Before

UTTARAKHAND ELECTRICITY REGULATORY COMMISSION

Petition No. 29 of 2026

In the Matter of:

Regarding application seeking approval for the investment on the project covering the Construction of a New 33 kV Line (Express Feeder) from 33/11 kV Substation Rudraprayag to 33/ 11 kV Substation, Sonprayag.

And

In the Matter of:

Uttarakhand Power Corporation Ltd.,
Victoria Cross Vijeta Gabar Singh Urja Bhawan,
Kanwali Road, Dehradun.

…Petitioner

Coram

Shri M. L. Prasad	**Chairman**
Shri Anurag Sharma	**Member (Law)**
Shri Prabhat Kishor Dimri	**Member (Technical)**

Date of Order: July 20, 2026

ORDER

This Order relates to the Petition filed by Uttarakhand Power Corporation Limited (hereinafter referred to as "UPCL" or "the Petitioner" or "the licensee") seeking approval of the Commission for the investment on the project covering the 'Construction of a New 33 kV Line (Express feeder) from 33/11 kV Substation Rudraprayag to 33/11 KV substation, Sonprayag'.

Background

2. The Petitioner vide its letter No. 4585/UPCL/D(O)/C-4 dated 12.09.2025 submitted its Petition for investment approval on the project covering the 'Construction of a New 33 KV Line (Express Feeder) from 33/11 KV Substation Rudraprayag to 33/11 KV substation Sonprayag' under the provisions of the Clause 11 of Distribution and Retail Supply Licence and Clause 40 of UERC (Conduct of Business) Regulations, 2014 read with relevant provision of the Electricity Act, 2003, and the Rules and Regulations made thereunder.

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

"

(i) *At present, 33/11 kV Sonprayag is being fed by 33/11 kV S/s Guptkashi. In order to facilitate better connectivity to Shri Kedarnathji Dham and to comply the N-1 contingency upto 33/11 kV substation, Sonprayag construction of a New 33 kV Line (Express Feeder) from 33/11 kV Substation Rudraprayag to 33/11 kV Substation Sonprayag is being proposed.*

(ii) *Construction of a new 50 km. 33 kV line (express feeder) from the 33/11 kV Substation, Rudraprayag to the 33/11 kV S/s, Sonprayag sanctioned by Govt. of Uttarakhand vide GO no. 187 dated 24.03.2025 under Scheme for Special Assistance to states for Capital Investment (SASCI) of Govt. of India with a budget of Rs. 16.00 Crore as detailed below:*

Sl. No.	***Name of 33 kV line***	***Length of Line***	***Estimated Cost (Rs. in Crore)***
1	*Construction of new 33 kV line (express feeder) from the 33/11 kV Substation, Rudraprayag to the 33/11 kV Substation, Sonprayag.*	*50 km.*	*16.00*
TOTAL		***50 km.***	***16.00***

(iii) *… Government vide its order (GO) No. 187/1(2)2025-06(3)/17/2024 dated 24.03.2025 has approved a budget of Rs. 16.00 Crore for the project under the Scheme for Special Assistance to states for Capital Investment (SASCI) of Govt. of India in Debt Equity ratio of 70:30.*

(iv) *Govt. of Uttarakhand has sanctioned Rs. 11.20 Cr. out of total amount sanctioned under Special Assistance to States for Capital Investment (SASCI) of Government of India shall be met as debt with interest @ 1 % (total debt portion is to be repaid in 12 equal annual installments after 06 month from date of project completion).*

(v) *Equity portion i.e. 30% Counter Funding of the said cost is to be invested by the State Government.*

(vi) *Govt. of Uttarakhand has released the amount in two installments i.e. Rs. 5.76 Cr. as 1st installment and Rs. 5.44 as 2nd installment.*

(vii) *Govt. of Uttarakhand has also released 30% counter part funding (equity portion). i.e. Rs. 4.80 Cr.*

(viii) The detailed project report showing examination of an economic technical system together with the outline of the work to be undertaken, the salient features and particulars demonstrating the need for investment alongwith relevant cost benefit analysis is enclosed herewith… The work to be undertaken does not have any adverse environmental effect. The approval from BoD is enclosed herewith ..."

4. The Petitioner alongwith its Petition has enclosed certified true copy of 123rd Board of Directors meeting dated 01.05.2025. The resolution passed by BoD states that:-

*"**ITEM NO. 123.08: Construction of a New 33 kV Line (Express Feeder) from 33/11 kV substation, Rudraprayag to 33/11 kV substation, Sonprayag.***

***RESOLVED THAT** the approval of the Board be and is hereby accorded for construction of a new 50 km. 33 kV Line (express feeder) from the 33/11 kV substation, Rudraprayag to the 33/11 kV substation, Sonprayag as sanctioned by Govt. of Uttarakhand vide Go No. 187 dated 24.03.2025 under Scheme for Special Assistance to states for Capital Investment (SASCI) of Govt. of India with a budget of Rs. 16.00 Crore as detailed below with a variation of ± 10% in the total approved cost.'*

Sl. No.	***Name of 33 kV line***	***Length of Line***	***Estimated Cost (Rs. in Crore)***
1	*Construction of a New 33 kV Line (Express Feeder) from 33/11 kV substation, Rudraprayag to 33/11 kV substation, Sonprayag*	*50 km.*	*16.00*
Total		***50 km.***	***16.00***

***'RESOLVED FURTHER THAT** 70% i.e. Rs. 11.20 Cr. out of total amount sanctioned under SASCI shall be met as debt with interest @ 1% (total debt portion is to be repaid in 12 equal annual instalments after 6 months from date of project completion).'*

***'RESOLVED FURTHER THAT** 30% i.e. Rs. 4.80 Cr. shall be invested by the State Government as equity portion.'*

***'RESOLVED FURTHER THAT** the Director (Finance), UPCL be and is hereby severally authorized to execute such deeds, documents and other writing as may be necessary or required for the purpose aforesaid.'*

***'RESOLVED FURTHER THAT** the above proposal shall be subject to investment approval from the Hon'ble UERC."*

5. The Petitioner under 'Relief Sought' has submitted that:

" …

(iii) Grant approval for the investment on the project covering the construction of 01 No. 33/11 kV Substation & its associated 33/11 kV Line."

