Before

UTTARAKHAND ELECTRICITY REGULATORY COMMISSION

Petition No. 20 of 2021

In the Matter of:

Application seeking approval of Uttarakhand Electricity Regulatory Commission (UERC) for investment on the work of construction of 10 nos. 33/11 KV GIS Substations under Integrated Power Development Scheme (IPDS) Project of Ministry of Power, Govt. of India.

And

In the Matter of:

Uttarakhand Power Corporation Ltd., VCV Gabar Singh Bhawan, Kanwali Road, Dehradun.

...Petitioner

Coram

Shri D.P. Gairola Member (Law)

Shri M.K.Jain Member (Technical)

Date of Order: September 17, 2021

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 investment on the construction of 10 nos. 33/11 KV GIS Substations under Integrated Power Development Scheme (IPDS) Project of Ministry of Power, Govt. of India.

Background & Petitioner's Submission

 The Petitioner vide its letter No. 60/UPCL/Comm/RMC-6/D(P) dated 23.12.2020 submitted its Petition for investment approval under the provisions of the Clause 11 of Distribution and Retail Supply Licence and Clause 40 of UERC (Conduct of Business) Regulations, 2014.

- 3. The Petitioner has filed its Petition under clause 11 of Distribution and Retail Supply Licence and Clause-40 of Uttarakhand Electricity Regulatory Commission (Conduct of Business) Regulations, 2014 for seeking investment approval for the aforesaid works.
- 4. The Petitioner under the facts of the case has submitted that:-
 - (1) Government of India has launched Integrated Power Development Scheme (hereinafter referred to as "IPDS") for strengthening of subtransmission and distribution network in the urban areas.
 - (2) The Power Finance Corporation has been designated as the Nodal Agency, for implementation of IPDS programme, under the guidance of Ministry of Power (MoP).
 - (3) The Tripartite Agreement has been signed between Government of India through Power Finance Corporation, Uttarakhand Government and Uttarakhand Power Corporation Limited on 07.12.2015. Moreover, recommendations of the Distribution Reforms Committee (DRC) have been taken as desired in IPDS Guidelines.
 - (4) Detailed Project Report for 10 nos. R-APDRP Towns for the implementation of scheme for construction of 10 nos. 33/11 KV GIS Substations under Integrated Power Development Scheme (IPDS) was prepared. The list of the towns covered under the scheme with the amount of approved Detailed Project Report is as follows: -

| S. No. | Name of Town | No. of GIS S/s approved | Capacity of 33KV substation | Approved DPR Cost (Rs. Cr.) | GoI Grant (Rs. Cr.) |
|-----------|-----------------|----------------------------|-----------------------------------|-----------------------------------|---------------------------|
| 1 | Roorkee | 1 | 2 x 10 MVA | 8.99 | 7.64 |
| 2 | Haridwar | 1 | 2 x 10 MVA | 8.99 | 7.64 |
| 3 | Haldwani | 1 | 2 x 10 MVA | 8.99 | 7.64 |
| 4 | Rudrapur | 1 | 2 x 10 MVA | 8.99 | 7.64 |
| 5 | Kiccha | 1 | 2 x 10 MVA | 8.99 | 7.64 |
| 6 | Almora | 1 | 2x5 MVA | 6.66 | 7.64 |
| 7 | Dehradun | 1 | 2x10 MVA | 8.99 | 7.64 |
| 8 | Gadarpur* | 1 | 2X10 MVA | 8.99 | 7.64 |

IPDS: Approved DPR Cost and Government of India (GoI) Grant

| 9 | Rishikesh* | 1 | 2 x 8 MVA | 8.20 | 6.97 |
|-------|------------|----|-----------|-------|-------|
| 10 | Kotdwar | 1 | 2 x 8 MVA | 8.20 | 6.97 |
| Total | | 10 | 182 MVA | 85.99 | 73.09 |

^{*} Due to non-availability of suitable land at Sitarganj & Muni ki Reti, the substations proposed there have now been proposed at Gadarpur & Rishikesh respectively.

