

**Before**

**UTTARAKHAND ELECTRICITY REGULATORY COMMISSION**

**Petition No. 33 of 2018**

**In the Matter of:**

Application seeking approval for the investment on the project covering the construction of 01 No. 66/33 kV Substation & its 0.60 Km associated 66 kV line.

**And**

**In the Matter of:**

Uttarakhand Power Corporation Limited. (UPCL),  
VCV Gabar Singh Urja Bhawan, Kanwali Road,  
Dehradun.

**...Petitioner.**

**And**

- 1) Managing Director,  
Power Transmission Corporation of Uttarakhand Ltd.,  
Vidyut Bhawan, Majra,  
Dehradun.
- 2) Managing Director, UJVN Limited,  
"UJJWAL", Maharani Bagh, GMS Road,  
Dehradun.

**...Respondents.**

**Coram**

**Shri Subhash Kumar      Chairman**

**Date of Order: September 12, 2018**

**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 prior approval of the Commission for the investment on the project covering the construction of 01 No. 66/33 kV Substation & its 0.60 Km associated 66 kV Line.

**Background**

2. The Petitioner vide its letter No. 1061/UPCL/Com/RMC-6/D(F) dated 16.03.2018 submitted Petition for prior approval of investment under the provisions of the Clause 11 of Distribution and Retail Supply License and Clause 40 of UERC (Conduct of Business) Regulations, 2014.

3. The Petitioner in its Petition has submitted that:-

“

- i. *With a view to ensure reliable power supply, improved voltage profile and to meet future load growth, the applicant company has proposed the construction of 01 No. 66/33 KV Substation & 0.60 Km, 66 KV Line. The estimated cost of the project is Rs. 13.13 Cr., which will be met through loan (70%) from REC and Equity (30%) from State Government. The land for Construction of Substations will be made available by the respective Electricity Distribution Division of UPCL. The project is proposed to be implemented partially on turnkey basis. The duration of the project is 02 years (F.Y. 2018-19 to F.Y. 2019-20). The details of substation and line are as follows:-*

*in Rs.Crs.*

<i>Name of Substation</i>	<i>District</i>	<i>Substation Capacity (MVA)</i>	<i>Estimated cost of Substation</i>	<i>Length of Line (Km.)</i>	<i>Estimated cost of Line</i>	<i>Total Cost</i>
<i>66/33 KV Substation &amp; its associated line:-</i>						
<i>Manglore</i>	<i>Roorkee</i>	<i>2X15</i>	<i>11.31</i>	<i>0.60</i>	<i>1.82</i>	<i>13.13</i>

...

- iii. *That in the instant case since PTCUL has the first right to develop, operate and maintain the 66/33 kV sub-station alongwith its associated lines being a Transmission Licensee of the State hence requisite consent from PTCUL for operation and maintenance of 66 kV D/C Mohammadpur-Ramnagar line has been taken and MoM dated 27-02-2018 held between UPCL and PTCUL is enclosed herewith Annexure-D. "*

4. The Petitioner in its Petition has submitted a Detailed Project Report alongwith copy of loan approval of REC, approval of 79<sup>th</sup> BOD held on 28.03.2017 and copy of MOM dated 27.02.2018 held between PTCUL & the Petitioner.

5. On preliminary examination of the Petition, it has been observed that the aforesaid 66/33 kV S/s is proposed on a 66 kV owned & maintained by PTCUL used for evacuating power from Mohammadpur SHP (3X3.1 MW) of UJVN Ltd. Therefore, the Commission decided to make PTCUL & UJVN Ltd. as Respondents in the matter and informed vide its letter no. 176 & 177 dated 27.04.2018 asking them to submit desired information/ clarifications/ requirements on the points annexed with the above letters. The same are being reproduced below:-

**Letter No. 175 dated 27.04.2018 to UPCL**

“1.

*... it is observed that UPCL was required to take approval of the Commission before entering into any agreement or arrangement to get any part of the Licensed business, as stipulated in licence condition 5.1 (C) of Distribution Licence.*

*Moreover, it is observed that as per MoM dated 27.02.2018, consent for only O&M of 66 kV line has been given to UPCL by PTCUL, whereas, the consent for constructing 66 kV S/s has not been specified.*

*UPCL is required to clarify the same in light of the prevailing Regulations & Distribution Licence conditions and is required to furnish its justification on the issues raised above.*

2. ...