6. On examination of the proposal made in the Petition & Detailed Project Report (DPR), certain deficiencies/infirmities were identified and accordingly, the Commission vide its letter No. 1591 dated 15.01.2026 directed the Petitioner to furnish point-wise reply on the same latest by 16.02.2026. In response to the deficiencies/infirmities raised by the Commission, Petitioner vide its letter No. 521/ UPCL/ D(O)/C-4 dated 24.01.2026 submitted its point-wise reply as follows:

"

(1) Under the relief sought of the Petition, it is mentioned that '...grant approval is requested for the investment covering the construction of one 33/11 kV substation and the associated 33/11 kV line'. However, in the Detailed Project Report (DPR), UPCL has proposed the construction of a new 33 kV line (Express Feeder) from the 33/11 kV Substation at Rudraprayag to the 33/11 kV Substation at Sonprayag. UPCL is required to justify why the instant Petition should not be rejected in view of the callous approach in furnishing the Petition before the Commission.

Reply-

UPCL respectfully submits that the discrepancy noticed by the Hon'ble Commission in the petition is purely typographical in nature and occurred inadvertently during preparation of the submission. The said typographical error does not in any manner affect the scope, technical configuration, estimated cost, financial prudence, or necessity of the proposed project. UPCL regrets the inadvertent error and humbly submits that the corrected particulars are being duly clarified herein for the kind consideration of the Hon'ble Commission.

(2) UPCL is required to confirm regarding forest/wildlife clearance and Geological approval requirement, if any, for the proposed Construction of a New 33 kV Line (Express Feeder) from 33/11 kV Substation Rudraprayag to 33/11 kV substation, Sonprayag.

Reply-

UPCL respectfully submits that no forest clearance, wildlife clearance, or geological approval is required for the proposed construction of the 33 kV Express Feeder from 33/11 kV Substation Rudraprayag to 33/11 kV Substation Sonprayag. The entire alignment of the proposed line follows an already available route along existing corridors. The work does not involve diversion of forest land, intrusion into protected wildlife areas, or creation of any new right-of-way. Hence, no statutory clearance from forest or wildlife authorities is applicable.

(3) UPCL is required to submit the cross-section drawing of the tower/pole and confirm that the same would be capable to sustain the load of the proposed 33 kV AAAC covered conductor in the given climatic and geographical conductors. Further, UPCL is also required to submit the Pole section-wise drawing for the proposed 33 kV express feeder including details of conductor used alongwith the status of acquisition of land.

Reply-

UPCL submits that the tower/pole cross-section drawings, structural design details, conductor specifications, and loading calculations have been prepared in accordance with applicable technical standards, considering load, wind pressure, seismic factors, and terrain conditions prevalent in the Himalayan region. The drawings confirm the capability of the proposed structures to safely sustain the mechanical and electrical loads of the proposed Dog conductors. All relevant drawings and technical details are enclosed as ...

(4) As per the cost estimates submitted by UPCL for its instant proposal, the pre-tax /charges/services cost of proposed works is Rs. 932.67 Lakhs, out of which centralized material cost is Rs 263.68 Lakhs i.e. 28.27 % and decentralized material cost is Rs 668.99 lakhs i.e. 71.73%. In this regard, UPCL is required to justify the rationale for procuring major of the items/equipment's through decentralized mode instead of centralized mode. Further, UPCL is required to furnish the basis for cost estimate for each decentralized and centralized items proposed in the instant proposal.

Reply-

In reference to the query regarding the high proportion of decentralized material procurement (71.73%), UPCL respectfully submits that the cost estimates for the

instant proposal have been prepared following established engineering and financial norms. The proposed work involves specific items such as AAAC Covered Conductors and this specific item are presently not included in the centralized corporate procurement inventory of UPCL. Accordingly, this item is proposed to be procured through decentralized mode. Regarding the basis of cost estimates, for centralized items, rates are derived from prevailing corporate tenders. For decentralized items, estimates are based on current market rates and recent competitive quotations/tenders for similar works in comparable terrain.

(5) *UPCL has prepared the estimate of the instant proposal under deposit works and considered centage charges of 15% alongwith contingency charges of 3%. UPCL is required to justify how the proposed works are deposit works and submit the basis for considering aforesaid charges.*

Reply-

UPCL respectfully clarifies that the proposed work is not a deposit work. The project is being undertaken under the Capital Head of UPCL, with funding proposed under SASCI. In the estimate, the work has been inadvertently mentioned under the deposit head, which is a clerical error.

The correct classification of the project is under the Capital Head, as the proposed express feeder is essential for system strengthening, enhancement of reliability, and meeting future load growth requirements in the Shri Kedarnath corridor.

(6) *UPCL has proposed the construction of a 50 Km. 33 kV Line (Express Feeder) from 33/11 kV Substation Rudraprayag to 33/11 kV substation, Sonprayag. However, it has estimated 47,185 Meter 33 kV AAAC covered conductor and 108 Km. of ACSR dog conductor in its estimate.*

In this regard, UPCL is required to submit the current carrying capacity of the aforesaid conductors. Further, UPCL is required to submit rationale for proposing AAAC covered conductor with ACSR dog conductor.

Reply-

UPCL submits that conductor selection has been finalized based on safety, reliability, and terrain considerations. AAAC conductors are proposed in stretches where the line passes through forested or tree-covered areas to minimize risks associated with

conductor snapping, corrosion, and vegetation interference. Bare DOG conductor is proposed along roadside and non-forested stretches where accessibility and maintenance are comparatively easier. As per IS 398 (Part-2), the Dog conductor has a current carrying capacity of approximately 278–360 Amps (about 360 Amps at 45°C) and the proposed 160 sq. mm AAAC covered conductor has a current carrying capacity of approximately 400–460 Amps.

The proposed combination of Dog and AAAC covered conductors ensures adequate capacity, enhanced safety in forested stretches, and overall system reliability while maintaining cost prudence.

(7) UPCL has submitted the certified true copy of the Resolution passed in its 123rd BoD with regard to the instant proposal. However, UPCL at page no. 1 & 2 of the DPR, has mentioned that the instant project has been approved in its 122nd BoD. In this regard, UPCL is required to justify its statement and submit the certified true copy of the Resolution of its 122nd BoD pertaining to approval of the instant project.