The various sub-heads under which the Rs. 85.99 Cr. is divided are as follows: <u>Sub-head wise Project Cost summary</u>

| S. No. | Particular | Unit | Qty proposed under IPDS | Project Cost (Rs in Lakhs) |
|-----------|-----------------|------|----------------------------|-------------------------------|
| Α | Substation cost | Nos | 10 | 6975.00 |
| В | New 33 KV Line | Kms | 56 | 638.40 |
| С | New 11 KV Line | Kms | 112 | 985.60 |
| D | Others | | | - |
| | GRAND TOTAL | | | 8599.00 |

- (5) The Detailed Project Report with total project cost of Rs 85.99 Crores for construction of 10 nos. GIS 33/11 kV S/s has been approved by monitoring committee of MoP, GoI in its 13th meeting held on 18.12.2018.
- (6) With regard to financing of the project, the Petitioner has submitted that 85% amount of the total project cost shall be provided as GoI grant, which shall be released through M/s PFC Ltd., 10% of the total project cost have to be arranged by UPCL either from its internal resources or to be raised from PFC/REC/or any other financial institution as counterpart loan and rest 5% amount of the total project cost is to be arranged by UPCL from its own fund/source as per IPDS guidelines. Further, an additional grant of Rs. 0.43 Crore i.e. 0.5% of the total project cost would be released as grant for Project Management Agency.
- (7) An additional grant (50% of loan/own fund i.e. 5% for special category states and 15% for other states) under the scheme would be released subject to achievement of following milestones:
 - (i) Timely completion of the scheme as per laid down milestones.
 - (ii) Reduction in AT&C losses as per trajectory finalized by MoP in consultation with State Governments (Discom-wise)
 - (iii) Upfront release of admissible revenue subsidy by state Govt. based on metered consumption.

- 5. The Petitioner also furnished a copy of resolution passed by the Board of Directors in its 95th BOD meeting held on 20.07.2020 for construction of 10 nos. GIS substation under IPDS scheme in its petition.
- The Petitioner in its petition submitted that it has appointed M/s Medhaj Techno Concept Pvt. Ltd. as Project Management Agency (PMA) for the project for timely completion of the scheme.
- 7. The Petitioner in its petition has also furnished that the work order to 10 firms for construction of 10 nos. GIS substation has been issued and submitted that 35% work has been completed. The remaining work would be completed by end of Ist quarter of FY 2021-22 as per timelines provided in the guidelines.
- 8. On examination of the submissions made by Petitioner in its petition, the Commission observed that UPCL has been repeatedly violating the Regulation 40 of CBR, clause 11 of licence conditions and directions of the Commission issued in its various orders dated 14.02.2020, 22.05.2020, 25.08.2020 & 08.12.2020. In this regard, the Commission vide its letter dated 13.01.2021 issued a Show Cause Notice and directed UPCL to submit its reply under affidavit before the Commission latest by **27.01.2020** and decided to hear the matter on **29.01.2021**.
- Incompliance of Commission's Show Cause Notice, UPCL vide its letter dated 01.02.2021 submitted that:-
 - "
 - आई०पी०डी०एस० योजना के अन्तर्गत उत्तराखण्ड राज्य के विभिन्न मण्डलों यथा रूड़की, हरिद्वार, देहरादून नगरीय / ग्रामीण, रानीखेत रूद्रपुर एवं हल्द्वानी में 10 नग 33 / 11 के०वी० जी०आई०एस० उपसंस्थानों के निर्माण हेतु भारत सरकार से नामित नोडल ऐजेन्सी मै० पी०एफ०सी० लि०, नई दिल्ली द्वारा 7 दिसम्बर, 2018 को सैद्धान्तिक रूप से रू० 85.99 करोड़ की डी०पी०आर० स्वीकृत की गयी जिसके अन्तर्गत 85 प्रतिशत अनुदान राशि, 5 प्रतिशत राज्यांश एवं 10 प्रतिशत ऋण का प्रावधान था । आई०पी०डी०एस० योजना के दिशा–निर्देशानुसार सैद्धान्तिक स्वीकृति पश्चात 6 माह के अन्तर्गत कार्यों का आबंटन किया जाना अनिवार्य था अन्यथा कि स्थिति में स्वीकृति निरस्त होने की सम्भावना थी अथवा राज्य को स्वयं अपने स्रोतों से कार्यों का व्यय वहन करना पड़ता।
 - योजना के दिशा—निर्देशों को ध्यान में रखते हुए सभी औपचारिकताऐं समानान्तर (Parallel) रूप से प्रक्रियाधीन रहीं जिसके अन्तर्गत उपसंस्थानों के निर्माण हेतु निविदाऐं आमंत्रित की गयीं एवं 25 नवम्बर, 2019 से 05 मई, 2020 तक विभिन्न कार्यदायी संस्थाओं को कार्य आवंटित किए गए।
 - 3. जक्त योजना हेतु दिनांक 06 जुलाई, 2020 को सम्पन्न Distribution Reforms Committee की बैठक में अनुमोदन प्रदान किया गया तत्पश्चात दिनांक 20 जुलाई, 2020 को निदेशक मण्डल से उक्त योजना हेतु अनुमोदन प्राप्त हुआं।

