Before

UTTARAKHAND ELECTRICITY REGULATORY COMMISSION

Pet. No. 29 of 2022

In the Matter of:

Petition for prior approval of Additional Capital Works on Unit No. 1 of (3x66 MW) Ramganga HEP of UJVN Ltd. under Section 61 and 86 of the Electricity Act, 2003 read with the relevant regulations and guidelines of the Commission.

And

In the Matter of:

Managing Director,
UJVN Limited,
"UJJWAL", Maharani Bagh, GMS Road,
Dehradun.

...Petitioner

Coram

Shri D.P. Gairola **Member (Law) /Chairman (I/c)**

Shri M.K. Jain **Member (Technical)**

Date of Order: February 13, 2023

ORDER

This Order relates to the Petition filed by UJVN Ltd. (hereinafter referred to as "the Petitioner") seeking prior approval of the Commission for 'Additional Capital Works on Unit No. 1 of (3x66 MW) Ramganga HEP of UJVN Ltd. under Section 61 and 86 of the Electricity Act, 2003 read with the relevant regulations and guidelines of the Commission'.

Background

2. The Petitioner vide its letter No. M-620/UJVNL/02/D(O)/C-8 dated 05.07.2022 submitted a Petition for 'Additional Capital Works on Unit No. 1 of (3x66 MW) Ramganga HEP of UJVN Ltd. under Section 61 and 86 of the Electricity Act, 2003 read with the relevant regulations and guidelines of the Commission'.

3. The Petitioner under the facts of the case has submitted that:

"…

3.4 That Ramganga Power Project is a multipurpose river valley project meant for irrigation, power, and flood control. The construction of the project was started in the year 1962 and the civil works were completed in the year 1974 with 3 nos. of power generating units of 66 MW each.

3.5 Unit no. 1, 2 & 3 of Ramganga HEP were commissioned in 12/1975, 11/1976, 3/1977 respectively. The main plant was supplied and installed by M/s BHEL, Bhopal. The dam & other related structure are under the control of Uttar Pradesh Irrigation Department (UPID) since beginning while the Powerhouse was previously under control of Uttar Pradesh State Electricity Board (UPSEB) and later came under UJVN Limited.

3.6 All the 3 units of Ramganga HEP are in continuous operation since commissioning for more than last 45 years. Normally the life of hydro power plant is 30-35 years after which it requires renovation and modernisation.

3.7 The petitioner had filed a petition under sub-regulation, 25 of UERC (Terms & Conditions for Determination of Tariff) Regulations, 2011 for prior approval of "Capital investment for Renovation and Modernization" of Ramganga HEP (3x66 MW) on 08.07.2013 before the Hon'ble UERC. The petitioner had proposed for a full replacement of the generating units with all station auxiliaries in the said petition.

3.8 The proposal for extensive RMU of the Ramganga HEP was not approved by the Hon'ble UERC vide order dated 12.02.2016 on the ground that regulation & control of water discharge is not in the hands of the petitioner's company.

3.9 The petitioner filed an appeal before the Hon'ble Appellate Tribunal for Electricity (APTEL), New Delhi on 23.03.2016 against order dated 12.02.2016 of the Hon'ble UERC. The appeal is still pending before the Hon'ble APTEL.

3.10 The petitioner was unable to carry out extensive RMU works in view of the said order dated 12.02.2016 and pending appeal before the Hon'ble APTEL

3.11 To keep the plant running and safe for operation, the Petitioner carried out essential major and minor works in Ramganga Dam and Power Plant on priority basis since FY 2017-18.

3.12 The works have been claimed by the Petitioner in the true-up petitions of the respective years and the same have been approved by the Hon'ble Commission in Add. Cap. And Repair and Maintenance based upon their category in the FY 2017-18 onwards.

3.13 In the meantime, the condition of the power station kept deteriorating and performance of the plant declined to such an extent that Unit # 1 of the Power Plant is only capable to be operated at 35 MW against the rated capacity of 66 MW.

