

**Before**  
**UTTARAKHAND ELECTRICITY REGULATORY COMMISSION**  
**Petition No. 23 of 2026**

**In the Matter of:**

**Application seeking approval for the investment on the project covering the Conversion/upgradation of existing 11 kV double circuit underground line from 33/11 kV Sonprayag to Sri Kedarnathji Dham to 33 kV double circuit overhead line on lattice tower.**

**And**

**In the Matter of:**

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

**...Petitioner**

**Coram**

|                                  |                           |
|----------------------------------|---------------------------|
| <b>Shri M. L. Prasad</b>         | <b>Chairman</b>           |
| <b>Shri Anurag Sharma</b>        | <b>Member (Law)</b>       |
| <b>Shri Prabhat Kishor Dimri</b> | <b>Member (Technical)</b> |

**Date of Order: August 24, 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”) in the matter of ‘Conversion/upgradation of existing 11 kV double circuit underground line from 33/11 kV Sonprayag to Sri Kedarnathji Dham to 33 kV double circuit overhead line on lattice tower’ for seeking investment approval of the Commission.

**Background**

2. The Petitioner vide its letter No. 4584/UPCL/D(O)/C-4 dated 12.09.2025 submitted its Petition for investment approval on Conversion/upgradation of existing 11 kV double circuit underground line from 33/11 kV Sonprayag to Sri Kedarnathji Dham to 33 kV double circuit overhead line on lattice tower 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) Initially, a new 33 KV line on lattice towers was planned to connect the proposed 132/33 KV Brahmwari Substation to the proposed 33/11 KV Sri Kedarnath Dham Substation.
- (ii) However, due to the following constraints, the construction of this line has been delayed:
  - a. Ongoing court case delaying the commencement of the Brahmwari Substation.
  - b. Right of Way (RoW) issues and forest clearance requirements for the lattice tower line, leading to significant delays.
- (iii) Considering the urgent requirement for a reliable power supply to Sri Kedarnath Dham, it is proposed to temporarily upgrade the damaged 11 KV PPCL-I & PPCL-2 feeder into a 33 KV overhead line using internal resources.
- (iv) This upgrade will enable faster commissioning of the proposed 33/11 KV Sri Kedarnath Dham Substation without waiting for the completion of the Brahmwari Substation.
- (v) Once construction of the 220/33 KV Brahmwari Substation begins and funds are allocated for the 33 KV lattice tower line, a separate proposal for its construction and necessary approvals will be submitted.
- (vi) Thus, a proposal for upgradation of existing 20.40 km. 11 kV double circuit line (10 km. overhead on lattice tower and 10.40 km. underground) from 33/11 kV Sonprayag to Sri Kedarnathji Dham by conversion/ upgradation of above 10.40 km. underground line to 33 kV double circuit overhead line with an estimated cost of approximately Rs. 1112.69 Lakh as detailed below:-

| Sl. No. | Name of 33 kV line                                                                                                                                                                | Length of Line | Estimated Cost (Rs. in Lakh) |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------------------------|
| 1       | Conversion/ upgradation of existing 11 kV double circuit underground line from 33/11 kV Sonprayag to Sri Kedarnathji Dham to 33 kV double circuit overhead line on lattice tower. | 2x10.40 (km.)  | 1112.69                      |
| TOTAL   |                                                                                                                                                                                   | 10.40          | 1112.69                      |

- (vii) The cost shall be met out from Debt Equity ratio 70:30. The Debt portion i.e. 70% shall be met out as a loan either from the M/s REC Ltd. or any other financial institution and Equity portion i.e. 30% Counter Funding of the said cost shall be invested either by the State Government or from Internal Resources of the UPCL.
- (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 at Annexure-I. The work to be undertaken does not have any adverse environmental effect. The approval from BOD is enclosed herewith at Annexure-2 for your kind perusal."

4. The Petitioner alongwith its Petition has enclosed certified true copy of 122<sup>nd</sup> Board of Directors meeting dated 17.03.2025. The resolution passed by BoD states that:-

***“ITEM NO. 122.09: Conversion/upgradation of existing 11 kV double circuit underground + over head line from 33/11 kV Sonprayag to Sri Kedarnathji Dham to 33 kV double circuit overhead line on lattice tower.***

***RESOLVED THAT*** the approval of the Board be and is hereby accorded for Conversion/upgradation of existing 11 kV double circuit underground + over head line from 33/11 kV Sonprayag to Sri Kedarnathji Dham to 33 kV double circuit overhead line on lattice tower, with an estimated cost of approximately Rs. 1112.69 Lakh with a variation of  $\pm 10\%$  in the total estimated cost.

| <b>Sl. No.</b> | <b>Name of 33 kV Line</b>                                                                                                                                                                   | <b>Length of Line</b> | <b>Estimated Cost (Rs. in Lakh)</b> |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------------------------------|
| 1              | Conversion/upgradation of existing 11 kV double circuit underground + overhead line from 33/11 kV Sonprayag to Sri Kedarnathji Dham to 33 kV double circuit overhead line on lattice tower. | 10.40 DC Km           | 1112.69                             |
| <b>TOTAL</b>   |                                                                                                                                                                                             | 10.40 DC Km           | 1112.69                             |

***‘RESOLVED FURTHER THAT*** 70% of the amount shall be met by arranging debt from the Financial Institution, M/s REC Ltd.’

***‘RESOLVED FURTHER THAT*** 30% of the amount shall be met either by State Government or from UPCL through its own funds.’

***‘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 Conversion/upgradation of existing 11 kV double circuit underground line from 33/11 kV Sonprayag to Sri Kedarnathji Dham to 33 kV double circuit overhead line on lattice.

...”

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. 1296 dated 24.11.2025 directed the Petitioner to furnish its point-wise reply on the following latest by 19.12.2025: -

“

1. UPCL is required to confirm regarding forest/wildlife clearance and Geological approval requirement, if any, for the proposed Conversion/upgradation of existing 11

*kV double circuit underground line from 33/11 kV Sonprayag to Sri Kedarnathji Dham to 33 kV double circuit overhead line on lattice tower.*

- 2. UPCL has considered centage charges of 15% alongwith contingency charges of 3% while estimating the project cost of the instant proposal. In this regard, UPCL is required to submit the basis for considering aforesaid charges alongwith the copy of office Order issued in this regard.*
- 3. UPCL in the cost estimates of the instant project has proposed (i) 02 nos. '33 kV 1250A-3P indoor VCB (SCADA) I/C' (ii) 2 nos. '33 kV Auto Reclosure', (iii) 12 nos. '33 kV Lighting Arrester' and (iv) 2 nos. Line Lighting Protection System (LLPD). In this regard, UPCL is required to submit the line diagram of the proposed 33 kV networks indicating the location where the aforesaid proposed numbers of equipment's shall be installed alongwith write-up for proposing the same.*
- 4. As per the cost estimates submitted by UPCL for its instant proposal, the pre tax/charges/services cost of proposed works is Rs. 572.86 Lakhs, out of which centralized material cost is Rs 83.83 Lakhs i.e. 14.63 % and decentralized material cost is Rs 489.03 lakhs i.e. 85.37%. 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.*
- 5. UPCL has proposed that 70% of project cost would be met as a loan either from M/s REC Ltd. or from any other financial institutions and 30% counter funding as equity portion shall be either infused by State Government or from internal resources. However, UPCL in its DPR has submitted Office Order dated 23.12.2024 w.r.t. approval of the instant proposal under SASCI. In this regard, UPCL is required to clarify regarding financing/funding of the instant project. Further, UPCL is required to clarify regarding the word 'Capital (SI) Head' mentioned in the OM dated 31.01.2025.*
- 6. UPCL is required to submit proposed phasing of expenditure for execution of the instant proposal.*
- 7. UPCL submitted that out of total existing 20.40 km 11 kV DC line from 33/11 kV S/s Sonprayag to Shri Kedarnath Dham, 10 km line is overhead, and 10.40 km line is underground. However, UPCL has proposed upgradation of existing 10.40 km 11 kV D/c underground line only to 33 kV DC overhead line on lattice tower. In this regard, UPCL is required to submit the following:-*
  - (i) 11 kV pole-wise working condition of the existing 11 kV d/c feeders emanating from 33/11 kV S/s Sonprayag to Shri Kedarnath Dham.*
  - (ii) Existing & proposed load in the line alongwith type of conductor in the existing 10 Km overhead D/c 11 kV line.*
  - (iii) Confirm that existing 11 kV D/c overhead line would not become the bottleneck in evacuation of power post execution of the proposed work considering the prospective upcoming loads.*
  - (iv) Drawing of existing & proposed Lattice tower of the existing and proposed overhead line respectively. Further, UPCL is required to confirm that the existing and proposed lattice towers would be capable to bear the load of proposed overhead line considering the aspect of snow load & wind load in the proposed high-altitude location.*