- 4. निदेशक मण्डल के अनुमोदनोपरान्त Investment approval हेतु कार्यवाही प्रारम्भ की गयी किन्तु कार्मिकों की अत्यन्त कमी व अतिभारित होने तथा कोविड–19 महामारी के दुषप्रभावों के कारण मा0 उत्तराखण्ड विद्युत नियामक आयोग के समक्ष प्रस्ताव प्रस्तुत करने में विलम्ब हुआ । उपरोक्त विवरण के आधार पर मा0 आयोग को स्पष्ट करना है कि विषयगत प्रकरण में जो भी विलम्ब हुआ है वह परिस्थितियवश हुआ है जिसके लिये अत्यन्त खेद है एवं मा0 आयोग को अध्वर्प्त खेर्म में विलम्ब हुआ न विलम्ब हुआ है वह परिस्थितियवश हुआ है जिसके लिये अत्यन्त खेद है एवं मा0 आयोग को अश्वस्त किया जाता है कि भविष्य में विनियमावली के समस्त प्राविधानों के अनुरूप संसमय कार्यवाही की जायेगी । अतः मा0 आयोग से अनुरोध है कि उक्त इंगित कारणों एवं कोविड–19 के कारण उत्पन्न विषम परिस्थितियों के संज्ञानार्थ कारण बताओ नोटिस को निरस्त करने की कृपा करें।"
- Further, the Petitioner in its aforesaid submission dated 01.02.2021 furnished an extract of 95th BOD meeting stating that:-

"ITEM NO. 95.17: Approval for Construction of Ten (10) No. GIS Sub-stations under IPDS program of MoP, GoI.

The Board reviewed the agenda proposal as per the factual position stipulated in the agenda note. It was informed by Director (P) that 8 out of 10 substations have already been awarded and the works is in progress. During deliberations on the proposal, the Board advised Director (Project) to ensure compliance of all GoI guidelines in execution of IPDS projects. It was directed that the targeted impact of the proposed GIS Sub-stations in revenue and/or service enhancement should also be presented by Director (Project). The Board directed to prepare the following information for each such proposal including the proposal including the proposal under consideration and place the same in the next Board meeting:

- 1. List of all works under progress and planned in the current and next Financial Year.
- 2. Summary of Cost Benefit Analysis and Return on Investment for the proposed Substations.

Thereafter, based on the proposal of MD and D(P), and as recommended by COD the Board passed the following Resolutions:

"**RESOLVED THAT** approval of the Board be and is hereby accorded to the proposal to Construct 10 No. GIS Substations in Uttarakhand under IPDS as per details as contained in the agenda note and as approved by Monitoring Committee of Ministry of Power, Govt. of India in its 13th meeting held on 18th Oct, 2018.'

'RESOLVED FURTHER THAT this project shall be implemented in line with the Tripartite Agreement (TPA) already signed between UPCL, GoU & PFC (Nodal Agency).'

'**RESOVED FURTHER THAT** 5% amount of the total sanctioned project cost i.e. Discom's contribution is to be arranged by UPCL through its own funds. The same may be asked from Govt. of Uttarakhand under equity for FY 2019-20.'

'**RESOVED FURTHER THAT** 10% amount of the total sanctioned project cost is to be taken as debt from the Financial Institutions (i.e. PFC/REC/FIs/Banks) whosever can provide the same at the lowest interest rates.'

..."