3.14 That any further deterioration in the condition of the machine may lead to complete stoppage thus may result into a very long shutdown and loss of generation of the Unit being minimum operational capacity of the unit is 30 MW.

3.15 Besides this, a technical audit of the power station was also carried out by CBIP, New Delhi in the year 2015 and it was recommended that comprehensive maintenance of power station including MIV, turbine, generator, transformer and replacement of Governors and excitation system, other damaged/obsolete equipment must be taken up at the earliest.

3.16 Therefore, in order to ensure safety of man and machines, restore the rated capacity and enhance the life of the machine, it has now become essential to carry out the additional capitalization works proposed in the instant petition.

3.17 Further, as per Regulation 22 (4) of UERC Tariff Regulations, 2021, now it has been made mandatory for a generating company to get prior approval for the proposed additional capitalization works exceeding ₹ 5 Crore. The Regulation 22 (4) of UERC Tariff Regulations, 2021 states that: -

"Any addition/modification to the existing assets exceeding Rs. 2.50 Crore in case of distribution licensees and Rs. 5 Crore in case of generating companies/transmission licensees shall be taken up only after prior approval of the Commission. The investment approval applications covered under this sub-regulation are excluded from the application of proviso to Sub-regulation (2) of Regulation 10 of UERC (Conduct of Business) Regulations, 2014 in so far as the requirement of submission of documentary evidence with respect to the approval of BoD is concerned."

3.18 The Petitioner in its Petition has enclosed a DPR amounting to ₹ 8.29 Crore excluding taxes for carrying out the Additional Capital Works on Unit No. 1 of (3x66 MW) Ramganga HEP. Further, the Petitioner has submitted that it shall

arranged the expenditure on the said works from its internal resources and the expenditure is expected to be incurred during the financial year 2022-23 & 2023-24.

The estimated cost for carrying out the Additional Capital Works on Unit No. 1 of (3x66 MW) Ramganga HEP are summarized below: -

Sl. No.	**Description of work/Items**	**Estimated Amount (Rs. in Lakhs) Exclusive of taxes**
1	Design, engineering, manufacturing, supply, installation, testing & commissioning of stator core, winding & re-insulation of rotor poles with class 'F' insulation.	784.16 (Price level year 2020)
2	Replacement of directional control valve of MIV.	45.00
	Total	**829.16**
	(Rs. Eight Crore Twenty-Nine Lakhs Sixteen Thousand only)	

"

4. The Petitioner in the DPR of the aforesaid works under the justification section has mentioned that: -

"

1. *Unit#1 was commissioned in Dec.-1975. Two nos. stator coils were burnt out and stator core were also damaged in Aug. 2000. Fire was occurred in 2011at the joints of stator coil, may be the fire accident evoke place due to overheating/ poor insulation. Because of these reasons the maximum capacity of this Unit has reduced to 35 MW.*
2. *Class 'B' insulation of stator winding and rotor poles has completed its useful life.*
3. *ELCID test of the stator core was carried out in Unit # 3. It indicated more than 65 to 68% damage of core laminations. Unit #1 is also equally old. Stator earth faults and rotor earth faults have occurred many times in the machine.*
4. *Therefore, to avoid any fire incident in the generator due to overheating of the core and threat to safety of Powerhouse, the replacement of 47 years old generator stator core and class 'F' stator rewinding along with rotor pole class 'F' re-insulation are essentially required.*

5. *Machine capacity has derated to 35 MW. The derated capacity would be restored to 66 MW and life will be enhanced to further 25 years and availability & reliability of the machine will also increase.*

…"

5. The Petitioner in the DPR of the aforesaid works under the cost benefit analysis section has mentioned that following benefits shall be achieved from the proposed capital works: -

"