Reply –

UPCL respectfully clarifies that the said project got approved in 123rd meeting of the Board of Directors which is annexed in the said petition. Due to clerical mistake, it was wrongly written as 122nd BoD meeting, which UPCL strongly regrets. Copy of approval is again been annexed as …

(8) UPCL in its DPR has proposed the funding of the instant proposal under SASCI with 70% as debt with interest @ 1%. However, UPCL in support of the same has submitted GoU letter dated 26.12.2024 wherein, it has been found that the aforesaid proposal is being funded through 70% debt @ 6.5%. Furthermore, UPCL in its Petition has submitted that GoU vide its Order no. 187/I(2)/2025-06(3)/17/2024 dated 24.03.2025 has approved the instant proposal under SASCI, however, the same Order has not submitted by it alongwith the Petition. In this regard, UPCL is required to submit the aforesaid Order.

In this regard, UPCL is required to clarify w.r.t. the funding & applicable interest rate on debt portion of the instant proposal alongwith the documentary evidence for the same.

Reply –

UPCL submits that all requisite documentary evidence, including approvals and funding-related documents, are being submitted along with this reply for verification and record. The documents are enclosed as …

(9) UPCL in cost benefit analysis has computed the payback period of 4.54 years, ROI 22.02% and IRR 21.86%. In this regard, UPCL is required to submit the working of the same in hard copy as well as in soft copy (excel format).

Reply –

In compliance with the Hon'ble Commission's requirement, the detailed working of the Payback Period, ROI, and IRR in hard copy as well as soft copy (Excel format) has been submitted as …

(10) UPCL is required to submit the current status of the 220/33 kV substation at Baramwari and 33 kV Baramwari –Sonprayag- Shri Kedarnathji Dham line which was originally intended to serve the load of Shri Kedarnathji Dham and adjoining areas.

Reply –

UPCL submits that the 33 kV Baramwari–Sonprayag–Shri Kedarnathji Dham line is proposed to be taken up after the commissioning of the 220/33 kV Substation of PTCUL at Baramwari. The present express feeder is proposed as an interim yet robust arrangement to ensure uninterrupted and reliable power supply till such time the upstream transmission infrastructure becomes available.

(11) UPCL is required to submit the existing transformer capacity at 33/11 kV S/s Sonprayag and indicate whether any capacity augmentation is required and whether any such augmentation has been proposed for better serving the load of Shri Kedarnathji Dham.

Further, UPCL is required to submit the rationale for not proposing the upgradation of existing Rabbit conductor in between 33/11 kV S/s Guptkashi to 33/11 kV S/s at Sonprayag.

Reply-

UPCL submits that the capacity of 33/11 kV Sonprayag Substation has already been augmented from 2×3 MVA to 2×8 MVA. Further augmentation of the existing line

from Rabbit conductor would necessitate prolonged shutdowns, which is operationally infeasible due to continuous power supply requirements of Shri Kedarnath Dham, ongoing Master Plan construction activities, and deployment of ITBP forces even after the closure of temple in non-pilgrimage season. After commissioning the express feeder, further system augmentation may be examined.

(12) *UPCL is required to provide the SLD of the proposed express feeder near the 33 kV switchyard of Madhyamaheshwar SHP clearly indicating the connection of the same with proposed express feeder with distance.*

Further, UPCL is required to clarify how it would temporarily evacuate power from all Small Hydro Projects located in nearby vicinity i.e. Kaliganga-I, Kaliganga-II & Madhyamaheshwar until the 220/33 kV substation at Baramwari is commissioned.

Reply-

In compliance with the query, the Single Line Diagram (SLD) indicating the connection of the proposed express feeder near the 33 kV switchyard of Madhyamaheshwar SHP is submitted herewith as …

(13) *UPCL is required to submit the comprehensive actual plan for Shri Kedarnathji Dham, including the existing and all proposed scenarios for supply of reliable power from the 220/132/33 kV S/s along with the relevant Single Line Diagrams (SLD) clearly indicating which lines would be used to supply power to Shri Kedarnathji Dham upon completion of all ongoing & proposed projects and the lines that would be kept as alternate.*

Reply-

UPCL submits that the system development plan has been prepared in a phased manner. The proposed express feeder shall act as the primary 33 kV supply source from Rudraprayag to Sonprayag until the commissioning of the 220/33 kV Baramwari Substation by PTCUL. Existing 33 kV lines shall be retained as alternate supply paths, ensuring redundancy and reliability. The plan is enclosed as …

(14) *UPCL has submitted the voltage drop calculation only up to Point D, whereas, the express feeder is intended to serve the upcoming 2x5 MVA, 33/11 kV substation at Shri Kedarnath Ji Dham. Moreover, UPCL has calculated voltage regulation of 15.90% upto Node D i.e. 33/11 kV S/s Sonprayag, which exceeds the permissible*

limits of 9% as prescribed under the UERC (Electricity Supply Code and Related Matters) Regulations, 2020 for High Tension (33 kV) supply. In this regard, UPCL is required to submit the following: -

(i) How the proposed express feeder would be able to cater the load of 2X5 MVA 33/11 kV sub-station Shri Kedarnathji Dham at Node F which is further 21 Kms away from node D complying to the provisions of the aforesaid regulations.

(ii) Furnish the voltage drop calculation up to Point F, i.e., the upcoming 33/11 kV substation at Shri Kedarnathji Dham for pre and post scenario considering SHP generation in summer and winter seasons in hard as well as soft copy in excel format.

Reply-

UPCL submits that voltage drop calculations have been carried out considering maximum anticipated load due to ongoing Master Plan works and proposed ropeway load. The ropeway load is expected to materialize after approximately five years, by which time the 220/33 kV Baramwari Substation (PTCUL) is likely to be commissioned.

If the ropeway load is excluded and injection from UJVNL generation at 33/11 KV S/s Ukhimath is considered, the voltage profile improves significantly and remains within permissible limits. The detailed calculations are enclosed as …

(15) UPCL is required to submit the status of tender of the instant proposal.