11. Furthermore, the Petitioner in its submission dated 01.02.2021 in extract of MoM of State Level Distribution Reforms Committee (SLRDC) held on 06.07.2020 stated that the DPR submitted to Nodal Agency was prepared on the basis of benchmark cost provided by Nodal Agency, however, for the purpose of floating the tender, UPCL has worked out the detailed estimates as follows:-

| S. No. | Name of Town | Capacity of 33KV substation | Length of 33 KV Line | Total Estimated Cost (Rs. Cr.) | Approved DPR Cost (Rs. Cr.) |
|-----------|-----------------|-----------------------------------|-------------------------|---|--------------------------------------|
| 1 | Roorkee | 2 x 10 MVA | 5.0 Km U/G | 9.20 | 8.99 |
| 2 | Haridwar | 2 x 10 MVA | 3.5 Km U/G | 8.36 | 8.99 |
| 3 | Haldwani | 2 x 10 MVA | 3.0 Km U/G | 8.63 | 8.99 |
| 4 | Rudrapur | 2 x 10 MVA | 0.8 Km U/G | 8.21 | 8.99 |
| 5 | Kiccha | 2 x 10 MVA | 1.5 Km U/G | 8.54 | 8.99 |
| 6 | Almora | 2x5 MVA | 1.31 Km U/G | 6.72 | 6.66 |
| 7 | Dehradun | 2x10 MVA | 5.4 Km U/G | 10.47 | 8.99 |
| 8 | Gadarpur | 2X10 MVA | 1.5 Km U/G | 8.63 | 8.99 |
| 9 | Rishikesh* | 2 x 8 MVA | 4.4 Km U/G | 12.62 | 8.20 |
| 10 | Kotdwar* | 2 x 8 MVA | 0.08 Km U/G | 7.53 | 8.20 |
| Total | | 182 MVA | 22.01 Km | 88.91 | 85.99 |

*The estimates of these two substations are including the cost of 11 kV feeders also, whereas, the estimate of other 08 no. substations are excluding the cost of 11 kV feeders. The work of 11 kV feeders of these 08 no. substations shall be taken up separately for which UPCL shall use the available balance funds from the central funding as above and the remaining from UPCL internal sources.

- 12. Thereafter, the Commission vide its letter dated 08.03.2021 issued a notice for hearing on maintainability of the Petition to be held on 09.03.2021 to the Petitioner in the matter.
- 13. Hearing was held on the scheduled date & time. Further, during the hearing, the Commission allowed to admit the Petition and reprimanded the licensee that it should strictly adhere to the provisions of the Licence conditions and Regulations

and cautioned the licensee that any laxity on the same in future shall not be condoned.

- 14. On preliminary examination of the Petition certain deficiencies/requirements of additional information were identified, the Commission vide its letter No. 1403 dated 16.03.2021 directed the Petitioner to furnish its compliance on the following latest by 05.04.2021:-
 - ,,
 - 1. As per Regulation 40(3) of UERC (Conduct of Business) Regulations, 2014, UPCL is required to submit a DPR containing following detail/information for each S/s under the project:-
 - (a) A detailed project report containing examination of an economic technical system and environmental aspects of the investment together with the outline of the work to be undertaken, the salient features and particulars demonstrating the need for investment;
 - (b) The project cost together with the cost benefit analysis;
 - (c) Whether the investment is in a new project or for expansion or up-gradation of an existing system;
 - (d) Sanctions and statutory clearances required for execution of the project and status of such sanctions and statutory clearances;
 - (e) Phasing of investment over the financial years and the commissioning schedule;
 - (f) The manner in which investments will be capitalized for the purposes of inclusion in the revenue requirements of the licensee/SLDC & generating Company (other than non-conventional/renewable sources of energy);
 - •••

(j) Such other particulars as the Commission may from time to time direct."

However, on examination of the documents submitted before the Commission, it has been observed that UPCL has not complied with the above provisions of the Regulations. Therefore, UPCL is directed to submit the DPR in accordance with the Regulations.

2. No detail of single line diagram with load position of the lines and feeding S/s, cost estimate and item-wise cost breakup for the project covering the 'construction of 10 nos. 33/11 kV GIS Substations under IPDS', pay back period calculation have been provided.

UPCL is required to furnish the aforesaid details alongwith soft copy in excel format for the same.