1. *The overall safety of complete Powerhouse including men and material will be enhanced by carrying out these works.*
2. *The original capacity of the Unit will be restored at 66 MW.*
3. *The availability and reliability of the plants will substantially increase after these works.*
4. *Down time of Unit will be reduced and better efficiency for generation shall be achieved.*
5. *Unforeseen and very huge generation loss and long shutdown may be avoided.*
6. *In case the complete discharge becomes available after the capital works, it can payback the incurred cost in approx. 5 months at the current tariff of Rs 0.895 per unit as it can then generate to the tune of 47 MU per month."*

6. On examination of the Petition & DPR certain deficiencies/infirmities were identified and accordingly, the Commission vide its letter No. 532 dated 26.07.2022 directed the Petitioner to submit/furnish its compliance on the following latest by 16.08.2022: -

"

1. *UJVN Ltd. is required to clarify, whether the item-wise Additional Capital works proposed on Unit#1 of Ramganga HEP in its instant Petition are also subject to adjudication before the Hon'ble APTEL in Appeal No. 79 of 2016 wherein, prior approval has been sought for 'Capital investment for Renovation and Modernization' in respect of the said project.*
2. *UJVN Ltd. is required to submit details of Financial Year-wise capital works completed/under progress in Ramganga HEP post filing its Petition dated 08.07.2013 before the Commission in the matter of 'Capital investment for Renovation and Modernization' of the said project.*

3. *Since, UJVN Ltd. has shown grave concerns over the deteriorating condition of the Ramganga HEP, it should also furnish, documentary evidence(s) pertaining to its serious attempts for seeking an expeditious remedy from the Hon'ble APTEL in Appeal No 79 of 2016 in so far for RMU of Ramganga HEP.*

4. *UJVN Ltd. shall be required to furnish information pertaining to Ramganga HEP in the format enclosed at* ***Annexure-2****.*

5. *UJVN Ltd. is required to furnish the details of last Capital Maintenance done in Units of Ramganga HEP in the following format:*

Unit no.	***Detail of last Capital Maintenance***		***Total expenditure incurred (In Rs)***	***Details of works executed***
	Start Date	***End Date***		
#1				
#2				
#3				

6. *UJVN Ltd. has submitted that Unit#1 is only being operated at 35 MW against its installed capacity 66 MW. In this regard, UJVN Ltd. is required to furnish Unit-wise Daily Maximum Generation (in MW) achieved in last 5 years.*

7. *UJVN Ltd. in its Petition has calculated the payback period by considering the complete availability of discharge. UJVN Ltd. is required to submit the cost benefit analysis including payback calculation of the proposed capital works by considering the current scenario of availability of water discharge and generation period in a year specified for this plant, in hard as well as softcopy.*

8. *UJVN Ltd.is required to furnish the technical details of various insulation classes and rationale for conversion of Re-insulation of rotor/stator from B to F class alongwith comparison sheet of class B insulation with other class insulations.*

9. *UJVN Ltd. is required to furnish the details of generation loss that would occur during the execution of the proposed works. Further, UJVN Ltd. is required to include the cost of generation loss while calculating the payback period. Further, UJVN Ltd. is required to furnish the detail of measures to be taken for minimizing generation loss.*

10. *UJVN Ltd. is required to furnish the details of similar works executed in other Plants/Units including details of year of execution, scope of work, expenditure incurred and capitalization year."*

7. In compliance to the deficiencies, UJVN Ltd. vide its letter dated 12.08.2022 submitted its point-wise compliance as mentioned below: -

*"**Point No.1:** It is respectfully submitted that UJVN Ltd had proposed complete replacement of Stator Core, Stator Windings, Rotor Windings, Slip Rings etc. and aggregate rates were provided for replacement of all the items of Generator and Associated Equipment. Whereas in the instant petition only most essentially required works are proposed to be carried out in Unit#1 of Ramganga HEP. Copy of relevant pages of DPR for RMU works is enclosed as **Annexure for point no. -1**.*

Further, the petition for 'Capital investment for Renovation and Modernization' of Ramganga HEP was filed by UJVN Ltd on 08.07.2013 before the Hon'ble UERC and after the proposal of extensive RMU of Ramganga HEP being denied by the Hon'ble UERC vide order dated 12.02.2016, UJVN Ltd filed an appeal on 23.03.2016 before the Hon'ble APTEL against the Hon'ble UERC's order dated 23.03.2016. The appeal is still pending. As considerable time has already been passed in the process, the works proposed in the instant petition have become indispensable for smooth and safe running of the machine.

