of E&M equipment of 2x60 MW Vyasi HEP Date of Contract - 31.07.2014	M/s BHEL 3rd Floor, Advani Navis Park, Sector-142, Express way, Noida-201305.	SUPPLY: 103.43 Cr. SERVICES: 21.49 Cr.

(Suresh Chandra Daluni)
Director (Project)
UJVN Limited

10. The construction of the project was commenced in year 2014. Excavation work of dam site was completed in 2017 and excavation work of Powerhouse was completed in December 2016.

b. Revision of the Project cost in December 2018 to Rs. 1581.01 Cr. (with tentative IDC up to December 2019).

1. The cost of Vyasi project was revised as Rs. 1581.01 Cr (with anticipated IDC up to December 2019) in December 2018 and was approved by the BoD, UJVN Ltd in 95th meeting held on 27.09.2019. The brief detail of increase in cost of Rs 644.78 Cr. beyond original DPR cost Rs. 936.23 Cr. is as follows.

Sl. No.	Item Particulars	Amount (₹ Crore)	Percentage (%)
(a)	Direct additional cost due to increase in the quantity of work.	147.65	23%
(b)	Additional provision due to design changes recommended by Technical Advisory Committee (TAC)	121.84	19%
(c)	Price Escalation in DPR cost (From the price level Feb. 2010 to Dec. 2019) *	199.19	31%
(d)	Taxes*	23.00	4%
(e)	Increase in R&R provision as per GoU guidelines against B-Land DPR	39.02	6%
(f)	Others (anticipated increase in O-Miscellaneous, Establishment, consultancy work, X-Environment and Royalty)	30.36	4%
(g)	Anticipated increase in IDC up to December 2019	83.72	13%
(h)	Net Difference	644.78	100%

* Impact of escalation and taxes was only tentative and was subject to variation as per actual.


(Suresh Chandra Baluni)
Director (Project)
UJVN Limited

Power Project

2. The additional direct cost of works due to changes/variation was envisaged Rs. 269.49 Cr. (42%).

➤ Additional spillway bay	12.29 Cr. (2%)
➤ Additional cost incurred to achieve suitable foundation level of dam in deepest blocks	21.95 Cr. (3.4%)
➤ Quantity of reinforcement in dam work,	77.33 Cr. (12%)
➤ Treatment of squeezing zone of HRT and variation in quantity of concrete and support system in HRT	22.21 Cr. (3.4%)
➤ Quantum of excavation and steel plate in penstocks	11.18 Cr. (1.7%)
➤ TRC alignment along with extra provision of outfall gate	45.02 Cr. (7%)
➤ PH back slope treatment	24.63 Cr. (3.8%)
➤ Provision of GIS in place of AIS	41.76 Cr. (6.5%)
➤ Provision of rail lines in spillway bays	7.55 Cr. (1.2%)
➤ Others	5.57 Cr. (1%)
Total	269.49Cr.

3. The revised project cost in view of the above along with the head wise details are provided below.



(Suresh Chandra Daluni)
Director (Project)
UJVN Limited

Power Project

SL. NO.	PARTICULARS	DPR PROVISION (In Cr.)	REVISED DPR COST (In Cr.)	VARIATION (In Cr.)	% VARIATION
A	CIVIL & H-M WORKS				
1	DIRECT CHARGES				
I	WORKS				
A	PRELIMINARY	28.36	32.00	3.64	12.83%
B	LAND	32.52	71.54	39.02	119.98%
C	WORKS	317.79	521.36	203.57	64.06%
J	POWER PLANT CIVIL WORKS	172.57	423.80	251.23	145.58%
K	BUILDINGS	19.66	19.66	-	0%
M	PLANTATION	1.00	1.00	-	0%
O	MISC	16.61	27.50	10.89	65.56%
P	MAINTENANCE DURING CONSTRUCTION	5.44	5.44	-	0%
Q	SPECIAL TOOLS AND PLANTS	1.27	1.27	-	0%
R	COMMUNICATION	34.06	34.06	-	0%
X	ENVIRONMENT AND ECOLOGY	23.34	26.17	2.83	12.12%
Y	LOSSES ON STOCK	1.35	1.62	0.27	20.68%
I	WORKS	653.97	1,165.42	511.45	78.21%
II	ESTABLISHMENT	49.72	60.00	10.28	20.68%
III	TOOLS AND PLANTS	1.00	1.00	-	0%
IV	SUSPENSE	-	-	-	0%
V	RECEIPT AND RECOVERIES Interest from Advance	(0.94)	(4.00)	(3.06)	325.53%
1	TOTAL DIRECT CHARGES	703.75	1,222.42		73.70%
2	INDIRECT CHARGES				
i	CAPITALISED VALUE OF ABATEMENT OF LAND REVENUE	0.36	0.36	-	0%
ii	AUDIT AND ACCOUNT CHARGES	3.27	5.00	1.73	52.91%
A	TOTAL CIVIL & HM WORKS				
B	ELECTRICAL WORKS	149.79	190.45	40.66	27.14%
			1,418.23		
C	IDC	72.51	156.23	83.72	115.46%
D	FINANCING CHARGES	6.55	6.55	-	0%
	DPR COST	936.23	1,581.01	644.78	68.87%

4. Revised cost estimate of Vyasi Project was reviewed at different levels as discussed here under and concurred/consented: -

1- Special Committee constituted by MD, UJVN Ltd. vide letter no 1548/UJVNL/01/MD/C-18, Dated 12/11/2018 with following composition

- Shri. N.N. Singhal, Ex-HoD, Uttar Pradesh Irrigation Department.
- Shri D.K. Agarwal, Ex-HoD, Uttar Pradesh Irrigation Department.
- Director (Finance), UJVNLtd. - Member
- Director (Operations)-UJVNLtd. - Member

(Suresh Chandra Baluni)
Director (Project)
UJVN Limited

- Director (Projects)-UJVNLtd. - Member
 - Shri Rajeev Kumar Agarwal, ED (Civil) LVP, Dakpathar-Member Secretary.
- 2- Technical Advisory Committee (TAC) re-constituted by Board (93rd meeting) with following composition in its 5th meeting held on 16th, 17th and 18th of September 2019 (Recommendation of TAC on Revised Cost is enclosed as Annexure-5).
- Shri A.K. Bajaj, Ex-Chairman CWC, Chairman of the Committee.
 - Shri D.K. Agarwal, Ex-HoD, UPID, Member (Civil).
 - Shri V.K. Abbey, Ex-CMD, NEEPCO & Ex-ED, NHPC Ltd, Member (E&M).
 - Shri A.K. Sachdeva, Ex-Executive Director, NHPC Ltd, Member (HM).
 - Shri U.S. Rawat, Ex-Director GSI, Member (Geology).
 - Prof. Arun Kumar, Professor, Hydro and Renewable Energy Department (formerly AHEC), Member (Civil).
- 3- Project Implementation Steering Committee (PISC) re-constituted by Board (93rd meeting) with following compositions in its 7th meeting held on 19th and 20th September, 2019 (Recommendation of PISC on Revised Cost is enclosed as Annexure - 6).
- Mr.Indu Kumar Pande, Ex-Chief Secretary, GoU& Independent Director, UJVN Limited-President of the Committee.
 - Mr.V.K.Abbey, Ex-CMD, NEEPCO &Ex.ED, NHPC-Member.
 - Mr. Raj Kumar, Independent Director in BoD of UJVN Limited-Member.
 - Managing Director-UJVN Ltd.- Member
 - Mr. Sandeep Singhal- Member (MD-PTCUL)
 - Director (Operations),UJVNLtd. - Member
 - Director (Projects)-UJVNLtd. - Member
- 4- Committee of whole time Directors of UJVN Limited in its meeting held on 20th September, 2019 reviewed the recommendations of above committee and


(Suresh Chandra Bhatnagar)
Director (Project)
UJVN Limited

recommended the revised cost of Vyasi project for approval from the Board (Recommendation is enclosed as Annexure - 7).

- 5- Board of UJVN Limited in its 95th meeting held on 27th September, 2019 accorded consent on the revised cost of Vyasi project amounting to Rs. 1581.01 Cr. with IDC up to December 2019 (Minutes on relevant agenda is enclosed as Annexure-8).
5. In compliance to Board's directive given in its 95th meeting, proposal of revised cost estimate was submitted for examination in CEA. CEA replied that as per their guidelines for preparation and vetting of revised cost estimate of Hydro Electric Projects, the RCE of the Hydro Electric Projects of Central Power Sector Undertakings and Hydro Electric Schemes funded by Government of India and abroad are vetted by CEA on the request of MoP/MEA. In view of the same, approval of RCE of Vyasi HEP does not fall under the purview of CEA (Letter of CEA is enclosed as Annexure-9).
6. However, concurrence on technical changes with respect to DPR stage design parameters for Vyasi HEP was sought from CEA vide letter no. 18/ED(C)/LVP/CEA, dated 12/02/2019 and after perusal and examination, CEA has technically accepted following changes in technical parameters of Vyasi HEP. (Copy enclosed as Annexure - 10).
- (i) No. & size of openings in spillways for passing probable maximum flood
 - (ii) Additional cost incurred to achieve suitable foundation level of dam in deepest blocks due to poor geological conditions.
 - (iii) Change in size and number of intake gates.
 - (iv) Treatment for stabilization of hill slope upstream of power house due to relocation of powerhouse by 4m in u/s due to inadequate straight length of the tail race.
 - (v) Exclusion of Butter fly valve chamber adjacent to the Surge Shaft.
 - (vi) Quantity of reinforcement, steel liner & plasticizer in dam works to sustain impact and abrasive action of rolling boulders.


(Suresh Chandra Baluni)
Director (Project)
UJVN Limited

(vii) Additional provision of rails in overflow Blocks to sustain impact and abrasive action of rolling boulders.

(viii) Provision of Gas Insulated Switchgear (GIS), self-lubricating bushes, change in cooling water system and deletion of butterfly gate valve due to constraints of space and modernization in latest technology.

7. The delay in commissioning of the project due to above changes in design and execution of additional quantities resulted in time over run and cost overrun. The justification for the time over run envisaged in Dec 2018 for the project is detailed below

Major reasons for Time overrun in COD	<p>1-Enhanced quantity of Concrete, Reinforcement and Hydro Mechanical Equipment at various structures.</p> <ul style="list-style-type: none"> • Reasons explained in justification of cost overrun. <p>2- Allotment of dedicated Quarry and approval of Crusher.</p> <ul style="list-style-type: none"> • Govt. of Uttarakhand had approved a quarry on 28/09/2016 after a span of about 2 years from the date of start of the work. This quarry was identified during DPR preparation. On 17th October, 2016 Hon'ble High Court had banned all mining activities within 1.00 Km in upstream and downstream of the bridges throughout the State of Uttarakhand (Copy of order of High Court is enclosed as Annexure-11). The allotted quarry was within 1.00 Km of Kalsi bridge. For relaxation, Government of Uttarakhand was requested for relaxing the distance to 500 m in place of 1.00 Km in U/s and D/s of Kalsi bridge. Quarry was not made available till April 2020. On 16th May 2020, Quarry of 46500 cum was allotted by district administration of Dehradun. • The Govt of Uttarakhand provided the permission of reuse of excavated material on 07/01/2016 after a span of 2 years from the date of start of the work and the permission for installation & operation of stone crusher at Plankhera on 11/06/2015(after a span of one year). • Dam site material availability was ensured through crushing of excavated material only. However, at Power House site, material was being purchased directly from market which is a time taking activity. <p>3- R&R related issues.</p> <ul style="list-style-type: none"> • Project affected people had hampered the progress of work for R&R Package. Govt of Uttarakhand issued direction in January, 2016 (after a span of 2 years) for implementation of R&R. One of the affected village Lohari which was coming under submergence was not accepting R&R package and demanding land against their already acquired land. Villagers of Lohari were hampering the progress of work and were raising their demand for land allotment.
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(Suresh Chandra Baluni)
Director (Project)

UJVN Limited

	<p>004- Geological issues</p> <ul style="list-style-type: none"> • At dam site, the deepest foundation level had gone down by about 7 meters for suitable foundation conditions which changed the construction methodology due to additional efforts. It was beyond the control of contractor and the Project authorities. • Slope Protection measures were taken for Stability of 150m high back slope of Power House which took approximately 2 years of time. • Manual excavation of Penstock in limited length due to bad geological conditions. • Slow progress in HRT in treatment of 600 m squeezing zone. • Slope Protection measures were taken for Stability of 150m high back slope of Power House which took approximately 2 years of time. • Manual excavation of Penstock in limited length due to bad geological conditions. • Slow progress in HRT in treatment of 600 m squeezing zone required for successful accomplishment of work was beyond the control of contractor and project authorities.
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8. Justification for Cost over-run envisaged in Dec 2018 in respect of the project is detailed as below.

- DPR of Vyasi HEP (120 MW) was approved by CEA amounting to Rs. 936.23 Cr. in the month of October, 2011 at price level of February 2010.
- Transfer of Forest land to UJVN Limited was accorded in Oct 2013. The approval of Change of User agency is prerequisite before the award of contract. The work was started in Jan 2014 after transfer, of land and certain escalation in the cost of DPR was already assimilated at the time of start of the project.
- Before the restart of project by UJVN Limited, certain excavation activities were already executed by UPID during 1987-1992. Power house layout and slope protection measure were to be decided with the limitations of already excavated surge shaft, Penstock and cut slopes of BL road.


 (Suresh Chandra Baluni)
 Director (Project)
 UJVN Limited

iv. At the time of the DPR, engineering and design of structures were based on limited studies and limited site investigations and sometimes on lump sum basis. During execution of work in actual geological conditions and also during detailed design and engineering, additions and alterations in DPR stage / tender stage engineering became necessary and inevitable. For expert advice on various technical issues, UJVN Ltd. constituted a Technical Advisory Committee (TAC) for Vyasi HEP (2X60MW). During execution of work and also during detailed design and engineering, major variations are as follows

S.N.	Structure	Changes /modifications	Reason of change
1	Dam works	*Increase in number of spillway openings from 4 to 5	During clearance of DPR, following directions were issued by Dam directorate of CWC: <ul style="list-style-type: none"> Seismic parameter may be got approved from National Committee of Seismic Design Parameter (NCSDP) The spillway and energy dissipation arrangements may be model tested During detailed design, physical model studies were conducted at Irrigation Research Institute Bahadrapad, Haridwar. From the model study, requirement of 5 Nos. of openings of sizes 8.5 m (W) X 13.5 m (H) were found sufficient to pass PMF of 8850 cumecs. The cost overrun due to provision of one additional spillway gate was estimated to Rs.12.29 Cr.
		*Increase in reinforcement quantity in Dam work	During detailed design study considering approved earthquake coefficient (α), the quantity of reinforcement steel in RCC work was worked out to 17000 MT in place of DPR quantity of 7400 MT. The quantities worked out in detailed design were necessary for safe construction and performance of the Dam. The cost overrun due to increase in reinforcement quantity was estimated to Rs.77.33 Cr.
		*Additional provision of Steel liner and rails in Overflow Blocks	After observing the effect of rolling boulders at head works of MB I & MB-II, provision of Steel liner in pier walls/divide wall of 2 spillway blocks up to certain level and provision of 90 Lbs scrap rails in 2 spillway glacis was considered to prevent the erosion of piers and spillway glacis.


(Suresh Chandra Paluni)

Director (Project)
UJVN Limited 21 | Page

Power Project

S.N.	Structure	Changes /modifications	Reason of change
			The cost incurred due additional provision of Rail line amounted to Rs.7.55 Cr. and Steel liner amounted to Rs. 8.16 Cr.
		*Change in the deepest Dam foundation level and additional provision of abutment galleries in Dam foundation	Due to geological conditions, the foundation of dam had to be taken to EL. 541.37 against EL. 548.00 as envisaged in DPR. Besides this, during detail design engineering additional provision of abutment galleries in Dam foundation was also made and executed at site. The cost overrun due to change in deepest foundation level of Dam block was estimated to Rs.21.95 Cr.
		Other misc. work	Cost overrun due to different misc. work was estimated to 4.00 Cr at Dam site.
2	Power house	*Revised alignment of Tail Race	With the experience of tail race alignment, its affect on turbines and modifications done in tail race alignment later during operation stage at MB-II, concern about short straight reach of 20m of tail race was felt during TAC meeting. TAC advised that Power house location to be shifted hill side to achieve required straight length. The direction of machine was also revised from clockwise to anticlockwise. These changes resulted in some revisions in layout of power house. Straight length got increased for Draft tube gate of Unit 2 from 20 meters to 30.5 metres. The cost overrun due to revised alignment of TRC was estimated to Rs.39.62 Cr.
		*TRC outfall gate	For safety of powerhouse, TRC Outfall gate with handling and operating system was considered to protect back entry of boulders from river in case of high flood in river when units are shut. The cost overrun due to additional provision of TRC gate estimated to Rs.5.40 Cr.
		*Slope Stability Treatment of Back slope of Powerhouse	The slope of 150 m required exhaustive slope protection including cable anchoring as suggested by GSI, design consultant and TAC. The cost overrun due to increase in slope stability work at power House site was estimated to Rs.24.63 Cr.
		*220 kV Switchyard (AIS to GIS)	Based on the advantages of the advanced technology and non-availability of required suitable area from geological point of view for AIS, provision of GIS was adopted.

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Director (Design)

Power Project

S.N.	Structure	Changes /modifications	Reason of change
			Provision of GIS in Power House building resulted in the variation in quantity of civil works of Power house frames structure after incorporating provision of GIS, control room, service bay with unloading bay and erection bay. The cost overrun due to change in switchyard from AIS to GIS was Rs.41.76 Cr.
		Other misc. work	Cost overrun due to different misc. work was estimated to Rs. 4.00 Cr at Power house site.
3	Penstock	Excavation of penstock by mechanical means	The cover of penstock below EL 535.00 was not adequate and having poor rock, conventional drilling blasting was prohibited and excavation by mechanical was carried out. The cost overrun due to excavation of penstock by mechanical means was estimated to Rs 2.51 Cr.
		Variation in Penstock liner	The quantity estimated in DPR was 750 MT whereas the quantity calculated as per design was 950 MT and additional backfilling and shotcrete. The cost overrun due to increase in quantity of steel liner and backfill concrete was estimated to Rs 8.67 Cr.
4	Tunnel	Restoration of squeezing zone and already excavated HRT	The cost overrun due to additional work of restoration of squeezing zone in HRT, additional work in backfilling and support system was estimated to Rs 22.21 Cr.
5	Quarry	Non-availability of quarry for Vyasi HEP.	At Dam site aggregate was being arranged by processing excavated material from Dam site. The procurement of aggregate for Powerhouse was arranged from Ponta Sahib (HP) resulting in increase of transportation cost. The cost overrun due to non-availability of quarry was estimated to Rs 10.00 Cr.

*changes/modifications envisaged was got approved in MoC by CEA.

Revision of the Project cost to Rs. 1777.30 Cr with IDC up to September 2021.

9. The COVID-19 pandemic had considerable impact on all the projects running in the country. Vyasi also remained badly affected due to COVID-19 during 2020 and 2021. Govt of India vide order dated 13.05.2020 also allowed time extension of between three to six months based on the circumstances arises due to Covid-19 pandemic. The same is attached as Annexure -12. Therefore, for execution of the works

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Ujjwal, Dehradun

extension was required to be given to the working agencies on Vyasi HEP also. Project work was stopped due to COVID-19 on 22-03-2020 due to Janta Curfew and subsequent lock down. The project work was restarted soon after obtaining approval from District Administration as per new COVID-19 guidelines for the project. However, the work could be started at very limited pace owing to restrictions for containment of COVID-19 on 28-04-2020 after due approval from administration and consultation with local villagers after required safety measure against COVID-19 Pandemic which affected the anticipated completion of project.

10. The revised date of commissioning of the Vyasi HEP was envisaged as 30.09.2021 on account of anticipated delays in execution of the work attributable to COVID-19 pandemic. The delay in commissioning also impacted the IDC. It was estimated that the IDC would increase from Rs.156.23 Crores as per earlier approved cost to Rs.352.52 Crores considering revised COD of 30.09.2021. Accordingly, the project cost was revised from Rs. 1581.01 Crores to Rs. 1777.30 Crores. Revision in the cost estimate was only on account of increase in IDC.
11. The revised date of Commissioning as 30.09.2021 & revised project cost of Rs. 1777.30 Crore was approved by the Board of Directors of UJVNL in the 101st meeting held on 26.03.2021 (Copy the minutes enclosed as Annexure - 13).
12. The Memorandum of changes of Vyasi HEP was submitted to CEA and was approved by CEA (Technical changes) on 15.12.2021 (Copy the minutes enclosed as Annexure - 14).
13. The details of revised project cost of Rs. 1777.30 Crores is provided in the table below:


(Suresh Chandra Baluni)
Director (Project)
UJVNL Limited

Power Project

(Rs. In Cr.)

DPR Head	DPR Provision at PL Feb 2010	Revised DPR Cost Estimate Dec 2019	Revised DPR Cost Estimate Sep 2021
A-PRELIMINARY	28.36	32.00	32.00
B-LAND	32.52	71.54	71.54
C-WORKS	317.79	521.36	521.36
J-POWER PLANT CIVIL WORKS	172.57	423.80	423.80
ELECTRICAL WORKS	149.79	190.45	190.45
O-MISCELLANEOUS	16.61	27.50	27.50
K-BUILDINGS	19.66	19.66	19.66
M-PLANTATION	1.00	1.00	1.00
P-MAINTAINANCE DURING CONSTRUCTION	5.44	5.44	5.44
Q-SPECIAL TOOLS AND PLANTS	1.27	1.27	1.27
R-COMMUNICATION	34.06	34.06	34.06
Y-LOSSES ON STOCK	1.35	1.62	1.62
X-ENVIRONMENT AND ECOLOGY ESTABLISHMENT	23.34	26.17	26.17
Tools & Plants	1.00	1.00	1.00
Suspense	-	-	-
RECIPT AND RECOVERIES	-0.94	-4.00	-4.00
Capitalised Value of Abatement of Land Revenue	0.36	0.36	0.36
AUDIT AND ACCOUNT CHARGES	3.27	5.00	5.00
IDC	72.51	156.23	352.52
Financing Charges	6.55	6.55	6.55
Total	936.23	1,581.01	1,777.30

14. The project was envisaged to be commissioned on 30.09.2021 but due to 1st, 2nd and 3rd wave of COVID-19 pandemic & resumption of work with restrictions under SOPs of MHA, GoI/GoU after lifting of lockdown period, the project commissioning was further delayed.
15. Besides Covid-19 Pandemic, non-settlement of R&R issue of Lohari Village also affected the construction activities at Dam site till October, 2021 and filling of reservoir from EL 622.00 to EL 630.00 till 11th April, 2022. The Unit-I & Unit -II of the project were commissioned on 24.05.2022 & 22.04.2022 respectively. The actual cost incurred up to 31.03.2022 as per the audited accounts is Rs.1719.11 Crores.
16. The actual project cost capitalized as on COD i.e. 24.05.2022 is Rs. 1922.52 Crores.