- (v) Furthermore, on examination of the Single Line Diagram submitted in the Petition, it has been observed that the maximum span in between the two towers of existing overhead line is 710 Meter. In this regard, UPCL is required to confirm the safe span limit of existing and proposed towers considering the impact of snow load & wind load in the proposed high-altitude location.
- (vi) Pole-wise section drawing for the proposed works alongwith the existing line.
- 8. UPCL is required to furnish the voltage profile calculation for each node till proposed 33/11 kV S/s Kedarnath ji from the source 132/33 kV S/s Srinagar after conducting load flow study for summer & winter scenario separately with and without considering the generation from the SHPs in vicinity.
- 9. UPCL is required to submit the activity-wise time schedule for completion of aforesaid 33 kV line works.
- 10. UPCL is required to submit the year of capitalization of existing 11 kV double circuit line namely PPCL 1 & PPCL 2 along with the cost. Further, UPCL is required to submit details of expenses made for operation of the aforesaid line since its capitalization date alongwith justification for the same.
- 11. UPCL is required to submit the status of tender of the instant proposal."
- 7. In response to the above observations/deficiencies, Petitioner vide its letter No. 6156/निदे०(परि०)/उपाकालि/C-4 dated 17.12.2025 submitted its reply and furnished the following:

"

Reply of UPCL on Point No. 1:

In reference to the query of the Hon'ble Commission regarding the requirement of forest/wildlife clearance and geological approval, if any, for the proposed conversion/up-gradation of the existing 11 kV double-circuit underground line from 33/11 kV S/s Sonprayag to Shri Kedarnathji Dham into a 33 kV double-circuit overhead line on lattice towers, UPCL respectfully submits as under:

The alignment of the said line already exists in the form of 11 kV double-circuit overhead and underground line constructed earlier along the same route. The present proposal does not involve construction of a new transmission corridor; rather, it is only a conversion/up-gradation of the existing 11 kV infrastructure to 33 kV on the same alignment, utilizing the same overhead tower locations and the same underground cable route already in place.

Since no new right-of-way, no fresh tower footing locations, and no additional forest land diversion are involved, the question of seeking fresh forest clearance, wildlife clearance, or geological approval does not arise. The works proposed are strictly within the existing maintained corridor which has already been in continuous operation.

Accordingly, UPCL confirms that no separate forest/wildlife clearance or geological approval is required for the proposed conversion/up-gradation work.

Reply of UPCL on Point No. 2:

With reference to Point No. 2 of the Hon'ble Commission's query wherein clarification has been sought regarding the consideration of 15% centage charges and 3% contingency charges in the cost estimate of the instant proposal, it is respectfully submitted as under:

UPCL has adopted the aforesaid rates in accordance with the prevailing departmental provisions issued by the competent authority. The centage charges @ 15% and contingency charges @ 3% have been considered as per the UPCL Office Order prescribing the applicable percentage rates for preparation of detailed estimates of distribution works.

In this regard, the relevant Office Order clearly outlining the basis and admissibility of these charges has been enclosed herewith for kind perusal and ready reference as ...

It is therefore humbly submitted that the centage and contingency charges considered in the project estimate have been derived strictly in accordance with the approved norms issued by UPCL

Reply of UPCL on Point No. 3:

With reference to the query raised by the Hon'ble Commission regarding the proposed provision of (i) 02 Nos. 33 kV, 1250 A, 3-Pole Indoor VCB (SCADA) Incomers, (ii) 02 Nos. 33 kV Auto-Reclosers, (iii) 12 Nos. 33 kV Lightning Arresters, and (iv) 02 Nos. Line Lightning Protection Devices (LLPD) in the cost estimates of the instant project for Conversion/Up-gradation of the existing 11 kV Double Circuit Underground Line from 33/11 KV S/s Sonprayag to Shri Kedarnath Dham, the following is respectfully submitted:

UPCL has carried out a detailed assessment of the proposed 33 kV network to ensure system reliability, protection coordination, and operational flexibility in view of the highly sensitive, critical, and difficult terrain of the Kedarnath region. Accordingly, the placement and quantity of the aforesaid equipment have been proposed based on technical requirements, protection philosophy, and established norms for 33 kV distribution systems in hilly terrain.

In compliance with the directions of the Hon'ble Commission, the single line diagram (SLD) of the proposed 33 kV network indicating the exact locations of the 33 kV VCBs, Auto-Reclosers, Lightning Arresters, and LLPDs is attached herewith as ... for ready reference.

A brief write-up justifying the proposed equipment is as under

(i) 33 kV 1250A Indoor VCB (SCADA)-02 Nos.

These VCB incomers are proposed at the 33/11 kV S/s Sonprayag to facilitate safe switching, remote operation through SCADA, real-time monitoring, and improved grid control, considering the strategic and pilgrimage-critical nature of the load at Shri Kedarnath Dham.

(ii) 33 kV Auto-Reclosers-02 Nos.

Auto-Reclosers are proposed at suitable locations along the 33 kV alignments to sectionalize the line and ensure automatic restoration in case of transient faults, thereby minimizing downtime and improving system availability in the disaster-prone Himalayan corridor.

(iii) 33 kV Lightning Arresters-12 Nos.

The proposed Lightning Arresters are placed at identified vulnerable locations along the alignment to protect the system from lightning-induced surges, which are frequent in the high-altitude region.

(iv) Line Lightning Protection Devices (LLPD) - 02 Nos.

LLPDs are proposed on critical spans to enhance protection against indirect lightning strikes and induced over-voltages, ensuring dependable operation of the upgraded 33 kV system.

UPCL humbly submits that the proposed equipment and their placement have been planned keeping in view system reliability, protection requirements, terrain challenges, and uninterrupted power supply to Shri Kedarnath Dham.

*The required line diagram is attached ...*

*Reply of UPCL on Point No. 4:*

*In reference to the query raised by the Hon'ble Commission regarding the proportion of centralized and decentralized material procurement in the cost estimate of the proposed works for "Conversion/Up-gradation of existing 11 kV Double Circuit Underground Line from 33/11 kV Substation Sonprayag to Shri Kedarnath Dham", the following justification is respectfully submitted:*

*1. Rationale for Decentralized Procurement of Major Items*

*The primary item involved in the proposed up-gradation work is lattice tower structures, which are essential for ensuring structural stability, reliability, and safe installation in the difficult and high-altitude terrain between Sonprayag and Shri Kedarnath Dham.*

*It is submitted that lattice tower structures are presently not included in the centralized corporate procurement inventory of UPCL. Accordingly, these items cannot be sourced through centralized procurement channels and therefore have to be procured through decentralized mode as per UPCL's approved procurement procedures.*

*Further, the proposed area falls in a geologically sensitive and logistically challenging zone where site-specific design, fabrication, and supply are required. Hence, decentralized procurement provides operational flexibility, timely customization, and better suitability to the terrain conditions of the Kedarnath corridor.*

*2. Basis of Cost Estimates (Centralized and Decentralized Items)*

*The cost estimates for the proposed work have been prepared based on the following principles:*

*Centralized Items: For the items available under the centralized procurement system of UPCL, the cost estimates have been derived from the prevailing recently finalized corporate tenders, ensuring uniformity, transparency, and adherence to the latest discovered rates.*