***Point No. 2:** - It is respectfully submitted that the desired Detailed Report is enclosed herewith as **Annexure for point no. -2**.*

***Point No. 3:** - It is respectfully submitted that UJVN Ltd has been making its sincere efforts for early disposal of the appeal pending before the Hon'ble APTEL in the matter but due to vacancy in the offices of Hon'ble Chairperson and Hon'ble Technical Member, the court is not being assembled (copy of order dated 04.07.2022 is enclosed as **Annexure for point no. -3(i)**). The copies of communication UJVN Ltd has been making with UJVN Ltd.'s counsel appointed for the matter is enclosed as **Annexure for point no. -3(ii)**.*

***Point No. 4:** -It is respectfully submitted that the desired Detailed Report is enclosed herewith as **Annexure for point no.-4**.*

***Point No. 5: -**It is respectfully submitted that the details in the prescribed format are given here below-*

Details of last Capital Maintenance in The Units of Ramganga Power Station					
Unit No.	***Details of last Capital Maintenance***		***TOTAL EXPENDITURE INCURRED (IN Rs.)***	***Detail of Work Executed***	***Remark***
	Start Date	***End date***			
1	-	-	-	-	-
2	-	-	-	-	-
3	*13.08.2019*	*07.02.2021*	*85550000.00*	*Design, Engineering, Manufacturing, Supply, Installation, Testing & Commissioning of Stator Core, Winding & Re-insulation of Rotor Pole with class F insulation of Unit # 3.*	*The works are planned to be completed & capitalized during FY 2022-23.*
	28.07.2019	*18.10.2019*	*31742000.00*	*Repair of MIV, Stator coolers and Thrust bearing oil coolers of Unit # 3 at Ramaganga Power Station, Kalagarh, Pauri Garhwal*	*Works done under O&M*
	30.07.2019	*07.02.2021*	*49311020.00*	*Major Overhauling of unit #3 including Design, Fabrication, Supply, Installation, Testing & amp; Commissioning of High Speed Lubrication System and supply of bulkhead at Ramgarnga Power Station, Kalagarh, Pauri Garhwal.*	*Works done under O&M*

Point No. 6: -*It is respectfully submitted that the desired Detailed Report is enclosed herewith as Annexure for point no. -6 with the remark that the load on Unit # 1 has exceeded 35 MW for short duration however due to abnormality of parameter (e.g., Temp. etc.), the maximum continuous load of machine is limited to 35 MW only.*

Point No. 7: *-It is respectfully submitted that the Ramganga Power Project is a multipurpose river valley Project. The main purposes of this Project are as follows:-*

(i) Controlling of Flood

(ii) Irrigation

(iii) Power Generation

- *Ramganga Dam is under control of Uttar Pradesh Irrigation Department and the total control of water discharge is with them.*
- *Unit No 1 was commissioned in December 1975, which was supplied by M/s BHEL Bhopal. In the year 2000, 2005, 2010, 2015 & 2020 this unit generating the maximum power 60MW, 60MW, 46MW, 46MW, 37 MW respectively.*
- *The capacity of Generator is deteriorating day by day due to ageing effects.*