- 3. UPCL is required to furnish current status of release of funds from PFC for the said works alongwith current status of completion of works and expected date of completion.
- 4. UPCL is required to furnish the details of forest clearances and land acquisition for the 10 nos. 33/11 kV GIS Substations and its associated lines.

- 5. UPCL is required to furnish a general arrangement drawing of 2x10 MVA 33/11 kV GIS S/s at Roorkee, 2x8 MVA 33/11 kV GIS S/s at Rishikesh & 2x5 MVA 33/11 kV GIS S/s at Almora.
- 6. UPCL is required to furnish the technical and financial comparisons between 33/11 kV GIS S/s and 33/11 kV PDC type S/s and pros & cons associated with it."
- 15. In response to the deficiencies, UPCL vide its letter dated 05.04.2021 requested time extension upto 23.04.2021. Further, UPCL vide its letter dated 13.05.2021 requested for additional time extension upto 23.07.2021 citing the reason of Covid-19 pandemic. Thereafter, UPCL vide its letter dated 22.07.2021 submitted its compliance and furnished the following: -
 - (1) Detailed project report as accepted by M/s PFC, the nodal agency of Ministry of Power, Govt. of India, Single line diagram of all the proposed sub-stations with other requisite information viz. estimate/item-wise cost breakup etc., General Arrangement (GA) drawing for GIS sub-station Roorkee, Rishikesh and Almora.
 - (2) The Petitioner also furnished technical and financial comparison between the GIS and PDC type 33/11 kV sub-station.
 - (3) With regard to land acquisition and forest clearances, the petitioner submitted that all GIS substations are being constructed in town areas and land for these sub-statins has already been acquired and no forest clearance is required for the associated 33 kV lines or 11 kV lines. Moreover, the Petitioner informed that approx. 65% works has already been completed till date and the targeted date of completion of the project is Dec, 2021.
 - With regard to year-wise status of release of the fund by M/s PFC, the Petitioner furnished that:-

| <i>S</i> . | FY | Fund Release (Rs. in | Expenditure incurred against |
|------------|---------|----------------------|------------------------------|
| No. | | Crore) | the project (Rs. In Crore) |
| 1 | 2019-20 | - | 0.52 |
| 2 | 2020-21 | - | 11.68 |
| 3 | 2021-22 | 24.18 | 11.62 |
| | Total | 24.18 | 23.82 |

16. Finally, the Petitioner vide its letter dated 28.08.2021 submitted copy of cost-wise break-up of all the 10 nos. GIS substations in the desired format for consideration of the same.

Commission's Observations, Views & Directions:-

- 17. On examination of the Petition and subsequent submissions of the Petitioner made before the Commission following has been observed:-
 - (1)The Commission has observed that in the instant case UPCL has blatantly failed in adhering to the provisions of clause 11 of the Distribution and Retail Supply Licence dated 20.06.2003 and Regulation 40 of UERC (Conduct of Business) Regulations, 2014 and has filed a Petition before the Commission neither acknowledging the same nor has requested for condonation. Similar acts of the Petitioner have also been highlighted by the Commission in its past Orders and the Petitioner had been categorically directed not to repeat such lapses in its future submissions. However, it that the Petitioner is heed the appears not paying to directives/advisories/reprimands of the Commission. The Commission has already expressed its serious concern in its admittance Order dated 09.03.2021 of the instant Petition and again cautions the Petitioner not to repeat such acts in future investment proposals else the Commission would take coercive action against the Petitioner under the provisions of the Act/Regulations/Licence conditions.
 - (2) On examination of the Petitioner's submission dated 13.01.2021 it seems that UPCL has tried to put wrong claims pertaining to delay in filing of investment approval before the Commission. Further, from aforesaid Petitioner's submission that 'the meeting of Distribution Reforms Committee was held on 06.07.2020 and thereafter approval from Director level was accorded on 20.07.2020', it is observed that it is an attempt to portray that the delay was linked to the said meeting of Distribution Reforms Committee and further delay was due to the Covid-19 pandemic. Whereas, the responsibility of distribution licensee under the provisions of Regulation 40 of CBR and Clause 11 of distribution licence has to abide by

the same and seek prior investment approval from the Commission for the investment exceeding Rs. 2.5 Crores. The aforesaid act of UPCL is a clear indication of its lackadaisical approach towards compliance of the provisions of Conduct of Business Regulations, Distribution Licence Conditions and several other directions issued by the Commission from time to time.