(Suresh Chandra Baluni)
Director (Project)
UJVN Limited

Revision of the Project cost to Rs. 2047.01 Cr with IDC - Final Project Cost

17. The final project cost of was revised to Rs. 2048.22 Cr. with IDC. The revised final cost was approved by the Board of Directors of UJVNL in the 112th meeting held on 28.11.2022 (Copy the minutes enclosed as Annexure - 15). However, PIB, GoU in the meeting Dt.01.03.2023 disallowed Rs. 1.21 Cr on account of establishment charges & approved the final project cost of Rs. Rs. 2047.01 Cr. (Copy the approval of PIB,GOU is enclosed as Annexure - 16). The revised final cost of the project was approved by the GoU on 25.09.2023. (Copy the approval of GOU is enclosed as Annexure - 16A)
18. The details of approved final project cost of Rs. 2047.01* Crores is provided in the table below:

(Rs. In Cr.)

DPR Head	DPR Provision at Pl. Feb 2010	Revised DPR Cost Estimate Dec 2019	Revised DPR Cost Estimate Sep 2021	Revised DPR Final Cost 28.11.2022
A-PRELIMINARY	28.36	32.00	32.00	37.30
B-LAND	32.52	71.54	71.54	82.20
C-WORKS	317.79	521.36	521.36	556.38
J-POWER PLANT CIVIL WORKS	172.57	423.80	423.80	505.79
ELECTRICAL WORKS	149.79	190.45	190.45	204.45
O-MISCELLANEOUS	16.61	27.50	27.50	36.27
K-BUILDINGS	19.66	19.66	19.66	22.76
M-PLANTATION	1.00	1.00	1.00	0.10
P-MAINTAINANCE DURING CONSTRUCTION	5.44	5.44	5.44	4.30
Q-SPECIAL TOOLS AND PLANTS	1.27	1.27	1.27	1.37
R-COMMUNICATION	34.06	34.06	34.06	28.31
Y-LOSSES ON STOCK	1.35	1.62	1.62	-
X-ENVIRONMENT AND ECOLOGY	23.34	26.17	26.17	25.93
ESTABLISHMENT	49.72	60.00	60.00	140.00
Tools & Plants	1.00	1.00	1.00	-
Suspense	-	-	-	-
RECIPT AND RECOVERIES	-0.94	-4.00	-4.00	-51.74
Capitalised Value of Abatement of Land Revenue	0.36	0.36	0.36	-
AUDIT AND ACCOUNT CHARGES	3.27	5.00	5.00	0.44
IDC	72.51	156.23	352.52	446.52
Financing Charges	6.55	6.55	6.55	7.84
Total	936.23	1,581.01	1,777.30	2,048.22

* Expenditure on account of Establishment charges approved by PIB, GoU as Rs.138.79 Cr. against Rs. 140.00 Cr shown in the table above, thereby disallowing Rs. 1.21 Cr. Accordingly, the approved final cost is Rs. 2047.01 Cr (Rs. 2048.22 Cr. -1.21 Cr).

(Suresh Chandra Baluni)
Director (Project)

Regarding approval of final extension of Time to all four major Contracts of Vyasi
HEP

19. Board in its 113th Board meeting held on 09.02.2023 accorded approval of final extension of time to the major four contracts are as follows:

- For GECPL, final EOT up to 28.11.2021 and date of taking-over certificate as 30-12-2021 with no penal deduction on remaining works and outstanding works/items mentioned in TOC beyond 28-11-2021 against Agreement with M/s GECPL.
- For NPCC Ltd, final EOT up to 09.10.2021 without imposition of LD and afterwards from 10.10.2021 to 20/12/2021 (substantial completion date) with penal deduction as per contract provisions against agreement with M/s NPCC Ltd.
- For BHEL, final EOT up to 26.05.2022 and 24.04.2022 for Unit#1 and Unit#2 respectively without penalty on the balance minor works (Punch Points) for service contract no.2/2014-15/E&M design-I/Vyasi(supply) dated 11.06.2014 and final time extension for supply contract no.1/2014-15/E&M design-I/Vyasi(supply) dated 11.06.2014 up to 30.09.2021.
- For OMIL, final EoT up to 31.12.2021 without penalty on the minor works (Punch Points) for service contract no.2/DGM(E&M)/VP/HM/service/2015-16 and up to 30.06.2019 (with PVC up to 30.11.2018) for supply contract no.1/DGM(E&M)/VP/HM/supply/2015-16.

20. Board in its 113th Board meeting also accorded approval to the total claims of M/s BHEL & M/s OMIL are as follows:-

- For BHEL, total claims of Rs.7,71,70,874.00 (seven crore seventy one lacs seventy thousand eight hundred seventy four only), exclusive of taxes for amicable settlement with contractor.
- For OMIL, total claims of Rs.1,42,19,131.00 (one crore forty two lacs nineteen thousand one hundred thirty one only) exclusive of taxes for amicable settlement with the contractor.

Amicable Settlement of Claims for M/s GECPL and M/s NPCC in still under process.


(Suresh Chandra Baluni)
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UJVN Limited

c. Revised Salient Features of the Vyasi Project after Concurrence from CEA

I. LOCATION

State	Uttarakhand
District	Dehradun
River	Yamuna
Location of Dam	Village Vyasi, 5.0 Km. d/s of Lakhwar
Location of Power House	Village Hathiri 9.5 Km. d/s of Lakhwar
Nearest Airport & Railhead	Dehradun
Latitude	30° 31' 00" N
Longitude	77° 53' 00" E
Type of Scheme	Run of the River with pondage

II. HYDROLOGY

Catchment area (including snow catchment)	2100 Sq. Km.
Snow catchment	60 Sq. Km.
Design flood	8850 Cumecs

III. DAM

Type	Concrete Gravity type
Maximum height above deepest foundation	92.63 m
Top of Dam	EL 634.0 m
River bed level at dam site	EL 584.0 m

IV. SPILLWAYS

Type of Spillway	Orifice Type Spillway
No. & size of openings	5 Nos. of 8.5 m x13.5 m


(Suresh Chandra Baluni)
Director (Project)
UJVNL Limited

Power Project

Crest elevation	EL 590.0 m.
Design flood	8850.00 Cumecs

V. RESERVOIR

Reservoir Level (FRL/MWL)	EL 631.50 m
Minimum Draw Down Level (MDDL)	EL 626.00 m
Gross Storage at FRL/MWL	13.69 M.m ³
Live Storage	3.71 M.m ³

VI. INTAKE

Location	27.5m from dam axis
Intake type	Bell mouth intake
Invert level	EL 611.00 m
Trash racks	Inclined.

VII. HEADRACE TUNNEL

Size	7 m dia circular
Length	2.7 Km. Long
Design discharge	119.78 m ³ /sec.

VIII. SURGE SHAFT

Type	Restricted Orifice type.
Size	18 m dia
Height	63.50 metre

IX. PRESSURE SHAFT

No. of pressure shaft	2
Diameter of pressure shaft Size	4.0 m Circular
Length of pressure shaft	204m


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Director (Project)
UJVN Limited

X. POWER HOUSE

Type	Surface Power House
Machine Location	Near village Hathiari
Nos. & size of units	2 units of 60 MW each
Dimensions of the power house	86 m (L) x 24 m(W) x 40.2 m (H)
Generation Voltage	11 KV

XI. Turbines

No. & type	2 Nos. Francis type
Maximum gross head.	113.97 m.
Rated net head	109.65 m.
Design discharge	59.89 Cumecs
Speed	250 RPM.

XII. Draft Tubes

Nos. & Size	2 Nos. of size 8.8 m (w) x 5.1 m (h)
Gate openings (for each draft tube)	2 Nos. of size 3.85 m (w) x 3.32 m (h)
Gate Operation Floor level	El. 535.00 m.
TWL (1 unit running)	El. 515 m
TWL (2 unit running)	El. 515.7 m

XIII. SWITCHYARD

Type	GIS
Location	Above T/F.
Size	44m X 15 m
Level	El. 544.00m


(Suresh Chandra Baluni)
Director (Project)
UJVN Limited

Power Project

Pothhead Yard	50 m x 28 m, EL 535.0 m
Switching Scheme	Double bus bar scheme having 5 Nos. of 220 KV bays (2 Nos. generator bays and 1 No. bus coupler bay)

XIV. TAIL RACE CHANNEL

Shape	Rectangular
Size	25.80 to 29.80 m x 32.00 m to 22 m (D)
Length	85 m
Discharge	119.78 cumecs

XV. POWER BENEFITS

Installed capacity	120 MW
Annual energy generation (90% dependable year with Vyasi Stand-alone operation)	353.00 MU.

XVI. POWER EVACUATION

Switch yard	220 kV S/C line from Selaqui to Lakhwar and to Hathiari
Families' Affected (Total)	324 incl. 212 ST families
Complete	99
Partial	225

XVII. LAND

Land Requirement (Total)	147.62 Ha
Forest Land	99.93 Ha
Private Land	47.69 Ha

XVIII. The design energy of the HEP has been revised from 375.24 MU to 353 MU at the Pre-Lakhwar stage. The same was vetted & approved by Central Electricity Authority Vide letter Dt. 11.05.2021. The detailed calculation of the design energy


(Suresh Chandra Baluni)
Director (Project)
UJVN Limited

is provided here below: (The Copy of the CEA letter is attached as Annexure - 17).

The following parameters have been considered in the examination of Revised Design Energy of the project:

Parameter	Unit	Value (as per DPR consideration by CEA)	Value (as vetted by concerned appraising groups for the MeC)
Installed Capacity	MW	2x60	2x60
Design Energy	MU	i) Pre-Lakhwar : 375.24 ii) Post-Lakhwar : 439.80	353.0
Water availability series		1971-72 to 2008-09	1971-72 to 2008-09
90% Dependable year		1974-75	1974-75
Full Reservoir Level	m	631.5	631.5
Minimum Draw Down Level	m	626	626
Normal Tail Water Level	m	514	515.7
Live Storage	Mcum	3.71	3.71
Combined TG efficiency	%	92.12%	92.12%
Head Loss	m	4.67	5.01
Design Discharge	cumec	119.78	121.87
Environment flow releases	cumec	2	4.33 As per Government of Uttarakhand letter dated 5.06.2018 in compliance to NGT order dated 09.08.2017.

Calculation of Design Energy of Vyasi HE Project (2x60 MW = 120 MW)

Installed Capacity	120	MW	FRL (EL)	631.5	m
Design Energy	353	MU	MDDL (EL)	626.0	m
Design Discharge	121.87	Cumec	Normal TWL (EL)	515.7	m
Net Head	108.96	m	Head Losses in water conductor system	5.01	m
90% Dependable year	1974-75		Overall Efficiency	92.12%	
Annual Load Factor	34.16	%	Live storage	3.71	Mcum
Lean Period Load Factor	18.02	%			


(Suresh Chandra Baluni)
Director (Project)
UJVN Limited

Power Project

Month	Days	Inflow in 90% dependable year (cumec)	e-flow releases (cumec)	Flow used for Generation (cumec)	Power (MW)	Energy Generation with 95% a/c availability (MU)
JUNE	10	20.70	4.33	16.37	16.12	3.87
	10	20.50	4.33	16.17	15.92	3.82
	10	21.40	4.33	17.07	16.81	4.03
JULY	10	32.90	4.33	28.57	28.13	6.75
	10	98.30	4.33	93.97	92.53	22.21
	11	141.10	4.33	121.87	120.00	30.10
AUGUST	10	248.10	4.33	121.87	120.00	27.36
	10	238.80	4.33	121.87	120.00	27.36
	11	128.20	4.33	121.87	120.00	30.10
SEPTEMBER	10	71.70	4.33	67.37	66.34	15.92
	10	50.80	4.33	46.47	45.76	10.98
	10	40.10	4.33	35.77	35.22	8.45
OCTOBER	10	29.20	4.33	24.87	24.49	5.88
	10	71.10	4.33	66.77	65.74	15.78
	11	36.10	4.33	31.77	31.28	8.26
NOVEMBER	10	27.40	4.33	23.07	22.72	5.45
	10	23.80	4.33	19.47	19.17	4.60
	10	20.10	4.33	15.77	15.53	3.73
DECEMBER	10	18.60	4.33	14.27	14.05	3.37
	10	19.10	4.33	14.77	14.54	3.49
	11	16.80	4.33	12.47	12.28	3.24
JANUARY	10	17.40	4.33	13.07	12.87	3.09
	10	17.40	4.33	13.07	12.87	3.09
	11	20.40	4.33	16.07	15.82	4.18
FEBRUARY	10	26.40	4.33	22.07	21.73	5.22
	10	41.70	4.33	37.37	36.80	8.83
	8	31.60	4.33	27.27	26.85	5.16
MARCH	10	30.30	4.33	25.97	25.57	6.14
	10	48.10	4.33	43.77	43.10	10.34
	11	29.90	4.33	25.57	25.18	6.65
APRIL	10	59.50	4.33	55.17	54.32	13.04
	10	41.00	4.33	36.67	36.11	8.67
	10	43.70	4.33	39.37	38.77	9.30
MAY	10	39.10	4.33	34.77	34.24	8.22
	10	44.50	4.33	40.17	39.55	9.49
	11	30.70	4.33	26.37	25.96	6.85
TOTAL						353.00


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 UJVN Limited

d. Norms of Operation

1. The details of HEP is provided in the table below.

Station Particulars	Norm
Name of HEP	Vyasi HEP
Installed Capacity (MW)	120.00
Design Energy (MU)	353.00
No. of Unit	COD
Unit 1	24.05.2022
Unit 2	22.04.2022

2. The norms of the Hon'ble Commission as applicable for the Vyasi HEP would be as follows:

e. Normative Annual Plant Availability Factor (NAPAF)

1. Regulation 47 (c) of the UERC Tariff Regulations, 2021 provides for the Normative Annual Plant Availability Factor (NAPAF). It provides that the Normative Plant Availability Factor for Storage and Pondage type plants with head variation between Full Reservoir Level (FRL) and Minimum Draw Down Level (MDDL) of up to 8%, and where plant availability is not affected by silt shall be 90%. However, in view of the special circumstances, abnormal site problems or other operating conditions and known plant conditions in respect of the Vyasi HEP, UJVNL seeks allowance in NAPAF under Regulation 47(1)(c)(i) of UERC Tariff Regulations, 2021. For seeking allowance in NAPAF following is submitted for kind consideration of the Hon'ble Commission.

- (i) Vyasi Project was initially planned to be part of Lakhwar-Vyasi scheme, during the inception of Project. However, Vyasi has been commissioned and was constructed as a separate scheme.
- (ii) Lakhwar Project Scheme also includes the construction of Barrage at Katapathar, around 3 km downstream of Vyasi Power station for regulation of discharge.
- (iii) After completion of the Vyasi Project and during its operation in May & June 2022, water was stored at Vyasi Dam (in Juddo). Only ecological free flow of

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UJVNL Limited

minimum 4.33 cumecs was released from the Dam, thus, except during operation of machine only 4.33 cumecs discharge was available at Katapathar;

- (iv) An irrigation canal is emanating from Katapathar for irrigation. Length of the canal is 39.08 km and total of 3908 hectare of land is irrigated through this canal. In order to cater the requirement of irrigation from Katapathar Canal inlet, 12 cumecs of discharge is required to be released from dam during non-operation period of the plant.
- (v) Regular agitations were done by the affected farmers during the month of May & June 2022 for release of extra discharge for their irrigation purposes. To resolve the issues raised by the agitated farmers, a joint meeting was convened by officers of Irrigation Department of Uttarakhand and UJVN Ltd. on 19.05.2022 in presence of the local representatives and the affected farmers wherein an understanding was reached that required discharge will have to be released and it was emphasized that irrigation requirement must be ensured.
- (vi) During the above meeting, consensus for prolonged operation of machines at minimum load was reached for smooth running of the plant. Considering the operating zone of Francis Turbine (Supplied by BHEL) and vibrations of the machine, minimum possible load was 43 MW. At this load also, the total operation of the machine duration was only around 5-10 hrs (a day) in May & June 2022. It is to bring to the notice of the Hon'ble Commission that June is the High flow month however the discharge was not sufficient for operation of machines at full capacity during peak hours.
- (vii) Since during non-operation period of the plant, only minimum ecological flow was maintained in the river, therefore, only 4.33 cumecs discharge was available at Katapathar for irrigation purpose. On regular agitation of farmers again, EE, ID has desired for release of 12 cumecs round the clock, from the Dam. Therefore, minimum 12 cumecs will be required to be released round the clock during lean period which will affect the NAPAF largely.


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Director (Project)
UJVN Limited

- (viii) Considering the requirement of irrigation in the downstream of Vyasi Project, around 12 cumecs of discharge is required to be released from Dam during non-operation of the plant in order to avoid agitation and problems in operation of the Plant (Letter from ID is attached as Annexure - 18).
- (ix) The e-flow is mandatory requirement of releasing of water in the river as per orders of NGT, due to which water availability for generation gets reduced. At present the minimum mandatory e-flow of 5 Cumecs is being released in the river Yamuna.
- (x) It is submitted that the factors detailed above are beyond the control of UJVNL. UJVNL has calculated the NAPAF considering the above factors & design discharge as per DPR. The NAPAF has been arrived as 84.65%. The details of calculation of NAPAF are provided below:


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Director (Project)
UJVNL Limited

Power Project

Month	Duration (Yearly)	90% dependable flow (cusecs) as per DPR	Ecological release (minimum) as per DPR	Irrigation release (as per request of ID)	Flow available for Energy Generation	Gross Head	Head Loss	Net Head	Average Load (Horsepower)	Maximum Load for Three Hour Peaking (MW)	P&F (%)	NAPAF (%)
April	1-10	59.50	4.33	7.67	47.50	113.97	5.01	108.96	46.77	120.00	100.00	100.00
	11-20	41.00	4.33	7.67	29.00	113.97	5.01	108.96	28.56	120.00	100.00	
	21-30	43.70	4.33	7.67	31.70	113.97	5.01	108.96	31.21	120.00	100.00	
May	1-10	39.10	4.33	7.67	27.10	113.97	5.01	108.96	26.68	120.00	100.00	100.00
	11-20	44.50	4.33	7.67	32.50	113.97	5.01	108.96	32.00	120.00	100.00	
	21-31	30.70	4.33	7.67	18.70	113.97	5.01	108.96	18.41	120.00	100.00	
June	1-10	20.70	4.33	7.67	8.70	113.97	5.01	108.96	8.57	68.53	57.11	58.21
	11-20	20.50	4.33	7.67	8.50	113.97	5.01	108.96	8.37	66.96	55.80	
	21-30	21.40	4.33	7.67	9.40	113.97	5.01	108.96	9.26	74.05	61.71	
July	1-10	32.90	4.33	7.67	20.90	113.97	5.01	108.96	20.58	120.00	100.00	100.00
	11-20	98.30	4.33	7.67	86.30	113.97	5.01	108.96	84.98	120.00	100.00	
	21-31	141.10	4.33	7.67	129.10	113.97	5.01	108.96	127.12	120.00	100.00	
August	1-10	248.10	4.33	7.67	236.10	113.97	5.01	108.96	232.48	120.00	100.00	100.00
	11-20	238.80	4.33	7.67	226.80	113.97	5.01	108.96	223.32	120.00	100.00	
	21-31	128.20	4.33	7.67	116.20	113.97	5.01	108.96	114.42	120.00	100.00	
September	1-10	71.70	4.33	7.67	59.70	113.97	5.01	108.96	58.78	120.00	100.00	100.00
	11-20	50.80	4.33	7.67	38.80	113.97	5.01	108.96	38.21	120.00	100.00	
	21-30	40.10	4.33	7.67	28.10	113.97	5.01	108.96	27.67	120.00	100.00	
October	1-10	29.20	4.33	7.67	17.20	113.97	5.01	108.96	16.94	120.00	100.00	100.00
	11-20	71.10	4.33	7.67	59.10	113.97	5.01	108.96	58.19	120.00	100.00	
	21-31	36.10	4.33	7.67	24.10	113.97	5.01	108.96	23.73	120.00	100.00	
November	1-10	27.40	4.33	7.67	15.40	113.97	5.01	108.96	15.16	120.00	100.00	76.88
	11-20	23.80	4.33	7.67	11.80	113.97	5.01	108.96	11.62	92.95	77.46	
	21-30	20.10	4.33	7.67	8.10	113.97	5.01	108.96	7.98	63.81	53.17	
December	1-10	18.60	4.33	7.67	6.60	113.97	5.01	108.96	6.50	51.99	43.33	40.48
	11-20	19.10	4.33	7.67	7.10	113.97	5.01	108.96	6.99	55.93	46.61	
	21-31	16.80	4.33	7.67	4.80	113.97	5.01	108.96	4.73	37.81	31.51	
January	1-10	17.40	4.33	7.67	5.40	113.97	5.01	108.96	5.32	42.54	35.45	42.01
	11-20	17.40	4.33	7.67	5.40	113.97	5.01	108.96	5.32	42.54	35.45	
	21-31	20.40	4.33	7.67	8.40	113.97	5.01	108.96	8.27	66.17	55.14	
February	1-10	26.40	4.33	7.67	14.40	113.97	5.01	108.96	14.18	113.43	94.53	98.18
	11-20	41.70	4.33	7.67	29.70	113.97	5.01	108.96	29.24	120.00	100.00	
	21-28	31.60	4.33	7.67	19.60	113.97	5.01	108.96	19.30	120.00	100.00	
March	1-10	30.30	4.33	7.67	18.30	113.97	5.01	108.96	18.02	120.00	100.00	100.00
	11-20	48.10	4.33	7.67	36.10	113.97	5.01	108.96	35.55	120.00	100.00	
	21-31	29.90	4.33	7.67	17.90	113.97	5.01	108.96	17.63	120.00	100.00	
NAPAF (Yearly)												84.65


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2. It is further to submit that during monsoon, there is heavy inflow of trash and debris, which causes choking at the Trash Rack & consequently the head loss. The generation from the plant goes on decreasing as the head loss increases. Once, it crosses the upper limit of the head loss, the shutdown of Power Station is required for clearing of debris/trash. This may require several flushings during monsoon months, and it shall result in shutdown of the plant. UJVN Ltd shall submit the data regarding actual disruption in operation of the plant on account of choking & flushing in respect of the Vyasi HEP. It is further submitted that this is a normal phenomenon encountered by all the HEPs. UJVNL had previously also submitted the plant specific details in respect of choking issues encountered at its other HEPs before the Hon'ble Commission. Therefore, it is requested that the Hon'ble Commission may kindly consider this aspect also while determining the NAPAF of the Vyasi HEP.
3. Further, it is submitted that Clause (ii) of Appendix-III of the UERC Tariff Regulations, 2021 also provide for 2% allowance on plant capacity on account of forced outages. In view of the above, it is requested that considering the issue of loss in generation on account of choking & flushing as well as other forced outages, Hon'ble Commission may kindly allow additional allowance of 2% in the NAPAF of 84.65% calculated above.
4. Further, NAPAF of Vyasi project has been calculated for one year since May 2022 to April 2023 on the basis of powerhouse and dam data, which is 74.09%. The table below details the NAPAF calculated for the period May 2022 to April 2023.