*UPCL is required to analyse its Petition w.r.t. prospective deemed generation claims, if any, on the aforesaid 66 kV Mohammadpur-Ramnagar line.*

3. ...

*UPCL is directed to recheck/revise its proposal in harmony with the UERC (Distribution Code) Regulations, 2018 and conduct joint site visit with PTCUL for safety, electrical clearances and reliability audit of the said line, structures & accessories for ensuring the adequacy of the said line for catering to the load of proposed 30 MVA S/s alongwith future load growth requirements.*

4. ...

*UPCL is directed to clarify for not claiming the ownership of the aforesaid line from PTCUL, as in case of 66 kV Srinagar-Joshimath line. Further, UPCL is required to provide details of provisions of the prevailing Regulations under which the O&M charges for the aforesaid 66 kV line & S/s would be claimed by it.*

5. ...

*UPCL is required to furnish details of all outgoing feeders from the proposed 66/33 kV S/s Mangalore alongwith details of present load which would be transferred to the said S/s, feeder-wise anticipated new load , type of load proposed to be catered.*

#### **Letter No. 176 dated 27.04.2018 to UJVN Ltd.**

*"...since, the proposed 66/33 kV S/s is to be connected with 66 kV power evacuation line from 3x3.1 MW Mohammadpur SHP of UJVN Ltd.*

*In this connection, I have been directed to inform you that the Commission had decided to make UJVN Ltd. a respondent in the matter. Hence, you are directed to furnish your comments on the same alongwith copy of connectivity agreement with PTCUL, before the Commission, latest by 21.05.2018."*

#### **Letter No. 177 dated 27.04.2018 to PTCUL**

"

1. ...

*PTCUL has given its consent to UPCL for O&M of 66 kV D/C Mohammadpur-Ramnagar line, whereas, in the instant case the consent of asset transfer has not been provided.*

*Moreover, as per Transmission Licence conditions the EHT network including 66 kV has to be developed by the Transmission Licensee which includes line & S/s, whereas, as per MoM dated 27.02.2018, only O&M of 66 kV line has been given to UPCL and no reference of giving away the responsibility of developing 66 kV S/s has been mentioned in the aforesaid MoM.*

*PTCUL is directed to submit justification for the same and clarify for not transferring the ownership in the instant case.*

2. *The proposed 66 kV S/s would be constructed on 66 kV Mohammadpur-Ramnagar Line which is a power evacuation line from 3x3.1 MW Mohammadpur SHP of*

UJVN Ltd. In this regard, it is observed that issues in future with regard to deemed generation claims may arise.

**PTCUL is required to comment on the same and submit copy of connectivity agreement with UJVN Ltd. for the aforesaid 66 kV line.**

3. ...  
**PTCUL is directed to conduct joint site visit with UPCL for safety, electrical clearances and reliability audit of the said line & structures for ensuring the adequacy for catering to the load of proposed 30 MVA S/s alongwith future load growth requirements.**
4. ...  
**PTCUL is directed to critically evaluate and furnish its exclusive comments for creation of a 66 kV S/s in the area and adequacy of the 66 kV network for catering to the future load requirements of Mangalore and adjoining areas and propose suitable solution which is conducive for long term planning for load requirements for the aforesaid areas.**
5. ... **PTCUL is directed to explore the possibility of constructing 132 kV S/s at the proposed location by upgrading the existing 66 kV line from 220/132/66 kV S/s Ramnagar to the proposed S/s at Mangalore and conversion of 66 kV Mohammadpur-Ramnagar line to 33 kV upto the proposed S/s at Mangalore in consultation with UJVN Ltd.**
6. **PTCUL is required to furnish the loading details of the aforesaid 66 kV line and loading details of all outgoing feeders from 220/132/66 kV S/s Ramnagar alongwith Single Line Diagram (SLD) of the same. "**