- *In the current scenario, the maximum discharge (6415 cusec at Generation Factor, copy of letter enclosed as Annexure for point no. was available in the month of June 2022 (Record generation was done the month of June for any year since commissioning).*
- *Therefore, to avoid any fire incident in the generator due to overheating the core and threat to safety of Powerhouse, the replacement, upgrade stator & core winding having class 'F' insulation in place of existing class insulation along with rotor pole 'F' re-insulation are essentially required.*

Point No. 8: *-It is respectfully submitted that the desired information is given the below:-*

Insulating Material *(As per IS publication no.127-_1958)*

Classification of Insulating Material

The recognised classes of insulating and temperature assigned to them are as below:

Class	*Temperature*
Y	*90 °C*
A	*105 °C*
E	*120 °C*
B	*130 °C*
F	*155 °C*
H	*180 °C*
C	*above 180 ^{0}C*

Comparison between Bitumen Mica Tape (Class B) and Modern Epoxy Mic based thermo setting (Class F)

Properties	***Class B***	***Class F***
1. Break down voltage/mm tape thickness (kV)	*14*	*25*
2. Life of insulation (%)	*100*	*400*
3. Value of Tan-Delta at 20 ºC and 11 kV	*0.03-0.06*	*0.015-0.025*
4. Mechanical Strength (UTS) kg./cm^2		
At 20 ºC	*600*	*1200*
At 90 ºC	*120*	*900*
5. Thermal conductivity (W per meter ºC)	*0.19*	*0.24*
6. Permissible Temp (ºC)	*130*	*155*
7. Radial thickness of main body insulation mm for 11 kV	*4.2*	*3.2*

Point No. 9:- *It is respectfully submitted that required details are given here below:-*

For the last 5 years the maximum year wise discharge on RPS has been as follows:

Year	*Max. Discharge (in Cusec)*	*Gen. Factor*	*Generation per Hour (In MW)*	*Generation Loss (In MW)*
2017-18	*5425*	*53*	*102*	*Nil*
2018-19	*5176*	*50*	*104*	*Nil*
2019-20	*5500*	*53*	*104*	*Nil*
2020-21	*5385*	*49*	*110*	*Nil*
2021-22	*5946*	*44*	*135*	*Nil*

- *From year 2017-18 to year 2020-21 approx 100 MW to 110 MW Avg. loading, which can normally be accomplished with two machines.*
- *In the year 2021-22 from the month of January2022 to the month of February2022, the discharge remained zero for about 45 days due to which the level of the dam was high, and the Generation Factor was quite low due to the high head. It was not a normal situation.*
- *Therefore, there is remote possibility that the above situation will repeat. For these efforts are being made to have better coordination with UPID.*
- *During the year 2019-20 to 2020-21, Unit No: 3 was under Capital Maintenance for the similar works were carried out and no generation loss occurred. The generation was done with the help of two Machines available (U#1 & U#2) despite the low load capacity of machines.*
- *Apart from all the above, every effort will also be made that the works of the machine no 1 should be completed by December 2023.*
- *Therefore, in view of all above Gen loss during the proposed above Capital Works of Unit No 1 at Ramganga Power Station is not expected.*

Point No. 10: -*It is respectfully submitted that similar works were carried out in Kulhal Power Station & Ramganga Power Station in recent years. The copies of agreements are enclosed* ***Annexure for point no. -10****".*

8. On examination of the Petition & DPR, requirement of additional information was required for scrutiny of the Petition/DPR and accordingly, the Commission vide its letter No. 824 dated 03.10.2022 directed the Petitioner to submit/furnish its compliance on the following latest by 20.10.2022: -

"

1. *Unit-wise monthly operational schedule (tentative) for the months of October, 2022 to March, 2023.*
2. *Unit-wise maintenance schedule proposed for the months October, 2022 to March, 2023.*
3. *UJVN Ltd. at point no. 4 of its reply dated 12.08.2022 has apprised that similar works have been executed for Unit#3 recently and currently the said Unit is operating at 55 MW only. Regardless of re-insulation with class F insulation in Unit#3, it is still experiencing stator & core winding temperature rise issues when operating at rated capacity i.e. 66 MW. UJVN Ltd. is required to furnish the reasons for under performance of the machine."*

9. In compliance to the Commission's letter dated 03.10.2022, UJVN Ltd. vide its letter dated 18.08.2022 submitted its point-wise compliance as mentioned below: -

(1) With regard to the 'Unit-wise monthly operation schedule (tentative) for the month October, 2022 to March, 2023', the Petitioner has submitted that its Units shall be available for generation subject to availability of water discharge from Uttar Pradesh Irrigation Department.