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Power Project

Month	Duration Ten Daily	River Discharge (Cumec)	Down stream discharge (Cumec)	Release Demand of Irrigation (Cumec)	Discharge available for energy generation	Gross [m] Head	Head [m] Loss	Net Head [m]	Average Load (MW)	Restricted Load (MW)	Average load for 120 MW for 3 hrs.	Maximum load for 3 hrs (MW)	PAF	PAFM(%)
		a	b	c	d=e-h	e	f	g	h=i+j+k	i	j	k	l	m
May-22	1-10	22.09	5.28	12	16.75	113.97	5.01	108.96	16.50	16.50	15.00	60.00	3.29	85.2
	11-20	22.94	5.44	12	17.50	113.97	5.01	108.96	17.24	17.24	15.00	60.00	3.29	
	21-31	26.95	6.33	12	20.62	113.97	5.01	108.96	20.31	20.31	15.00	64.00	3.29	
Jun-22	1-10	20.01	5.79	12	14.24	113.97	5.01	108.96	14.03	14.03	15.00	45.00	1.26	88.13
	11-20	20.21	6.04	12	14.17	113.97	5.01	108.96	13.96	13.96	15.00	45.00	1.30	
	21-30	20.26	7.74	12	12.48	113.97	5.01	108.96	12.27	12.27	15.00	40.36	1.25	
Jul-22	1-10	72.78	11.28	12	61.50	113.97	5.01	108.96	60.58	60.58	15.00	102.20	2.79	97.02
	11-20	110.43	15.18	12	95.25	113.97	5.01	108.96	93.82	93.82	15.00	116.40	3.29	
	21-31	191.97	81.91	12	110.06	113.97	5.01	108.96	108.41	108.41	15.00	174.89	3.37	
Aug-22	1-10	221.95	122.07	12	99.88	113.97	5.01	108.96	98.38	98.38	15.00	114.00	3.10	89.41
	11-20	367.62	206.34	12	161.28	113.97	5.01	108.96	158.86	158.86	15.00	84.00	2.78	
	21-31	163.82	43.44	12	120.38	113.97	5.01	108.96	118.57	118.57	15.00	120.00	3.29	
Sep-22	1-10	105.47	10.88	12	94.59	113.97	5.01	108.96	93.17	93.17	15.00	122.00	3.42	101.83
	11-20	114.48	13.55	12	100.93	113.97	5.01	108.96	99.44	99.44	15.00	122.00	3.41	
	21-30	274.49	164.88	12	109.61	113.97	5.01	108.96	107.97	107.97	15.00	121.00	3.41	
Oct-22	1-10	107.05	11.12	12	95.93	113.97	5.01	108.96	95.28	95.28	15.00	122.00	3.31	101.8
	11-20	74.10	5.00	12	69.10	113.97	5.01	108.96	68.06	68.06	15.00	122.00	3.28	
	21-31	93.75	5.00	12	88.75	113.97	5.01	108.96	88.02	88.02	15.00	120.00	3.27	
Nov-22	1-10	34.60	5.00	12	29.60	113.97	5.01	108.96	29.16	29.16	15.00	114.00	3.20	65.86
	11-20	32.86	5.00	12	27.86	113.97	5.01	108.96	27.44	27.44	15.00	60.16	1.48	
	21-30	28.01	5.00	12	23.01	113.97	5.01	108.96	22.66	22.66	15.00	60.00	1.48	
Dec-22	1-10	24.26	5.00	12	19.26	113.97	5.01	108.96	18.87	18.87	15.00	60.00	1.63	50.12
	11-20	21.80	7.09	12	14.71	113.97	5.01	108.96	14.29	14.29	15.00	58.60	1.59	
	21-31	19.57	8.92	12	10.65	113.97	5.01	108.96	10.49	10.49	15.00	60.00	1.63	
Jan-23	1-10	17.80	5.88	12	11.92	113.97	5.01	108.96	11.93	11.93	15.00	60.00	1.63	50.51
	11-20	17.10	5.00	12	12.10	113.97	5.01	108.96	11.92	11.92	15.00	60.00	1.63	
	21-31	16.73	5.00	12	11.73	113.97	5.01	108.96	11.55	11.55	15.00	60.00	1.63	
Feb-23	1-10	16.42	5.80	12	11.42	113.97	5.01	108.96	11.25	11.25	15.00	54.00	1.80	46.72
	11-20	15.73	6.98	12	8.75	113.97	5.01	108.96	8.62	8.62	15.00	53.80	1.59	
	21-30	12.84	7.61	12	5.23	113.97	5.01	108.96	5.15	5.15	15.00	53.80	1.59	
Mar-23	1-10	18.95	7.62	12	11.33	113.97	5.01	108.96	11.16	11.16	15.00	60.00	1.63	57.02
	11-20	14.84	7.45	12	7.39	113.97	5.01	108.96	7.38	7.38	15.00	60.00	1.63	
	21-30	20.12	7.36	12	12.76	113.97	5.01	108.96	12.67	12.67	15.00	61.82	2.22	
Apr-23	1-10	22.88	7.37	12	15.51	113.97	5.01	108.96	15.38	15.38	15.00	120.60	3.38	101.07
	11-20	21.73	7.51	12	14.22	113.97	5.01	108.96	14.01	14.01	15.00	118.80	3.33	
	21-30	24.80	7.03	12	17.79	113.97	5.01	108.96	16.93	16.93	15.00	120.80	3.39	
														PAFY = 74.09
May-23	1-10	30.29	7.15	12	23.14	113.97	5.01	108.96	22.79	22.79	15.00	115.40	3.14	96.87
	11-20	27.17	7.45	12	19.72	113.97	5.01	108.96	19.42	19.42	15.00	115.72	3.24	
	21-31	40.29	7.74	12	32.55	113.97	5.01	108.96	32.06	32.06	15.00	121.81	3.31	
Jun-23	1-10	51.80	6.79	12	45.01	113.97	5.01	108.96	44.14	44.14	15.00	121.36	3.41	101.36
	11-20	35.01	7.60	12	27.41	113.97	5.01	108.96	27.06	27.06	15.00	121.19	3.41	
	21-30	57.52	6.23	12	51.29	113.97	5.01	108.96	50.52	50.52	15.00	118.51	3.33	
Jul-23	1-10	128.79	49.47	12	79.32	113.97	5.01	108.96	78.13	78.13	15.00	121.22	3.29	101.79
	11-20	348.74	215.30	12	132.02	113.97	5.01	108.96	130.83	130.83	15.00	120.98	3.29	
	21-31	111.87	218.84	12	85.03	113.97	5.01	108.96	83.75	83.75	15.00	120.61	3.28	
Aug-23	1-10	146.03	50.09	12	95.94	113.97	5.01	108.96	94.50	94.50	15.00	120.80	3.28	96.84
	11-20	187.13	124.81	12	62.32	113.97	5.01	108.96	61.30	61.30	15.00	102.87	2.79	
	21-31	127.89	28.60	12	99.29	113.97	5.01	108.96	97.80	97.80	15.00	120.88	3.28	
Sep-23	1-10	66.78	30.18	12	36.60	113.97	5.01	108.96	36.05	36.05	15.00	92.48	2.82	90.53
	11-20	68.44	5.00	12	63.44	113.97	5.01	108.96	64.83	64.83	15.00	120.58	3.38	
	21-30	51.87	5.32	12	46.55	113.97	5.01	108.96	45.08	45.08	15.00	108.59	3.05	
Oct-23	1-10	42.40	6.12	12	36.28	113.97	5.01	108.96	35.79	35.79	15.00	120.58	3.27	101.41
	11-20	34.30	11.15	12	23.15	113.97	5.01	108.96	22.80	22.80	15.00	114.39	3.27	
	21-31	29.58	13.58	12	16.01	113.97	5.01	108.96	15.77	15.77	15.00	120.49	3.27	

5. Further, it is to submit that Vyasi HEP is located in Yamuna Valley where 05 LHPS of UJVN Ltd namely Chibro, Khodri, Dhakrani, Dhalipur and Kulhal are also in operation for which the Hon'ble Commission has approved 65.06%, 57.23%, 66.17%, 61.07% & 65.00%. Chibro and Khodri HEPs utilize the water of Tons River whereas Dhakrani, Dhalipur & Kulhal HEPs utilize water of Tons plus Yamuna River & Both Rivers have pondage at Ichari Dam & Dakpathar Barrage respectively therefore

(Suresh Chandra Baluni)
Director (Project)

while considering the fixation of NAPAF this factor may kindly also be considered. Here it is pertinent to mention that the maximum NAPAF achieved by Chibro, Khodri, Dhakrani, Dhalipur and Kulhal plants for the period FY 2014-15 to FY 2021-22 in any year is 71.30%, 62.24%, 69.22%, 70.58% and 76.56% respectively.


6. It is submitted that, if the NAPAF of Vyasi HEP is fixed on the higher side by the Hon'ble Commission as compared to the actual plant availability achievable by the Vyasi HEP, there shall be substantial under recovery of its capacity charges. Further, the under recovery of capacity charges shall adversely affect the cash flow, resulting in affecting the regular O&M of the plant. Consequently, the petitioner may face hardship in payment of loan installments in case of low recovery. It is therefore requested to kindly allow full recovery through NAPAF by fixing the actually achievable NAPAF under the above-mentioned limitations.
7. In this regard it is also to bring to the notice of Hon'ble Commission that the reservoir at Vyasi Dam Juddo has capacity to reserve the water upto the FRL EL-631.50 meter. But as the reservoir level reaches beyond EL-629.75 meter, the residential area at Lohari village nearby the Vyasi dam, gets affected due to the high water level of the dam. Most of the villagers of Lohari village have been shifted to other locations, however some of the families are still residing in the village. Apart from above, one of the pilgrimage centre of the Lohari & nearby area villagers is in the submergence area and the villagers of Lohari and other nearby villages regularly visit the temple for the worship and thus the water level at the vyasi dam cannot be increased beyond the EL-629.75 meters. In view of above facts the net available head for generation of power is reduced, thus affecting peak output of the machines. The temple is planned to be shifted out of the submergence/Pondage area. However, till the same is done, the the water availability shall be impact to that extent. Further during monsoon season when river discharge is quite high, the tail race level also increases and the net head is reduced, it has been observed that vibrations in Unit#1 increase and thus peak generation output is affected.


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Director (Project)
UJVNL Limited

8. The discharge in the river Yamuna starts decreasing from the month of October every year. October to April is the lean discharge period during which energy generation is less due to low river discharge. In the lean discharge period the annual maintenance of the machines is also carried out. During the months from December to February, the discharge becomes very less and the machines of the powerhouse remain in reserve outage to maintain the pond level required for peaking load. The peaking of 60 MW is not possible in the lean discharge period even after the machines are not operated in day time to fill the dam for peaking. During the months of lean discharge from December to February only the peaking of 45 MW is possible. Though the machines of the power station are available for generation, but the rated peak generation is not possible due to Low River discharge, which affects the energy generation & NAPAF as well during lean and dry seasons.
9. In view of the above submissions, the Hon'ble Commission is prayed to kindly consider the following and approve the NAPAF of Vyasi HEP as 75% as proposed:
 - i. Uncontrollable factors adversely affecting NAPAF of Vyasi HEP.
 - ii. NAPAF of similarly placed HEPs &
 - iii. Actual NAPAF achieved by Vyasi HEP, for one year since May 2022 to April 2023 on the basis of powerhouse and dam data, which is 74.09%.

f. Auxiliary Energy Consumption

1. The Regulation 47(4)(ii) provides for the normative levels of auxiliary energy consumption as below.
 - ii. Hydro generating stations:
 - (a) Surface hydro electric power generating station
 - i. With rotating exciters mounted on the generator shaft: 0.7%
 - ii. With static excitation system: 1%
 - (b) Underground hydro generating station
 - i. With rotating exciters mounted on the generator shaft: 0.9%


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Director (Projects)
UJVN Limited

ii. With static excitation system: 1.2% "

2. UJVNL has computed the auxiliary consumption based on the above regulation. The same is detailed below.

Station Particulars	Norm
Type of Station	
a) Surface	YES
b) Underground	NO
Type of excitation	
a) Rotating exciters on generator	NA
b) Static excitation	YES
Auxiliary Consumption losses (As % of Total Generation)	1.00%

g. Capital Costs

- The approved completion cost of the project is Rs.2048.22 Crore by the BoD and PIB, GoU. The actual project cost capitalized as on COD i.e 24.05.2022 is Rs. 1922.52 Crore. The project cost as on COD has been audited.
- It is further submitted that there are certain works which were still to be completed as on COD but within the original scope of work as well additional capitalization. The works are under progress. The actual capital cost incurred till 31.03.2023 is Rs. 1970.99 Crore. The audited expenditures statement upto 31.03.2023 is attached as Annexure-19. Further, the audited Balance Sheet of the Company is attached as Annexure-19A. Further, capital expenditure proposed to be incurred for the FY 2023-24 & FY 2024-25 is Rs. 2009.23 and Rs. 2047.01 respectively. The details of capital expenditure upto COD, 31.03.2023 & expected during FY 2023-24 & 2024-25 are provided in the subsequent chapters.
- It is prayed that the Hon'ble Commission may consider and approve the final completion cost, cost incurred during FY 2022-23 and proposed for the FY 2023-24 & FY 2024-25.


(Suresh Chandra Baluni)
Director (Project)
UJVNL Limited

Table: Total Capital Cost as on COD

(In Rs. Crore)	
Particulars	FY 2022-23
a) Land	62.95
b) Building	27.80
c) Hydraulic / Major Civil Work	1,613.94
d) Plant & Machinery	212.85
e) Vehicle	0.43
f) Furniture & Fixture	1.54
g) Office Equipment & Others	1.97
h) I.T. Equipment including software	1.03
Total	1,922.52

h. Means of Finance of the cost as on Project COD (24.05.2022) is enumerated below:

Means of Financing (in Crores)

Particulars	Amount (In Rs Crore)
Total Actual Debt from REC Ltd.	1,251.70
Actual Equity from Govt. of UK	336.16
Actual Equity from UJVNL Fund	334.65
Total Actual Equity	670.81
Total Actual Debt + Equity	1,922.52

i. Debt - Equity Ratio:-

1. UJVNL has availed 3 loans from REC as detailed below

(In Rs Crore)			
Particulars	Date	Sanctioned Amount	Drawn Amount
Loan No. UA-GE-GEN-430-2013-7190	03.01.2014 to 24.05.2022	655.36	655.36
Loan No. UA-GE-GEN-430-19-15529-A1	20.11.2019 to 24.05.2022	503.66	503.66
Loan No. UA-STL-STG-866-2021-16769-1	25.01.2022 to 24.05.2022	92.68	92.68
Total Actual Debt from REC Ltd.	03.01.2014 to 24.05.2022	1,251.70	1,251.70

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Director (Project)
UJVNL Limited

Power Project

2. The Government of Uttarakhand has provided Equity of Rs. 336.16 Crores. The approvals in respect of the same is attached as Annexure-20. The details of the same is provided below.

Sl. No.	Financial Year	Amount (In Rs Crore)
1	Exp. Of Irrigation Dep.	60.00
2	2008-09	10.00
3	2009-10	54.16
4	2009-10	18.91
5	2011-12	3.54
6	2012-13	10.99
7	2012-13	20.00
8	2015-16	18.80
9	2016-17	10.00
10	2016-17	21.00
11	2018-19	-52.19
12	2019-20	25.00
13	2019-20	25.00
14	2019-20	20.00
15	2020-21	17.50
16	2020-21	17.50
17	2021-22	55.95
Total Actual Equity from Govt. of UK		336.16

3. The UJVN Ltd has contributed Rs. 334.65 Crores as Equity from Internal Resource Funding.


(Suresh Chandra Baluni)
Director (Project)
UJVN Limited

C.2. Chapter: 2

Determination of Tariff Petition for the FY 2022-23 (COD to March 2023)

a. Capital Costs

The actual project cost capitalized as on COD i.e 24.05.2022 is Rs. 1922.30 Crore. The project cost as on COD has been audited.

Table: Total Capital Cost as on COD

(In Rs. Crore)	
Particulars	FY 2022-23
a) Land	62.95
b) Building	27.80
c) Hydraulic / Major Civil Work	1,613.94
d) Plant & Machinery	212.85
e) Vehicle	0.43
f) Furniture & Fixture	1.54
g) Office Equipment & Others	1.97
h) I.T. Equipment including software	1.03
Total	1,922.52

b. Additional Capitalisation during FY 2022-23

The petitioner has done additional capitalization of works within the approved scope of work post COD during the FY 2022-23. Further, other/apportioned capitalization apart from project cost has also been included and the same are detailed separately. The details of the category wise capitalization is provided in the table below.

Table: Additional Capitalisation during FY 2022-23

Particulars	(In Rs. Crore)		Total
	FY 2022-23		
	Projected	Other CAPEX	
a) Land	3.65	-	3.65
b) Building	0.12	-	0.12
c) Hydraulic / Major Civil Work	5.21	-	5.21
d) Plant & Machinery	39.49	0.05	39.54
e) Vehicle	-	-	-
f) Furniture & Fixture	-	0.18	0.18
g) Office Equipment & Others	-	-	-
h) I.T. Equipment including software	-	0.15	0.15
Total Additional Capitalisation	48.47	0.37	48.84


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Director (Project)
UJVN Limited

c. Interest on Loan

1. Regulation 27 (1) of the UERC Tariff Regulations, 2021 provides that the loans arrived at in the manner indicated in Regulation 24 shall be considered as gross normative loan for calculation of interest on loan.
2. Regulation 27(3) provides that repayment for each year of the Control Period shall be deemed to be equal to the depreciation allowed for that year. Further, Regulation 27(4) provides that notwithstanding any moratorium period availed by the Generating Company the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year.
3. In view of the above Regulations, normative loan has been considered as per Debt: Equity Ratio in terms of Regulation 24 discussed above. Further, normative repayment of loan has been considered as equivalent to the Depreciation for the year.
4. Regulation 27(5) of the Regulation provides that the rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio of the previous year. The UJVN Ltd. has considered actual loan portfolio as on the date of COD and accordingly computed the weighted average rate of interest applicable for the normative loan for the FY 2022-23. Further, interest on loan for FY 2022-23 has been calculated on pro-rata basis from the COD i.e. 24.05.2022. The calculation of weighted average interest & interest on loan is provided in the table below.


(Suresh Chandra Baluni)
Director (Project)
UJVN Limited

Table: Interest on Loan

(In Rs. Crore)

Particulars	FY 2022-23
Total Capital Cost	1,922.52
Subsidies	-
Actual Capital Cost	1,922.52
Gross Debt	1,345.76
Repayment Last Year	-
Opening Balance	1,345.76
Addition	34.83
Repayment	83.33
Closing Balance	1,297.26
Average Loan	1,321.51
Rate of Interest %	10.15%
Interest on Loan	114.23

d. Depreciation

1. Regulation 28(1) of the UERC Tariff Regulations, 2021 provides that the value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Hon'ble Commission. The capital cost of the Vyasi HEP is not yet approved by the Hon'ble Commission. The UJVN Ltd. has considered the actual cost capitalized as on project COD i.e. 24.05.2022 and considered the same for calculation of depreciation from COD i.e. 24.05.2022 onwards on pro-rata basis.
2. Regulation 28(2) provides that the salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset. Further, Regulation 28(3) provides that Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset. Accordingly, UJVN Ltd. has excluded the cost of land to arrive at the depreciable value for computation of depreciation.
3. Regulation 28(4) provides that depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix - II to these Regulations. UJVN Ltd. has considered the prescribed depreciation rates to compute the depreciation for the year. The same is provided below.

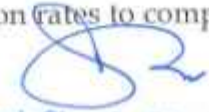

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 Director (Project)
 UJVN Limited

Table: Rates of Depreciation as per Appendix II of UERC Tariff Regulations, 2021

Particulars	Rate of Depreciation
Land	0.00%
Land under lease	3.34%
Plant & Machinery	5.28%
Cooling towers & circulating water systems	5.28%
Hydraulic works	5.28%
Transformers, Kiosk, Sub-station Equipment & other fixed apparatus	5.28%
Building & Civil Works	3.34%
Temporary erections	100.00%
Vehicles	9.50%
Furniture and Fixtures	6.33%
Office equipment	6.33%
Air Conditioning Plants	
Static	5.28%
Portable	9.50%
Street Light fittings	5.28%
Apparatus let on hire	
Other than motors	9.50%
Motors	6.33%
Communication equipment	6.33%
I. T Equipment including software	15.00%
Other	5.28%

4. Regulation 28(5) provides that the depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis. In view of the above provision UJVN Ltd. has calculated depreciation on pro-rata basis from the COD i.e 24.05.2022 for the FY 2022-23.


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Director (Project)
UJVN Limited

The Depreciation calculated based on the above provisions is detailed below:

Table: Depreciation

Particulars	(In Rs. Crore)
	FY 2022-23 Projected
a) Land	-
b) Building	0.79
c) Hydraulic / Major Civil Work	72.61
d) Plant & Machinery	9.58
e) Vehicle	0.03
f) Furniture & Fixture	0.08
g) Office Equipment & Others	0.11
h) I.T. Equipment including software	0.13
Total Depreciation	83.33

e. Operation & Maintenance Expenses

1. Regulation 48(2)(c) of the UERC Tariff Regulations, 2021 provides that in case of hydro-electric generating stations declared under commercial operation on or after 1.4.2022, the base operation and maintenance expenses for the year of commissioning shall be fixed at 4% and 2.5% of the actual capital cost (excluding cost of rehabilitation & resettlement works) as admitted by the Hon'ble Commission, for stations less than 200 MW projects and for stations more than 200 MW respectively. The installed capacity of Vyasi HEP is 120 MW. Accordingly, UJVN Ltd. has considered the base operation and maintenance expenses at 4% of the provisional capital cost as on COD and calculated the same as detailed below. Further, operation and maintenance expenses has been calculated on pro-rata basis from the COD i.e. 24.05.2022. Accordingly, O&M expenses for the FY 2022-23 is proposed below.


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UJVN Limited

Table: O&M Expenses

(In Rs. Crore)	
Particulars	FY 2022-23
Total Capital Cost	1,922.52
Employee Cost	65.52
R&M Cost	
A&G Cost	
Total O&M Expenses (4% of Capital Cost)(Normative)	65.52

f. Return on Equity

1. Regulation 26(1) of the UERC Tariff Regulations, 2021 provides that return on equity shall be computed on the equity base determined in accordance with Regulation 24. It further provides that, Return on Equity shall be allowed on amount of allowed equity capital for the assets put to use at the commencement of each financial year. UJVN Ltd. has considered the Equity determined as per regulation 24 above.
2. Regulation 26(2) provides that the Return on equity shall be computed on at the base rate of 15.50% for thermal generating stations, transmission licensee, SLDC and run of the river hydro generating station and at the base rate of 16.50% for the storage type hydro generating stations and run of river generating station with pondage and distribution licensee on a post-tax basis. The Vyasi HEP is run of the river hydro generating station with pondage, accordingly, RoE has been considered at 16.50%.
3. Further, Regulation 26(2) of UERC Tariff Regulations, 2021 provides that RoE shall be allowed on a post-tax basis. However, Regulation 34 provides that income Tax shall be reimbursed as per actual income tax paid, based on the documentary evidence submitted at the time of truing up of each year of the Control Period, subject to the prudence check. Accordingly, UJVN Ltd. has not considered income tax as part of RoE at this stage. The same shall be claimed at the time of True-up for the year.
4. In accordance with the above provisions of UERC Tariff Regulations, 2021, Return on Equity has been calculated as detailed below. Further, Return on Equity has been calculated on pro-rata basis from the COD i.e. 24.05.2022 & for the FY 2022-23.