*Decentralized Items: For items not available under centralized procurement, primarily lattice tower structures and other site-specific materials, the cost estimates have been prepared based on current market rates, recent competitive quotations, and prevailing rates of similar works executed in comparable terrain and conditions.*

*This methodology ensures that the estimated costs are realistic, competitive, and aligned with actual field requirements.*

*In view of the above, UPCL submits that the procurement of major items through decentralized mode is justified due to their absence from centralized procurement inventory and the special site-specific requirements of the project. The basis of costing for both centralized and decentralized items has been prepared using the most recent and relevant tendered/market rates to ensure accuracy and prudence.*

*UPCL humbly submits the above justification for kind consideration of the Hon'ble Commission.*

*Reply of UPCL on Point No. 5:*

*In reference to the query raised by the Hon'ble Commission regarding the financing/funding structure of the proposed work "Conversion/Up-gradation of existing 11 kV Double Circuit Underground Line from 33/11 kV Substation Sonprayag to Shri Kedarnath Dham to 33 kV*

Double Circuit Overhead Line on Lattice Tower". UPCL respectfully submits the following clarification:

1. Clarification on Funding Structure Mentioned in DPR

In the Detailed Project Report (DPR), UPCL had inadvertently enclosed the Office Order dated 23.12.2024, wherein the proposal was shown as approved under the SASCI scheme. This inclusion was unintentional and occurred due to an administrative oversight.

Subsequently, UPCL has reviewed, corrected, and re-issued the relevant sanction details. The revised Office Memorandum dated 31.01.2025 has been duly submitted and clearly specifies that the project is approved under the Capital (SI) Head. i.e. Internal resources of UPCL. Therefore, the reference to SASCI in the earlier DPR submission may kindly be treated as inadvertent and superseded by the corrected OM dated 31.01.2025.

2. Clarification on Financing of the Instant Project

UPCL respectfully submits that, the earlier mention in DPR regarding 70% loan funding from REC/other financial institutions and 30% equity from State Government/internal resources was a generic description of standard funding patterns and not specific to this project.

For the instant proposal, UPCL confirms that the entire project cost is to be met through internal resources, as reflected in the updated Office Memorandum dated 31.01.2025.

No loan component from REC or any other external agency is proposed for this particular project.

3. Clarification on Capital (SI) Head

The Capital (SI) Head mentioned in the corrected OM dated 31.01.2025 refers to the allocation of funds from UPCL's own internal resources earmarked for system improvement works. The proposed up-gradation from underground 11 kV to 33 kV double-circuit overhead lines on lattice towers is categorized under System Improvement (SI) considering its necessity for reliability enhancement, load growth preparedness, and operational efficiency in the Kedarnath corridor.

In view of the above, UPCL submits that, the inadvertent earlier reference to SASCI has been rectified. The correct and final funding arrangement is 100% internal resource funding under Capital (SI) Head, as per OM dated 31.01.2025. No external loan or SASCI allocation is proposed for the instant project.

UPCL humbly places the above clarifications for the kind consideration of the Hon'ble Commission.

Reply of UPCL on Point No. 6:

In reference to the query raised by the Hon'ble Commission regarding the proposed phasing of expenditure for the work titled "Conversion/Up-gradation of existing 11 kV Double Circuit Underground Line from 33/11 kV Substation Sonprayag to Shri Kedarnath Dham to 33 kV Double Circuit Overhead Line on Lattice Tower", UPCL respectfully submits the following:

1. Phasing of Expenditure

UPCL submits that the expenditure for the instant project shall be incurred strictly as per the contractual terms and conditions to be finalized with the executing agency, in accordance with the approved milestones of work execution.

*The payments shall be released in a phased manner linked to measurable physical progress of work, such as:*

*Completion of survey & detailed engineering, fabrication and supply of lattice tower structures, foundation and erection activities, stringing and charging of the line, and any other contractually defined milestones.*

## *2. Funding Source*

*As clarified earlier, the project is to be executed under the Capital (SI) Head through UPCL's internal resources. Accordingly, the expenditure will be phased and released from the internal capital budget allocated under the SI category.*

*In summary, UPCL submits that, the phasing of expenditure shall be milestone-based and aligned with the progress of work under the awarded contract. Payments will be made from UPCL's internal resources under the Capital (SI) Head. No external funding or loan component is proposed for this project.*

*UPCL humbly places the above clarification for the kind consideration of the Hon'ble Commission.*

### *Reply of UPCL on Point No. 7:*

*In reference to the query raised by the Hon'ble Commission regarding the up-gradation of the existing 10.40 km 11 kV D/C underground line to a 33 kV D/C overhead line on lattice towers, UPCL respectfully submits the following clarifications:*

#### *(i) Pole-wise Working Condition of the Existing 11 kV D/C Feeders*

*UPCL submits that the existing 10 km, 11 kV double-circuit overhead lines emanating from the 33/11 kV Substation Sonprayag to Shri Kedarnath Dham is, overall, in good working condition. However, at certain locations the conductors are damaged/ broken and require restringing after replacement of insulators and disc fittings.*

*However, to ensure compliance with 33 kV system standards, UPCL proposes to replace the existing insulators, disc fittings, and associated hardware as per the approved estimate for the up-gradation to 33 kV voltage level.*

#### *(ii) Existing & Proposed Load and Type of Conductor*

*The existing 10 km overhead D/C line is constructed using DOG conductor.*

*UPCL confirms that, the proposed upgraded 33 kV D/C line shall also use DOG conductor, and the existing and proposed load profile remains the same, with the only change being the voltage enhancement from 11 kV to 33 kV, which will significantly improve voltage regulation, reliability, and power transfer capability.*

#### *(iii) Non-Bottleneck Assurance for Power Evacuation*

*UPCL hereby confirms that the existing 10 km 11 kV D/C overhead line section, post up-gradation to 33 kV D/C DOG conductor, shall not become a bottleneck for power evacuation.*

*A 33 kV D/C line with DOG conductor has a power transfer capacity of approximately 30 MW, which is adequate to cater to the present as well as prospective future load demand of the Kedarnath corridor.*

#### *(iv) Existing & Proposed Lattice Tower Drawings and Structural Adequacy*

*The drawings of the existing and proposed lattice towers have been enclosed as Annexure-3.*

UPCL confirms that, both the existing and proposed lattice tower designs comply with structural and loading requirements. The towers are suitable to bear the mechanical loading of the proposed 33 kV D/C overhead line, and the towers have been evaluated considering snow load, wind load, and other climatic/topographical factors applicable to the high-altitude terrain of Shri Kedarnath Dham.

(v) *Maximum Span and Safe Span Limit in High-Altitude Terrain*

The Hon'ble Commission has correctly observed that the maximum existing span between two towers along the proposed alignment is 710 meters, as reflected in the submitted Single Line Diagram.

In this regard, UPCL respectfully submits that one new lattice tower has already been proposed to be installed within this long-span section, as detailed in Annexure-3, to ensure compliance with technical safety requirements.

Furthermore, UPCL affirms that all proposed tower locations shall strictly conform to the safe span limits prescribed under applicable technical standards, particularly considering snow load, wind load, and topographical challenges unique to the high-altitude Himalayan region.

During the detailed survey and tower-spotting stage, if any existing or proposed span is observed to be near or beyond the acceptable safe-span limits, UPCL shall accordingly provide additional intermediate towers. This will ensure:

- Structural integrity of the transmission line,
- Enhanced system reliability, and
- Long-term operational safety under severe environmental conditions.

UPCL reiterates its commitment to comply with all relevant design standards and best engineering practices to ensure that the upgraded 33 kV double-circuit line operates safely and reliably in the challenging terrain of the Kedarnath region.

(vi) *Pole-wise Section Drawings*

The pole-wise section drawings of the existing line as well as the proposed upgraded 33 KV overhead line have already been submitted and are enclosed as Annexure-3.

UPCL humbly submits that, the technical condition of the existing system, the adequacy of proposed conductor and towers, the structural safety under high-altitude loading conditions, and the detailed drawings and survey outputs have been duly considered in the proposal, ensuring reliability, feasibility, and future load readiness for the critical Sonprayag-Shri Kedarnath Dham power corridor.