Reply-

In reference to the query regarding the tender status, UPCL respectfully submits that the tender for the work "Construction of a new 33 kV Line (Express Feeder) from 33/11 kV Substation Rudraprayag to 33/11 kV substation, Sonprayag" has already been awarded on 22.02.2025 to M/s Arna Electrical & Company, Dehradun.

The tender was finalized and awarded in view of:

1. *The critical and urgent nature of the work.*
2. *The extremely short and limited working window available in the high-altitude Himalayan terrain, where construction activities are severely constrained due to harsh climatic conditions.*

3. *The requirement to ensure timely creation of reliable evacuation infrastructure for the proposed 33/11 kV Substation at Shri Kedarnath Dham to meet upcoming Master Plan load demands.*

Accordingly, to avoid further delay and considering public interest and system reliability requirements, UPCL proceeded with the timely award of the tender through due process.

(16) *UPCL is required to submit the activity-wise time schedule for completion of aforesaid 33 kV line (Express Feeder) works alongwith phasing of the expenditure.*

Reply-

In reference to the query regarding the activity-wise time schedule, UPCL has prepared a realistic implementation plan considering the extreme geographical challenges, limited working season (May to Oct/Nov), and pilgrimage restrictions. The indicative schedule is submitted below:

Activity-Wise Time Schedule

S. No.	***Activity***	***Estimated Duration***
1.	*Route survey, check survey, topographical verification & finalization of pole spotting*	*1 month*
2.	*Detailed engineering, structural design, drawings & approval*	*1 month*
3.	*Tendering, bid evaluation & award of contract*	*2–2.5 months*
4.	*Manufacturing & inspection of AAAC, insulators, hardware, conductors & accessories*	*2.5–3 months*
5.	*Transportation of materials to site & contractor mobilization*	*1–1.5 months (weather & road dependent)*
6.	*Pole erection, tightening & earthing*	*4 months*
7.	*Stringing of conductors & earthwire, fittings & sagging*	*4 months*
8.	*Testing, pre-commissioning checks, charging & commissioning*	*0.5 month*

Total Estimated Project Duration: Approximately 14 months from the date of award of contract / release of funds.

The above timeline is indicative and subject to:

a. *Favourable weather and site accessibility (working season restricted to ~6 months in a year).*

b. *Timely statutory clearances (Local administration, NHAI etc., if any).*

c. *Availability of disturbance-free working window without pilgrimage-related restrictions.*

d. *No major landslides or natural calamities in the Sonprayag–Gaurikund–Kedarnath corridor.*

e. *And timely availability of centralized store material.*

UPCL submits that the above schedule has been prepared realistically, based on past experience of executing similar high-altitude transmission/distribution projects in the Himalayan region of Uttarakhand.

UPCL humbly submits the above point-wise replies for the kind consideration and approval of the Hon'ble Commission.

7. Further, UPCL, vide its Letter No. 3265/Dir(Opr.)/UPCL/C-4 dated 11.06.2026, submitted the revised details pertaining to the voltage profile under various scenarios and the computation details of the cost-benefit analysis, which are reproduced below:

"…

In this regard, the office of the Superintending Engineer, Electricity Distribution Circle, Karnprayag, has carried out a detailed review of the technical calculations annexed with the petition. During the review, it was observed that an inadvertent formula discrepancy existed in the Excel workbook utilized for calculation of the voltage profile from the feeding end to the receiving end of the proposed 33 kV feeder under various loading scenarios.

The said computational error has subsequently been rectified and the voltage profile calculations have been revised and revalidated. Accordingly, the corrected Voltage Profile Calculation Sheets along with the revised Project Input Parameters & Key Variables Sheet are enclosed herewith for kind consideration of the Hon'ble Commission.

It is submitted that the revision pertains solely to the calculation formulae adopted in the voltage profile analysis. The correction does not affect the scope, necessity, technical configuration, route alignment, estimated cost, or overall justification of the proposed project. Rather, the revised calculations provide a more accurate representation of the anticipated feeder performance and voltage regulation under different operating conditions.

UPCL therefore respectfully requests that the enclosed revised calculations and supporting sheets may kindly be taken on record and treated as part of the petition. It is further requested that these revised documents may be considered in supersession of the corresponding sheets submitted earlier along with the petition.

The revised documents are enclosed in both hard and soft copy for ease of reference and examination by the Hon'ble Commission.

…."

Commission's Observations, Views & Directions: -

8. Based on the examination and analysis of the proposal & subsequent submissions made by the Petitioner before the Commission, the observations, views & directions of the Commission are as follows: -

(1) The Petitioner is proposing the construction of a new 33 kV line (Express Feeder) emanating from the 33/11 kV S/s Rudraprayag to the 33/11 kV S/s Sonprayag, covering a total distance of approx. 50 Kms which would bypass through 4 Nos. intermediate substations namely (Tilwara, Augustmuni, Ukhimath & Guptkashi).

(2) The total estimated cost of the project, as submitted by the Petitioner, is Rs. 16 Cr., which has been duly approved by its Board of Directors in its 123rd meeting held on 01.05.2025.

(3) The Petitioner has submitted that the construction of a new 33 kV line (Express Feeder) is required to improve voltage profile, reduced power supply losses & interruptions, better maintenance and shutdown management. The Petitioner has further submitted that construction of a new 33 KV line (Express feeder) is necessary to provide 'N-1' contingency support up to the 33/11 kV Sonprayag S/s during the peak yatra season, bypassing of multiple substation would not only help in minimizing voltage drop and losses but would also help to cater towards increased electricity demand of the upcoming Ropeway Project and other developmental works planned under the Master Plan by the Public Works Department at Shri Kedarnathji Dham.

(4) With regard to the existing power supply arrangement, the Commission observes that 33 kV feeder for 33/11 kV S/s Sonprayag originates from the

primary S/s i.e. 132/33 kV S/s Srinagar and passes through a series of intermediate substations, namely Rudraprayag, Tilwara, Augustmuni, Ukhimath and Guptkashi, before reaching Sonprayag. Accordingly, the 33/11 kV S/s Sonprayag is directly fed from the preceding 33/11 kV S/s Guptkashi through an approximately 25 km long 33 kV line. As per the SLD submitted by the Petitioner, the distance between the primary source 132/33 kV S/s Srinagar and 33/11 kV S/s Sonprayag is approximately 68 kms. The Petitioner has proposed construction of a new 33 kV Express Feeder from the 33/11 kV S/s Rudraprayag to the 33/11 kV S/s Sonprayag to bypass intermediate 33/11 kV substations at Tilwara, Augustmuni, Ukhimath and Guptkashi, thereby providing a dedicated 33 kV supply path to Sonprayag.