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Director (Project)
UJVN Limited

Table: Return on Equity


(In Rs. Crore)	
Particulars	FY 2022-23
Total Capital Cost	1,922.52
Subsidies	-
Actual Capital Cost	1,922.52
Opening Equity	576.76
Addition during the year	14.93
Closing Equity	591.68
Average Equity	584.22
Base Rate of return on Equity (%)	16.50%
Return on Equity	82.13

g. Interest on Working Capital

1. Regulation 33(1)(b) of UERC Tariff Regulations, 2021 provides as follows:

"In case of hydro power generating stations and transmission system and SLDC, the working capital shall cover:

- (i) Operation and maintenance expenses for one month;
 - (ii) Maintenance spares @ 15% of operation and maintenance expenses; and
 - (iii) Receivables equivalent to two months of the Annual Fixed Charges."
2. UJVN Ltd. has considered the above provisions to arrive at the normative working capital requirement for the year.
 3. Further, Regulation 33 provides that the Rate of interest on working capital shall be on normative basis and shall be equal to the weighted average of 'one-year Marginal Cost of Funds based Lending Rate (MCLR)' as declared by the State Bank of India from time to time for the financial year in which the application for determination of tariff is made plus 350 basis points.
 4. The weighted average of 'one-year Marginal Cost of Funds based Lending Rate (MCLR)' as declared by the State Bank of India for the period 01.04.2023 to 30.09.2023 is 8.53% as detailed below. Accordingly, rate of interest for calculating the interest on


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Director (Project)
UJVN Limited

working capital has been considered as 12.03% (8.53% + 3.5%). The copy historical data of SBI MCLR is attached as Annexure-21.

Table: Weighted Average of 1 Year MCLR

Period	Days	1 Year %	Interest
01.04.2023 to 15.06.2023	76	8.50%	1.77
16.06.2023 to 30.09.2023	107	8.55%	2.51
Total	183		4.28
Weighted Average of MCLR			8.53%
Add : Basic Point (350 Plus)			3.50%
Bank Rate (%)			12.03%

The Interest on working capital calculated based on the above provisions is detailed below. Further, Interest on Working Capital has been calculated on pro-rata basis from the COD i.e. 24.05.2022 for the FY 2022-23.

Table: Interest on Working Capital

(In Rs. Crore)	
Particulars	FY 2022-23
O & M expenses - 1 month	6.32
Maintenance Spares (15% of O&M Expenses)	9.83
Receivables- 2 months of AFC	68.44
Total Working Capital	84.59
Normative Interest Rate (MCLR+3.5) (%)	12.03%
Normative Interest on Working Capital	10.18

h. Non Tariff Income

Regulation 46 of the UERC Tariff Regulations, 2021 provides for the Non-Tariff Income as detailed below.

"The amount of Non-Tariff relating to generation business as approved by the Commission shall be deducted from the Annual Fixed Charges in determining the Net Annual Fixed Charges of the Generating Company.


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Director (Project)
UJVN Limited

Provided that the Generating Company shall submit full details of its forecast of non-tariff income to the Commission in such form as may be stipulated by the Commission from time to time.

The indicative list of various heads to be considered for non-tariff income shall be as under:

- a) *Income for rent of land or buildings;*
- b) *Income from sale of scrap;*
- c) *Income from statutory investments;*
- d) *Interest on delayed or deferred payment on bills;*
- e) *Interest on advances to suppliers/contractors;*
- f) *Rental from staff quarter;*
- g) *Rental from contractor;*
- h) *Income from hire charges from contractor and others;*
- i) *Income from Advertisements, etc.;*
- j) *Any other non-tariff income.*

Provided that the interest earned from investments made out of Return on Equity corresponding to the regulated business of the Generating Company shall not be included in Non-Tariff Income."

The Non-tariff Income calculated based on the above provisions is detailed below.

Table: Non-tariff Income

(In Rs. Crore)	
Particulars	FY 2022-23
Non-Tariff Income	0.65


(Suresh Chandra Baluni)
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UJVN Limited

i. Annual Fixed Charges

The Annual Fixed Charges comprising of the component as prescribed in Regulation 44 of the UERC Tariff Regulations, 2021 and detailed herein above as below.

Table: Annual Fixed Charges for FY 2022-23 (from COD i.e. 24.05.2022 to 31.03.2023)

(In Rs. Crore)	
Particulars	FY 2022-23
Interest on Loan	114.23
Depreciation	83.33
ROE	82.13
O&M Expenses	65.52
Interest on Working Capital	10.18
Gross AFC	355.40
Less: Non tariff Income	0.65
Total AFC	354.75

j. Computation of Capacity Charges & Energy Charges

- Regulation 50 of the UERC Tariff Regulations, 2021 provides for the computation of Capacity Charges and Energy Charges for Hydro Generating Stations. Regulation 50(1) provides that the Annual Fixed Charges of Hydro Generating Station shall be computed on annual basis, based on norms specified under these Regulations, and recovered on monthly basis under capacity charge (inclusive of incentive) and Energy Charge, which shall be payable by the beneficiaries in proportion to their respective percentage share/allocation in the saleable capacity of the generating station, i.e. in the capacity excluding the free power to the home State.
- The UJVN Ltd. has entered in to Power Purchase agreement with UPCL for sale of entire energy generated from the Vyasi HEP. Accordingly, total capacity charge (inclusive of incentive) and Energy Charge is proposed to be recovered from UPCL.


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Director (Project)
UJVN Limited

Computation of Capacity Charges

3. Regulation 50(2) provides for the calculation of capacity charge. The same is detailed below.

"The capacity charge (inclusive of incentive) payable to a hydro generating station for a calendar month shall be:

$$AFC \times 0.5 \times NDM / NDY \times (PAFM / NAPAF) \text{ (in Rupees)}$$

Where, AFC = Annual fixed cost specified for the year, in Rupees.

NAPAF = Normative plant availability factor in percentage

NDM = Number of days in the month

NDY = Number of days in the year

PAFM = Plant availability factor achieved during the month, in Percentage"

4. Accordingly, 50% of AFC is proposed to be recovered as capacity charge on monthly basis as detailed below.

Table: Proposed Capacity charge for the FY 2022-23.
(from COD i.e. 24.05.2022 to 31.03.2023)

Particulars	FY 2022-23
Annual Fixed Charges (In Rs. Cr.)	354.75
Capacity Charge (In Rs. Cr)	177.38

Computation of Energy Charges

5. Regulation 50(4) provides for the calculation of Energy Charge. The same is detailed below.

"The Energy Charge shall be payable by every beneficiary for the total energy supplied to the beneficiary, during the calendar month, on ex-power plant basis, at the computed Energy Charge rate. Total Energy Charge payable to the Generating Company for a month shall be:


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UJVN Limited

$(\text{Energy Charge Rate in Rs./kWh}) \times [\text{Energy supplied (ex-bus)}] \text{ for the month in kWh}$
 $\times (100 - \text{FEHS})/100$

Further, Regulation 50(5) provides for the calculation of Energy Charge Rate. The same is detailed below.

“Energy Charge Rate (ECR) in Rupees per kWh on ex-power plant basis, for a Hydro Generating Station, shall be determined up to three decimal places based on the following formula

$$\text{ECR} = \text{AFC} \times 0.5 \times 10 / \{ \text{DE} \times (100 - \text{AUX}) \times (100 - \text{FEHS}) \}$$

Where, DE = Annual Design Energy specified for the hydro generating station, in MWh,

FEHS = Free Energy for home State, in percent, as applicable”

6. The design energy of the Vyasi HEP is 353.00 MU as detailed in the previous section. The design energy for the purpose of arriving at the energy charge has been considered from the COD. Accordingly, design energy of 301.81 MU has been considered for the period 24.05.2022 to 31.03.2023.
7. In view of the above Regulations & design Energy, the proposed Energy Charge rate is calculated below.

Table: Proposed Energy charge for the FY 2022-23.
(from COD i.e. 24.05.2022 to 31.03.2023)

Particulars	FY 2022-23
Annual Fixed Charges (In Rs. Cr.)	354.75
Design Energy (MU)	353.00
Design Energy (MU) (24.05.2022 to 31.03.2023)	301.81
Auxiliary Consumption & Transformation Loss	1.00%
Net Saleable Energy (MU)	298.79
Energy Charge Rate (Rs per Unit)	5.94

8. Further, details of the projections of operating parameters and costs are provided in the subsequent sections of the Petition in the detailed data formats.


 (Suresh Chandra Baluni)
 Director (Project)
 UJVN Limited

9. In view of all above, petitioner prays the Hon'ble Commission to Allow AFC amounting to Rs. 354.75 Cr. for FY 2022-23 (for Post COD period i.e. 24.05.2022 to 31.03.2023 i.e. 311 days).

k. Infirm Power

It is submitted that the power generated before the COD of the units has been sold to UPCL and the petitioner has also raised bill in respect of the same. The copies of the bills raised are attached as Annexure-22.


(Suresh Chandra Baluni)
Director (Project)
UJVN Limited

C.3. Chapter: 3

True-up for the FY 2022-23
(from COD i.e. 24.05.2022 to 31.03.2023)

The Hon'ble Commission had approved the provisional Tariff of Rs. Rs. 7.60/ Unit vide Order Dt. 09.11.2022. The Petitioner has provisionally billed for energy sold to UPCL at the approved provisional tariff. As the FY 2022-23 has passed, it is respectfully submitted that based on UERC Tariff Regulations, 2021, the Petitioner is submitting the instant petition for True-Up for the FY 2022-23 also.

a. Capital Costs

The actual project cost capitalized as on COD i.e 24.05.2022 is Rs. 1922.52 Crore. The project cost as on COD has been audited.

Table: Total Capital Cost as on COD

(In Rs. Crore)	
Particulars	FY 2022-23
a) Land	62.95
b) Building	27.80
c) Hydraulic / Major Civil Work	1,613.94
d) Plant & Machinery	212.85
e) Vehicle	0.43
f) Furniture & Fixture	1.54
g) Office Equipment & Others	1.97
h) I.T. Equipment including software	1.03
Total	1,922.52

b. Additional Capitalisation during FY 2022-23

The petitioner has done additional capitalization of works within the approved scope of work post COD during the FY 2022-23. Further, other capitalization/ apportioned capitalization apart from project cost has also been included and the same are detailed separately. The details of the category wise capitalization as per audited accounts for the FY 2022-23 is provided in the table below.


(Suresh Chandra Baluni)
Director (Project)
UJVN Limited

Table: Additional Capitalisation during FY 2022-23

(In Rs. Crore)

Particulars	FY 2022-23			
	Actual			
	Project Add Cap	Other CAPEX	Apportioned Add Cap	Total
a) Land	3.65	-	-	3.65
b) Building	0.12	-	0.31	0.44
c) Hydraulic / Major Civil Work	5.21	-	0.004	5.21
d) Plant & Machinery	39.49	0.05	0.002	39.54
e) Vehicle	-	-	-	-
f) Furniture & Fixture	-	0.18	0.003	0.18
g) Office Equipment & Others	-	-	0.04	0.04
h) I.T. Equipment including software	-	0.15	0.55	0.70
Total Additional Capitalisation	48.47	0.37	0.92	49.75

c. Interest on Loan

1. Regulation 27 (1) of the UERC Tariff Regulations, 2021 provides that the loans arrived at in the manner indicated in Regulation 24 shall be considered as gross normative loan for calculation of interest on loan.
2. Regulation 27(3) provides that repayment for each year of the Control Period shall be deemed to be equal to the depreciation allowed for that year. Further, Regulation 27(4) provides that notwithstanding any moratorium period availed by the Generating Company the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year.
3. In view of the above Regulations, normative loan has been considered as per Debt: Equity Ratio in terms of Regulation 24 discussed above. Further, normative repayment of loan has been considered as equivalent to the Depreciation for the year.
4. Regulation 27(5) of the Regulation provides that the rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio of the previous year. The UJVN Ltd. has considered actual loan portfolio as on the date of COD and accordingly computed the weighted average rate of interest applicable for the normative loan for the FY 2022-23. Further, interest on loan for FY 2022-23 has been calculated on pro-rata basis from the COD i.e. 24.05.2022. The actual

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UJVN Limited

loan portfolio as on 01.04.2023 has been considered for computing the weighted average rate of interest applicable for the normative loan for the FY 2023-24 & FY 2024-25. The calculation of weighted average interest & interest on loan is provided in the tables below. Regulation 27 (1) of the UERC Tariff Regulations, 2021 provides that the loans arrived at in the manner indicated in Regulation 24 shall be considered as gross normative loan for calculation of interest on loan.

5. Regulation 27(3) provides that repayment for each year of the Control Period shall be deemed to be equal to the depreciation allowed for that year. Further, Regulation 27(4) provides that notwithstanding any moratorium period availed by the Generating Company the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year.
6. In view of the above Regulations, normative loan has been considered as per Debt: Equity Ratio in terms of Regulation 24 discussed above. Further, normative repayment of loan has been considered as equivalent to the Depreciation for the year.
7. Regulation 27(5) of the Regulation provides that the rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio of the previous year. The UJVN Ltd. has considered actual loan portfolio as on the date of COD and accordingly computed the weighted average rate of interest applicable for the normative loan for the FY 2022-23. Further, interest on loan for FY 2022-23 has been calculated on pro-rata basis from the COD i.e. 24.05.2022. The calculation of weighted average interest & interest on loan is provided in the table below.


(Suresh Chandra Baluni)
Director (Project)
UJVN Limited

Table: Interest on loan

(In Rs. Crore)	
Particulars	FY 2022-23
Total Capital Cost	1,922.52
Subsidies	-
Actual Capital Cost	1,922.52
Gross Debt	1,345.76
Repayment Last Year	-
Opening Balance	1,345.76
Addition	34.83
Repayment	83.33
Closing Balance	1,297.26
Average Loan	1,321.51
Rate of Interest %	10.15%
Interest on Loan	114.23

d. Depreciation

1. Regulation 28(1) of the UERC Tariff Regulations, 2021 provides that the value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. The capital cost of the Vyasi HEP is not yet approved by the Hon'ble Commission. The UJVN Ltd. has considered the actual cost capitalized as on project COD i.e. 24.05.2022 and considered the same for calculation of depreciation from COD i.e. 24.05.2022 onwards on pro-rata basis.
2. Regulation 28(2) provides that the salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset. Further, Regulation 28(3) provides that Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset. Accordingly, UJVN Ltd. has excluded the cost of land to arrive at the depreciable value for computation of depreciation.
3. Regulation 28(4) provides that depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix - II to these Regulations.


(Suresh Chandra Baluni)
Director (Project)
UJVN Limited

UJVN Ltd. has considered the prescribed depreciation rates to compute the depreciation for the year. The same is provided below.

Table: Rates of Depreciation as per Appendix II of UERC Tariff Regulations, 2021

Particulars	Rate of Depreciation
Land	0.00%
Land under lease	3.34%
Plant & Machinery	5.28%
Cooling towers & circulating water systems	5.28%
Hydraulic works	5.28%
Transformers, Kiosk, Sub-station Equipment & other fixed apparatus	5.28%
Building & Civil Works	3.34%
Temporary erections	100.00%
Vehicles	9.50%
Furniture and Fixtures	6.33%
Office equipment	6.33%
Air Conditioning Plants	
Static	5.28%
Portable	9.50%
Street Light fittings	5.28%
Apparatus let on hire	
Other than motors	9.50%
Motors	6.33%
Communication equipment	6.33%
I. T Equipment including software	15.00%
Other	5.28%

4. Regulation 28(5) provides that the depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis. In view of the above provision UJVN Ltd. has calculated depreciation on pro-rata basis from the COD i.e 24.05.2022 for the FY 2022-23.

The Depreciation calculated based on the above provisions is detailed below.


(Suresh Chandra Baluni)
Director (Project)
UJVN Limited

Table: Depreciation


(In Rs. Crore)	
Particulars	FY 2022-23
a) Land	-
b) Building	0.79
c) Hydraulic / Major Civil Work	72.61
d) Plant & Machinery	9.58
e) Vehicle	0.03
f) Furniture & Fixture	0.08
g) Office Equipment & Others	0.11
h) I.T. Equipment including software	0.13
Total Depreciation	83.33

e. Operation & Maintenance Expenses (Normative)

- Regulation 48(2)(c) of the UERC Tariff Regulations, 2021 provides that in case of hydro-electric generating stations declared under commercial operation on or after 1.4.2022, the base operation and maintenance expenses for the year of commissioning shall be fixed at 4% and 2.5% of the actual capital cost (excluding cost of rehabilitation & resettlement works) as admitted by the Hon'ble Commission, for stations less than 200 MW projects and for stations more than 200 MW respectively. The installed capacity of Vyasi HEP is 120 MW. Accordingly, UJVN Ltd. has considered the base operation and maintenance expenses at 4% of the provisional capital cost as on COD and calculated the same as detailed below. Further, operation and maintenance expenses has been calculated on pro-rata basis from the COD i.e. 24.05.2022. Accordingly, O&M expenses for the FY 2022-23 is proposed below.

Table: Operation & Maintenance Expenses (Normative)

(In Rs. Crore)	
Particulars	FY 2022-23
Total Capital Cost	1,922.52
Employee Cost	65.52
R&M Cost	
A&G Cost	
Total O&M Expenses (4% of Capital Cost)	65.52


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Director (Project)
UJVN Limited

Operation & Maintenance Expenses (Actual)

2. The Petitioner in the present petition has adopted methodology of apportionment of common expense in the ratio of 95:5 among 11 LHPs (9 Old LHPs, MB-II and Vyasi) and SHPs respectively as agreed by the Hon'ble Commission in its Tariff Order dated 21.03.2018.
3. Further, expenses incurred by such common units serving more than one station have been allocated as detailed below:-
 - **Head Office/ CSPPPO:** The 95% of the common expenses have been allocated to the 11 LHPs and the remaining 5% to SHPs. Further the allocation among the LHPs/SHPs is done on the basis of installed capacity of each LHP/SHP.
4. The actual O&M expenses for the FY 2022-23 (COD to 31.03.2023) as per the audited accounts is provided in the table below.

Table :- Operation & Maintenance Expenses (Actual)

Particulars	(In Rs. Crore)
	Actual
	FY 2022-23 (COD to March)
Repair and Maintenance	6.29
Administrative Expenses	8.38
Employee Cost	26.44
Less: O&M Expenses Capitalised	0.00
O&M Expenses	41.12

Net O&M Entitlement

5. Regulation 12(10) of the UERC Tariff Regulations, 2021 provides that after completion of the Annual Performance Review, the Hon'ble Commission shall approve the aggregate gain or loss of uncontrollable & controllable factors mechanism of sharing such gains or loss. The relevant extracts of the Regulation is provided below.

"Upon completion of the Annual Performance Review, the Commission shall pass an order recording


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Director (Project)
UJVN Limited

- a) The approved aggregate gain or loss to the Applicant on account of uncontrollable factors and the mechanism by which the Applicant shall be allowed such gains or losses in accordance with Regulation 13;
 - b) The approved aggregate gain or loss to the Applicant on account of controllable factors and sharing of such gains or such losses that may be shared in accordance with Regulation 14"
6. Further, Regulation, 14 of the UERC Tariff Regulations, 2021 provides the mechanism for sharing the gains or losses on account of Controllable factors. O&M expenses being controllable factor, it shall be governed by Regulation 14. The provisions of the Regulation is as follows.

"Sharing of Gains and Losses on account of Controllable factors: (1) The approved aggregate gain and loss to the Applicant on account of controllable factors shall be dealt with in the following manner: a) 1/3rd of such gain or loss shall be passed on as a rebate or allowed to be recovered in tariffs over such period as may be specified in the Order of the Commission; b) The balance amount of such gain or loss may be utilized or absorbed by the Applicant."

7. In view of the above provisions, the petitioner has compared the normative O&M expenses allowed as per Regulation 48(2)(c) of the UERC Tariff Regulations, 2021 with actual O&M expenses for the FY 2022-23 and has computed the gain in O&M expenses. Further, in accordance with the sharing mechanism provided in the Regulation 14, the sharing of gains & losses of O&M expenses has also been computed. The calculation of the same is provided below.

Table :- Net O&M Entitlement

Particulars	(In Rs. Crore)
	Actual
	FY 2022-23 (COD to March)
O&M Expenses Normative	65.52
O&M Expenses Actual	41.12
O&M Expenses Efficiency Gain/(Loss)	24.40
O&M Expenses Sharing (2/3 of Gain)	16.27
Net O&M Entitlement	57.39

(Suresh Chandra Baluni)
Director (Project)
UJVN Limited

f. Return on Equity

1. Regulation 26(1) of the UERC Tariff Regulations, 2021 provides that return on equity shall be computed on the equity base determined in accordance with Regulation 24. It further provides that, Return on Equity shall be allowed on amount of allowed equity capital for the assets put to use at the commencement of each financial year. UJVN Ltd. has considered the Equity determined as per regulation 24 above.
2. Regulation 26(2) provides that the Return on equity shall be computed on at the base rate of 15.50% for thermal generating stations, transmission licensee, SLDC and run of the river hydro generating station and at the base rate of 16.50% for the storage type hydro generating stations and run of river generating station with pondage and distribution licensee on a post-tax basis. The Vyasi HEP is run of the river hydro generating station with pondage, accordingly, RoE has been considered at 16.50%.
3. Further, Regulation 26(2) of UERC Tariff Regulations, 2021 provides that RoE shall be allowed on a post-tax basis. However, Regulation 34 provides that income Tax shall be reimbursed as per actual income tax paid, based on the documentary evidence submitted at the time of truing up of each year of the Control Period, subject to the prudence check. Accordingly, UJVN Ltd. has not considered income tax as part of RoE at this stage. The same shall be claimed at the time of True-up for the year.
4. In accordance with the above provisions of UERC Tariff Regulations, 2021, Return on Equity has been calculated as detailed below. Further, Return on Equity has been calculated on pro-rata basis from the COD i.e. 24.05.2022 & for the FY 2022-23.


(Suresh Chandra Baluni)
Director (Project)
UJVN Limited

Table: Return on Equity

(In Rs. Crore)	
Particulars	FY 2022-23
Total Capital Cost	1,922.52
Subsidies	-
Actual Capital Cost	1,922.52
Opening Equity	576.76
Addition during the year	14.93
Closing Equity	591.68
Average Equity	584.22
Base Rate of return on Equity (%)	16.50%
Return on Equity	82.13

g. Interest on Working Capital

1. Regulation 33(1)(b) of UERC Tariff Regulations, 2021 provides as follows:

"In case of hydro power generating stations and transmission system and SLDC, the working capital shall cover:

- (iv) Operation and maintenance expenses for one month;
- (v) Maintenance spares @ 15% of operation and maintenance expenses; and
- (vi) Receivables equivalent to two months of the Annual Fixed Charges."