The above clarifications are respectfully submitted for the kind consideration of the Hon'ble Commission.

Reply of UPCL on Point No. 8:

In reference to the query raised by the Hon'ble Commission regarding submission of the voltage profile calculation for each node up to the proposed 33/11 kV Substation Shri Kedarnath ji from the source 132/33 kV Substation Srinagar, UPCL. respectfully submits the following:

UPCL has carried out a detailed load flow study for the proposed works under the following four scenarios:

1. Summer scenario with generation from nearby SHPS

2. Summer scenario - without generation from nearby SHPs
3. Winter scenario with generation from nearby SHPs
4. Winter scenario without generation from nearby SHPs

The voltage profile calculations for each node for all the above scenarios have been completed based on the updated network configuration, including the proposed 33 kV double-circuit overhead line on lattice towers.

The consolidated results of the voltage profile study, including node-wise voltage levels, loading, and system performance indicators, have been duly compiled and are attached as ... for the kind perusal of the Hon'ble Commission.

UPCL humbly submits the above for favourable consideration.

Reply of UPCL on Point No. 9:

In reference to the query raised by the Hon'ble Commission regarding the activity-wise time schedule for completion of the proposed work titled "Conversion/Up-gradation of existing kV Double Circuit Underground Line from 33/11 kV Substation Sonprayag to Shri Kedarnath Dham to 33 kV Double Circuit Overhead Line on Lattice Tower", UPCL respectfully submits the following:

UPCL has prepared a realistic and detailed activity-wise implementation plan for the execution of the proposed 33 kV Double Circuit overhead line, keeping in view the extreme geographical challenges, high-altitude terrain, limited working season (approximately May to October/November), frequent landslides, and restrictions due to the pilgrimage period in the Kedarnath region.

The major activities include route survey, detailed engineering, procurement, manufacturing, supply, civil works, tower erection, stringing, testing and commissioning, along with associated field activities.

Accordingly, the indicative activity-wise time schedule (considering practical execution constraints in the Kedarnath corridor) is submitted as follows:

Activity-Wise Time Schedule

| S. No. | Activity                                                                                     | Estimated Duration                      |
|--------|----------------------------------------------------------------------------------------------|-----------------------------------------|
| 1.     | Route survey, check survey, topographical verification & finalization of tower 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 lattice towers, insulators, hardware, conductors & accessories | 2.5-3 months                            |
| 5.     | Transportation of materials to site & contractor mobilization                                | 1-1.5 months (weather & road dependent) |
| 6.     | Foundation works (PCC, stub setting, concreting, curing etc.)                                | 2.5-3 months (limited working window)   |
| 7.     | Tower erection, tightening & earthing                                                        | 2 months                                |
| 8.     | Stringing of conductors & earthwire, fittings & sagging                                      | 1.5 months                              |
| 9.     | Testing, pre-commissioning checks, charging & commissioning                                  | 0.5 month                               |

*Total Estimated Project Duration: Approximately 12 months from the date of award of contract/release of funds. The above timeline is indicative and subject to:*

- *Favourable weather and site accessibility (working season restricted to -6 months in a year).*
- *Timely statutory clearances (Local administration, NHAI etc., if any),*
- *Availability of disturbance-free working window without pilgrimage-related restrictions,*
- *No major landslides or natural calamities in the Sonprayag-Gaurikund-Kedarnath corridor.*

*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. The timeline duly factors in the severe constraints of the Kedarnath area, including short working season, difficult material transportation, and logistical challenges.*

*The detailed activity-wise time schedule is respectfully submitted for the kind consideration and approval of the Hon'ble Commission.*

*Reply to Point No. 10:*

*In response to the Hon'ble Commission's query regarding the year of capitalization and associated cost of the existing 11 kV double circuit lines namely PPCL-1 and PPCL-2 as well as the details of operational expenses incurred since their capitalization, UPCL respectfully submits the following:*

*1. Year of Capitalization and Cost*

*The existing 11 kV double circuit lines PPCL-1 and PPCL-2 were capitalized in the Financial Year 2023-24. The total capitalized cost of these lines is Rs. 22.04 Crore.*

*2. Operational Expenditure since Capitalization*

*UPCL submits that no additional operational expenditure has been incurred on the aforesaid lines since their capitalization.*

*3. Justification/Background of Current Proposal*

*It is further submitted that during the July 2024 disaster, the aforesaid line system suffered extensive damage, particularly along the underground stretches between Lincholi and Sonprayag, where large sections were completely washed away and rendered non-restorable in their existing underground configuration.*

*As the damaged portions would effectively require full reconstruction, and considering the high-altitude terrain constraints, it has been technically and economically prudent to propose conversion of the remaining overhead portions into a completely overhead 33 kV double circuit line on lattice towers, thereby ensuring:*

- *Enhanced system reliability in disaster-prone zones.*
- *Compliance with required load growth and evacuation needs for the proposed 33/11 kV Substation at Shri Kedarnath Dham, and*
- *Adequacy to meet the upcoming Master Plan load requirements of Shri Kedarnath Dham.*
- *Hence, the present proposal utilizes the feasible sections of the existing overhead alignment while upgrading the entire route to a robust 33 kV*

*overhead system to ensure long-term sustainability and reliability of power supply in the area.*

*Reply of UPCL on Point No. 11:*

*In reference to the query of the Hon'ble Commission regarding the status of tendering for the instant proposal, UPCL respectfully submits the following:*

*The tender for the work "Conversion/Up-gradation of existing 11 kV Double Circuit Underground Line from 33/11 kV S/s Sonprayag to Shri Kedarnath Dham to 33 kV Double Circuit Overhead Line on Lattice Tower" has already been awarded on 17.03.2025 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, as the existing network suffered extensive damage during the July 2024 disaster, necessitating immediate restoration and enhancement.*
- 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 timely award of the tender through due process.*

*UPCL humbly submits the above for kind consideration of the Hon'ble Commission."*

8. On examination of the UPCL's submission vide reference No. 6156/निदे०(परि०)/उपाकालि/C-4 dated 17.12.2025, certain additional deficiencies/infirmities were identified and accordingly, the Commission vide its letter No. 1771 dated 26.02.2026 directed the Petitioner to furnish point-wise reply on the same latest by 10.03.2026. In response to the deficiencies/infirmities raised by the Commission, Petitioner vide its letter No. 1568/D(O)/UPCL/C-4 dated 24.03.2026 submitted its point-wise reply as follows:

*"*

*1. UPCL at point no. 10 of its submission dated 17.12.2025 submitted that it has capitalized the 11 KV PPCL-1 and PPCL-2 lines in FY 2023-24 and the total capitalized cost of the same was Rs. 22.04 Cr. In this regard, UPCL is required to furnish the following:*

- (i) Under which specific Government Scheme, Project, or Budget Head was the Rs.22.04 crore sanctioned and also furnish funding details of the same.*
- (ii) Copy of the as executed estimate.*
- (iii) Copy of the work order/contract agreement.*
- (iv) Details of energization of PPCL-1 and PPCL-2 lines.*

- (v) *Electrical Inspector's certificate for energization.*
- (vi) *Details of approval received from the Commission for the said works i.e. Rs.22.04 crore.*
- (vii) *Copy of the internal approval from the competent authority for executing the said works.*
- (viii) *UPCL is required to submit the monthly Meter Reading (MRI) reports for PPCL-1 and PPCL-2 (11 kV lines) in the Kedarnath Ji Dham area starting from the month of energization to the last available data.*

**Reply to Point No. 1:**

With reference to Point No. 1 of the Hon'ble Commission's query regarding capitalization of 11 kV PPCL-1 and PPCL-2 lines amounting to Rs. 22.04 Crore in FY 2023-24, UPCL respectfully submits the following point-wise clarification:

- (i) *Scheme / Funding Details: The works related to laying of underground HT/LT cables, including associated 11 kV infrastructure (PPCL-1 and PPCL-2 lines), form part of the project titled:  
"Provision of laying underground HT/LT Cables between Sonprayag and Kedarnath for providing uninterrupted power supply during Yatra"  
The project was sanctioned under the State Plan Assistance / Additional Central Assistance (SPA/ACA) framework linked with Disaster Management (Disaster 2013 rehabilitation works). The approval was accorded by the Government of Uttarakhand vide: Government Order No. 604/XVIII-(2)/2015-04(21)/2016 dated 18.06.2019.  
Accordingly, the project was executed utilizing Government grant-in-aid, and no loan component was involved. Copy of related document is attached as **Annexure-1***
- (ii) *Copy of As Executed Estimate: The copy of the as-executed estimate is enclosed herewith as **Annexure-2** for kind perusal.*
- (iii) *Copy of Work Order / Contract Agreement: The copy of the work order / contract agreement is enclosed herewith as **Annexure-3**.*
- (iv) *Details of Energization: The 11 kV PPCL-1 and PPCL-2 lines were successfully energized on 10.12.2023. At the time of initial energization, the lines were charged through the Rampur feeder, as the dedicated feeder panel for these lines was not commissioned at that stage. Subsequently, the feeder panel installation work was carried out through a separate tender and the same was successfully installed and commissioned in January, 2025. Copy of log book register is enclosed as **Annexure-4***
- (v) *Electrical Inspector's Certificate: The Electrical Inspector's certificate for energization is enclosed herewith as **Annexure-5***
- (vi) *Approval of the Commission: It is respectfully submitted that the subject works were not separately submitted for approval before the Hon'ble Commission, as the same were executed under Government grant funding. Hence, prior approval of the Commission was not sought in this case.*
- (vii) *Internal Approval: The subject works were undertaken in accordance with the established procedures and guidelines of UPCL. Prior to initiation of the tendering process, due and proper internal approvals were obtained from the competent authority as per the applicable delegation of powers and approval hierarchy of UPCL. Subsequently, the tendering process for the said works was carried out by the*

Corporate Contract & Procurement Department of UPCL, strictly following the prescribed procedures, including approval of estimates, administrative and financial sanctions, and adherence to standard bidding processes.

- (viii) *Monthly MRI Reports: In compliance with the Hon'ble Commission's query regarding submission of monthly Meter Reading Instrument (MRI) reports for PPCL-1 and PPCL-2 (11 kV feeders) in Kedarnath Ji Dham area, it is respectfully submitted that the 11 kV PPCL-1 and PPCL-2 feeders were not put into continuous commercial operation during the Yatra Season 2025. Accordingly, no regular energy flow took place through these feeders for the said period. During Yatra Season 2025, a large number of temporary shops, tents, and structures were erected along the route of the underground PPCL feeders, particularly between Rudra Point and Shri Kedarnath Dham. The underground cables in this stretch were laid/buried manually, and at several locations, adequate depth could not be maintained due to rocky terrain. The temporary establishments typically use supporting iron nails/pegs driven into the ground, which posed a serious risk of cable damage and electrical hazards, including potential safety incidents. Considering the above public safety concerns, the feeders were not energized/kept out of service during the Yatra period. Further, during July–August (monsoon period), heavy rains and disaster conditions in the region caused extensive damage to the underground cable network, particularly in the Lincholi to Sonprayag stretch. Post this event, the affected cable system became non-operational.*

- 2. UPCL at point no. 7(iv) of its submission dated 17.12.2025 has not submitted the cross-sectional drawings of the existing towers as well as the newly proposed towers for proper comparison and examination. In this regard, UPCL is required to submit the same. Further, confirm how the Span length for the proposed towers is in line with the Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electrical Lines) Regulations, 2022.**

**Reply to Point No. 2:**

*The cross-sectional drawings of both the existing towers as well as the newly proposed towers, which could not be enclosed with the earlier submission, are now being submitted herewith as Annexure-6 for kind perusal and comparison. Further, it is submitted that the drawings of the existing towers were already part of the contract documentation and are available in Annexure-3 of the contract details.*

*The submitted drawings clearly illustrate the structural configuration, dimensions, and technical specifications of the existing as well as proposed towers, enabling proper examination and assessment.*

*Further, it is submitted that the span length of the proposed towers has been designed strictly in accordance with the provisions of the Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electrical Lines) Regulations, 2022. The span lengths have been finalized considering all relevant parameters such as conductor type, voltage level, terrain conditions, safety clearances, wind loading, and statutory requirements as prescribed in the said regulations.*

Accordingly, the proposed design ensures full compliance with the applicable CEA standards and maintains the required safety, reliability, and operational efficiency of the transmission line.

**3. UPCL in its instant Petition, under the facts of the case at point no. 3, stated that, it is proposing temporarily upgradation of the damaged 11 kV PPCL-1 and PPCL-2 feeders to a 33 kV overhead line. In this regard, UPCL is hereby required to clarify whether the proposed 33 kV overhead line would be a temporary arrangement? It should also specify whether it has planned separate or additional 33 kV line apart from the proposed aforesaid 33 kV line.**

**Reply to Point No. 3:**

With reference to Point No. 3 of the Hon'ble Commission's query, UPCL respectfully submits the following clarification:

As already brought out in the Petition, the proposal for upgradation of the damaged 11 kV PPCL-1 and PPCL-2 feeders into a 33 kV overhead line has been conceived as an interim/temporary arrangement to meet the urgent requirement of reliable power supply to Shri Kedarnath Dham, in view of the delay in commissioning of the upstream substation due to constraints such as RoW issues and other statutory clearances.

The primary objective of the instant proposal is to ensure timely energization of the proposed 33/11 kV Shri Kedarnath Dham Substation and to cater to the critical load demand of the area, especially considering its strategic and pilgrimage importance.

UPCL further submits that the proposed 33 kV overhead line is not envisaged as a permanent arrangement. Once the 220/33 kV Brahmwari Substation of PTCUL is commissioned, a separate dedicated 33 kV line from the said substation to the 33/11 kV Shri Kedarnath Dham Substation shall be planned and proposed. Necessary approvals for the same shall be sought from the Hon'ble Commission at the appropriate stage.

**4. UPCL, in its instant petition, has submitted an Office Memorandum dated 30.10.2002 indicating centage charges of 15%. However, in its earlier investment approvals, UPCL submitted an Office Memorandum dated 01.02.2025, wherein the centage charges are 2.5% & 15% for the works financed through internal resources & deposit works respectively. In this regard, UPCL is required to clarify for not considering the centage charge of 2.5% as approved vide its OM dated 01.02.2025.**

**Reply to Point No. 4:**

With reference to Point No. 4 of the Hon'ble Commission's observations regarding applicability of centage charges, UPCL respectfully submits the following clarification:

The Hon'ble Commission has observed that UPCL, in the instant petition, has considered centage charges @ 15% based on Office Memorandum dated 30.10.2002, whereas in subsequent investment approvals, an Office Memorandum dated 01.02.2025 prescribes centage charges of 2.5% for works financed through internal resources and 15% for deposit works.

In this regard, it is respectfully submitted that the cost estimate for the instant project was prepared, processed, and approved prior to the issuance of the Office Memorandum dated 01.02.2025. At the time of preparation of the estimate, the applicable and prevailing

departmental provisions governing centage charges were those prescribed under earlier Office Orders/Office Memorandum, wherein centage charges @ 15% were admissible and accordingly considered in the estimate.

It is further submitted that the revised provisions issued vide OM dated 01.02.2025 were not in force at the time of preparation and approval of the instant estimate; hence, the same could not be considered retrospectively in the cost calculation of the project.

This approach is consistent with the standard practice of adopting the prevailing norms and applicable orders at the time of estimate preparation, as also followed in earlier submissions made before the Hon'ble Commission.

Accordingly, UPCL humbly submits that the consideration of centage charges @ 15% in the instant petition is justified and in line with the applicable provisions existing at the relevant time.