The Commission further notes that the existing 11 kV feeder emanating from the 33/11 kV S/s Sonprayag supplies power to Shri Kedarnathji Dham. The Petitioner has also proposed to convert the existing double-circuit 11 kV line between Sonprayag and Shri Kedarnathji Dham into a double-circuit 33 kV line for feeding the proposed 33/11 kV S/s at Shri Kedarnathji Dham. The approval for the said works has been sought by the Petitioner through a separate Petition filed before the Commission.

(5) The Commission has examined the submissions made by UPCL in response to the deficiencies communicated by the Commission and notes that multiple discrepancies were observed in the Petition, DPR and supporting documents furnished by UPCL. The discrepancies include: (i) incorrect description of the scope of work under the relief sought in the Petition, (ii) erroneous classification of the project as a deposit work along with inclusion of centage and contingency charges on such basis, (iii) incorrect reference to the approval of the project in the 122nd Board of Directors meeting instead of the 123rd Board meeting, and (iv) submission of incorrect voltage profile calculations due to formula errors in the Excel workbook utilized for technical analysis.

The Petitioner has attributed all the aforesaid discrepancies to typographical, clerical and inadvertent errors. Although the Commission notes that the said discrepancies do not materially alter the scope, necessity or technical configuration of the proposed project, it cannot overlook the

repeated inaccuracies noticed in the Petition and subsequent submissions. The Commission is of the view that information contained in Petitions, DPRs, estimates, Board approvals and technical analyses forms the basis for regulatory scrutiny and, therefore, such information are expected to be accurate, consistent and duly verified prior to submission.

Therefore, **the Commission directs the Petitioner to ensure that all future submissions are thoroughly examined and verified by the concerned officers before filing the same to the Commission and a declaration in this regard be submitted alongwith all future investment approval Petitions.** The Commission further cautions that if such typographical, clerical, computational or inadvertent errors are noticed again in future filings, the officer(s) responsible for preparation, verification and submission of the documents shall be held responsible and appropriate action may be initiated under the provisions of the Electricity Act, 2003 and the applicable Regulations.

(6) With regard to the funding of the instant project, the Petitioner has submitted that the project would be funded under the Scheme for Special Assistance to States for Capital Investment (SASCI) of the Government of India in a debt-equity ratio of 70:30 , wherein 70% of the project cost is to be met through (debt) amounting to Rs. 11.20 Cr. carrying an interest rate of 1% per annum, and 30% is to be met through (equity) counter funding of Rs. 4.80 Cr. by the Government of Uttarakhand. The said debt amount has already been released in two instalments, i.e. Rs. 5.76 Cr. & Rs. 5.44 Cr. and is repayable in 12 equal annual instalments commencing six months after the completion of the project.

The Commission notes that the proposed funding arrangement under SASCI provides access to low-cost financing for execution of the project. The concessional debt carrying an interest rate of only 1% per annum is expected to significantly reduce the financing cost of the project as compared to conventional borrowing sources. The Commission is, therefore, of the view that the proposed funding structure is likely to minimize the financing burden and ultimately benefit consumers by reducing the associated tariff impact.

(7) With regard to the cost-benefit analysis of the proposed work, the Petitioner from a financial perspective, has submitted that the proposed project is economically viable and is expected to yield substantial financial benefits over its useful life. The Petitioner has submitted that the project has an Internal Rate of Return (IRR) of 26.86%, a Return on Investment (ROI) of 22.02%, and an estimated annual energy saving of 7,046.73 MWh. The Petitioner has further submitted that the aforesaid energy savings would translate into an annual monetary benefit of approx. Rs. 3.52 Crore, resulting in a payback period of about 4.54 years.

However, the Commission has observed that the Petitioner has not included vital parameters in its payback computation, i.e., O&M cost and depreciation. Moreover, while computing the annual energy savings, the Petitioner has not considered the crucial factor, i.e., Loss Load Factor, due to which the projected annual energy savings are shown on a much higher side. Pragmatically, the financial benefits submitted by the Petitioner are on the higher side and portray an over-optimistic picture. Whereas, if factors, namely depreciation, O&M cost, and LLF (0.672-reference from UPCL earlier DPR's) are considered, the effective payback period of the project is likely to be higher than that indicated by the Petitioner. Therefore, the Commission opines that the Petitioner should refrain from projecting a very optimistic picture in its proposal for investment approvals. Rather, the Commission has time and again advised the Petitioner to bring realistic submissions before it and should take into consideration all the relevant factors while preparing its proposals of investment approvals . The Petitioner should make all its efforts for seeking grant for the instant project.

With regard to technical perspective, the Petitioner has submitted that the proposed project would result in voltage stabilisation, improvement in power quality, enhanced 'N-1' contingency support, improved shutdown management and fault isolation, improved operational efficiency in the Kedarnath region, and reliable & uninterrupted power supply to critical loads, including tourism-related infrastructure and upcoming developments such as ropeway projects.

The Commission observes that the proposed technical interventions are expected to strengthen the reliability and resilience of the distribution network in the Kedarnath region and support both existing and future load growth.

However, the Commission is of the view that the actual achievement of these benefits shall depend upon the effective implementation of the project, proper system operation, and actual load conditions in the area. Therefore, **the Petitioner is directed to ensure prudent execution and optimal operation of the proposed system so as to realize the intended benefits.**

(8) With regard to statutory clearances, namely forest clearance, wildlife clearance and geographical approval, the Petitioner has submitted that the proposed line does not require such clearances/approvals as the entire alignment is proposed to be laid along existing corridors and does not involve any diversion of forest land, intrusion into protected wildlife areas or creation of a new right-of-way.