6. In compliance to the Commission's letter dated 27.04.2018, UJVN Ltd. vide its letter no. 542 dated 21.05.2018 submitted its comments on the Petitioner's instant Petition and submitted that "... if the grant of approval is deemed to be necessary in public interest by the Hon'ble UERC, the same may kindly be approved subject to the following conditions:

1. *The protection system shall be graded such that the faults or disturbances of 33 kV shall not be reflected in 66 kV system.*
2. *...PTCUL must undertake the guarantee to make good all future generation loss (deemed generation) and also the loss/damage to machine(s) and/or equipment(s) at 3X3.1 MW, Mohammandpur Power Station, if it happens so in future at any point of time on account of reflection of fault(s) of 33 kV and/or 66/33 kV new substation, as UJVN Ltd. is not concerned about mutual understanding has been arrived between UPCL and PTCUL regarding the Operation and Maintenance of 66 kV Mohammadpur-Ramnagar (Roorkee) line.*
3. *Further, the UPCL shall not be eligible to claim any wheeling or R&M charges of this 66 kV line from UJVN Ltd., as the UPCL is implementing this project in its own interest.*
4. *It is also to inform that 66 kV Mohammadpur Ramnagar line is also being used for evacuating the generation of UP Jal Vidyut Nigam Power House (02 Nos. 66 kV feeders are coming from Nirgazini to Mohammadpur Power House). The same may also be taken into consideration.*  
*As regards the copy of connectivity agreement with PTCUL, no such document is available. "*

7. The Commission vide its letter no. 355 dated 01.06.2018 directed PTCUL to submit comments on the UJVN Ltd.'s comments vide letter dated 21.05.2018 alongwith reply of the queries sent vide Commission's letter dated 27.04.2018. Further, the Commission vide its letter no. 372 dated 04.06.2018 directed the Petitioner to submit comments made on the UJVN Ltd.'s comments made vide letter dated 21.05.2018 alongwith reply of the queries sent vide Commission's letter dated 27.04.2018.
8. In compliance to the Commission's letter dated 27.04.2018 & 01.06.2018, PTCUL vide its letter no. 1293 dated 15.06.2018 submitted that:-

**PTCUL's Reply on UJVN Ltd. submission dated 21.05.2018 at Para 1 of Page No. 2:-**

*"...that 66kV Ramnagar-Mohammadpur line is very old and is not able to sustain the load of 2X15MVA Tff of Substation of UPCL. Hence, grading of protection system such that the faults or disturbances of 33kV shall be reflected in 66kV System may not be required."*

**PTCUL's Reply on UJVN Ltd. submission dated 21.05.2018 at Para 2 of Page No.2:-**

*"...as per Clause no. 4 of sub-regulation 47 i.e. Deemed Generation of UERC (Tariff and other terms for supply of Electricity from Renewable Energy sources and non-fossil fuels based Co-generating Stations) Regulations, 2013, a part of para quoted as "Distribution Licensee shall pay for saleable deemed generation, on annual basis, for small hydro projects and solar PV and Solar Thermal Projects worked out on the basis of deemed generation of above lines, at generic/projects specific tariffs under the provisions of RE Regulations."*

*Therefore, Deemed generation is not applicable on PTCUL.*

*Further, it is submitted that at proposed load of 30 MVA, 66/33 kV S/s along with future load growth requirements, the issue of the clearance of the line may arise. Hence, connecting 2X15 MVA, 66/33 kV Substation & its future load growth requirements to 66 kV Ramnagar-Mohammadpur line is not technically feasible."*[Emphasis Added]

**PTCUL's Reply on Commission's Query No. 1 dated 27.04.2018:-**

*"...as per Transmission License issued to PTCUL, PTCUL is authorized for transmission business consisting of system mainly of EHT network having design voltage of 66kV and higher, owned or controlled by the licensee and used for the purposes of the transportation of electricity between switchyard of two Generating stations or from the switchyard of one Generating station to a substation , or between two substations or to or from any external interconnection and includes all bays/equipment up to the interconnection with Distribution System.*