2. UJVN Ltd. has considered the above provisions to arrive at the normative working capital requirement for the year.
3. Further, Regulation 33 provides that the Rate of interest on working capital shall be on normative basis and shall be equal to the weighted average of 'one-year Marginal Cost of Funds based Lending Rate (MCLR)' as declared by the State Bank of India from time to time for the financial year in which the application for determination of tariff is made plus 350 basis points.
4. The weighted average of 'one-year Marginal Cost of Funds based Lending Rate (MCLR)' as declared by the State Bank of India for the period 01.04.2023 to 30.09.2023 is 8.53% as detailed below. Accordingly, rate of interest for calculating the interest on working capital has been considered as 12.03% (8.53% + 3.5%).


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Director (Project)
UJVN Limited

Table: Weighted Average of 1 Year MCLR

Period	Days	1 Year %	Interest
01.04.2023 to 15.06.2023	76	8.50%	1.77
16.06.2023 to 30.09.2023	107	8.55%	2.51
Total	183		4.28
Weighted Average of MCLR			8.53%
Add : Basic Point (350 Plus)			3.50%
Bank Rate (%)			12.03%

5. The Interest on working capital calculated based on the above provisions is detailed below. Further, Interest on Working Capital has been calculated on pro-rata basis from the COD i.e. 24.05.2022 for the FY 2022-23.

Table: Interest on Working Capital

(In Rs. Crore)	
Particulars	FY 2022-23
O & M expenses - 1 month	6.32
Maintenance Spares (15% of O&M Expenses)	9.83
Receivables- 2 months of AFC	68.44
Total Working Capital	84.59
Normative Interest Rate (MCLR+3.5) (%)	12.03%
Normative Interest on Working Capital	10.18

h. Non Tariff Income

Regulation 46 of the UERC Tariff Regulations, 2021 provides for the Non-Tariff Income as detailed below.

"The amount of Non-Tariff relating to generation business as approved by the Commission shall be deducted from the Annual Fixed Charges in determining the Net Annual Fixed Charges of the Generating Company.

Provided that the Generating Company shall submit full details of its forecast of non- tariff income to the Commission in such form as may be stipulated by the Commission from time to time.

The indicative list of various heads to be considered for non-tariff income shall be as under:

- a) Income for rent of land or buildings;


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- b) Income from sale of scrap;
- c) Income from statutory investments;
- d) Interest on delayed or deferred payment on bills;
- e) Interest on advances to suppliers/contractors;
- f) Rental from staff quarter;
- g) Rental from contractor;
- h) Income from hire charges from contractor and others;
- i) Income from Advertisements, etc.;
- j) Any other non-tariff income.

Provided that the interest earned from investments made out of Return on Equity corresponding to the regulated business of the Generating Company shall not be included in Non-Tariff Income."

Non-tariff Income for the FY 2022-23 as per the audited accounts is 0.65 Crore.

Table: Non-tariff Income

(In Rs. Crore)	
Particulars	FY 2022-23
Non-Tariff Income	0.65

i. Annual Fixed Charges

1. The Annual Fixed Charges comprising of the component as prescribed in Regulation 44 of the UERC Tariff Regulations, 2021 along with Annual Fixed Charges (AFC) for FY 2022-23 considered for True up of tariff based on Audited Accounts are detailed below:


 (Suresh Chandra Baluni)
 Director (Project)
 UJVN Limited

Table: Annual Fixed Charges (Before adjustment of Loss/Gain)

(In Rs. Crore)

Particulars	FY 2022-23
Interest on Loan	114.23
Depreciation	83.33
ROE	82.13
O&M Expenses	65.52
Interest on Working Capital	10.18
Gross AFC	355.40
Less: Non tariff Income	0.65
Total AFC	354.75

Table: Annual Fixed Charges (After adjustment of Loss/Gain)

(In Rs. Crore)

Particulars	FY 2022-23
Interest on Loan	114.23
Depreciation	83.33
ROE	82.13
O&M Expenses	57.39
Interest on Working Capital	9.74
Gross AFC	346.83
Less: Non tariff Income	0.65
Total AFC	346.18

2. It is respectfully prayed that the Hon'ble Commission may kindly consider and allow the aforesaid Annual Fixed Charges which have been computed in accordance to the UERC Tariff Regulations, 2021.

j. Gap in AFC for Truing up of FY 2022-23

Gap/(Surplus) between AFC as per normative parameters and claimed AFC for truing up of financial year 2022-23 are provided in the table given below:


 (Suresh Chandra Baluni)
 Director (Project)
 UJVN Limited

Table: Gap/(Surplus)

Particulars	(In Rs. Crore)
	FY 2022-23
	Actual 24.05.2022 to 31.03.2023
Annual Fixed Charges (In Rs. Cr.) (Before adjustment of Loss/Gain)	354.75
Annual Fixed Charges (In Rs. Cr.) (After adjustment of Loss/Gain)	346.18
Gross Generation	350.73
Net Energy Sale excluding Infirm* Power	349.27
Approved Tariff	7.60
Total Revenue	265.44
Total Gap/(Surplus)	80.73


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UJVN Limited

C.4. Chapter: 4

Annual Performance Review for the FY 2023-24

(H1 Actual – H2 Projected)

The Hon'ble Commission had approved the provisional Tariff of Rs. Rs. 7.60/ Unit vide Order Dt. 09.11.2022. The Petitioner has provisionally billed for energy sold to UPCL at the approved provisional tariff during the current FY 2023-24. Accordingly, it is respectfully submitted that based on UERC Regulations, 2021, the Petitioner is filing the instant petition for Annual Performance Review for the FY 2023-24.

a. Capital Costs

The actual capital cost capitalized upto 31.03.2023 is provided in the table below.

Table: Total Capital cost- FY 2023-24

(In Rs. Crore)

Particulars	FY 2023-24		
	Project Capital Cost	Apportioned Capital Cost	Total
a) Land	66.60	-	66.60
b) Building	27.92	0.31	28.23
c) Hydraulic / Major Civil Work	1,619.14	0.004	1,619.15
d) Plant & Machinery	252.39	0.002	252.39
e) Vehicle	0.43	-	0.43
f) Furniture & Fixture	1.72	0.003	1.72
g) Office Equipment & Others	1.97	0.04	2.01
h) I.T. Equipment including software	1.18	0.55	1.73
Total	1,971.36	0.92	1,972.27

b. Additional Capitalisation during FY 2023-24

1. The petitioner proposes additional capitalization of works within the approved scope of work during the FY 2023-24. Further, other/apportioned capitalization apart from project cost has also been included and the same are detailed separately. The details of the category wise capitalization is provided in the table below.


(Suresh Chandra Baluni)
Director (Project)
UJVN Limited


Table: Additional Capitalisation during FY 2023-24

(In Rs. Crore)

Particulars	FY 2023-24			Total
	Up to 30.09.2023		30.09.2023 to 31.03.2024	
	Actual	Apportioned	Estimated	
a) Land	-	-	4.11	4.11
b) Building	-	0.49	0.75	1.24
c) Hydraulic / Major Civil Work	-	-	21.99	21.99
d) Plant & Machinery	-	0.003	11.38	11.38
e) Vehicle	-	-	-	-
f) Furniture & Fixture	-	0.02	-	0.02
g) Office Equipment & Others	-	0.02	-	0.02
h) LT. Equipment including software	0.01	0.02	-	0.03
Total Additional Capitalisation	0.01	0.55	38.23	38.79

c. Interest on Loan

1. Regulation 27 (1) of the UERC Tariff Regulations, 2021 provides that the loans arrived at in the manner indicated in Regulation 24 shall be considered as gross normative loan for calculation of interest on loan.
2. Regulation 27(3) provides that repayment for each year of the Control Period shall be deemed to be equal to the depreciation allowed for that year. Further, Regulation 27(4) provides that notwithstanding any moratorium period availed by the Generating Company the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year.
3. In view of the above Regulations, normative loan has been considered as per Debt: Equity Ratio in terms of Regulation 24 discussed above. Further, normative repayment of loan has been considered as equivalent to the Depreciation for the year.
4. Regulation 27(5) of the Regulation provides that the rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio of the previous year. The UJVN Ltd. has considered actual loan portfolio as on the date of COD and accordingly computed the weighted average rate of interest applicable for the normative loan for the FY 2022-23. Further, interest on loan for FY


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UJVN Limited

2022-23 has been calculated on pro-rata basis from the COD i.e. 24.05.2022. The actual loan portfolio as on 01.04.2023 has been considered for computing the weighted average rate of interest applicable for the normative loan for the FY 2023-24. The calculation of weighted average interest & interest on loan is provided in the tables below.

Table: Interest on Loan

(In Rs. Crore)	
Particulars	FY 2023-24
Total Capital Cost	1,972.27
Subsidies	-
Actual Capital Cost	1,972.27
Gross Debt	1,345.76
Repayment Last Year	83.33
Opening Balance	1,297.26
Addition	27.15
Repayment	100.30
Closing Balance	1,224.12
Average Loan	1,260.69
Rate of Interest %	9.65%
Interest on Loan	121.62

d. Depreciation

1. Regulation 28(1) of the UERC Tariff Regulations, 2021 provides that the value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. The capital cost of the Vyasi HEP is not yet approved by the Hon'ble Commission. The UJVN Ltd. has considered the actual cost capitalized as on project COD i.e. 24.05.2022 and considered the same for calculation of depreciation from COD i.e. 24.05.2022 onwards on pro-rata basis.
2. Regulation 28(2) provides that the salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset. Further, Regulation 28(3) provides that Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing

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UJVN Limited

depreciable value of the asset. Accordingly, UJVN Ltd. has excluded the cost of land to arrive at the depreciable value for computation of depreciation.

3. Regulation 28(4) provides that depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix - II to these Regulations. UJVN Ltd. has considered the prescribed depreciation rates to compute the depreciation for the year. The same is provided below.

Table: Rates of Depreciation as per Appendix II of UERC Tariff Regulations, 2021

Particulars	Rate of Depreciation
Land	0.00%
Land under lease	3.34%
Plant & Machinery	5.28%
Cooling towers & circulating water systems	5.28%
Hydraulic works	5.28%
Transformers, Kiosk, Sub-station Equipment & other fixed apparatus	5.28%
Building & Civil Works	3.34%
Temporary erections	100.00%
Vehicles	9.50%
Furniture and Fixtures	6.33%
Office equipment	6.33%
Air Conditioning Plants	
Static	5.28%
Portable	9.50%
Street Light fittings	5.28%
Apparatus let on hire	
Other than motors	9.50%
Motors	6.33%
Communication equipment	6.33%
I. T Equipment including software	15.00%
Other	5.28%

4. Regulation 28(5) provides that the depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis. In view of the above provision UJVN Ltd. has calculated depreciation for the FY 2023-24.

The Depreciation calculated based on the above provisions is detailed below.

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Director (Project)
UJVN Limited

Table: Depreciation

(In Rs. Crore)

Particulars	FY 2023-24		Total
	Up to 30.09.2023	30.09.2023 to 31.03.2024	
	Actual	Estimated	
a) Land	-	-	-
b) Building	0.47	0.47	0.94
c) Hydraulic / Major Civil Work	42.75	42.75	85.49
d) Plant & Machinery	6.66	6.66	13.33
e) Vehicle	0.02	0.02	0.04
f) Furniture & Fixture	0.05	0.05	0.11
g) Office Equipment & Others	0.06	0.06	0.13
h) I.T. Equipment including software	0.13	0.13	0.26
Total Depreciation	50.15	50.15	100.30

e. Operation & Maintenance Expenses

1. Regulation 48(2)(c) of the UERC Tariff Regulations, 2021 provides that in case of hydro-electric generating stations declared under commercial operation on or after 1.4.2022, the base operation and maintenance expenses for the year of commissioning shall be fixed at 4% and 2.5% of the actual capital cost (excluding cost of rehabilitation & resettlement works) as admitted by the Hon'ble Commission, for stations less than 200 MW projects and for stations more than 200 MW respectively. The installed capacity of Vyasi HEP is 120 MW. Accordingly, UJVN Ltd. has considered the base operation and maintenance expenses at 4% of the provisional capital cost as on COD and calculated the same as detailed below. Further, operation and maintenance expenses has been calculated on pro-rata basis from the COD i.e. 24.05.2022.
2. Regulation 48(2)(e) of the UERC Tariff Regulations, 2021 provides that in case of hydro-electric generating stations declared under commercial operation on or after 1.4.2022, the base operation and maintenance expenses for the year of commissioning shall be escalated for subsequent years to arrive at the O&M expenses by applying the Escalation factor (EF_k) for a particular year (Kth year) which shall be calculated using the following formula:

$$EF_k = 0.55 \times WPI_{\text{Inflation}} + 0.45 \times CPI_{\text{Inflation}}$$


(Suresh Chandra Baluni)
Director (Project)
UJVN Limited

3. In accordance with the above provision, Operation and maintenance expenses for the FY 2023-24 has been calculated by escalating the base O&M expenditure i.e 4% of capital cost by the prescribed escalation factor. Accordingly, O&M expenses for the FY 2023-24 is proposed below.

Table: Operation & Maintenance Expenses

(In Rs. Crore)

Particulars	FY 2023-24		
	Up to 30.09.2023	30.09.2023 to 31.03.2024	Total
Total Capital Cost	1,972.27	1,972.27	1,972.27
Employee Cost	6.08	71.20	84.10
R&M Cost	5.02		
A&G Cost	1.80		
Total O&M Expenses (4% of Capital Cost)	12.90	71.20	84.10

f. Return on Equity

1. Regulation 26(1) of the UERC Tariff Regulations, 2021 provides that return on equity shall be computed on the equity base determined in accordance with Regulation 24. It further provides that, Return on Equity shall be allowed on amount of allowed equity capital for the assets put to use at the commencement of each financial year. UJVN Ltd. has considered the Equity determined as per regulation 24 above.
2. Regulation 26(2) provides that the Return on equity shall be computed on at the base rate of 15.50% for thermal generating stations, transmission licensee, SLDC and run of the river hydro generating station and at the base rate of 16.50% for the storage type hydro generating stations and run of river generating station with pondage and distribution licensee on a post-tax basis. The Vyasi HEP is run of the river hydro generating station with pondage, accordingly, RoE has been considered at 16.50%.
3. Further, Regulation 26(2) of UERC Tariff Regulations, 2021 provides that RoE shall be allowed on a post-tax basis. However, Regulation 34 provides that income Tax shall be reimbursed as per actual income tax paid, based on the documentary evidence submitted at the time of truing up of each year of the Control Period, subject

to the prudence check. Accordingly, UJVN Ltd. has not considered income tax as part of RoE at this stage. The same shall be claimed at the time of True-up for the year.

In accordance with the above provisions of UERC Tariff Regulations, 2021, Return on Equity for the FY 2023-24 has been calculated as detailed below.

Table: Return on Equity

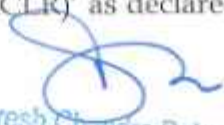
(In Rs. Crore)	
Particulars	FY 2023-24
Total Capital Cost	1,972.27
Subsidies	-
Actual Capital Cost	1,972.27
Opening Equity	591.68
Addition during the year	11.64
Closing Equity	603.32
Average Equity	597.50
Base Rate of return on Equity (%)	16.50%
Return on Equity	98.59

g. Interest on Working Capital

1. Regulation 33(1)(b) of UERC Tariff Regulations, 2021 provides as follows:

"In case of hydro power generating stations and transmission system and SLDC, the working capital shall cover:

- (vii) *Operation and maintenance expenses for one month;*
 - (viii) *Maintenance spares @ 15% of operation and maintenance expenses; and*
 - (ix) *Receivables equivalent to two months of the Annual Fixed Charges."*
2. UJVN Ltd. has considered the above provisions to arrive at the normative working capital requirement for the year.
 3. Further, Regulation 33 provides that the Rate of interest on working capital shall be on normative basis and shall be equal to the weighted average of 'one-year Marginal Cost of Funds based Lending Rate (MCLR)' as declared by the State Bank of India


(Suresh Chandra Baluni)
Director (Project)
UJVN Limited

from time to time for the financial year in which the application for determination of tariff is made plus 350 basis points.

4. The weighted average of 'one-year Marginal Cost of Funds based Lending Rate (MCLR)' as declared by the State Bank of India for the period 01.04.2023 to 30.09.2023 is 8.53% as detailed below. Accordingly, rate of interest for calculating the interest on working capital has been considered as 12.03% (8.53% + 3.5%).

Table: Weighted Average of 1 Year MCLR

Period	Days	1 Year %	Interest
01.04.2023 to 15.06.2023	76	8.50%	1.77
16.06.2023 to 30.09.2023	107	8.55%	2.51
Total	183		4.28
Weighted Average of MCLR			8.53%
Add : Basic Point (350 Plus)			3.50%
Bank Rate (%)			12.03%

The Interest on working capital for the FY 2023-24 calculated based on the above provisions is detailed below.

Table: Interest on Working Capital

(In Rs. Crore)	
Particulars	FY 2023-24
O & M expenses - 1 month	6.91
Maintenance Spares (15% of O&M Expenses)	12.62
Receivables- 2 months of AFC	68.11
Total Working Capital	87.63
Normative Interest Rate (MCLR+3.5) (%)	12.03%
Normative Interest on Working Capital	10.54

h. Non Tariff Income

Regulation 46 of the UERC Tariff Regulations, 2021 provides for the Non-Tariff Income as detailed below.



(Suresh Chandra Baluni)
Director (Project)

"The amount of Non-Tariff relating to generation business as approved by the Commission shall be deducted from the Annual Fixed Charges in determining the Net Annual Fixed Charges of the Generating Company.

Provided that the Generating Company shall submit full details of its forecast of non- tariff income to the Commission in such form as may be stipulated by the Commission from time to time.

The indicative list of various heads to be considered for non-tariff income shall be as under:

- a) Income for rent of land or buildings;*
- b) Income from sale of scrap;*
- c) Income from statutory investments;*
- d) Interest on delayed or deferred payment on bills;*
- e) Interest on advances to suppliers/contractors;*
- f) Rental from staff quarter;*
- g) Rental from contractor;*
- h) Income from hire charges from contractor and others;*
- i) Income from Advertisements, etc.;*
- j) Any other non-tariff income.*

Provided that the interest earned from investments made out of Return on Equity corresponding to the regulated business of the Generating Company shall not be included in Non-Tariff Income."

The petitione has considered the actual Non-Tariff Income during H1 of FY 2023-24 and projected the same for the H2 of the year. It is requested that the Hon'ble Commission may kindly approve the same. The actual NTI for the FY 2023-24 shall be submitted at the time of True-up of the year.



(Suresh Chandra Baluni)
Director (Project)
UJVN Limited

Table: Non Tariff Income

(In Rs. Crore)

Particulars	FY 2023-24		Total
	Actual	Estimated	
Non-Tariff Income	0.42	0.42	0.84

i. Annual Fixed Charges

The Annual Fixed Charges comprising of the component as prescribed in Regulation 44 of the UERC Tariff Regulations, 2021 and detailed herein above as below.

Table: Annual Fixed Charges for FY 2023-24

(In Rs. Crore)

Particulars	FY 2023-24
Interest on Loan	121.62
Depreciation	100.30
ROE	98.59
O&M Expenses	84.10
Interest on Working Capital	10.54
Gross AFC	415.15
Less: Non tariff Income	0.84
Total AFC	414.31

In view of all above, petitioner prays the Hon'ble Commission to Allow AFC as proposed for FY 2023-24.

j. Computation of Capacity Charges & Energy Charges

- Regulation 50 of the UERC Tariff Regulations, 2021 provides for the computation of Capacity Charges and Energy Charges for Hydro Generating Stations. Regulation 50(1) provides that the Annual Fixed Charges of Hydro Generating Station shall be computed on annual basis, based on norms specified under these Regulations, and recovered on monthly basis under capacity charge (inclusive of incentive) and Energy Charge, which shall be payable by the beneficiaries in proportion to their respective percentage share/allocation in the saleable capacity of the generating station, i.e. in the capacity excluding the free power to the home State.


 (Suresh Chandra Beluni)
 Director (Project)
 UJVN Limited

2. The UJVN Ltd. has entered in to Power Purchase agreement with UPCL for sale of entire energy generated from the Vyasi HEP. Accordingly, total capacity charge (inclusive of incentive) and Energy Charge is proposed to be recovered from UPCL.

Computation of Capacity Charges

3. Regulation 50(2) provides for the calculation of capacity charge. The same is detailed below.

"The capacity charge (inclusive of incentive) payable to a hydro generating station for a calendar month shall be:

$$AFC \times 0.5 \times NDM / NDY \times (PAFM / NAPAF) \text{ (in Rupees)}$$

Where, AFC = Annual fixed cost specified for the year, in Rupees.

NAPAF = Normative plant availability factor in percentage

NDM = Number of days in the month

NDY = Number of days in the year

PAFM = Plant availability factor achieved during the month, in Percentage"

4. Accordingly, 50% of AFC is proposed to be recovered as capacity charge on monthly basis as detailed below.


Table: Proposed Capacity charge for the FY 2023-24

Particulars	FY 2023-24
Annual Fixed Charges (In Rs. Cr.)	414.31
Capacity Charge (In Rs. Cr)	207.16

Computation of Energy Charges

5. Regulation 50(4) provides for the calculation of Energy Charge. The same is detailed below.

"The Energy Charge shall be payable by every beneficiary for the total energy supplied to the beneficiary, during the calendar month, on ex-power plant basis, at the computed


(Suresh Chandra Baluni)
Director (Project)
UJVN Limited

**Final Cost & AFC for FY 2022-23, FY 2023-24 & FY 2024-25 for 2x60 MW Vyasi Hydro
Power Project**

Energy Charge rate. Total Energy Charge payable to the Generating Company for a month shall be:

$(\text{Energy Charge Rate in Rs. / kWh}) \times [\text{Energy supplied (ex-bus)}] \text{ for the month in kWh} \times (100 - \text{FEHS})/100$

Further, Regulation 50(5) provides for the calculation of Energy Charge Rate. The same is detailed below.

"Energy Charge Rate (ECR) in Rupees per kWh on ex-power plant basis, for a Hydro Generating Station, shall be determined up to three decimal places based on the following formula

$$\text{ECR} = \text{AFC} \times 0.5 \times 10 / \{ \text{DE} \times (100 - \text{AUX}) \times (100 - \text{FEHS}) \}$$

Where, DE = Annual Design Energy specified for the hydro generating station, in MWh.

FEHS = Free Energy for home State, in percent, as applicable"

6. The design energy of the Vyasi HEP is 353.00 MU as detailed in the previous section. The same has been considered for calculation of energy charge rate.
7. In view of the above Regulations & design energy, the proposed Energy Charge rate is calculated below.

Table: Proposed Energy charge for the FY 2023-24

Particulars	FY 2023-24
Annual Fixed Charges (In Rs. Cr.)	414.31
Design Energy (MU)	353.00
Auxiliary Consumption & Transformation Loss	1.00%
Net Saleable Energy (MU)	349.47
Energy Charge Rate (Rs per Unit)	5.93

In view of all above, petitioner prays the Hon'ble Commission to Allow the Energy Charge Rate as proposed above for the FY 2023-24.