In view of the above, the Commission observes that the Petitioner has proposed 674 new Steel Tabular Poles under the instant project and is of the view that during execution of the project, the locations for erection of Steel Tabular poles may change with respect to the existing route/sub-transmission corridor due to geological surprises, soil degradation and other site-specific constraints. **In this regard, the Commission directs the Petitioner that, in case the existing route is found unsuitable for erection of proposed Steel Tabular Poles due to soil degradation, geological instability, or geotechnical constraints, the Petitioner shall suitably revise the alignment and undertake a detailed geotechnical investigation prior to commencement of erection, so as to ensure the structural safety, stability, and long-term reliability of the sub-transmission line. Further, in the event of any deviation from the existing alignment, change in route, or requirement of additional land beyond the approved corridor, the Petitioner shall require to obtain all requisite statutory approvals and**

clearances, including forest, wildlife, right-of-way, and geological clearances, from the concerned authorities prior to execution of the work.

Moreover, the Commission directs the Petitioner to strictly comply with the prescribed design span limit of 100 m for Steel tabular Poles in accordance with Regulation 89 of the CEA (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations, 2022. Further, the Petitioner shall ensure that the requisite electrical clearances including minimum safety working clearances as per (Schedule V) and minimum clearance in air above ground as per (Schedule VIII A) are duly maintained for the proposed 9 m long Steel Tabular Poles for 33 kV line (Express Feeder), in accordance with the provisions of CEA (Measures relating to Safety and Electric Supply) Regulations, 2023, duly considering the impact of sag, conductor deflection, wind load and snow load.

The Petitioner is advised to install appropriate 11 m or above long steel tabular pole instead of 9 m poles especially at highways/river crossing in order to maintain desired electrical clearances.

With regard to the maintenance, the Commission opines that maintenance of the aforesaid lines along such vulnerable and difficult terrain would pose a significant challenges for the Petitioner, particularly in view of the possibility of landslides, geological disturbances, adverse weather conditions, and accessibility constraints during peak yatra season that may affect the reliability & uninterrupted operation of the line. Hence, the Commission is of the view that, from the perspective of ensuring reliable & quality power supply, the proposed 33 kV line (Express Feeder) would require special attention with respect to formulation and implementation of a comprehensive maintenance & monitoring plan, including periodic inspection, preventive maintenance measures, emergency restoration arrangements, and continuous monitoring of vulnerable stretches so as to minimize outages and ensure safe and reliable operation of the system.

(9) With regard to 'N-1' line contingency for 2x8 MVA 33/11 kV S/s Sonprayag and further to upcoming 2x5 MVA 33/11 kV S/s at Shri Kedarnathji Dham, the responsibility of long-term planning of distribution system lies with the

distribution licensee and it is required to comply with the Regulation 3.6(4) of UERC (Distribution Code) Regulations, 2018, which stipulates that:

> *"(4) In every Sub-Station of capacity 10 MVA and above there shall be a provision for obtaining alternate 33 kV supply to the Sub-Station in case of a failure in the incoming supply."*

In line with the aforesaid provisions of the Regulations, the Petitioner has proposed two sources of power supply for the existing 33/11 kV S/s Sonprayag, namely: (i) the proposed 33 kV Express Feeder emanating from the 33/11 kV S/s Rudraprayag, and (ii) the existing 33 kV line emanating from the 33/11 kV Sub-station at Guptkashi. However, considering the vulnerability of the terrain and the challenging geographical conditions along the route, maintenance of the aforesaid lines would continue to remain a significant challenge for the Petitioner.

Nevertheless, the Commission is of the view that the proposed 33 kV Express Feeder would substantially enhance the reliability and quality of power supply to the existing 33/11 kV S/s Sonprayag. Further, the proposed express feeder would also contribute towards improving the reliability of power supply to the proposed 33/11 kV S/s Shri Kedarnathji Dham, which is proposed to be fed from the 33/11 kV Sub-station at Sonprayag.

Further, on examination of Single line diagram it is observed that the proposed 33 kV express feeder emanating from the 33/11 kV S/s Rudraprayag to the 33/11 kV S/s Sonprayag would have alternates supplies from three sources, namely the 132/33 kV S/s Srinagar, the 132/33 kV S/s Simli via the 33 kV Gauchar and the 132/33 kV S/s Chamba via the 33 kV Sumadi. This would certainly help in providing alternate arrangements in the event of contingencies.

(10) From the submissions made by the Petitioner, the Commission observes that, out of the total 50 km length of the proposed Express Feeder, 35 km line is proposed to be constructed using ACSR Dog conductor along roadside and non-forest stretches, whereas the remaining 15 km line passing through tree-covered stretches, is proposed to be constructed using AAAC covered

conductor. The Commission notes that the use of covered conductors would help in minimizing interruptions where trees or the vegetations are standing and would also enhance the reliability of the power supply system. Accordingly, the Commission is of the view that the proposed conductor configuration seems to be appropriate considering the prevailing site conditions and operational requirements of the project.

(11) The Petitioner has submitted that, with a view to strengthening the power supply system in the area, the transformation capacity of the existing 33/11 kV S/s Sonprayag has already been augmented from 2×3 MVA to 2×8 MVA. Further, upon examination of the Single Line Diagram (SLD) submitted in the instant Petition, it has been observed that 25 km Rabbit conductor line exists between the 33/11 kV S/s Guptkashi and 33/11 kV S/s Sonprayag. Considering the existing and anticipated load growth, particularly in view of the proposed 33/11 kV S/s Shri Kedarnathji Dham, the Commission is of the view that this section of the line constitutes a potential bottleneck in the system and may adversely affect the reliability of power supply.

In this regard, the Petitioner has submitted that augmentation of the aforesaid line shall be taken up after commissioning of the proposed 33 kV Express Feeder. **The Commission directs the Petitioner to undertake the augmentation of the said line on a priority basis so as to ensure a more reliable and adequate power supply to the Sonprayag and Shri Kedarnathji Dham areas.**

(12) The Petitioner has proposed the installation of Fault Passage Indicators (FPIs) and vertical isolators for the protection of the 33 kV express feeder. In this regard, the Commission has observed that the installation of FPIs and vertical isolators at suitable locations along the feeder would facilitate quick identification of faulty sections and enable faster restoration of supply in the event of faults. Further, in such geographically challenging and forest covered areas, the installation of such devices is a prudent measure for improving system reliability & reducing restoration time.