*Considering that beneficiary of 66kV Ramnagar-Mohammadpur line is UPCL and in the view of the same, consent of O&M of this line was given to UPCL inadvertently. However, as per License conditions issued to PTCUL, PTCUL is*

*not intended to transfer or relinquish Operational Rights of its assets in the instant case. ” [Emphasis Added]*

**PTCUL’s Reply on Commission’s Query No. 2 dated 27.04.2018:-**

*“...as per Clause no. 4 of sub-regulation 47 i.e. Deemed Generation of UERC (Tariff and other terms for supply of Electricity from Renewable Energy sources and non-fossil fuels based Co-generating Stations) Regulations, 2013, a part of para quoted as*

*“Distribution Licensee shall pay for saleable deemed generation, on annual basis, for small hydro projects and solar PV and Solar Thermal Projects worked out on the basis of deemed generation of above lines, at generic/projects specific tariffs under the provisions of RE Regulations.”*

*Therefore, Deemed generation is not applicable on PTCUL. Further, as the 66kV Mohammadpur-Ramnagar line is one of the oldest line used for evacuation of Mohammadpur Power house, there is no connectivity agreement with UJVN Ltd. for above said line due to no Regulatory framework at that time.*

**PTCUL’s Reply on Commission’s Query No. 3 dated 27.04.2018:-**

*“...a joint visit with UPCL has been conducted on dated 17.05.2018. The 66kV Ramnagar-Mohammadpur line is very old and at some places the line passes through highly dense populated areas with low clearance. Therefore, at proposed load of 30MVA, 66/33kV S/s along with future load growth requirements, the issue of the clearance of the line may arise. Hence, connecting 2X15MVA, 66/33kV Substation & its future load growth requirements to 66kV Ramnagar-Mohammadpur line is not technically feasible.” [Emphasis Added]*

**PTCUL’s Reply on Commission’s Query No. 4 dated 27.04.2018:-**

*“...PTCUL has replaced conductor of 132kV Roorkee-Mangalore line from ACSR wolf/Panther to HTLS Casablanca on dated 17.12.2017. Further, PTCUL is proposing augmentation of 132/33 kV Transformer capacity at 132 kV S/s Mangalore from 2x40 MVA to 1x40 MVA + 1x80 MVA. [Emphasis Added]*

*Keeping in view of future load growth requirements of Manglore and adjoining areas, PTCUL has planned to construct 220/132/33kV Substation in Mangalore area as long term planning to meet future load growth in Mangalore and nearby area.(System study report is enclosed as Annexure -A).*

**PTCUL’s Reply on Commission’s Query No. 5 dated 27.04.2018:-**

*“...as per present scenario, the ROW issue may arise in up gradation of existing 66kV line to 132kV line, as line passes through highly dense populated area with low clearance and there is no possibility of upgrading the 66kV line to 132kV line due to anticipated severe ROW problem. The proposal of construction of 220/132/33kV S/s at Mangalore area is under consideration.*

*Considering the future load growth requirement, it is not feasible to construct 132kV S/s at proposed location by up gradation of the existing 66kV S/s (System study report is submitted as Annexure-A).*

*It is also to submit that UJVN Ltd. vide Letter No. 438/HGC(Pathri) dated 18.05.2018 submitted as **Annexure-B**, informed that 66kV Mohammadpur–Ramnagar line is also used for evacuating the generation of UP Jal Vidyut Nigam Power house (02 Nos. 66kV feeders are coming from Nirgazini to Mohammadpur PH). Also Mohammadpur PH is running satisfactorily on present 66kV systems.*

**PTCUL’s Reply on Commission’s Query No. 6 dated 27.04.2018:-**

*The desired information is humbly submitted as **Annexure-C** before the Hon’ble UERC.”*

9. The Commission vide its letter no. 483 dated 28.06.2018 forwarded the copy of PTCUL’s submission to the Petitioner vide letter no. 1293 dated 15.06.2018 for submitting its comment.
10. The Petitioner vide its letter no. 2640 dated 02.07.2018 submitted its reply to the deficiencies pointed out by the Commission in its letter No. 175 dated 27.04.2018 and reply against UJVN Ltd.’s comments vide letter dated 21.05.2018, the reply of the Petitioner is reproduced below:-