**5. UPCL is required to submit the total number of 11 kV feeders emanating from 33/11 kV S/s Sonprayag to Sri Kedarnath ji Dham alongwith the details of its operational condition. Further, UPCL is required to submit the details of existing 11 kV line which is currently serving the power demand of Shri Kedarnathji Dham.**

**Reply to Point No. 5:**

In reference to Point No. 5 of the Hon'ble Commission's query, UPCL respectfully submits the following:

There are 03 Nos. of 11 kV feeders emanating from the 33/11 kV Substation Sonprayag towards Shri Kedarnathji Dham, the details of which are as under:

PPCL-1 Feeder, PPCL-2 Feeder and 11 kV Shri Kedarnath Feeder

**Operational Status:**

- i. The PPCL-1 and PPCL-2 feeders were earlier developed to cater to the growing load demand of the Kedarnath corridor; however, these feeders have been severely damaged, particularly during the disaster events and due to the vulnerable underground stretches, as already elaborated in the petition.
- ii. Considering the present condition and future load requirement, these two feeders are proposed to be converted/upgraded to 33 kV double circuit overhead line in the instant petition for ensuring reliable and robust power supply.
- iii. The existing 11 kV Shri Kedarnath feeder is presently in operation and is feeding the existing load of Shri Kedarnathji Dham.

**Need for Upgradation:**

UPCL submits that due to the ongoing and proposed developments under the Shri Kedarnath Dham Master Plan, the load demand in the area is increasing tremendously. The existing 11 kV system is not adequate to meet the future demand in terms of capacity, reliability, and voltage regulation.

Accordingly, as an interim and technically prudent solution:

- i. *The damaged PPCL-1 and PPCL-2 feeders are proposed to be converted into 33 kV overhead lines on lattice towers.*
- ii. *These lines shall initially be charged at 11 kV level to ensure continuity of supply and early utilization.*
- iii. *Upon commissioning of the proposed 33/11 kV Substation at Shri Kedarnathji Dham, the same lines will be operated at 33 kV, thereby meeting the enhanced load demand and ensuring long-term reliability.*

*The above arrangement has been proposed keeping in view the urgent requirement of reliable power supply, difficult terrain conditions, and the need to align with future system strengthening plans, as already submitted in the petition.*

**6. UPCL, at point no. 10 of its submission dated 17.12.2025, has provided voltage profile calculations. However, the data submitted by UPCL is found to be incorrect. In this regard, UPCL is required to resubmit revise voltage drop calculations, considering total anticipated load of 8 MVA.**

***Reply to Point No. 6:***

*With due respect to the observations of the Hon'ble Commission regarding the voltage profile calculations submitted earlier, UPCL humbly submits the following clarification:*

*... in compliance with the directions of the Hon'ble Commission, UPCL has now revised and resubmitted the voltage drop calculations considering the Max. load of 8 MVA. The revised SLD and voltage drop / voltage profile calculations are hereby submitted as Annexure-7 & 8 respectively for kind perusal of the Hon'ble Commission."*

9. Further, the Commission, vide its letter dated 25.06.2026, directed UPCL to submit the certain information, including clarification regarding the manner in which 100% funding from its internal resources would be arranged for the proposed project, along with a direction to make a PowerPoint Presentation before the Commission covering the aforesaid information on 10.07.2026. However, UPCL, vide its letter dated 06.07.2026, sought an additional one month's time for submission of the PPT. Accordingly, the Commission, vide its letter dated 09.07.2026, partially accepted the request and directed UPCL to make the PPT before the Commission on 31.07.2026.
10. In compliance with the aforesaid directions, UPCL, vide its letter dated 24.07.2026, submitted the requisite details and made a PowerPoint Presentation before the Commission on 31.07.2026, wherein UPCL submitted that the proposed project would be funded in a 70:30 ratio, with 70% debt financing to be arranged from REC Limited and the remaining 30% through State Government equity. UPCL further submitted that the proposed upgradation of the existing 11 kV network to 33 kV is not temporary in nature but is intended to be permanent. Subsequently, pursuant to

the directions of the Commission during the presentation, UPCL, vide its letter dated 03.08.2026, submitted the aforesaid details regarding the proposed funding arrangement and the permanent status of the network upgradation, as given below:

“

1. *The work of Conversion/Upgradation of the existing 11 kV Double Circuit Underground Line from Sonprayag Substation to Shri Kedarnath Dham into a 33 kV Double Circuit Overhead Line on Lattice Towers is of a permanent nature and is proposed to cater to the 33 kV supply of the 33/11 kV Substation, Kedarnath (under construction). The line shall also cater to the 9.1 MVA load of the Shri Kedarnath Ropeway through five tapping points at the 33 kV voltage level. Further, the proposed line shall also be utilised to ensure N-1 contingency, thereby enhancing the reliability and continuity of power supply to Shri Kedarnath Dham. It is further clarified that any reference made earlier indicating this work as "temporary construction of line" was inadvertent and occurred due to a typographical error. The proposed work is entirely permanent in nature.*
2. *Funding for the aforesaid project shall be arranged through 70% debt from REC Ltd. and the remaining 30% through State Government Equity, as approved by the Board of Directors in its 122nd Meeting held on 17.03.2025 at VCV Gabar Singh Urja Bhawan, Kanwali Road, Dehradun (true copy of the resolution enclosed). It is further clarified that any reference made earlier indicating funding from an "internal source" was inadvertent and occurred due to a typographical error."*

**Commission's Observations, Views & Directions: -**

11. 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 conversion/upgradation of the existing 11 kV double-circuit underground section of line emanating from the 33/11 kV S/s Sonprayag to Shri Kedarnathji Dham into a 33 kV double-circuit overhead line on lattice towers. The existing 11 kV double-circuit line (PPCL-1 & PPCL-2) from 33/11 kV S/s Sonprayag to 33/11 kV S/s Shri Kedarnathji Dham comprises 10 km of overhead line and 10.40 km of underground line, having a total route length of 20.40 km. The instant proposal pertains to the conversion/upgradation of the existing 10.40 km underground section into a 33 kV double-circuit overhead line on lattice towers.
  - (2) The total estimated cost of the project, as submitted by the Petitioner, is Rs. 11.12 Cr., which has been duly approved by its Board of Directors in its 122<sup>nd</sup> meeting held on 17.03.2025.

- (3) The Petitioner has submitted that there are 03 nos. of 11 kV feeders emanating from the 33/11 kV S/s Sonprayag to Shri Kedarnathji Dham, namely PPCL-1 feeder, PPCL-2 feeder, and Shri Kedarnath feeder. Presently, the existing 11 kV Shri Kedarnath feeder is operational and is catering to the existing load of Shri Kedarnathji Dham.

With regard to PPCL-1 and PPCL-2 feeders, the Petitioner submitted that the underground cables were laid manually, and adequate burial depth could not be maintained at several locations due to rocky terrain. Further, temporary establishments used iron nails/pegs driven into the ground, posing a serious risk of cable damage and electrical hazards. Considering these public safety concerns, the feeders were kept out of service during the Yatra period. The Petitioner further submitted that during the July–August, 2024 monsoon period, heavy rains and disaster conditions caused extensive damage to the underground cable network, particularly in the Lincholi–Sonprayag stretch, rendering the affected system non-operational.

- (4) The Petitioner has submitted that a new 2×5 MVA, 33/11 kV S/s at Shri Kedarnathji Dham has been sanctioned and, for energization the same, a robust and reliable 33 kV line has been proposed by converting/upgrading the existing 11 kV double-circuit line (PPCL-1 & PPCL-2) into a 33 kV double-circuit O/H line. Accordingly, the instant proposal has been submitted for converting/upgrading the underground damaged section into the overhead 33 kV line on lattice tower.

The Petitioner has further submitted that construction of the proposed 33 kV double-circuit overhead line is necessary for energization of the newly sanctioned 33/11 kV S/s at Shri Kedarnathji Dham, with a view to improving the reliability, voltage profile, and overall quality of power supply in the area. Further, it has also been submitted that the proposed 33 kV double-circuit overhead line would cater to the 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.