(13) With regard to the evacuation arrangement for power generated from Small Hydro Projects (SHPs), the Petitioner has submitted that the proposed 33 kV Express Feeder would pass in close proximity to SHPs namely Madhyamaheshwar (3×5 MW), Kaliganga-I (2×2 MW) and Kaliganga-II (2×2.25 MW). The Petitioner has proposed to connect the aforesaid SHPs with the proposed express feeder to facilitate evacuation of their entire generation capacity until the proposed 220/33 kV S/s Brahmwari becomes operational. The Petitioner has further submitted that the proposed 33 kV express feeder would enable UJVN Ltd. to evacuate and inject the full output from the aforesaid SHPs into the grid, thereby avoiding renewable energy curtailment during peak generation periods, preventing under-utilisation of generation assets, and mitigating the associated economic losses.

In this regard, the Commission observes that although proposed 33 kV express feeder has been referred to as an express feeder between 33/11 kV S/s Rudraprayag & 33/11 kV S/s Sonprayag but its linkage in between with the SHP generator does not auger well with the word "express feeder". However, the Commission is of the view that the Petitioner intends to interlink the small hydro generation in the proposed 33 kV express feeder that would certainly improve its voltage profile. Further, the proposed 33 kV express feeder is somehow in sync with the necessity of evacuation requirements of UJVN Ltd.'s Madhyamaheshwar SHP, Kaliganga-I SHP and Kaliganga-II SHP, which are presently unable to evacuate their full generation capacity due to the delay in commissioning of the proposed 220/33 kV S/s Brahmwari on account of ongoing court proceedings and Right of Way (RoW) constraints. The Commission is of the view that the proposed arrangement would serve as an effective solution for evacuation of power from the aforesaid SHPs and would also facilitate optimal utilization of the available renewable energy resources in the region besides improving voltage profile and reducing losses in the 33 kV feeder.

(14) With regard to the activity-wise implementation schedule, the Petitioner has submitted that the estimated completion period for the project is 14 months from the date of award. The Petitioner has further submitted that the project

execution timeline is dependent upon favourable weather conditions and site accessibility, considering that the effective working season in the project area is restricted to approximately six months in a year due to adverse climatic conditions and challenging terrain.

The Commission has observed that the Petitioner has already awarded the contract for the instant project on 22.02.2025. Further, it is observed that one working season has already elapsed since the award of the contract, and now more than a year has passed. Considering that the project area is subject to seasonal working constraints, where construction activities are limited to a restricted working season, any delay in execution may adversely impact the project timeline and overall cost.

The Commission is of the view that timely completion of the project is essential to ensure efficient utilization of assets and to avoid stranding of created assets. Accordingly, the Commission emphasizes that the Petitioner should ensure strict adherence to the approved timeline and take all necessary measures to complete the project within the stipulated period avoiding unnecessary delays.

(15) Upon examination of the cost estimates submitted by the Petitioner, the Commission observes that centralized and decentralized material procurement account for 28.27% and 71.73%, respectively, of the total pre-tax cost of the proposed works. In this regard, the Petitioner has submitted that the cost of AAAC covered conductor has been included under the decentralized procurement component, as the said material is presently not covered under the corporate procurement inventory. In this regard, the Commission is of the view that centralized procurement should be preferred by the licensee over decentralized procurement, particularly for major and high-value items such as AAAC covered conductors. Centralized procurement not only facilitates the realization of economies of scale and ensures procurement of quality materials through standardized specifications and processes but also promotes uniformity and transparency in cost estimates across different projects. Accordingly, the Petitioner is advised to

explore the inclusion of such items in the centralized procurement framework in future projects.

(16) Upon enquiry regarding the voltage profile under different operating scenarios, the Petitioner submitted the voltage profile at Shri Kedarnathji Dham for the projected load of about 8 MVA during both summer and winter seasons, considering separately the existing 33 kV network (Rudraprayag–Augustmuni–Ukimath–Guptkashi–Sonprayag) and the proposed express feeder (Rudraprayag–Sonprayag), duly accounting for local SHP generation. The Petitioner has considered local generation of approximately 7 MW during winter and 9 MW during summer from the Kaliganga-I SHP, Kaliganga-II SHP, and Madhmaheshwar SHP.

Based on the submissions, the voltage drop at Shri Kedarnathji Dham under different scenarios is summarized below:

Scenarios	**With Existing Network**		**With Express Feeder**	
	Without Local SHP Generation	**With Local SHP Generation (9 MW in Summer & 7 MW in Winter)**	**Without Local SHP Generation**	**With Local SHP Generation (9 MW in Summer & 7 MW in Winter)**
Summer	(-) 29.78%	(-) 7.43%	(-) 9.69%	(-) 8.59%
Winter	(-) 8.26%	(-) 2.21%	(-) 2.84%	(-) 1.40%

From the above, the Commission observes that the voltage profile up to Shri Kedarnathji Dham remains satisfactory and within the permissible limit of **(+6% to -9%)** during all scenarios of winter season. However, during the summer season, the voltage profile under the existing network remains within permissible limits only when local SHP generation is available.

The Commission is of the view that local generation from the aforesaid SHPs is crucial for maintaining system reliability and improving the voltage profile in the region, particularly in view of the increasing demand arising from tourism activities, the proposed ropeway project, and area development works under the master plan. **Accordingly, the Commission directs the Petitioner to plan and develop the electrical infrastructure in a prudent manner, keeping in view the growing demand in the region and ensuring adequate system capacity, reliability, and quality power supply to meet both present and future load requirements.**

(17) On enquiring about the status of the tender proceeding w.r.t. the works proposed in the instant Petition, the Petitioner through a submission dated 24.01.2026 apprised the Commission that letter of award (LoA) has already been issued on 22.02.2025 citing the reason that the works are of critical and urgent nature. Moreover, the Petitioner submitted that due to extremely short and limited working window available in the high-altitude Himalyan terrain the construction activities are severely constrained.Thus, considering the need of reliable infrastructure for the proposed 33/11 kV S/s at Shri Kedarnathji and in order to avoid delay, the Petitioner had to go ahead with the award of the tender.