**UPCL’s reply on Commissions queries dated 27.04.2018:-**

*“... ”*

1. *To honour Distribution licence conditions as prescribed by the Hon’ble Commission, petition has been brought before the Hon’ble Commission for seeking investment approval as well as the permission for construction of the proposed 66/33 kV Sub-station, Mangalore.*
2. *Since, UPCL shall be responsible for up-keep & maintenance of 66 kV Mohammadpur-Ramnagar line, therefore deemed generation on account of 66 kV line issues shall be liable on UPCL’s part.*
3. *132/33 kV Sub-station, Mangalore is running heavily loaded, as 2X40 MVA, 132/33 kV power Transformers have experienced maximum load of 1360 amps against its capacity of 1400 amps. It is evident that 132/33 kV Mangalore, Sub-station has been running with its full capacity and immediate action is required to be taken to reduce the load on 2X40 MVA Transformers for efficient functioning of the Sub-station. At the same time it also pertinent to mention that due to space constraints and ROW issues, the possibility of construction of any new 33 kV bay at 132/33 kV Substation premise is almost negligible.  
*There are two independent 66 kV ckts Mohammadpur Power Station and 220/132/66/33 kV Sub-station, Ramnagar for the purpose of Power Evacuation. Proposed 66/33 kV Sub-station shall be connected with both the ckts through LILO arrangement. One of the two ckts emanating from Mohammadpur Power House shall always be kept connected with one no. 15 MVA 66/33 kV Transformer and 220/132/66/33 kV Sub-station, Ramnagar as well to ensure smooth power evacuation, and other one ckt emanating from 220/132/66/33 kV Sub-station, Ramnagar shall be connected to the other 15 MVA, 66/33 kV Transformer independently. This arrangement shall ensure minimum required load to be catered through each ckt. In normal condition proposed new 2X15 MVA, 66/33 kV Sub-station shall draw 81.37 amps load through one ckt. from generating power Station**

and 131.25 amps load from the 220/132/33/33 kV Substation, Ramnagar through other ckt. independently, which are much lower than the capacity of DOG conductors being used in both the ckts, whereas to ensure optimum efficiency of 15 MVA, Power Transformer with 70% loading, the ckt would be carrying 91.87 amps current only.

In case of closure of Generating Power Station, new 66/33 kV Sub-station shall remain connected to 220/132/66/33 kV Substation, Ramnagar with both independent 66 kV ckts to avoid overloading of any individual ckt. In such arrangement maximum current flow through each ckt shall be 131.25 amps which are quite safe in case of Dog conductor in use.

Planning has been done to cater the anticipated load growth in next 4 to 5 years in such a way that the immediately anticipated new load of 280 amps. at 33 kV voltage level shall be met in first one or two years of construction of Sub-station. Thereafter with an anticipated annual load growth of 10% and at the same time reduction in loading of 2X40 MVA, 132/33 kV Power Transformers of Mangalore Sub-station.

4. Meanwhile UPCL shall explore the possibility of taking over the assets related to the said 66 kV lines, if it's indispensable on account of honouring the distribution/transmission licence conditions prescribed by the Hon'ble Commission.
5. Following feeders shall be connected to the proposed sub-station:-

S.No.	Name of 33 kV feeders	Anticipated New Load (Amps)	Load to be transferred (amps)	Total Load on Proposed Feeder (amps)
1.	Mangalore-II	150	40	190
2.	Fenolex	70		70
3.	UP Bone	60	89	149

It is an unusual step that has compelled UPCL to take and get into 66 kV voltage level in the wake of circumstances/situation that has emerged due to overloading of 132/33 kV Sub-station, Mangalore. Presently as a result of overloading of 132/33 kV sub-station, Mangalore, UPCL is unable to release new connections and meet out load growth/demand.

66/33 kV S/s has been proposed to take load from 66 kV lines available in the system, without putting any load on other lines, thus providing smooth power supply to the existing consumers rather than aiming at future load growth."