- Further, on detailed examination of the Petition and subsequent submissions, following has been observed: -
 - (1) As per PFC letter dated 07.12.2018 pertaining financial assistance to UPCL for implementation of GIS Sub-stations under IPDS Scheme of GoI, "... project completion dates as per IPDS guidelines shall be 06.06.2021 (viz. 30 months from date of sanction letter). The closing date for drawl of grant shall be 05.06.2022 (i.e. one year from project completion date)/or any other date as decided by Monitoring Committee. Expenditure incurred after the sanction letter date shall only be eligible for Grant utilization."

Further, Chapter IV Para 15 of the IPDS guidelines provides that: -

"15 Pre Closure/Recall of Grant:

15.1 In case the utility fails to submit the Project Completion Certificate within a period of one year from the approved project completion date (approved by Monitoring Committee), or not completed project within project completion date due to poor progress, the Nodal Agency shall send a team suo-moto to assess the works and expenditure and submit its recommendation to the Monitoring Committee for closure and also refund of excess grant by utility if any released against the project.

15.2 In case the utility fails to award the project within nine months from release of first tranche of grant component viz. 10% the project will be deemed as closed/cancelled and the grant component released shall be refunded by the utility within three months.

15.3 In case the utility fails to refund the grant as in above cases, the Nodal Agency has the right to adjust the already released grant against future releases of grant pertaining to other approved projects under the scheme. If there are no such eligible future releases, the same shall be adjusted against the Central Plan Assistance for the state by Govt. of India."

 On examination of the single line diagrams furnished with the submission for the aforesaid 33/11 kV GIS Sub-stations, the Commission has observed that the Petitioner has not proposed 'N-1' contingency provision for 33 kV incoming supply at 06 out of 10 nos. 33/11 kV GIS S/s proposed at Rishikesh, Kiccha, Rudrapur, Gadarpur, Haldwani and Almora. Whereas, Regulation 3.6 (4) of UERC (Distribution Code) Regulations, 2018 provides 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 this regard, the Commission opines that the responsibility of long-term planning of distribution system lies with the distribution licensee who should appropriately make consideration for adequacy and redundancy in distribution system capacity so that maintenance of the distribution assets do not create hindrance in power supply of the consumers and the power availability is ensured through the alternative circuit arrangement. Further, regarding the distribution system planning, the Commission is of the view that the Petitioner should ensure to analyze the system capacity and adequacy of the lines/Substations feeding the proposed Substations, as such analysis would help in early identification of bottlenecks in existing sub-transmission and distribution network of the Petitioner. Thus, the same would help in effective distribution system network planning.

(3) On examination of the cost-wise breakup of 10 nos. 33/11 kV GIS S/s, it has been observed that the Petitioner has proposed to install following size XLPE cable laying in trenches in certain portion of the proposed 33/11 kV GIS S/s:-

| S. No. Name of Town | | Capacity of 33KVsubstation | Size of 3C XLPE 33 kV cable used in trenches |
|---------------------|-----------|-------------------------------|---|
| 1 | Roorkee | 2 x 10 MVA | 3CX300 sqmm |
| 2 | Haridwar | 2 x 10 MVA | 3CX300 sqmm |
| 3 | Haldwani | 2 x 10 MVA | 3CX300 sqmm |
| 4 | Rudrapur | 2 x 10 MVA | 3CX300 sqmm |
| 5 | Kiccha | 2 x 10 MVA | 3CX300 sqmm |
| 6 | Almora | 2x5 MVA | 3CX300 sqmm |
| 7 | Dehradun | 2x10 MVA | 3CX400 sqmm |
| 8 | Gadarpur | 2X10 MVA | 3CX300 sqmm |
| 9 | Rishikesh | 2 x 8 MVA | 3CX400 sqmm |
| 10 | Kotdwar | 2 x 8 MVA | 3CX300 sqmm |

In this regard, the Petitioner is cautioned to install correct size 33 kV cable based on the ampere requirement of load. The Commission opines that special care while HT cable sizing should be done considering the variation in factors such as ambient air temperature, ground temperature, ground thermal resistivity, depth of laying etc. which adversely affect the current carrying capacity of the cables. Further, the Commission opines that special emphasis should be laid on identification of bottleneck areas in the distribution elements which could easily fail at a later stage with variation in ambient conditions and load pattern.