- (5) With regard to the funding of the instant project, the Petitioner initially submitted that the project would be funded through 70% loan financing from

REC Limited/other financial institutions and 30% equity from the State Government/internal resources. However, subsequently, in response to a specific query raised by the Commission, the Petitioner revised the proposed funding pattern to 100% funding through internal resources, stating that the earlier funding structure was only a generic description of the standard funding pattern and was not specific to the instant project. Further, the Petitioner had initially submitted that the project was approved under the SASCI scheme. However, upon a query raised by the Commission in this regard, the Petitioner subsequently submitted that the reference to SASCI in the DPR was inadvertent and had occurred due to administrative oversight, and requested the Commission to treat the same as unintentional.

Further, during the PowerPoint Presentation made before the Commission on 31.07.2026, the Petitioner again changed its submission with regard to the funding arrangement and submitted that the proposed work would be funded in a 70:30 ratio, with 70% debt financing to be arranged from REC Limited and the remaining 30% through State Government equity. Subsequently, pursuant to the directions of the Commission during the presentation, UPCL, vide its letter dated 03.08.2026, submitted the aforesaid revised funding arrangement, along with clarification that the upgradation of the existing 11 kV network to 33 kV is not temporary in nature but is intended to be permanent. The Petitioner, vide the aforesaid submission, further stated that its earlier submissions regarding “internal source funding” and “temporary construction of line” were inadvertent and had occurred due to typographical errors.

In this regard, the Commission observes that the Petitioner appears to be submitting proposals before the Commission in a hurried manner, without adequately scrutinizing and rechecking the information at various stages, resulting in submission of inconsistent and incorrect information before the Commission. The Petitioner has revised its submissions on material aspects of the project on multiple occasions. The Commission opines that the funding structure of any proposal is a crucial component, and submission of an

incorrect funding structure may adversely affect the techno-commercial viability of the projects

Accordingly, the Commission directs the Petitioner to thoroughly scrutinize, verify and cross-check all information and proposals before submitting the same to the Commission. The Petitioner shall ensure that the information submitted in the Petition, DPR and subsequent submissions is accurate, consistent and duly verified. Any recurrence of such lapses shall be viewed seriously, and the responsible officer(s) may be held responsible and necessary action may be initiated against them in accordance with the prevailing Act/Regulations.

- (6) With regard to the Cost Benefit Analysis (CBA) of the proposed works, the Commission observes that the Petitioner has submitted that the project has been considered primarily to ensure reliable and essential power supply to a strategically important pilgrimage destination. The benefits of the project are predominantly social and strategic in nature, including enhancement of public safety, improvement in system reliability, support to tourism-driven economic activity, and fulfilment of social sector obligations. The project merits evaluation from the perspective of public interest, system strengthening, and long-term socio-economic benefits rather than purely profit-based financial considerations, therefore, conventional financial parameters such as ROI, IRR, and NPV may not be appropriate for its evaluation.

In this regard, the Commission is of the view that Cost Benefit Analysis (CBA) is an important parameter for evaluating the reasonableness of an investment. However, considering the relevance and importance of the project from the perspective of social & religious aspect, the Commission is not emphasizing on the same.

- (7) With regard to the clearances, the Commission has observed that the proposed work is confined to the existing alignment where the 11 kV double circuit overhead line and underground line were earlier constructed. The Petitioner has clarified that no new transmission corridor is being created, no additional right-of-way is required, no new tower locations are being

proposed beyond the existing footprint, and no additional forest land diversion is involved. The up gradation is limited to strengthening and converting the existing infrastructure along the same route.

In view of the above, the Commission observes that the Petitioner has proposed 26 new suspension lattice towers under the instant project and is of the view that during execution of the project, the locations for construction of the lattice tower(s) may change with respect to the existing route/transmission corridor due to geological surprises, soil degradation and other site-specific constraints related to span length. In this regard, the Commission directs the Petitioner that, in case the existing route is found unsuitable for construction of the proposed suspension towers 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 construction 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 ensure 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

Apart from the aforesaid observations, the Commission notes from the submissions of the Petitioner that the proposed span between certain lattice towers exceeds the design span of 250 meters prescribed under Regulation 89 of the Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations, 2022. In this regard, the Commission is of the view that adherence to the prescribed design span is essential to ensure safety, structural stability, and compliance with electrical and mechanical design requirements. Accordingly, the Commission directs the Petitioner to strictly comply with the prescribed design span limit of 250 meters between lattice towers 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 phase-to-earth, phase-to-phase, and working clearances, are duly maintained for the existing 11 kV suspension towers proposed for conversion to 33 kV, as well as for the proposed new 33 kV suspension towers, in accordance with the applicable Central Electricity Authority Safety Regulations, duly considering the impact of sag, conductor deflection, wind load, and snow load.

Further, the Commission opines that maintenance of the aforesaid lines along such vulnerable and difficult terrain having high strategic and religious importance would remain a significant challenge for the Petitioner, particularly in view of the possibility of landslides, geological disturbances, adverse weather conditions, and accessibility constraints that may affect the reliability and uninterrupted operation of the line. Hence, the Commission is of the view that, from the perspective of ensuring reliable and quality power supply, the proposed 33 kV line would require special attention with respect to formulation and implementation of a comprehensive maintenance and 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.

- (8) The Petitioner has also submitted that a new 33 kV line was proposed to be connected from the proposed 220/33 kV S/s Brahmwari to the proposed 33/11 kV S/s Shri Kedarnathji Dham via the existing 33/11 kV Sub-station at Sonprayag. However, due to the ongoing Court case pertaining to the construction of the proposed 220/33 kV S/s Brahmwari, along with Right of Way (RoW) issues and forest clearance requirements for the proposed lattice tower line from the proposed 220/33 kV Sub-station at Brahmwari to the proposed 33/11 kV Sub-station at Shri Kedarnathji Dham, the project has been delayed. Accordingly, the Petitioner has proposed conversion of the existing non-operational underground 11 kV lines (PPCL-1 & PPCL-2) into a 33 kV double-circuit overhead line on lattice towers.

In this regard, the Commission is of the view that, in order to leverage the full potential of the proposed 33/11 kV Sub-station at Shri Kedarnathji Dham, the availability of a strong voltage source in close proximity, preferably at 132 kV and above, is of paramount importance. Otherwise, issues relating to voltage regulation may arise due to the long 33 kV network, which would not only render the system unreliable and prone to frequent faults, but may also result in increased I<sup>2</sup>R/technical losses in the system.

Further, the construction of the proposed 220/33 kV S/s Brahmwari, along with the 33 kV line connecting the same to the proposed 33/11 kV S/s Shri Kedarnathji Dham, would ensure compliance with the requirement of 'N-1' line contingency as stipulated under Regulation 3.6(4) of the UERC (Distribution Code) Regulations, 2018, which provides as under:

*"(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."*

- (9) Earlier, the Commission, in its Order dated 24.03.2025 in the matter of "Application seeking approval for the investment with respect to construction of 33/11 kV Sub-station at Shri Kedarnath Dham, District Rudraprayag" at para 13(8) had held that "... there are 03 nos. 11 kV feeders emanating from existing 33/11 kV S/s at Sonprayag namely Shri Kedarnath Dham, PPCL-1 & PPCL-2. Shri Kedarnath Dham feeder is Single Circuit 11 kV feeder with a mix of Rabbit & Weasel conductor at various spans and is currently energized to supply power to Shri Kedarnath Dham, while the feeders namely **PPCL-1 & PPCL-2** are 11 kV feeders with dog conductors and at present are non-operational as most of the Underground Cable Sections are damaged between Sonprayag and Shri Kedarnath Dham. This is a serious issue and requires to be enquired, for which separate proceeding would be taken up."

Subsequently, the Petitioner filed the instant Petition dated 12.09.2025 seeking approval for investment in the project involving the "conversion/upgradation of the existing 11 kV double-circuit underground line from 33/11 kV Sonprayag to Shri Kedarnathji Dham into a 33 kV double-circuit overhead line on lattice towers", i.e., conversion of the underground

section of 11 kV PPCL-1 & PPCL-2 lines into overhead lines. Accordingly, the Commission, vide its letter dated 26.02.2026, sought detailed information from the Petitioner regarding the capitalization of the 11 kV PPCL-1 & PPCL-2 lines, including the cost incurred, source of funding, approvals obtained, etc.