(2) With regard to the 'Unit-wise maintenance schedule (tentative) proposed for the month October, 2022 to March, 2023', the Petitioner has submitted that no maintenance schedule is proposed for the said duration.

(3) With regard to the under performance of Unit # 3 even after completion of re-insulation with class F insulation, the Petitioner submitted that a team from BHEL has visited the Ramganga HEP and inspected the Unit No. 3. Various maintenance activities were carried out from 30.12.2021 to 07.01.2022. After assembly of the cover plates, the machine was taken to full load i.e., at 66 MW for around 3-4 hours but the winding temperature kept on rising to 125^{o}C. Therefore, the load was reduced to keep the temperature within limits.

Subsequently, the machine was stopped to ascertain possible causes of excessive rise in winding temperature. Ventilation circuit was checked, and it was observed that **the excessive clearances at top fan, between fan and air**

baffle and between fan and air guide and lack of air splitters appear to be cause of improper ventilation circuit.

The matter is being reviewed at BHEL Bhopal with design department and a team of design & service from BHEL is being planned to visit Ramganga HEP shortly for rectification of the problem."

10. Further, a team of UERC officers visited to Ramganga HEP in the matter on 18.11.2022 and collected certain vital information pertaining to Fault Record of Unit#1 as mentioned below:-

Sl. No.	Year	Description
1.	2011	Stator Earth Fault occurred on dated 21.08.2011 03 nos. stator winding (coils) had been burnt which were replaced.
2.	2012	Stator Earth Fault occurred in Feb. 2012, resolved after consultation with M/s BHEL.
3.	2019	Stator Earth Fault occurred on dated 20.03.2019 01 nos. stator coil had been earthed to stator core which had been resolved by wrapping insulation tape on stator coil.
4.	2019	Rotor Earth Fault occurred on dated 27.11.2019 Rotor Pole no. 19 had been found defective which had been resolved by assembling new rotor coil with rotor core.

Further, during the field visit, the Petitioner submitted log sheet of Unit#3 in which similar works as proposed in Unit#1 in the instant Petition were carried out. On examination of the log sheet, it was observed that Unit#3 attained a generation level of 66 MW, however, winding & core temperature rise reached to excessive levels and the machine had to bring down to lower generation levels for maintaining the winding & core temperature levels. On enquiring about the reasons for such occurrences, the officers of the Petitioner at Site reiterated the submissions made by UJVN Ltd. earlier.

Commission's Observations, Views & Directions: -

11. The Commission in its Order dated 12.02.2016 in the matter of 'Petition for approval of "Capital Investment for Renovation & Modernization" of 3x66 MW Ramganga HEP of UJVN Ltd.' with an investment of Rs. 455.20 Crores had held that "*…the Commission is unable to comprehend the need for making such heavy investments as the water discharge will always be a limitation in achieving the proposed rated design energy.*

This constraint has also been discussed in detail in the preceding paragraphs of the order. Hence, in view of the above, the Commission does not approve the proposal of the Petitioner to carry out extensive RMU of the HEP till the time the regulation & control of water discharge of the Plant comes in the hand of the Petitioner Company and it is able to establish that after the RMU, the Plant would be able to achieve the original design energy."