8. Further, details of the projections of operating parameters and costs are provided in the subsequent sections of the Petition in the detailed data formats.


 (Suresh Chandra Baluni)
 Director (Project)
 UJVN Limited

C.5. Chapter : 5

Aggregate Revenue Requirement for the FY 2024-25

The Hon'ble Commission had approved the provisional Tariff of Rs. 7.60/ Unit vide Order Dt. 09.11.2022. The Petitioner has been provisionally billing for energy sold to UPCL at the approved provisional tariff. It is respectfully submitted that based on UERC Regulations, 2021, the Petitioner is filing the instant petition for approval of Annual Revenue Requirement & Tariff for the FY 2024-25.

a. Capital Costs

The estimated capital cost capitalized upto 31.03.2024 is provided in the table below
Table: Total Capital Cost FY 2024-25

(In Rs. Crore)

Particulars	FY 2024-25		
	Projected		
	Project Capital Cost	Apportioned Capital Cost	Total
a) Land	70.71	-	70.71
b) Building	28.67	0.81	29.48
c) Hydraulic / Major Civil Work	1,641.13	0.00	1,641.14
d) Plant & Machinery	263.77	0.00	263.78
e) Vehicle	0.43	-	0.43
f) Furniture & Fixture	1.72	0.02	1.74
g) Office Equipment & Others	1.97	0.06	2.04
h) I.T. Equipment including software	1.19	0.57	1.76
Total	2,009.59	1.47	2,011.07

b. Additional Capitalisation during FY 2024-25

The petitioner proposes additional capitalization of works within the approved scope of work during the FY 2024-25. The details of the category wise capitalization is provided in the table below.


(Suresh Chandra Baluni)
Director (Project)
UJVN Limited

Table: Additional Capitalisation during FY 2024-25

Particulars	(In Rs. Crore)
	FY 2024-25 Projected
a) Land	14.15
b) Building	0.80
c) Hydraulic / Major Civil Work	21.34
d) Plant & Machinery	1.50
e) Vehicle	-
f) Furniture & Fixture	-
g) Office Equipment & Others	-
h) I.T. Equipment including software	-
Total Additional Capitalisation	37.79

c. Interest on Loan

1. Regulation 27 (1) of the UERC Tariff Regulations, 2021 provides that the loans arrived at in the manner indicated in Regulation 24 shall be considered as gross normative loan for calculation of interest on loan.
2. Regulation 27(3) provides that repayment for each year of the Control Period shall be deemed to be equal to the depreciation allowed for that year. Further, Regulation 27(4) provides that notwithstanding any moratorium period availed by the Generating Company the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year.
3. In view of the above Regulations, normative loan has been considered as per Debt: Equity Ratio in terms of Regulation 24 discussed above. Further, normative repayment of loan has been considered as equivalent to the Depreciation for the year.
4. Regulation 27(5) of the Regulation provides that the rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio of the previous year. The actual loan portfolio as on 01.04.2023 has been considered for computing the weighted average rate of interest applicable for the normative


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Director (Project)
UJVNL Limited

loan for the FY 2024-25. The calculation of weighted average interest & interest on loan is provided in the tables below.

Table: weighted average interest

Period	Days	1 Year %	Interest
01.04.2023 to 15.06.2023	76	8.50%	1.77
16.06.2023 to 30.09.2023	107	8.55%	2.51
Total	183		4.28
Weighted Average of MCLR			8.53%
Add : Basic Point (350 Plus)			3.50%
Bank Rate (%)			12.03%

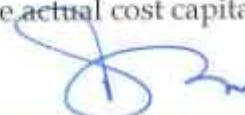
The Interest on working capital for the FY 2024-25 calculated based on the above provisions is detailed below.

Table: Interest on loan for the FY 2024-25

Particulars	(In Rs. Crore)
	FY 2024-25 Projected
Total Capital Cost	2,011.07
Subsidies	-
Actual Capital Cost	2,011.07
Gross Debt	1,345.76
Repayment Last Year	183.63
Opening Balance	1,224.12
Addition	26.45
Repayment	102.11
Closing Balance	1,148.46
Average Loan	1,186.29
Rate of Interest %	9.65%
Interest on Loan	114.45

d. Depreciation

1. Regulation 28(1) of the UERC Tariff Regulations, 2021 provides that the value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. The capital cost of the Vyasi HEP is not yet approved by the Hon'ble Commission. The UJVN Ltd. has considered the actual cost capitalized as on project


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UJVN Limited

COD i.e. 24.05.2022 and considered the same for calculation of depreciation from COD i.e. 24.05.2022 onwards on pro-rata basis.

2. Regulation 28(2) provides that the salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset. Further, Regulation 28(3) provides that Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset. Accordingly, UJVN Ltd. has excluded the cost of land to arrive at the depreciable value for computation of depreciation.
3. Regulation 28(4) provides that depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix - II to these Regulations. UJVN Ltd. has considered the prescribed depreciation rates to compute the depreciation for the year. The same is provided below.

Table: Rates of Depreciation as per Appendix II of UERC Tariff Regulations, 2021

Particulars	Rate of Depreciation
Land	0.00%
Land under lease	3.34%
Plant & Machinery	5.28%
Cooling towers & circulating water systems	5.28%
Hydraulic works	5.28%
Transformers, Kiosk, Sub-station Equipment & other fixed apparatus	5.28%
Building & Civil Works	3.34%
Temporary erections	100.00%
Vehicles	9.50%
Furniture and Fixtures	6.33%
Office equipment	6.33%
Air Conditioning Plants	
Static	5.28%
Portable	9.50%
Street Light fittings	5.28%
Apparatus let on hire	
Other than motors	9.50%
Motors	6.33%
Communication equipment	6.33%
I. T Equipment including software	15.00%
Other	5.28%

4. Regulation 28(5) provides that the depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis. In view of the above provisions, UJVN Ltd. has calculated depreciation for the FY 2024-25.


The Depreciation calculated based on the above provisions is detailed below.

Table: Depreciation

Particulars	(In Rs. Crore)
	FY 2024-25 Projected
a) Land	-
b) Building	0.98
c) Hydraulic / Major Civil Work	86.65
d) Plant & Machinery	13.93
e) Vehicle	0.04
f) Furniture & Fixture	0.11
g) Office Equipment & Others	0.13
h) I.T. Equipment including software	0.26
Total Depreciation	102.11

e. Operation & Maintenance Expenses

1. Regulation 48(2)(c) of the UERC Tariff Regulations, 2021 provides that in case of hydro-electric generating stations declared under commercial operation on or after 1.4.2022, the base operation and maintenance expenses for the year of commissioning shall be fixed at 4% and 2.5% of the actual capital cost (excluding cost of rehabilitation & resettlement works) as admitted by the Hon'ble Commission, for stations less than 200 MW projects and for stations more than 200 MW respectively. The installed capacity of Vyasi HEP is 120 MW. Accordingly, UJVN Ltd. has considered the base operation and maintenance expenses at 4% of the provisional capital cost as on COD and calculated the same as detailed below. Further, operation and maintenance expenses has been calculated on pro-rata basis from the COD i.e. 24.05.2022.
2. Regulation 48(2)(e) of the UERC Tariff Regulations, 2021 provides that in case of hydro-electric generating stations declared under commercial operation on or after


(Suresh Chandra Baluni)
Director (Project)
UJVN Limited

01.04.2022, the base operation and maintenance expenses for the year of commissioning shall be escalated for subsequent years to arrive at the O&M expenses by applying the Escalation factor (EF_k) for a particular year (Kth year) which shall be calculated using the following formula:

$$EF_k = 0.55 \times WPI_{Inflation} + 0.45 \times CPI_{Inflation}$$

3. In accordance with the above provision, Operation and maintenance expenses for the FY 2024-25 has been calculated by escalating the base O&M expenditure i.e 4% of capital cost by the prescribed escalation factor. Accordingly, O&M expenses for the FY 2024-25 is proposed below.

Table: Operation & Maintenance Expenses

(In Rs. Crore)

Particulars	FY 2024-25
Total Capital Cost	2,011.07
Employee Cost	91.35
R&M Cost	
A&G Cost	
Total O&M Expenses (4% of Capital Cost)	91.35

f. Return on Equity

1. Regulation 26(1) of the UERC Tariff Regulations, 2021 provides that return on equity shall be computed on the equity base determined in accordance with Regulation 24. It further provides that, Return on Equity shall be allowed on amount of allowed equity capital for the assets put to use at the commencement of each financial year. UJVN Ltd. has considered the Equity determined as per regulation 24 above.
2. Regulation 26(2) provides that the Return on equity shall be computed on at the base rate of 15.50% for thermal generating stations, transmission licensee, SLDC and run of the river hydro generating station and at the base rate of 16.50% for the storage type hydro generating stations and run of river generating station with pondage and distribution licensee on a post-tax basis. The Vyasi HEP is run of the river hydro generating station with pondage, accordingly, RoE has been considered at 16.50%.

3. Further, Regulation 26(2) of UERC Tariff Regulations, 2021 provides that RoE shall be allowed on a post-tax basis. However, Regulation 34 provides that income Tax shall be reimbursed as per actual income tax paid, based on the documentary evidence submitted at the time of truing up of each year of the Control Period, subject to the prudence check. Accordingly, UJVN Ltd. has not considered income tax as part of RoE at this stage. The same shall be claimed at the time of True-up for the year.

In accordance with the above provisions of UERC Tariff Regulations, 2021 Return on Equity has for the FY 2024-25 been calculated as detailed below.

Table: Return on Equity

Particulars	(In Rs. Crore)
	FY 2024-25 Projected
Total Capital Cost	2,011.07
Subsidies	-
Actual Capital Cost	2,011.07
Opening Equity	603.32
Addition during the year	11.34
Closing Equity	614.66
Average Equity	608.99
Base Rate of return on Equity (%)	16.50%
Return on Equity	100.48

g. Interest on Working Capital

1. Regulation 33(1)(b) of UERC Tariff Regulations, 2021 provides as follows:

"In case of hydro power generating stations and transmission system and SLDC, the working capital shall cover;

- (x) *Operation and maintenance expenses for one month;*
 - (xi) *Maintenance spares @ 15% of operation and maintenance expenses; and*
 - (xii) *Receivables equivalent to two months of the Annual Fixed Charges."*
2. UJVN Ltd. has considered the above provisions to arrive at the normative working capital requirement for the year.


(Suresh Chandra Baluni)
 Director (Project)
 UJVN Limited

3. Further, Regulation 33 provides that the Rate of interest on working capital shall be on normative basis and shall be equal to the weighted average of 'one-year Marginal Cost of Funds based Lending Rate (MCLR)' as declared by the State Bank of India from time to time for the financial year in which the application for determination of tariff is made plus 350 basis points.
4. The weighted average of 'one-year Marginal Cost of Funds based Lending Rate (MCLR)' as declared by the State Bank of India for the period 01.04.2023 to 30.09.2023 is 8.53% as detailed below. Accordingly, rate of interest for calculating the interest on working capital has been considered as 12.03% (8.53% + 3.5%).

Table: Weighted Average of 1 Year MCLR

Period	Days	1 Year %	Interest
01.04.2023 to 15.06.2023	76	8.50%	1.77
16.06.2023 to 30.09.2023	107	8.55%	2.51
Total	183		4.28
Weighted Average of MCLR			8.53%
Add : Basic Point (350 Plus)			3.50%
Bank Rate (%)			12.03%

The Interest on working capital for the FY 2024-25 calculated based on the above provisions is detailed below.

Table: Interest on Working Capital

(In Rs. Crore)	
Particulars	FY 2024-25
O & M expenses - 1 month	7.51
Maintenance Spares (15% of O&M Expenses)	13.70
Receivables- 2 months of AFC	68.77
Total Working Capital	89.98
Normative Interest Rate (MCLR+3.5) (%)	12.03%
Normative Interest on Working Capital	10.82

h. Non Tariff Income

Regulation 46 of the UERC Tariff Regulations, 2021 provides for the Non-Tariff Income as detailed below.


(Suresh Chandra Baluni)
Director (Project)

"The amount of Non-Tariff relating to generation business as approved by the Commission shall be deducted from the Annual Fixed Charges in determining the Net Annual Fixed Charges of the Generating Company.

Provided that the Generating Company shall submit full details of its forecast of non- tariff income to the Commission in such form as may be stipulated by the Commission from time to time.

The indicative list of various heads to be considered for non-tariff income shall be as under:

- a) Income for rent of land or buildings;*
- b) Income from sale of scrap;*
- c) Income from statutory investments;*
- d) Interest on delayed or deferred payment on bills;*
- e) Interest on advances to suppliers/contractors;*
- f) Rental from staff quarter;*
- g) Rental from contractor;*
- h) Income from hire charges from contractor and others;*
- i) Income from Advertisements, etc.;*
- j) Any other non-tariff income.*

Provided that the interest earned from investments made out of Return on Equity corresponding to the regulated business of the Generating Company shall not be included in Non-Tariff Income."

The Petitioner has considered the estimated Non-tariff Income for the FY 2023-24 as projected NTI for the FY 2024-25 at this stage. It is requested that the Hon'ble Commission may kindly approve the same. The actual NTI for the FY 2024-25 shall be submitted at the time of True-up of the year.



(Suresh Chandra Baluni)
Director (Project)
UJVN Limited

Table: Non-tariff Income

(In Rs. Crore)	
Particulars	FY 2024-25
Non-Tariff Income	0.84

i. Annual Fixed Charges

The Annual Fixed Charges comprising of the component as prescribed in Regulation 44 of the UERC Tariff Regulations, 2021 and detailed herein above as below.


Table: Annual Fixed Charges for FY 2024-25

(In Rs. Crore)	
Particulars	FY 2024-25
Interest on Loan	114.45
Depreciation	102.11
ROE	100.48
O&M Expenses	91.35
Interest on Working Capital	10.82
Gross AFC	419.21
Less: Non tariff Income	0.84
Total AFC	418.37

In view of all above, petitioner prays the Hon'ble Commission to Allow AFC as proposed for FY 2023-24.

j. Computation of Capacity Charges & Energy Charges

- Regulation 50 of the UERC Tariff Regulations, 2021 provides for the computation of Capacity Charges and Energy Charges for Hydro Generating Stations. Regulation 50(1) provides that the Annual Fixed Charges of Hydro Generating Station shall be computed on annual basis, based on norms specified under these Regulations, and recovered on monthly basis under capacity charge (inclusive of incentive) and Energy Charge, which shall be payable by the beneficiaries in proportion to their respective percentage share/allocation in the saleable capacity of the generating station, i.e. in the capacity excluding the free power to the home State.


(Suresh Chandra Baluni)
Director (Project)
UJVN Limited

2. The UJVN Ltd. has entered in to Power Purchase agreement with UPCL for sale of entire energy generated from the Vyasi HEP. Accordingly, total capacity charge (inclusive of incentive) and Energy Charge is proposed to be recovered from UPCL.

Computation of Capacity Charges

3. Regulation 50(2) provides for the calculation of capacity charge. The same is detailed below.

"The capacity charge (inclusive of incentive) payable to a hydro generating station for a calendar month shall be:

$$AFC \times 0.5 \times NDM / NDY \times (PAFM / NAPAF) \text{ (in Rupees)}$$

Where, AFC = Annual fixed cost specified for the year, in Rupees.

NAPAF = Normative plant availability factor in percentage

NDM = Number of days in the month

NDY = Number of days in the year

PAFM = Plant availability factor achieved during the month, in Percentage"

4. Accordingly, 50% of AFC is proposed to be recovered as capacity charge on monthly basis as detailed below.

Table: Proposed Capacity charge for the FY 2024-25

Particulars	FY 2024-25
Annual Fixed Charges (In Rs. Cr.)	418.37
Capacity Charge (In Rs. Cr)	209.19

Computation of Energy Charges

5. Regulation 50(4) provides for the calculation of Energy Charge. The same is detailed below.

"The Energy Charge shall be payable by every beneficiary for the total energy supplied to the beneficiary, during the calendar month, on ex-power plant basis, at the computed



(Suresh Chandra Baluni)
Director (Project)
UJVN Limited

Energy Charge rate. Total Energy Charge payable to the Generating Company for a month shall be:

$(\text{Energy Charge Rate in Rs. / kWh}) \times \{\text{Energy supplied (ex-bus)}\} \text{ for the month in kWh} \times (100 - \text{FEHS})/100$

Further, Regulation 50(5) provides for the calculation of Energy Charge Rate. The same is detailed below.

"Energy Charge Rate (ECR) in Rupees per kWh on ex-power plant basis, for a Hydro Generating Station, shall be determined up to three decimal places based on the following formula

$$\text{ECR} = \text{AFC} \times 0.5 \times 10 / \{\text{DE} \times (100 - \text{AUX}) \times (100 - \text{FEHS})\}$$

Where, DE = Annual Design Energy specified for the hydro generating station, in MWh,.

FEHS = Free Energy for home State, in percent, as applicable"

6. The design energy of the Vyasi HEP is 353.00 MU as detailed in the previous section. The same has been considered for calculation of energy charge rate.
7. In view of the above Regulations & design Energy, the proposed Energy Charge rate is calculated below.

Table: Proposed Energy charge for the FY 2024-25

Particulars	FY 2024-25
Annual Fixed Charges (In Rs. Cr.)	418.37
Design Energy (MU)	353.00
Auxiliary Consumption & Transformation Loss	1.00%
Net Saleable Energy (MU)	349.47
Energy Charge Rate (Rs per Unit)	5.99

In view of all above, petitioner prays the Hon'ble Commission to Allow the Energy Charge Rate as proposed above for the FY 2024-25

8. Further, details of the projections of operating parameters and costs are provided in the subsequent sections of the Petition in the detailed data formats.

C.6. Income Tax

- i. It is respectfully submitted that as per Regulation 34 of UERC Tariff Regulations, 2021:

"Income Tax, if any, on the income stream of the regulated business of Generating Companies, Transmission Licensees, Distribution Licensees and SLDC shall be reimbursed to the Generating Companies, Transmission Licensees, Distribution Licensees and SLDC as per actual income tax paid, based on the documentary evidence submitted at the time of truing up of each year of the Control Period, subject to the prudence check."

- ii. The detail of actual Income tax paid by the petitioner for FY 2022-23 is enclosed at Annexure-23.
- iii. It is submitted that the UJVNL claims the reimbursement of income tax immediately on final assessment of tax & payment of the same to the income tax department. However, there is substantial delay in receiving the reimbursement of the tax paid from UPCL. The delay in receiving the claim adversely impacts the cash flow of UJVNL.
- iv. In view of the above, it is prayed that the Hon'ble Commission may issue appropriate direction to UPCL for prompt payment of income tax reimbursement claims.
- v. In view of the above, it is respectfully submitted that income tax on actual basis may kindly be allowed to be recovered from the beneficiaries.

D. Cause of Action

Under Section 62 and 86 of the Electricity Act, 2003 and as per Regulation 42(4) of the UERC Tariff Regulations, 2021 UJVNL Ltd. is required to obtain approval for its tariff from the Hon'ble Commission based on provisions of the Tariff Regulations.



(Suresh Chandra Baluni)
Director (Project)
UJVNL Limited

E. Ground of Relief

1. The Hon'ble commission has passed order dated 09.11.2022 approving provisional tariff for Vyasi HEP as 7.60/Unit. In the order dated 09.11.2022 the Hon'ble Commission also directed the petitioner to file the petition for determination of final tariff in accordance with the MYT regulations. In compliance to the direction of Hon'ble commission, petitioner is submitting the instant petition.
2. In this context, the Petitioner respectfully submits that the orders of the Hon'ble Commission may kindly adequately consider the positions expounded in the present petition for approval of Capital cost of Vyasi HEP, True-up of FY 2022-23, APR of FY 2023-24 and Annual Fixed Charges & Tariff for the FY 2023-24.
3. The financial projections have been developed based on the Petitioner's assessment, trend available from actuals for the year FY 2022-23 and estimates available for the FY 2023-24 and FY 2024-25. There could be differences between the projections and the actual performance of the Petitioner. The Hon'ble Commission may condone the same. The Petitioner also reserves the right to make revisions to the Petition and submit additional relevant information that may emerge or become available subsequent to this filing.

F. Detail of Remedies Exhausted

(Not applicable)


G. Matter Not Previously Filed or Pending With any Court

(Not applicable)

H. Relief Sought

In view of the facts mentioned above, the Petitioner prays for the following relief:

- Accept the accompanying actual financial figures of the Petitioner for FY 2022-23 and projections FY 2023-24 & FY 2024-25 prepared in accordance with Tariff Regulations established by the Hon'ble Commission;
- Consider and approve the project cost of Vyasi HEP.


(Suresh Chandra Baluni)
Director (Finance)
UJVN Limited

- Approve the AFC for the FY 2022-23, FY 2023-24 & FY 2024-25 and Tariff for the FY 2023-24 & FY 2024-25 for Vyasi HEP.
- Consider and Approve the True-up for the FY 2022-23 & Annual Performance Review for FY 2023-24 for Vyasi HEP.
- Approved NAPAF for Vyasi as 75%.
- Approve the Gap for the FY 2022-23.
- Grant suitable opportunity to the Petitioner within a reasonable time frame to file additional material information that may be subsequently available;
- Grant the waivers prayed for with respect to such filing requirements as the Petitioner is unable to comply with at this stage in the filing;
- Treat the filing as complete in view of substantial compliance as also the specific humble requests for waivers with justification(s) placed on record;
- Condone any inadvertent omissions/ errors/ shortcomings and permit the Petitioner to add/ change/ modify/ alter this filing and make further submissions as may be required at a future date;
- Consider and approve the Petitioner's application including all requested regulatory treatments in the filing;
- Consider the submissions of Petitioner that could be at variance with the orders and regulations of the Hon'ble Commission, but are nevertheless fully justified from a practical viewpoint;
- Pass such orders as the Hon'ble Commission may deem fit and proper in view of the facts and circumstances of the case.

I. Interim Order, if any, prayed for

NIL.

J. Details of Index

A list of documents enclosed and marked as annexure is given below;



(Suresh Chandra Baluni)
Director (Project)
UJVN Limited

K. Particulars of Fee Remitted

Demand Draft No. 089975 dated 22.11.2023 drawn on Punjab National Bank for an amount of Rs. 12,00,000/-, towards the processing fees; is being included along with this petition.

L. List Of Enclosures

This petition includes the following documents:

- i) Detailed tariff formats;
- ii) Supporting documents and annexures mentioned in the petition;
- iii) Demand Draft No. dated drawn on Punjab National Bank for an amount of Rs./-, towards the processing fees;
- iv) Soft Copy of the petition.