In this context, the Commission has observed that the Regulation 40 of UERC (Conduct of Business) Regulations, 2014 under which the Petition is filed requires prior approval of the Commission for making investment in the licensed business if such investment is above the limits laid down by the Commission.

However, in the instant Petition, it is observed that the Petitioner had already commenced execution of the works, including issuance of the work order on 22.02.2025, whereas, the Petition was filed only after a gap of nearly six months. This reflects non-compliance with the aforesaid Regulations of the Commission, which mandate prior approval of the Commission before undertaking investments exceeding the prescribed limits. No amount of justification can be accepted as justified for non-compliance with the provisions of the Regulations. **The Petitioner is directed to strictly comply with the provisions of the Regulation 40(1) of UERC (Conduct of Business) Regulations, 2014 w.r.t. seeking prior approval of the Commission for future investment approvals, in absence of the same, the Commission may initiate penal action against the responsible officers.**

Nevertheless, keeping in view of the importance of the project for reliable and resilient power supply for the one of the most venerated pilgrimage destination, the Commission has taken a lenient view towards consideration of the proposal and warns the Petitioner, not to repeat such acts in future else such proposals in future would be liable for rejection and

appropriate penal action would be initiated against the officers of the licensee responsible for violation. Further, the Commission also cautions the Petitioner that proposals, where timelines and nature of sites/works are crucial, should timely be submitted before the Commission for its approval.

It is further clarified that approval at this stage, i.e., issuance of the Letter of Award for the Project prior to obtaining in-principle approval of the Commission, is being permitted as a special case considering the necessity of ensuring reliable & quality power supply to 33/11 kV S/s Sonprayag and further to the holy shrine of Shri Kedarnathji Dham, which is situated at an altitude of more than 3500 meters above mean sea level and the upcoming Ropeway and other projects.

(18) Since the letter of award has been issued for the aforesaid project, therefore, the project does not fall within the purview of prior approval. However, for the reasons stated in the above Para, the Commission grants post facto approval for the same subject to strict fulfillment of terms and conditions as mentioned below: -

The Petitioner is directed to go for the competitive bidding for obtaining most economical prices from the bidders under the prevailing Rules & Regulations.

(ii) 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 (if any) agreed by the State Government or any other source in respect of the proposed schemes.

(iii) All the loan conditions laid down by the funding agency under Special Assistance to States for Capital Investment (SASCI) Scheme are strictly complied with. Further, the Petitioner is directed to explore the funding through grant from the various schemes of GoI/GoU,

(iv) The Commission may verify/check the proposed works to be executed by the Petitioner at any point of time during/post execution of the works from the perspective of not only substantiating that the assertions & commitments made by the Petitioner have been fully complied and correct, but also to assess Quality, Optimum utilization

of resources, Benefits accrued from the proposed investments etc. as has been projected by the Petitioner.

(v) The Petitioner shall safeguard its commercial interest by taking suitable insurance Policy for the instant project due to tough geographical and climatic constraints.

(vi) Post execution of the project, the Petitioner shall submit the Project Completion Report to the Commission alongwith photographs, expenditure incurred/completed cost, financing of the Project and detailed analysis & calculations of the benefits accrued from the proposed investments etc.

(vii) The Petitioner is directed to ensure that the design, supply, installation and commissioning of all electrical equipment comply with the relevant technical standards and are capable of withstanding the environmental and operational challenges associated with high altitude.

(viii) The Petitioner shall comply to the following CEA and UERC Regulations and amendments thereof at every step of the Construction and Operation & Maintenance of the lines. The Petitioner shall also ensure the compliance of relevant standards, and the Project should be executed with safety and due diligence so that minimal incidents of break downs/fault occurrences/ hindrances are faced during operation & maintenance:

(a) Central Electricity Authority (Safety requirements for construction, operation and maintenance of electrical plants and electric lines) Regulations, 2011.

(b) Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations, 2022.

(c) Central Electricity Authority (Measures relating to Safety and Electricity Supply) Regulations, 2023.

(d) UERC (Distribution Code) Regulations, 2018.

(ix) The Petitioner is directed that, in case the existing route is found unsuitable for erection of the proposed Steel Tabular Poles due to soil degradation, geological instability, or geotechnical constraints, the Petitioner shall suitably revise the alignment and undertake a detailed geological and geotechnical investigation prior to commencement of erection so as to ensure the structural safety, stability, and long-term reliability of the transmission line. Further, in the event of any deviation from the existing alignment, change in route, or requirement of additional land beyond the approved corridor, the Petitioner shall require to obtain all requisite statutory approvals and clearances, including forest, wildlife, right-of-way, and geological clearances, from the concerned authorities prior to execution of the work.

(x) The Petitioner is directed to strictly comply with the prescribed design span limit of 100 meters between Steel Tabular Poles in accordance with Regulation 89 of the Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations, 2022. Further, the Petitioner shall ensure that the requisite electrical clearances, including minimum safety working clearances, are duly maintained for the proposed 33 kV Line (Express Feeder) Steel Tabular Poles, in accordance with the applicable Central Electricity Authority Safety Regulations, duly considering the impact of sag, conductor deflection, wind load, and snow load.

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

(xii) The Petitioner is directed to ensure that all future submissions are thoroughly examined and verified by the concerned officers before filing the same to the Commission and a declaration in this regard be submitted alongwith all future investment approval Petitions.

(xiii) The Petitioner is directed to strictly comply with the provisions of the Regulation 40(1) of UERC (Conduct of Business) Regulations, 2014 w.r.t. seeking prior approval of the Commission for future investment approvals, in absence of the same, the Commission may initiate penal action against the responsible officers.

(19) The approval is given subject to the above conditions and on the basis of submissions and statement of facts made by the Petitioner in the Petition under affidavit. In case of violations of any of the condition mentioned above or in case any information provided, if at any time, later on, found to be incorrect, incomplete or in case relevant information was not disclosed, that materially affects the basis for granting the approvals, in such cases, the Commission may cancel the approval or refuse to allow all or part of the expenses incurred in the ARR/True-up apart from initiating plenary action.

Ordered accordingly.

(Prabhat Kishor Dimri)	**(Anurag Sharma)**	**(M.L. Prasad)**
Member (Technical)	**Member (Law)**	**Chairman**