Thereafter, Petitioner in its submission dated 24.03.2026 submitted that the works relating to laying of underground HT/LT cables along with the associated 11 kV infrastructure (PPCL-1 & PPCL-2 lines) were originally part of the project titled *"Provision of laying underground HT/LT Cables between Sonprayag and Kedarnath for providing uninterrupted power supply during Yatra"*. The said project was sanctioned under the State Plan Assistance / Additional Central Assistance (SPA/ ACA) framework linked with disaster management for rehabilitation after the 2013 disaster. The Government of Uttarakhand had accorded approval for the same at a total sanctioned cost of Rs. 20.47 Crore with 100% grant funding.

The Petitioner in the aforesaid submission dated 24.03.2026 submitted that the 11 kV PPCL-1 & PPCL-2 lines were constructed and energized on 10.12.2023, initially through the Rampur feeder. The underground cables were laid manually, and adequate burial depth could not be maintained at several locations due to rocky terrain. Further, temporary establishments using iron pegs posed risks of cable damage and electrical hazards, due to which the feeders were kept out of service during the Yatra period. The Petitioner further submitted that during the disaster occurred in July 2024, the system suffered severe damage, particularly in the underground cable stretch between Lincholi and Sonprayag, where substantial portions of the cable network were washed away and became non-restorable in their existing underground configuration. The Petitioner also submitted that it had not approached the Commission for prior approval of the said works as the same were executed through Government grant funding.

Upon examination of the Petitioner's submission dated 24.03.2026, the Commission observes that 11 kV PPCL-1 & PPCL-2 lines remained operational for only about seven months after energization, following which

the underground sections were washed away during the July 2024 disaster. Further, from the executed estimate submitted by the Petitioner, the Commission observes that the underground sections of the 11 kV double-circuit line had been laid with RCC pipe protection. However, despite such protective measures, the underground cable network was damaged due to iron pegs and washed away during the July 2024 disaster. The aforesaid fact raises concerns regarding the non installation of cable markers in underground section besides raising questions on adequacy of the execution methodology, quality of workmanship, and overall protection measures adopted for the project, particularly considering the difficult terrain and disaster-prone nature of the area. This necessitates greater geo-technical scrutiny, adoption of enhanced protection measures, and implementation of improved construction and workmanship practices while restoring or conversion of U/G to overhead line along the same route.

In this regard, the Commission is of the view that the planning for construction of such lines/feeders in such vulnerable high altitude areas should be undertaken after due and comprehensive assessment of various factors such as durability, suitability of technology, geo-technical survey maintenance requirements, safety aspects, and assessment of geographical vulnerabilities. If the underground double-circuit line was not technically feasible or sustainable for the prevailing terrain and environmental conditions, the same should not have been executed in such manner, as investments made in inherently vulnerable infrastructure remain exposed to substantial risk and any resultant damage leads to wastage of government funds.

Further, with regard to the Petitioner's submission that it had not approached the Commission for prior approval of the said works on the ground that the same were executed through Government grant funding, the Commission makes it unequivocally clear that any capital work/project exceeding the prescribed threshold limit requires obtaining prior approval of the Commission in accordance with the prevailing UERC Multi Year Tariff Regulations, irrespective of the source or structure of funding involved.

The Commission, considering the importance of the instant project, particularly in view of the fact that the same is essential for energization of the proposed 33/11 kV S/s at Shri Kedarnathji Dham, is presently taking a lenient view in the matter. However, the Petitioner is cautioned not to repeat such lapses in future, failing which the concerned responsible officer(s) shall be held accountable and appropriate action may be initiated against them in accordance with the prevailing Act/Regulations.

Further, the Commission directs the Petitioner to ensure that the insurance claim, if any, in respect of the washed-away underground section of the 11 kV double-circuit line is duly pursued with the concerned insurance agencies and that the said assets are appropriately decapitalized from its books of accounts.

- (10) Upon enquiry regarding the voltage profile under different operating scenarios, the Petitioner in its submission dated 24.03.2026 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     | Voltage Drop with Existing Network |                                                             | Voltage Drop 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) |
| <b>Summer</b> | 29.78%                             | 7.43%                                                       | 9.69%                            | 8.59%                                                       |
| <b>Winter</b> | 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 '(-)9%' for 33 kV during all winter season scenarios as practically load

is almost 'Nil'. However, during the summer season, the voltage profile under the existing network remains within permissible limits only when local SHP generation is available. Moreover, in case proposed express feeder from Rudraprayag to Sonprayag is constructed the voltage profile during summer season would substantially improve.

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 upcoming ropeway project, and area development works under the master plan. Accordingly, the Commission directs the Petitioner to ensure prudent planning besides developing robust electrical infrastructure keeping in view the growing demand and focus on system reliability & quality of power in the Kedarnath region.

- (11) 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 17.12.2025 apprised the Commission that letter of award (LoA) has already been issued on 17.03.2025. 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 17.03.2025, 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 mandates prior approval of the Commission before undertaking investments exceeding the prescribed limits. The Commission views the matter with concern and cautions the Petitioner to ensure strict compliance with the applicable Regulations in future, failing which appropriate action may be separately initiated against the responsible officer(s) in accordance with the prevailing Act/Regulations.

Nevertheless, keeping in view the importance of the project for reliable & resilient power supply for highly venerated pilgrimage destination, as well

as the requirement of the 33 kV line for the upcoming 33 kV sub-station at Shri Kedarnath Dham, 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 Petitioner responsible for violation.

It is further clarified that approval at this stage, i.e., after 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 the holy shrine of Shri Kedarnath Dham, which is situated at an altitude of more than 3500 meters above mean sea level. The Commission notes that the construction of the proposed 33/11 kV sub-station has already been approved, and any delay in the construction and commissioning of the proposed 33 kV line to upcoming 33 kV S/s at Shri Kedarnath Dham may consequently delay its energization, thereby adversely affecting the availability of adequate and reliable power supply required to meet the increasing electricity demand in the area, particularly considering the strategic, religious, and public importance of the region

- (12) 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 & conditions as mentioned below:
- (i) 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 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.

- (iii) The Petitioner shall safeguard its commercial interest by taking suitable insurance Policy for the instant project given the tough geographical and climatic conditions.
- (iv) Post execution of the project, the Petitioner shall submit the Project Completion Report to the Commission alongwith geo-tagged photographs, expenditure incurred/completed cost, financing of the Project and detailed analysis & benefits accrued from the proposed investments etc.
- (v) The Petitioner is directed to ensure that the design, supply, installation & 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.
- (vi) 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.

- (vii) In case the existing route is found unsuitable for construction of the proposed suspension towers 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 construction 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
- (viii) The Petitioner is directed to strictly comply with the prescribed design span limit of 250 meters between lattice towers 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 phase-to-earth, phase-to-phase, and working clearances, are duly maintained for the existing 11 kV suspension towers proposed for conversion to 33 kV, as well as for the proposed 33 kV suspension towers, in accordance with the applicable Central Electricity Authority Safety Regulations, duly considering the impact of sag, conductor deflection, wind load, and snow load.
- (ix) The BoD in its meeting held on 17.03.2025 had accorded a variation of  $\pm 10\%$  in the estimated cost of the project. The Petitioner is directed to make its all efforts for executing the works within the said variation limits. In case, the variation is beyond the aforesaid limits, the Petitioner shall seek approval for the same from its BoD.
- (x) The Petitioner is directed to duly pursue the insurance claim, if any, in respect of the washed-away underground section of the 11 kV double-circuit line and to inform the Commission upon receipt of the insurance proceeds from the insurance company. The Petitioner is

further directed to appropriately decapitalize the washed-away assets from its books of accounts.

- (xi) 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.
  - (xii) 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.
- (13) 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)**  
Member (Technical)

**(Anurag Sharma)**  
Member (Law)

**(M.L. Prasad)**  
Chairman