Dated:



Petitioner

UJVN Limited
Dehradun



(Suresh Chandra Baluni)
Director (Project)
UJVN Limited

INDEX OF FORMATS

Formats for Vyasi HEP

Sl. No.	Format No.	Description	Page No.
1	Form: F-1.1	Computation of Per Unit Rate	104
2	Form: F-1.2	Summary of Revenue and Revenue Requirement	105
3	Form: F-2.1	Saleable Energy & NAPAF	106
4	Form: F-2.2	Information on Energy Generation (MU)	107
5	Form: F-2.3	Salient Features of Hydroelectric Project	108-111
6	Form: F-2.4	Design energy and MW Continuous (month wise)-ROR type stations	112
7	Form: F-3	Computation of Net Annual Fixed Charges	113
8	Form: F-4	Statement of Gross Fixed Asset Base & Financing Plan	114-116
9	Form: F-5.1	Statement of Asset wise Depreciation	117-118
10	Form: F-6.3	Statement of Capital Expenditure & Schedule of COD of New Projects	119
11	Form: F-6.4	Break-up of Capital Expenditure for New Projects	120
12	Form: F-7	Details of Capital Cost and Financing Structure	121
13	Form: F-9.2	Calculation of Weighted Average Interest Rate of Interest on Actual Loans *	122-123
14	Form: F-9.3	Calculation of Interest on Normative Loan	124
15	Form: F-10	Details of Interest on Working Capital	125
16	Form: F-11	Details of Operation & Maintenance Expenses	126-127
17	Form: F-11.1	Details of Repair & Maintenance Expenditure	128
18	Form: F-11.2	Details of Employee Expenses	129
19	Form: F-11.3	Details of Administration & General Expenses	130-131
20	Form: F-12	Non Tariff Income	132
21	Form: F-14	Statement showing Return on Equity	133
22	Form: F-14A	Return on Equity	134

Name of Generating Company :
Name of Generating Station :

UJVN Ltd.
Vyasi HEP

Form: F-1.1

Computation of Per Unit Rate

(Figures in Crore)

Sl. No.	Item	Units	Previous Year (FY 2022-23)	Current Year - (FY 2023-24)	Ensuing Year (FY 2024-25)
			Total (COD - March)	Total (April - March)	Projected
1	Annual Fixed Cost	Rs. Crore	354.75	414.31	418.37
2	Saleable Energy (Design Energy net of auxiliary consumption and home state share)	MU	298.79	349.47	349.47
3	Per unit Rate of Saleable Energy	Rs./unit	11.87	11.86	11.97


(Suresh Chandra Baluni)
Director (Project)
UJVN Limited
Ujjwal, Dehradun

Name of Generating Company :
Name of Generating Station :

UJVN Ltd.
Vyasi HEP

Form: F-1.2

Summary of Revenue and Revenue Requirement

(Figures in Crore)

Sl. No.	Item	Previous Year (FY 2022-23)	Current Year (FY 2023-24)		Ensuing Year (FY 2024-25)	
		Total (COD - March)	Apr-Sep (Actual)	Oct-Mar (Estimated)	Total (April - March)	Projected
A. Generation						
1	Gross Generation (MU)	301.81	248.85	105.44	354.29	353.00
2	Aux Consumption (%)	1.00%	1.00%	1.00%	1.00%	1.00%
3	Aux Consumption (MU)	3.02	2.49	1.05	3.54	3.53
4	Net Generation (MU) (1-3)	298.79	246.36	104.38	350.74	349.47
B. Revenue						
1	Revenue from Sale of Power	265.44	-	-	266.56	265.60
2	Non-Tariff Income	0.65	-	-	0.84	0.84
	Total Revenue (1+2)	266.09	-	-	267.40	266.44
C. Expenditure						
1	O&M expenses	65.52	12.90	71.20	84.10	91.35
a	R&M Expense		5.02			
b	Employee Expenses	65.52		71.20	84.10	91.35
c	A&G Expense		1.80			
2	Depreciation	83.33	50.15	50.15	100.30	102.11
3	Lease Charges	-	-	-	-	-
4	Interest on Loans	114.23	-	-	121.62	114.45
5	Interest on Working Capital	10.18	-	-	10.54	10.82
	Total Expenditure (1+2+3+4+5)	273.27	-	-	316.56	318.73
D.	Return on Equity	82.13	-	-	98.59	100.48
E	Revenue Requirement (C+D)	355.40	-	-	415.15	419.21
	Surplus (+) / Shortfall (-) (B-E)	(89.31)	-	-	(147.75)	(152.77)


(Suresh Chandra Baidi)
Director (Project)
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Ujjwala, Dehradun

Name of Generating Company :
Name of Generating Station :

UJVN Ltd.
Vyasi HEP

Form: F-2.1

Saleable Energy & PAF

Sl. No.	Description	Unit	Previous Year*	Current Year	Ensuing Year
			(FY 2022-23) Actual	(FY 2023-24) Total (April - March)	(FY 2024-25) Projected
1	Design Energy	(MU)	301.81	353.00	353.00
2	Auxiliary Consumption				
	(a) In % of Energy Generated	(%)	1.00%	1.00%	1.00%
	(b) In MU	(MU)	3.02	3.53	3.53
3	Energy Sent Out (I-2b)	(MU)	298.79	349.47	349.47
4	Home State Share	(%)	0.00%	0.00%	0.00%
5	Saleable Energy [(3) x (1-4)]	(MU)	298.79	349.47	349.47
6	Plant Availability Factor	%	0.00%	0.00%	0.00%
7	Normative Annual Plant Availability Factor (NAPAF)	%	71.65%	75.00%	75.00%



(Suresh Chandra Bahuni)
Director (Project)
UJVN Limited
Ujjwal, Dehradun

Name of Generating Company :
Name of Generating Station :

UJVN Ltd.
Vyasi HEP

Form: F-2.2

Information on Energy Generation (MU)

Sl. No.	Month	Design Energy	Previous Year (FY 2022-23)	Current Year (FY 2023-24)		Ensuing Year (FY 2024-25)
			Actual	Apr-Sep (Actual)	Oct-Mar (Estimated)	Projected
1	April	31.01	3.69	13.14		31.01
2	May	24.56	13.12	18.65		24.56
3	June	11.72	8.85	30.70		11.72
4	July	59.06	65.87	67.62		59.06
5	August	84.82	75.75	80.60		84.82
6	September	35.35	72.03	38.15		35.35
7	October	29.92	51.30		29.62	29.92
8	November	13.78	21.74		13.64	13.78
9	December	10.10	12.20		10.00	10.10
10	January	10.36	10.83		10.26	10.36
11	February	19.21	6.42		19.02	19.21
12	March	23.13	8.93		22.90	23.13
	Total	353.00	350.73	248.85	105.44	353.00

(Suresh Chandra Baluni)
Director (Project)
UJVN Limited
Ujjwal, Dehradun

Name of Generating Company :
Name of Generating Station :

UJVN Ltd.
Vyasi HEP

Form: F-2.3

Salient Features of Hydroelectric Project

Sl.No.	Details	FY 2022-23*	FY 2023-24	FY 2024-25
1	Installed Capacity (MW)	120	120	120
	(a) Unit-1	60	60	60
	(b) Unit-2	60	60	60
2	Date of commercial operation (DD/MM/YYYY)			
	(a) Unit-1	24.05.2022	24.05.2022	24.05.2022
	(b) Unit-2	22.04.2022	22.04.2022	22.04.2022
3	Details of tied up beneficiaries/target beneficiaries/merchant capacity along with percentage share with reference to the installed capacity for each beneficiary/category			
	(i) beneficiary-1 UPCL (%)	100.00%	100.00%	100.00%
4	Design Energy (MU)	301.81	353.00	353.00
5	Expected annual energy generation (MU)	350.73	354.29	353.00
6	Associated transmission system detail or proposed evacuation arrangement			
	(i) Voltage level	220 kV	220 kV	220 kV
	(ii) Conductor Name & no. of Circuits	Twin Zebra, Double	Twin Zebra, Double	Twin Zebra, Double
	(iii) Line length in Km.	36.88 km and 40.32 km	36.88 km and 40.32 km	36.88 km and 40.32 km
	(iv) Name of Interconnecting Substation	Sherpur and Jhalhira	Sherpur and Jhalhira	Sherpur and Jhalhira
7	Name of Manufacturer:			
	(i) Turbine (Francis / Kaplan / Pelton)	BHEL (Francis)	BHEL (Francis)	BHEL (Francis)
	(ii) Generator	BHEL	BHEL	BHEL
8	Efficiency			
	(i) Design guaranteed efficiency of turbine	0.9351	0.9351	0.9351
	(ii) Design guaranteed efficiency of Generator	0.985	0.985	0.985
9	Types of Governing System	Digital	Digital	Digital
10	Type of Station			
	a) Surface / Underground	Surface	Surface	Surface
	b) Purely ROR / Pondage / Storage	ROR With Pondage	ROR With Pondage	ROR With Pondage


(Suresh Chandra Palani)
Director (Project)
UJVN Limited
Ujjain, Dharwad

Salient Features of Hydroelectric Project

Sl.No.	Details	FY 2022-23*	FY 2023-24	FY 2024-25
	c) Peaking/Non Peaking	Peaking	Peaking	Peaking
	d) No. of Hours of Peaking	4.36	4.36	4.36
11	Type of Excitation			
	a) Rotating Exciters on generator	NO	NO	NO
	b) Static Excitation	YES	YES	YES
12	Location			
	State/Distt.	Uttarakhand/ Dehradun	Uttarakhand/ Dehra dun	Uttarakhand/ Dehra dun
	River	Yumana	Yumana	Yumana
13	Diversion Tunnel			
	Size, shape			
	Length			
14	Dam			
	Type	Concrete Gravity type	Concrete Gravity type	Concrete Gravity type
	Maximum dam height	86.0 m	86.0 m	86.0 m
15	Spillway			
	Type	Orifice Type Spillway	Orifice Type Spillway	Orifice Type Spillway
	Crest level of spillway	590.0 m.	590.0 m.	590.0 m.


 (Suresh Chandra Bahuni)
 Director (Project)
 UJVNL Limited
 Ujjwai, Dehradun

Salient Features of Hydroelectric Project

Sl.No.	Details	FY 2022-23*	FY 2023-24	FY 2024-25
16	Reservoir			
	Full Reservoir Level (FRL)	EL 631.50 m	EL 631.50 m	EL 631.50 m
	Minimum Draw Down Level (MDDL)	EL 626.00 m	EL 626.00 m	EL 626.00 m
	Live storage (MCM)	3.71 M.m3	3.71 M.m3	3.71 M.m3
17	Desilting Arrangement	NA	NA	NA
	Type			
	Number and Size			
	Particle size to be removed(mm)			
18	Design Silt Levels for desilting chamber	NA	NA	NA
	Maximum at inlet (ppm)			
	Maximum at outlet (ppm)			
19	Head Race Tunnel			
	Size and type	7 m dia circular	7 m dia circular	7 m dia circular
	Length	2.7 Km. Long	2.7 Km. Long	2.7 Km. Long
	Design discharge (Cumecs)	119.78 m3/sec.	119.78 m3/sec.	119.78 m3/sec.
20	Surge Shaft			
	Type	Restricted Orifice type.	Restricted Orifice type.	Restricted Orifice type.
	Diameter	18 m	18 m	18 m
	Height	63.50 metre	63.50 metre	63.50 metre
21	Penstock/Pressure shafts			
	Type	Circular	Circular	Circular
	Diameter & Length	2 no 4m dia and 187 m long	2 no 4m dia and 187 m long	2 no 4m dia and 187 m long
22	Power House			
	Type	Surface Power House	Surface Power House	Surface Power House
	Installed Capacity (No. of Units x MW)	2 units of 60 MW each	2 units of 60 MW each	2 units of 60 MW each
	Peaking capacity during lean period (MW)	120 MW	120 MW	120 MW
	Type of Turbine	Francis	Francis	Francis
	Rated Head(M)	109.65 m	109.65 m	109.65 m
	Average Head (M)			


 (Suresh Chandra Balam)
 Director (Project)
 UJVNL Limited
 Ujjwal, Dehradun

Salient Features of Hydroelectric Project

S.No.	Details	FY 2022-23*	FY 2023-24	FY 2024-25
	Rated Discharge (Cumecs)	59.89 Cumecs	59.89 Cumecs	59.89 Cumecs
	Head at Full Reservoir Level (M)	Depends on River Discharge	Depends on River Discharge	Depends on River Discharge
	Head at Minimum Draw Down Level (M)	Depends on River Discharge	Depends on River Discharge	Depends on River Discharge
	MW Capacity at FRL (MW)	Depends on River Discharge	Depends on River Discharge	Depends on River Discharge
	MW Capacity at MDDL (MW)	Depends on River Discharge	Depends on River Discharge	Depends on River Discharge
	Variation in machine output at different levels between Full Reservoir Level and Minimum Draw Down level (MW)	Depends on River Discharge	Depends on River Discharge	Depends on River Discharge
23	Tail Race Channel			
	Diameter, shape			
	Length			
	Minimum tail water level	514 M	514 M	514 M
24	Switchyard			
	Type of switch gear	GIS	GIS	GIS
	No. of Generator bays	2	2	2
	No. of Bus coupler bays	1	1	1
	No. line bays	2	2	2
25	Generator Transformer details			
	(i) Make	BHEL	BHEL	BHEL
	(ii) No. of Transformers	2	2	2
	(iii) Rating	75 MVA	75 MVA	75 MVA
	(iv) Voltage Ratio	11/220 kV	11/220 kV	11/220 kV

Note: Specify limitation on generation during specific time period on account of
* After COD


 (Surashi Chandra Bhatnagar)
 Director (Project)
 UJVNL Limited
 Ujjwai, Dehradun

Name of Generating Company :
Name of Generating Station :

UJVN Ltd.
Vyasi HEP

Form: F- 2.4

Design energy and MW Continuous (month wise)- ROR With Pondage type

Installed Capacity: No of units X .MW = 2 X 60 (MW) = 120 (MW)			
Month		Design Energy (MUs)	MW continuous
April	I	13.04	54.33
	II	8.67	36.13
	III	9.30	38.75
May	I	8.22	34.25
	II	9.49	39.54
	III	6.85	25.95
June	I	3.87	16.13
	II	3.82	15.92
	III	4.03	16.79
July	I	6.75	28.13
	II	22.21	92.54
	III	30.10	114.02
August	I	27.36	114
	II	27.36	114
	III	30.10	114.02
September	I	15.92	66.33
	II	10.98	45.75
	III	8.45	35.21
October	I	5.88	24.5
	II	15.78	65.75
	III	8.26	31.29
November	I	5.45	22.71
	II	4.60	19.17
	III	3.73	15.54
December	I	3.37	14.04
	II	3.49	14.54
	III	3.24	12.27
January	I	3.09	12.88
	II	3.09	12.88
	III	4.18	15.83
February	I	5.22	21.75
	II	8.83	36.79
	III	5.16	26.88
March	I	6.14	25.58
	II	10.34	43.08
	III	6.65	25.19
Total		353.00	

*As per DPR/TEC of CEA dated 11.05.2021


(Suresh Chandra Baluni)
Director (Project)
UJVN Limited
Ujjwal, Dehradun

Name of Generating Company :
Name of Generating Station :

UJVN Ltd.
Vyasi HEP

Form: F-3

Computation of Net Annual Fixed Charges

(Figures in Crore)

Sl. No.	Year ending March	Previous Year (FY 2022-23)			Current Year FY 2023-24			Ensuing Year FY 2024- 25
		Total (COD - March)			Apr-Sep (Actual)	Oct-Mar (Estimated)	Total (April - March)	
1	Interest on Loan (including Interest on Normative Loans)	114.23			-	-	121.62	Projected
2	Depreciation	83.33			50.15	50.15	100.30	114.45
3	Lease Charges	-			-	-	-	102.11
4	Return on Equity							-
(a)	Rate of Return on Equity	16.50%			0.00%	0.00%	16.50%	16.50%
(b)	Equity	584.22			-	-	597.50	608.99
(c)	Return on Equity (4a)*(4b)	82.13			-	-	98.59	100.48
5	O&M Expenses	65.52			12.90	71.20	84.10	91.35
5.1	Employee Costs				6.08			
5.2	Repair and Maintenance Expenses	65.52			5.02	71.20	84.10	91.35
5.3	Admin & Gen Costs				1.80			
6	Interest on Working Capital	10.18			-	-	10.54	10.82
7	Gross Annual Fixed Charges (1+2+3+4(c)+5+6)	355.40			-	-	415.15	419.21
8	Less: Other Income (provide details)	0.65			0.42	0.42	0.84	0.84
9	Net Annual Fixed Charges (7-8)	354.75			-	-	414.31	418.37

(Suresh Chandra Baluni)
Director (Project)
UJVN Limited
Ujjwal, Dohradun

Name of Generating Company :
Name of Generating Station :

UJVN Ltd.
Vyasi HEP

Form: F- 4

Statement of Gross Fixed Asset Base & Financing Plan

Final Cost as on Commercial Operations Date

	Capital Expenditure (Rs. In Crore)	Date of commercial operation
(a) Unit-1	1,922.52	24.05.2022
(b) Unit-2		22.04.2022

Original Financing Plan (Unit wise)

Rupee Term Loan		
Loan No. UA-GE-GEN-430-2013-7190	655.36	03.01.2014 to 30.09.2023
Loan No. UA-GE-GEN-430-19-15529-A1	503.66	20.11.2019 to 30.09.2023
Loan No. UA-STL-STG-866-2021-16769-1	92.68	25.01.2022 to 30.09.2023
Total	1,251.70	

Foreign Currency Loan	
Debt 1	-
Debt 2 *	-

Equity	
Govt. of UK	336.16
UJVNL Fund	334.65
In Foreign Currency	-
Total	670.81

(Suresh Chandra Baluni)
Director (Project)
UJVN Limited
Ujjwal, Dehradun

Name of Generating Company :
Name of Generating Station :

UJVN Ltd.
Vyasi HEP

Details of Gross Fixed Assets

Previous Year FY 2022-23

(Figures in Crore)

Particulars of Assets	GFA (as on COD)	additional capitalization at the beginning of the year	Additions during the year	Additions during the year proposed to be undertaken	Retirement of assets during the year already undertaken	Retirement of assets during the year proposed to be undertaken	Balance at the end of the year
a) Land	62.95	-	3.65	-	-	-	66.60
b) Building	27.80	-	0.44	-	-	-	28.23
c) Hydraulic / Major Civil Work	1,613.94	-	5.21	-	-	-	1,619.15
d) Plant & Machinery	212.85	-	39.54	-	-	-	252.39
e) Vehicle	0.43	-	-	-	-	-	0.43
f) Furniture & Fixture	1.54	-	0.18	-	-	-	1.72
g) Office Equipment & Others	1.97	-	0.04	-	-	-	2.01
h) I.T. Equipment including software	1.03	-	0.70	-	-	-	1.73
Total	1,922.52	-	49.75	-	-	-	1,972.27



(Suresh Chandra Baluni)
Director (Project)
UJVN Limited
Ujjwal, Dehradun

Name of Generating Company :
Name of Generating Station :

UJVNL Ltd.
Vyasi HEP

Details of Gross Fixed Assets
Current Year FY 2023-24

(Figures in Rs Crore)

Particulars of Assets	Opening Balance	Additions of assets during the year*		Retirement of assets during the year*		Closing balance
		Apr-Sep (Actual)	Oct-Mar (Estimated)	Apr-Sep (Actual)	Oct-Mar (Estimated)	
a) Land	66.60	-	4.11	-	-	70.71
b) Building	28.23	0.49	0.75	-	-	29.48
c) Hydraulic / Major Civil Work	1,619.15	-	21.99	-	-	1,641.14
d) Plant & Machinery	252.39	0.00	11.38	-	-	263.78
e) Vehicle	0.43	-	-	-	-	0.43
f) Furniture & Fixture	1.72	0.02	-	-	-	1.74
g) Office Equipment & Others	2.01	0.02	-	-	-	2.04
h) I.T. Equipment including software	1.73	0.03	-	-	-	1.76
Total	1,972.27	0.56	38.23	-	-	2,011.07

Ensuing year FY 2024-25

(Figures in Rs Crore)

Particulars of Assets		Opening balance	Additions during the year*	Retirement of assets during the year*	Closing balance
a) Land		70.71	14.15	-	84.86
b) Building		29.48	0.80	-	30.28
c) Hydraulic / Major Civil Work		1,641.14	21.34	-	1,662.48
d) Plant & Machinery		263.78	1.50	-	265.28
e) Vehicle		0.43	-	-	0.43
f) Furniture & Fixture		1.74	-	-	1.74
g) Office Equipment & Others		2.04	-	-	2.04
h) I.T. Equipment including software		1.76	-	-	1.76
Total		2,011.07	37.79		2,048.86

* Please provide Actual / Proposed Dates of Addition and Retirement of Fixed Assets during the year

Petitioner


(Suresh Chandra Bahuni)
Director (Project)
UJVNL Limited
Ujjwal, Dehradun

Name of Generating Company :
Name of Generating Station :

UJVN Ltd.
Vyasi HEP

Form: F- 5.1

Statement of Asset wise Depreciation

Previous Year FY 2022-23

(Figures in Crore)

Particulars of Assets	Rate of Depreciation for GFA in %	Rate of Depreciation for Additional Capitalization in %	Accumulated Depreciation on GFA at the beginning of the Year	Accumulated Depreciation on Additional Capitalization at the beginning of the Year	Depreciation provided for GFA for the Year	Depreciation provided for Additional Capitalization for the Year	Depreciation provided for the year	Withdrawals during the year	Balance of accumulated depreciation at the end of the year
a) Land	0.00%	0.00%	-	-	-	-	-	-	-
b) Building	3.34%	3.34%	-	-	0.79	-	0.79	-	0.79
c) Hydraulic / Major Civil Work	5.28%	5.28%	-	-	72.61	-	72.61	-	72.61
d) Plant & Machinery	5.28%	5.28%	-	-	9.58	-	9.58	-	9.58
e) Vehicle	9.50%	9.50%	-	-	0.03	-	0.03	-	0.03
f) Furniture & Fixture	6.33%	6.33%	-	-	0.08	-	0.08	-	0.08
g) Office Equipment & Others	6.33%	6.33%	-	-	-	-	0.11	-	0.11
h) I.T. Equipment including software	15.00%	15.00%	-	-	-	-	0.13	-	0.13
Total			-	-	-	-	83.33	-	83.33

Current Year FY 2023-24

(Figures in Rs Crore)

Particulars of Assets	Rate of Depreciation in %	Accumulated Depreciation at the beginning of the year	Depreciation provided for the year		Withdrawals during the year	Balance of accumulated depreciation at the end of the year
			Apr-March	Apr-March	Apr-March	
a) Land	0.00%	-	-	-	-	-
b) Building	3.34%	-	0.94	-	-	0.94
c) Hydraulic / Major Civil Work	5.28%	-	85.49	-	-	85.49
d) Plant & Machinery	5.28%	-	13.33	-	-	13.33
e) Vehicle	9.50%	-	0.04	-	-	0.04
f) Furniture & Fixture	6.33%	-	0.11	-	-	0.11
g) Office Equipment & Others	6.33%	-	0.13	-	-	0.13
h) I.T. Equipment including software	15.00%	-	0.26	-	-	0.26
Total		-	100.30	-	-	100.30

(Suresh Chandra Baluni)
Director (Project)
UJVN Limited
Ujjwal, Dehradun

Name of Generating Company :
Ensuing year FY 2024-25

UJVNL Ltd.