- (4) With regard to GIS substations, the Petitioner has submitted that post commissioning of the aforesaid substations following benefits are envisaged:-
 - (i) Installation of substations at load center locations/densely populated areas where acute space constraints exist.
 - (ii) Minimized fault and restoration time due to use of advance technology.
 - (iii) GIS based substation are less prone to faults.
 - (iv) GIS based Substations are very safe as operating personnel are protected by the earthed metal enclosures of the system.
 - (v) The complete enclosure of all live parts guards against any impairment of the insulation system.
 - (vi) GIS based system has practically no maintenance requirement.
 - (vii) Quick site assembly is ensured by extensive pre-assembly and testing of units in the factory.
- (5) In addition to the benefits mentioned at S.No. 18 (4) above, the Petitioner has submitted that post construction of the aforesaid substations following benefits are also envisaged:-
 - (i) Improved voltage profile of the respective areas.
 - (ii) Cater to the demands of load growth.

- (iii) The proposed substations shall be used as revenue billing/collection centre which would improve billing and collection efficiencies.
- (iv) Improvement in SAIFI, SAIDI and MAIFI indicators and prompt restoration of supply in case of breakdown.
- 19. Based on the Petitioner's submissions and observations, the Commission is of the view that in case the Petitioner achieves the aforesaid benefits from the project on 'Construction of 10 nos. 33/11 kV GIS Substations under IPDS Scheme Project of MoP, GoI', it would help in improving the overall quality and reliability of power in the respective areas where GIS based 33/11 kV substations have been proposed under the project. However, the Commission cautions the Petitioner that adoption of advanced technology should not merely be based on asset addition in distribution system but the same should be based on an inclusive approach wherein the field engineers and staff are well trained & well versed with the advanced technology system, its Standard Operating Procedures and maintenance issues associated with it. Therefore, the true adoption/acceptance of advanced technology calls for harmony amongst the man, machine & material which would perhaps determine its future as boon or bane.
- 20. Further, the Commission is of the view that schemes like IPDS, which provides grant from Central Government should be availed/encouraged in the State, as it not only provides early availability of funds but also it is an initiative to modernize and renovate the sub-transmission & distribution electrical network which ultimately helps in providing reliable & quality power supply to consumers in an efficient and sustainable manner. However, the Commission cautions the Petitioner that if such schemes are not implemented in the right earnest/intent and within the specified time schedule then it would result in recalling of grant as mentioned in para 18 (1) above. Hence, any adverse financial impact on the Petitioner on account of such reasons shall not be allowed as a pass through in the tariffs.
- 21. Therefore, considering the submissions made by the Petitioner in its instant Petition and subsequent submissions in the matter, the Commission hereby grants in-principle approval to the Petitioner for going ahead with the proposed works

pertaining to 'Construction of 10 nos. 33/11 kV GIS Substations under IPDS Scheme Project of MoP, GoI' subject to fulfillment of the following conditions:

- (1) Any slackness in the part of Petitioner which results in disallowance of issuance of additional 5% grant from the PFC shall be treated as laxity on its part and shall not be allowed as pass through in tariff.
- (2) All the loan conditions as may be laid down by the funding agency i.e. PFC Ltd. in their detailed sanction letter should strictly be complied with. However, the Petitioner is directed to explore the possibility of swapping the loan with cheaper debt option if any, available in the market.
- (3) The Petitioner shall, within one month of the Order, submit letter from the State Government or any such documentary evidence in support of its claim for equity funding agreed by the State Government or any other source in respect of the said works.
- (4) All the terms and conditions of tripartite agreement amongst PFC, GoU and UPCL dated 07.12.2015 including obligations/commitments should be strictly complied with by the Petitioner.
- (5) On completion of the project, the Petitioner shall submit the completed cost of each of the works.
- (6) The additional cost burden due to any failure on the part of Petitioner in achieving the targets, if any, arising out of the cost or time over runs or variation in scope of work under the project or on any other account may not be allowed by the Commission in the Annual Revenue Requirement of the licensee.

Ordered accordingly.

(M.K. Jain) Member (Technical) (D.P. Gairola) Member (Law)