**UPCL's reply on UJVN Ltd's reply dated 21.05.2018:-**

“

1. The protection system always shall be graded, so that the lower voltage fault may not reflect to higher voltage. UPCL will make necessary arrangement for that.
2. Point raised is totally hypothetical on presumptions. However, UPCL will be liable for deemed generation as per Regulations/Act.
3. In present scenario if any R&M charges are being paid by UJVN ltd. to PTCUL in order to maintain the 66 kV line in healthy condition for optimum utilization of power generated, then the same is to be paid to UPCL. And it is also to be noted that the construction of 66/33 kV Sub-station has solely been conceptualized in the interest of the consumers, which has always been the prime concern of UPCL.
4. In addition to point no. 3, it is also to be noted that owning of any other 66 kV line which is not connected to 66/33 kV Sub-station directly is out of question, as construction of 66/33 kV Sub-station has been proposed to meet out the present



*demand of electricity at a proper voltage to our prevailing consumers. It is an unusual step that has compelled UPCL to take and get into 66 kV voltage level in the wake of circumstances/situation that has emerged due to overloading of 132/33 kV Sub-station, Mangalore. "*

11. Further, the Petitioner vide its letter no. 2902 dated 24.07.2018 submitted its rejoinder to the reply submitted by PTCUL vide its letter dated 15.06.2018 and submitted that:-

"

1. *As per understanding between UPCL and PTCUL, only operation and maintenance of 66 KV is supposed to be done by UPCL. However, vide letter no. 258/D(P)/UPCL/C-4 dated 25.06.2018, UPCL's view/outlook/observations over transferring the ownership of 66 kV lines has already been submitted.*
2. *UPCL has already submitted its views over deemed generation issues vide letter no. 258/D(P)/UPCL/C-4 dated 25.06.2018 at Sl. No. 2. However UPCL is of the view that deemed generation claimed by UJVNL on account of the 66 kV lines, which are supposed to be maintained by UPCL shall be borne by UPCL as per Regulations/Act.*
3. *With present prevailing arrangements, 96 amp. power at 66 kV (DC) is being evacuated/transmitted from Generating Power Station Mohammadpur to 220/132/66/33 kV. Sub-Station Ramnagar and load that is being transmitted through Dog Conductor is quite less against its capacity of 340 amp. It has been proposed that 2X15 MVA, 66/33 kV Sub-Station Manglore will be connected to 66 kV, DC with LILO arrangement. In such arrangement proposed 66/33 kV Sub-Station will draw 96 amps from Generating Power House Mohammadpur and 96-131.25 amps from 220/132/66/33 kV Sub-Station Ramnagar. However PTCUL may restrict loading of 66 kV, DC up to 96 amps if it's indispensable in view of safety concerns. In such arrangement the maximum current flowing through 66 kV DC, will remain the same i.e. 96 amp that is quite less as compared to the capacity of Dog conductor which makes the issue of ground clearance irrelevant. In present scenario UPCL, urgently requires spare capacity at 66/33 kV voltage level at Manglore to provide immediate relief to its consumers affected from overloading of 2X40 MVA, 132/66/33 kV Sub-station, Manglore and release load of approximately 15-20 MVA of its consumers. In view of the above, 2X15 MVA, 66/33 kV Sub-station, Manglore has been proposed to manage the unusual condition that has emerged due to overloading of 132/66/33 kV Sub-station.*
4. *UPCL agree with PTCUL that a new 220/132/33 kV Sub-Station is required to be constructed in view of load growth in and around Manglore but it will take years to happen . However, construction of 2X15 MVA, 66/33 kV, Sub-Station is urgently required as an immediate measure to be taken to ensure uninterrupted power supply at proper voltage to the consumers of UPCL and meet out the demand of new consumers in the area.*
5. *Agree with PTCUL.*
6. *Pertains to PTCUL. "*

12. On preliminary examination of the subsequent submissions made by the Petitioner & Respondents , contradictory statements have been observed,

therefore, the Commission decided to fix a hearing in the matter on 07.08.2018 and issued notices to the Petitioner and Respondents namely PTCUL & UJVN Ltd. vide its letter no. 657, 658 & 659 dated 25.07.2018 respectively.