(Figures in Rs Crore)

Particulars of Assets	Rate of Depreciation in %	Accumulated Depreciation at the beginning of the year	Depreciation provided for the year	Withdrawals during the year	Balance of accumulated depreciation at the end of the year
a) Land	0.00%	-	-	-	-
b) Building	3.34%	-	0.98	-	0.98
c) Hydraulic / Major Civil Work	5.28%	-	86.65	-	86.65
d) Plant & Machinery	5.28%	-	13.93	-	13.93
e) Vehicle	9.50%	-	0.04	-	0.04
f) Furniture & Fixture	6.33%	-	0.11	-	0.11
g) Office Equipment & Others	6.33%	-	0.13	-	0.13
h) I.T. Equipment including software	15.00%	-	0.26	-	0.26
Total		-	102.11	-	102.11


(Suresh Chandra Baluni)
Director (Project)
UJVNL Limited
Ujjwal, Dehradun

Name of Generating Company :
Name of Generating Station :

UJVN Ltd.
Vyasi HEP

Form: F-6.3

Statement of Capital Expenditure & Schedule of COD of New Projects

Name of the Power Station	Vyasi HEP
Name of Agency approving the Project Cost Estimates	BOD, PIB
Date of Approval of Capital Cost Estimate	01.03.2023

	As approved by Competent Authority
Present Day Cost (As onDate)	
Capital Cost	
Foreign Exchange Rate considered for capital cost estimates	

(Figures in Crore)

Cost Details	Amount	Exchange Rate	Amount
A) Basic Cost			
Foreign Component (in Foreign Currency)	-		-
Domestic Component	1,483.21		1,483.21
Total Basic Cost	1,483.21		1,483.21
B) IDC & FC			
Foreign Component (in Foreign Currency)	-		-
Indian Component	439.31		439.31
Total IDC & FC	439.31		439.31
C) Total Cost (Including IDC and FC)	c=(a+b)		1,922.52

Schedule of Commissioning

COD of Unit-I	24.05.2022
COD of Unit-II	22.04.2022


(Suresh Chandra Beluni)
Director (Project)
UJVN Limited
Ujjwal, Dehradun

Name of Generating Company :
Name of Generating Station :

UJVN Ltd.
Vyant HEP

Form F- 6.4

Break-up of Capital Expenditure for New Projects

Name of the Power Station	Vyant HEP
Name of Agency approving the Project Cost Estimates	BOD, PIB
Date of Approval of Capital Cost Estimate	01.03.2023

(Figures in Crore)

Particulars	Total Expenditure Approved by Competent Authority	Previous Year (FY 2022-23) Expenditure Actually Incurred	Current Year FY 2023-24		Total Expenditure incurred upto Current Year	Total Expenditure supposed to be incurred till current year, as per the approved plan	Difference between column 6 and 7	Remarks	Ending Year (a-1)
			Apr-Sep (Actual)	Oct-Mar (Estimated)					
1	2	3	4	5	6	7	8	9	10
A) Expenditure Details									
a) Land		66.01							
b) Building		28.23							
c) Hydraulic / Major Civil Work		1,619.15							
d) Plant & Machinery		252.39							
e) Vehicle		0.43							
f) Furniture & Fixture		1.72							
g) Office Equipment & Others		2.01							
h) I.T. Equipment including software		1.73							
Total (A)	2047.01	1,972.27			2011.07				2048.88
B) Break up of sources of financing									
a) Loans / Borrowings	1433.75	1,321.54							
b) Equity (Govt)	416.23	356.23							
c) Others (Internal Resource Funding)	197.03	294.51							
Total (B)	2047.01	1,972.27							


(Suresh Chandra Baluni)
Director (Project)
UJVN Limited
Ujjwal, Dehradun

Name of Generating Company :
Name of Generating Station :

UJVN Ltd.
Vyasi HEP

Form: F-7

Details of Capital Cost and Financing Structure

(Figures in Crore)

Year ending March	FY of COD	Previous Year (FY 2022-23) COD - March (Estimated)	Current Year (n)			Ensuing Year (n+1) Projected	Remarks
			Apr-Sep (Actual)	Oct-Mar (Estimated)	Total (April - March)		
Basic Project Financial Parameters							
Capital Cost*	1,922.52	1,922.52			1,972.27	2,011.07	
Addition during the year	-	49.75			38.79	37.79	
Deletion during the year	-	-			-	0	
Gross Capital Cost (A)	1,922.52	1,972.27			2,011.07	2,048.86	
Equity against Original Project Cost	670.81	-					
Addition during the year		-					
Equity Sub-Total (B)		650.74				613.81	
Debt outstanding against the original Capital cost	1,251.70	-					
New Loans added during the year		-					
Debt Sub-Total (C)		1,321.54				1,435.04	
Grants against original project cost		-					
Addition during the year		-					
Grants Sub-Total (D)		-					
Total Financing (B+C+D)	1,922.52	1,972.27				2,048.86	


(Suresh Chandra Baluni)
Director (Project)
UJVN Limited
Ujjwal, Dehradun

Name of Generating Company :
Name of Generating Station :

UJVN Ltd.
Vyasi HEP

Form: F- 9.2

Calculation of Weighted Average Interest Rate of Interest on Actual

Sl. No.	Particulars	(Figures in Crore)		Current Year FY 2023-24	Ensuing Year FY 2024-25 Projected
		Previous Year (FY 2022-23) COD-Mar (Estimated)			
1	Loan 1				
	Gross Loan - Opening	655.36		655.36	-
	Cummulative payments of Loan upto Previous Year	-		-	-
	Net Loan - Opening	655.36		655.36	-
	Add: Drawl(s) during the year	-		-	-
	Less: Repayment(s) of Loan during the year	-		9.10	-
	Net Loan - Closing	655.36		646.26	-
	Average Net Loan	655.36		650.81	-
	Rate of Interest on Loan on Annual Basis				
	Interest on Loan	67.36		63.94	-
2	Loan 2				
	Gross Loan - Opening	454.30		503.66	-
	Cummulative payments of Loan upto Previous Year	-		-	-
	Net Loan - Opening	454.30		503.66	-
	Add: Drawl(s) during the year	49.36		-	-
	Less: Repayment(s) of Loan during the year	-		7.00	-
	Net Loan - Closing	503.66		496.67	-
	Average Net Loan	478.98		500.17	-
	Rate of Interest on Loan on Annual Basis				
	Interest on Loan	51.86		49.31	-
3	Loan 3				
	Gross Loan - Opening	-		92.68	-
	Cummulative payments of Loan upto Previous Year	-		-	-
	Net Loan - Opening	-		92.68	-


(Suresh Chandra Bhatnagar)
Director (Project)
UJVN Limited
Ujjwal, Dehradun

Name of Generating Company :
Name of Generating Station :

UJVN Ltd.
Vyasi HEP

Form: F- 9.2

Calculation of Weighted Average Interest Rate of Interest on Actual

Sl. No.	Particulars	(Figures in Crore)		
		Previous Year (FY 2022-23) COD-Mar (Estimated)	Current Year FY 2023-24	Residual Year FY 2024-25 Projected
	Add: Drawl(s) during the year	92.68	150.68	-
	Less: Repayment(s) of Loan during the year	-	121.68	-
	Net Loan - Closing	92.68	121.68	-
	Average Net Loan	46.34	107.18	-
	Rate of Interest on Loan on Annual Basis			
	Interest on Loan	0.56	8.13	-
	Total Loan			
	Gross Loan - Opening	1,109.66	1,251.70	-
	Cumulative payments of Loan upto Previous Year	-	-	-
	Net Loan - Opening	1,109.66	1,251.70	-
	Add: Drawl(s) during the year	142.04	150.68	-
	Less: Repayment(s) of Loan during the year	-	137.78	-
	Net Loan - Closing	1,251.70	1,264.61	-
	Average Net Loan	1,180.68	1,258.16	-
	Rate of Interest on Loan on Annual Basis			
	Interest on Loan	119.78	121.38	-
	Weighted Average Rate of Interest on Loans	10.15%	9.65%	-

* In case of Foreign Loans, the calculation in Indian Rupee is to be furnished. However, the

(Suresh Chandra Bolani)
Director (Project)
UJVN Limited
Ujjwal, Dehradun

Name of Generating Company :
Name of Generating Station :

UJVN Ltd.
Vyasi HEP

Form: F- 9.3

Calculation of Interest on Normative Loan

(Figures in Crore)

Particulars	Current Year (FY 2022-23) COD-Mar (Normative)	Current Year FY 2023-24	Ensuing Year FY 2024-25 Projected
Gross Normative Loan - Opening	1,345.76	1,345.76	1,345.76
Cumulative payments of Normative Loan upto Previous Year	-	83.33	183.63
Net Normative Loan - Opening	1,345.76	1,297.26	1,224.12
Increase or Decrease during the year	34.83	27.15	26.45
Less: Repayment of Normative Loan during the year	83.33	100.30	102.11
Net Normative Loan - Closing	1,297.26	1,224.12	1,148.46
Average Normative Loan (Opening - Repayment/2)	1,321.51	1,260.69	1,186.29
Weighted Average Rate of Interest on Actual Loan on Annual Basis	10.15%	9.65%	9.65%
Interest on Normative Loan	114.23	121.62	114.45


(Suresh Chandra Baluni)
Director (Project)
UJVN Limited
Ujjwal, Dehradun

Name of Generating Company :
Name of Generating Station :

UJVN Ltd.
Vyasi HEP

Form: F-10

Details of Interest on Working Capital

(Figures in Crore)

Sl. No.	Particulars	Previous Year (FY 2022-23)	FY 2023-24	Ensuing Year FY 2024-25	Remarks
		Actual	Apr-March	Estimated	
1	O & M expenses - 1 month	6.32	6.91	7.51	
2	Spares (15% of O&M Expenses)	9.83	12.62	13.70	
3	Receivables- 2 months	68.44	68.11	68.77	
4	Total Working Capital (1+2+3)	84.59	87.63	89.98	
5	Normative Interest Rate (%)	12.03%	12.03%	12.03%	
6	Normative Interest on Working Capital (4 X 5)	10.18	10.54	10.82	


(Suresh Chandra Baluni)
Director (Project)
UJVN Limited
Ujjwal, Dehradun

Name of Generating Company :
Name of Generating Station :

UJVN Ltd.
Vyasi HEP

Form: F- 11
Details of Operation & Maintenance Expenses

S. No.	Particulars	Previous Year FY 2022-23	Current Year FY 2023-24			Ensuing Year FY 2024-25	Remarks
		Actual / Audited	Apr-Sep (Actual)	Oct-Mar (Estimated)	Total (April - March)	Estimated	
a)	Repair and Maintenance Expenses						
	Plants and Machinery	1.70					
	Buildings	3.29					
	Civil Works	-					
	Hydraulic Works	0.58					
	Lines, Cables Net Works etc.	0.41					
	Vehicles	0.02					
	Furnitures and Fixtures	0.00					
	Office Equipment & Other Items	0.22					
	Consumption of Stores and Spares	0.07					
	- Related to Generator, turbines and Accessories	-					
	- Related to Auxiliary Electrical Equipment	-					
	- Related to Auxiliary Equipment & Services for Power Station	-					
	Sub-Total	5.29					
b)	Administrative Expenses						
	- Insurance	2.75					
	- Rent	0.05					
	- Electricity Charges	0.07					
	- Travelling and conveyance	0.14					
	- Staff Car	1.52					
	- Telephone, telex and postage	0.15					
	- Advertising	0.12					
	- Entertainment	0.04					
	- Corporate mgmt expenses	-					
	- Legal Expenses	0.05					
	- Others (specify elements)	3.47					
	Sub-Total	5.38					
c)	Employee Cost						


(Suresh Chandra Baluni)
Director (Project)
UJVN Limited
Ujjwal, Dehradun

	- Basic Salaries	13.36			
	- Dearness Allowance	5.60			
	- Other Allowances	1.03			
	- Bonus	0.08			
	- Staff welfare expenses	0.39			
	- Medical Allowances	0.27			
	- Others Expenses (specify elements)	2.55			
	- Terminal Benefits	3.16			
	Sub-Total	26.44			
d)	Corporate Office expenses Allocated				
	- Employee expenses	-			
	- Repair and maintenance	-			
	- Training and Recruitment	-			
	- Communication	-			
	- Travelling	-			
	- Security	-			
	- Rent	-			
	- Others (specify elements)	-			
	Sub-Total	41.12			
	Total O&M Expenses				
	Less: O&M Expenses Capitalised			84.10	91.35
	Net O&M Expenses				

Notes 1 : (i) The process of allocation of corporate expenses to generating stations should be specified.

(ii) The data should be certified by statutory auditors.


 (Suresh Chandra Baluni)
 Director (Project)
 UJVM and
 Energy Division

Name of Generating Company :
Name of Generating Station :

UJVNL Ltd.
Vijay HBP

Form: F-11.1

Details of Repair & Maintenance Expenditure

S.No.	Particulars	Previous Year FY 2023-24 (Actual / Audited)	Current Year FY 2023-24		Ending Year FY 2024-25 Estimated	Remarks
			Apr-Mar (Actual)	Oct-Mar (Estimated)		
1	Plant and Machinery	1.70				
2	Building	3.39				
3	Civil Works	-				
4	Hydraulic Works	0.38				
5	Lines, Cables and Works etc.	0.41				
6	Vehicles	0.03				
7	Furniture and Fixtures	0.00				
8	Office Equipments	8.22				
9	Station Supplies, Stores and Consumables	8.87				
	- Related to Generator, turbines and Accessories	-				
	- Related to Auxiliary Electrical Equipment	-				
	- Related to Auxiliary Equipment & Services for Power Station	-				
11	Any other items	-				
12	Less: Capitalisation	-				
	Total	4.29				


(Suresh Chandra Baluni)
Director (Project)
UJVNL Limited
Ujjain, Dohradun

Name of Generating Company :
Name of Generating Station :

UVVN Ltd.
Vijai HEP

Form: F-11.2
Details of Employee Expenses

Sl.No	Particulars	Precedent Year FY 2022-23	Current Year FY 2023-24		Estimated Year FY 2024-25	Remarks
		Actual Subtotal	Apr-Sep (Actual)	Oct-Mar (Estimated)	Total (April - March)	
A	Employee's Cost (Other Than Covered in S.W.D)					
1	Salaries	12.28				
2	Allowance (Hr./Business Allowance (DA))	1.40				
3	Other Allowance & Benefit	1.43				
4	Gratuity	-				
5	Retirement Provision	8.20				
6	Provision for Leave	3.33				
7	Sub Total	26.64				
B	Other Costs					
1	Travel Expenses (Transportation)	0.27				
2	Travel Expenses (Communication)	-				
3	Other Travel Expenses	1.48				
4	Provision Under Employees' Compensation And Gratuity	0.24				
5	Provision Under Employees' Compensation And Gratuity	-				
6	Provision Under Employees' Compensation And Gratuity	3.33				
7	Sub Total	5.32				
C	Other Costs					
1	Provision Under Employees' Compensation And Gratuity	4.37				
2	Provision Under Employees' Compensation And Gratuity	-				
3	Provision Under Employees' Compensation And Gratuity	-				
4	Provision Under Employees' Compensation And Gratuity	-				
5	Provision Under Employees' Compensation And Gratuity	-				
6	Provision Under Employees' Compensation And Gratuity	-				
7	Provision Under Employees' Compensation And Gratuity	-				
8	Provision Under Employees' Compensation And Gratuity	-				
9	Provision Under Employees' Compensation And Gratuity	-				
10	Provision Under Employees' Compensation And Gratuity	-				
11	Provision Under Employees' Compensation And Gratuity	-				
12	Provision Under Employees' Compensation And Gratuity	-				
13	Provision Under Employees' Compensation And Gratuity	-				
14	Provision Under Employees' Compensation And Gratuity	-				
15	Provision Under Employees' Compensation And Gratuity	-				
16	Provision Under Employees' Compensation And Gratuity	-				
17	Provision Under Employees' Compensation And Gratuity	-				
18	Provision Under Employees' Compensation And Gratuity	-				
19	Provision Under Employees' Compensation And Gratuity	-				
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88	Provision Under Employees' Compensation And Gratuity	-				
89	Provision Under Employees' Compensation And Gratuity	-				
90	Provision Under Employees' Compensation And Gratuity	-				
91	Provision Under Employees' Compensation And Gratuity	-				
92	Provision Under Employees' Compensation And Gratuity	-				
93	Provision Under Employees' Compensation And Gratuity	-				
94	Provision Under Employees' Compensation And Gratuity	-				
95	Provision Under Employees' Compensation And Gratuity	-				
96	Provision Under Employees' Compensation And Gratuity	-				
97	Provision Under Employees' Compensation And Gratuity	-				
98	Provision Under Employees' Compensation And Gratuity	-				
99	Provision Under Employees' Compensation And Gratuity	-				
100	Provision Under Employees' Compensation And Gratuity	-				


(Suresh Chandra Baluni)
Director (Project)
UJVN Limited
Ujjain, Madhya Pradesh

Name of Generating Company :
Name of Generating Station :

UJVN Ltd.
Vyasi HEP

Form: F- 11.3
Details of Administration & General Expenses

S.No	Particulars	Previous Year FY 2022-23	Current Year FY 2023-24		Ensuing Year FY 2024-25	Remarks
		(Actuals / Audited)	Apr-Sep (Actual)	Oct-Mar (Estimated)	Projected	
A	Administrative Expenses					
1	Rent rates and taxes					
	Lease / Rent	0.06				
	Rates & Taxes	-				
2	Insurance	2.78				
3	Revenue Stamp Expenses Account	-				
4	Telephone, Postage, Telegram & Telex Charges	0.15				
5	Incentive & Award To Employees/Outsiders	-				
6	Consultancy Charges	0.89				
7	Technical Fees	-				
8	Other Professional Charges	-				
9	Conveyance And Travelling	0.14				
10	License And Registration Fee Of Plant And Machinery Vehicles	-				
11	Vehicle Expenses (Other Than Trucks And Delivery Vans)	1.52				
	Hiring Of Vehicles	-				
12	Security / Service Charges Paid To Outside Agencies	1.28				
	Sub-Total 'A' (1 To 12)	6.80				
B	Other Charges					
1	Fee And Subscriptions Books And Periodicals	0.03				
2	Printing And Stationery	0.10				
3	Advertisement Expenses (Other Than Purchase Related) Exhibition & Demo.	0.12				
4	Contributions/Donations To Outside Institutes / Associations	-				
5	Electricity Charges To Offices	0.07				
6	Water Charges	-				
7	Entertainment Charges	0.04				
8	Miscellaneous Expenses	1.22				
	Sub-Total 'B' (1 To 8)	1.59				
C	Legal Charges					
D	Auditor's Fee					
E	Material Related Expenses					


(Suresh Chandra Bakuni)
Director (Project)
UJVN Limited
Ujjwal, Dehradun

Name of Generating Company :
Name of Generating Station :

UJVN Ltd.
Vyasa HEP

Form: F- 11.3
Details of Administration & General Expenses

S.No	Particulars	Previous Year FY 2022-23	Current Year FY 2023-24		Ensuing Year FY 2024-25	Remarks
		(Actuals / Audited)	Apr-Sep (Actual)	Oct-Mar (Estimated)	Projected	
1	Freight On Capital Equipments	-				
2	Purchase Related Advertisement Expenses	-				
3	Vehicle running and hiring expenses (Truck/ Delivery Van)	-				
4	Other Freight	-				
5	Transit Insurance	-				
6	Octroi	-				
7	Incidental Stores Expenses	-				
8	Fabrication Charges	-				
	Sub Total 'E' (J To 8)	-				
F	Grand Total (A To E)	8.38				
G	A&G expenses capitalised					
H	Net A&G Expenses (F - G)					


(Suresh Chandra Baluni)
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UJVN Limited
Ujjwal, Dehradun

Name of Generating Company :
Name of Generating Station :

UJVN Ltd.
Vyasi HEP

Form: F-12

Non Tariff Income

Sl. No.	Description	Previous Year FY 2022-23 (Actuals/Audited)	Current Year FY 2023-24			Ensuing Year FY 2024-25
			Apr-Sep (Actual)	Oct-Mar (Estimated)	Total (April - March)	
	OTHER INCOME					
	Interest (Fixed Deposits)-62.223	0.12				
	Interest From Bank Other Than Int on FD -62.270	0.00				
	Interest-Others -62.230	0.05				
	Interest on Advance to Contractor/Supp -62.260	-				
	Profit on Sales of Store -62.330	0.00				
	Sale of Scrap-62.340	-				
	Sale of Tender Forms-62.361	0.03				
	Balance Misc. Receipt-62.369	0.08				
	Receipts from Deputation employee- Leave Encash	0.01				
	Receipts from Deputation employee- Gratuity	0.00				
	Rent From Staff -62.901	0.01				
	Rent From Contractors -62.902	-				
	Rent From Guest House 62.903	-				
	Recon Transp&Veh Exp (Ot Th. Reco Fr Staff)-62.910	0.01				
	Penalti for Delay in Supp.Exec. of Works-62.917	0.01				
	S.Credit Balance Written Back -62.912	0.13				
	Other Excess Prov in Prior Period-65.8	0.06				
	Other Income Relating to Prior Period -65.9	0.12				
	Gain on Sales OF Asset-62.401	0.00				
	Total	0.65	0.42	0.42	0.84	0.84

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Ujjwal, Dehradun

Name of Generating Company :
Name of Generating Station :

UJVN Ltd.
Vyasi HEP

Form: F-14

Statement showing Return on Equity

(Figures in Crore)

Sl. No.	Particulars	FY 2022-23 COD-Mar (Actual)	Current Year FY 2023-24	Ensuing Year FY 2024-25
(1)	(2)	(3)	(4)	(5)
1	Opening Equity	576.76	591.68	603.32
2	Add: Increase due to addition during the year / period	14.93	11.64	11.34
3	Less: Decrease due to de-capitalisation during the year / period	-	-	-
4	Less: Decrease due to reversal during the year / period	-	-	-
5	Add: Increase due to discharges during the year / period	-	-	-
6	Closing Equity	591.68	603.32	614.66
7	Average Equity	584.22	597.50	608.99
8	Rate of ROE	16.50%	16.50%	16.50%
9	Return on Equity	82.13	98.59	100.48


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UJVN Limited
Ujjwal, Dehradun

Name of Generating Company :
Name of Generating Station :

UJVN Ltd.
Vyasi HEP

Form: F-14 A

Return on Equity

(Figures in Crore)

Sl. No.	Item	Previous Year (FY 2022-23)	Current Year FY 2023-24	Existing Year FY 2024-25	Remarks
		COD-Mar (Estimated)	Total (April - March)	Projected	
1	Equity at the beginning of the year	576.76	591.68	603.32	
2	Capital Expenditure	1,922.52	1,972.27	2,011.07	
3	Equity portion of capital expenditure	-	-	-	
4	Equity at the end of the year	591.68	603.32	614.66	
	Return Computation				
5	Return on Equity on Opening Balance of Equity	82.13	98.59	100.48	


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