The aforesaid Order was challenged by the Petitioner in the Hon'ble APTEL and the matter has yet not attained finality. The Commission has observed that the proposed works were part of the parent Petition on which the Commission had issued aforesaid Order and later the Petitioner went on to challenge the said Order in Hon'ble APTEL and the same has not been decided by the Hon'ble APTEL till date and since then almost 7 years have been elapsed from the date of Commission's Order dated 12.02.2016. Further, the Commission has observed that the Petitioner in its Petition has mentioned that Unit # 1 of Ramganga HEP is operating at 35 MW. On correlating the said submission of the Petitioner with submission in Annexure-1A of their DPR 'Limits of turbine operation (maximum and minimum loading) against Head', the Commission is of the view that Unit # 1 of Ramganga HEP is operating close to its technical minimum output and thus prompt measures are required to be taken for safeguarding the availability, reliability and sustainability of the machine. Therefore, citing the critical condition of the machine Unit#1 which may be detrimental for ensuring safety of man & machine in the power plant. Accordingly, the Commission took a considerate view in the matter and decided to admit the Petition for further scrutiny.

12. While scrutiny of the Petition, the Commission observed that similar works were carried out in Unit#3 and even after re-insulation with Class-F insulation still the machine has not attained its full capability of 66 MW and is hovering around 45 MW-55 MW for avoiding the increase in winding & core temperatures/breaching of threshold limits. The Petitioner has furnished the reasons for the underperformance as issues in ventilation system. In this regard, the Commission is of the view that before initiating the works of Unit#1, the Petitioner is advised to ensure that the reasons for under performance of Unit#3 are properly ascertained through the OEMs i.e. BHEL and ensure that such issues do not repeat in Unit#1.

13. The Commission also understands that underperformance by the individual generating Unit of a power plant has a direct impact on its energy charges recovery but also on capacity charges. Thus, under performance of Unit#1 is affecting the overall financial & commercial viability of Ramganga HEP. Besides above, the Commission also observes that with the stricter environmental & sociological norms, new hydro power plants is not taking pace and therefore, recouping the underperforming generating Units up to their installed capacity is a cost effective and less time consuming mechanism for meeting the power demand of the State.

14. Taking a considerate view, the Commission has decided to give in-principle approval for the proposed works notwithstanding the pending decision of the Hon'ble APTEL in the matter.

The above in-principle approval is being granted subject to the following: -

(1) The Petitioner is directed to obtain the prices through competitive bidding for the works allowed by the Commission under the prevailing rules & regulations and prudency of the prices will be scrutinized at the time of fixation of tariff after completion of the said works.

(2) The issues of underperformance as noticed in Unit#3 post re-insulation with class F shall not be repeated in Unit#1.

(3) The Petitioner shall make separate records of works executed in past/proposed which were included in its 'Petition for approval of "Capital Investment for Renovation & Modernization" of 3x66 MW Ramganga HEP of UJVN Ltd.' since the matter is sub-judice before Hon'ble APTEL.

(4) The Petitioner to make its all efforts for conversion of loan amount, if any to grant from the Govt. of Uttarakhand/ World bank as the case may be.

(5) Though the Petitioner has proposed the funding of the project through internal resources, however, incase loan is taken at any stage of the project then all the loan conditions as may be laid down by the funding agency (if any) in their detailed sanction letter are strictly complied with. However, the Petitioner is directed to explore the possibility of swapping the loan with cheaper debt option available in the market.

(6) The Petitioner shall, within one month of the Order, submit letter from the State Government or any such documentary evidence in support of its claim for equity funding agreed by the State Government or any other source in respect of the proposed works.

(7) After completion of the aforesaid works, the Petitioner shall submit the completed cost and financing of the project.

(8) The cost of servicing the project cost shall be allowed in the Annual Fixed Cost of the Petitioner after the assets are capitalized and subject to prudence check of cost incurred.

Ordered accordingly.

(M.K. Jain)
Member (Technical)

(D.P. Gairola)
Member (Law) /Chairman (I/c)