13. Further, the Commission vide its letter no. 660 dated 26.07.2018 also forwarded the Petitioner's reply dated 24.07.2018 to PTCUL for information and their response, if any, during the scheduled hearing.
14. On the scheduled date of hearing, the Petitioner & Respondents were present before the Commission. During the hearing, the Petitioner reiterated its submissions in the Petition and subsequent submissions. Further, the Petitioner submitted that the proposed 66 kV sub-station at Manglore has been planned for catering immediate load requirement of Manglore area through a LILO Connection on 66 kV Mohammadpur-Ramnagar Line and work of the same is almost complete. Furthermore, the Petitioner submitted that they have no reservation in handing over of the proposed sub-station to PTCUL.
15. The Respondent namely PTCUL, during the hearing submitted that as per the Transmission Licence Condition the network of 66 kV and above is in the purview of PTCUL. Whereas, the instant Petition has been filed by the Distribution Licensee. Moreover, PTCUL submitted that under prevailing circumstances it is not technically feasible to cater the load of the proposed sub-station through the 66 kV Mohammadpur-Ramnagar Line as the line is very old and is in dilapidated condition with very less clearances from the houses built in close vicinity of the line. Further, PTCUL submitted that the aforesaid line is being maintained by PTCUL and is used for evacuating the generation of Mohammadpur SHP of UJVN Ltd. alongwith other small generating stations of Uttar Pradesh, hence, creating a sub-station on the aforesaid line may result in deemed generation claims from not only UJVN Ltd. but also other generating stations of Uttar Pradesh. Furthermore, PTCUL submitted that the current carrying capacity of dog conductor is 239 Amps at 65 degree and 291 Amps at 75 degree as per IS 398 (Part-II: 1996). PTCUL submitted that if the load is restricted at 220 kV S/s Ramnagar for 96 Amps by necessary arrangement in relay, then there would be frequent tripping of this 66 kV line feeding to proposed 66/33 kV S/s of UPCL resulting in poor power supply to the consumers connected down the line feeder.

16. The Respondent namely UJVN Ltd. during the hearing submitted that in the interest of the consumers of the State, UJVN Ltd has no objection in construction of the proposed sub-station, however, PTCUL has to ensure to pay for any deemed generation claims arising out of the trippings on account of the proposed sub-station and in case of any damage to the generator's equipments, compensation for the same shall payable by PTCUL.
17. The Commission heard the Petitioner and Respondents during the hearing and took cognizance of the submission of the Petitioner that construction of the proposed 66/33 S/s Manglore is almost completed issued an Order dated 07.08.2018 directing the Petitioner to submit : "*(1) Bar Chart of each activity involved in construction of 1 No. 66/33 kV S/s & its 0.60 Km. associated 66 kV line at Manglore with Start & End date alongwith cost incurred till date and (2) List of Officers involved in planning & execution of the project. "*
18. Meanwhile, after issuance of the Order dated 07.08.2018 on the proceeding conducted in the matter, a letter from MD, PTCUL vide reference no. 1630 dated 07.08.2018 was received to the Commission wherein, following has been submitted:
- "... PTCUL has no objection on LILO of 66 kV Mohammadpur-Ramnagar (Roorkee) line at proposed UPCL's 66/33 kV , 2X15 MVA S/s considering present status of construction and necessity of minimum interruptions in power supply to this area with following conditions:-*
- 1. As UPCL is maintaining other 66 kV lines and 66 kV S/s in Pauri Garhwal and Rudraprayag district. So PTCUL is also ready to relinquish the rights of O&M and ownership of 66 kV DC Mohammadpur- Ramnagar (Roorkee) line to UPCL.*
  - 2. This line is presently evacuating the power from Mohammadpur power house of UJVNL. Deemed generation loss to generators if any due to faults attributed to UPCL after handing over of above line shall be attributed to UPCL. UPCL has already agreed to this arrangement vide letter No. 2902/UPCL/Com/RMC-6/D(F) dated 24/07/2018 addressed to Secretary, UERC. "*
19. In compliance to the Commission's Order dated 07.08.2018, the Petitioner vide its letter No. 3123 dated 13.08.2018 submitted the bar chart of each activity involved

in construction of the aforesaid 66/33 kV S/s alongwith the cost incurred till date and list of officers involved in Planning & Execution of the Project.

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

20. On examination of the Petition and subsequent submissions made by the Petitioner & Respondents, following has been observed:-

(1) The instant Petition is just a replica of earlier Petition filed by the Petitioner vide reference No. 2480/UPCL/Com./RMC-6/D(F) dated 17.06.2017 for seeking investment approval for project covering the 'construction of 01 No. 66/33 kV Substation & 0.60 Km 66 kV Line and 02 No. 33/11 kV Substations & their associated 15.20 Km 33 kV line. While 33 kV S/s and associated line were approved by the Commission vide its Order dated 21.12.2017. However, with regard to 66 kV S/s and its associated line works , the Commission had taken the following view in the said Order:

" ...

10. *With regard to the construction of proposed 66/33 kV S/s at Manglore is concerned, following has been observed:-*

(1) *Clause 2 of Uttaranchal Transmission Licence (Licence No. 1 of 2003) defines Transmission System as:-*

*"Transmission System means the system consisting mainly of extra high voltage electric lines having design voltage of 66 kV and higher, owned or controlled by the Licensee, and used for the purposes of the transportation of electricity between the switchyards of two Generating Sets or from the switchyard of a Generating Set to a substation, or between substations, or to or from any external interconnection and includes all bays/equipment up to the interconnection with the Distribution System, and any plant, apparatus and meters owned or used in connection with the transmission of electricity, and shall include any other system which the Commission specifically declare it to be a part of the Transmission System;"*

(2) *With regard to construction, operation & maintenance of the existing 66 kV network is concerned, it has been observed that 66 kV network do not constitute a major portion of the T&D network of Uttarakhand. Basically, existing 66 kV network in the State of Uttarakhand was created in pre Electricity Act, 2003 period i.e. prior to unbundling of the State Electricity Boards. In a post Electricity Act, 2003 era, separate Licence for Transmission and Distribution of electricity have been issued by the Commission including the definition of the voltage levels for Transmission & Distribution licensee under which they are authorised to develop, operate & maintain. As an exceptional case, some portion of the existing 66 kV network remained with distribution licensee for Operation & Maintenance in a post Electricity Act, 2003 (with separate*

Transmission Licence) due to field constraints. However, as far as development, operation & maintenance of new 66/33 kV sub-station and its associated lines is concerned, the first right to develop, operate and maintain the same in a post Electricity Act, 2003 (with separate Transmission Licence) lies with the transmission licensee for which it has been vested a Licence.

- (3) In the instant case the investment approval for construction of 66/33 kV S/s and its associated lines at Mangalore has been sought by distribution licensee (UPCL) and not by the transmission licensee (PTCUL). Moreover, from the reply of PTCUL dated 11.12.2017, it has been observed that UPCL has not taken prior approval from it for creating 66 kV sub-station & associated lines. Further, it is observed that clause 5.1.2 of Uttaranchal Transmission Licence (Licence No. 1 of 2003) provides that:-

*"The Licensee shall not commence any new provision of services to third parties for the transportation of electricity through the Licensee's Transmission System, except with **the general or special approval of the Commission.**"*

Since, in the instant case neither UPCL has taken prior approval for construction of proposed 66/33 kV S/s at Mangalore from PTCUL nor PTCUL has approached the Commission for allowing third party i.e. UPCL (as 66 kV Mohammadpur-Roorkee line is maintained by PTCUL and transmits generation available from Mohammadpur SHP owned by UJVN Ltd.) for giving its authority/responsibility to develop, transmit, operate & maintain 66 kV network as per Licence conditions. Hence, the approval sought by the Petitioner for construction of 66/33 kV S/s at Mangalore and its associated lines is not tenable.

...

12. In the matter of Petitioner's proposal for construction of 66/33 kV S/s and its associated lines at Mangalore for the reasons discussed at S. No. 10 above, the Commission as of now has decided to reject Petitioner's proposal and **directs PTCUL & UPCL to work out a coordinated plan for meeting the load demand of the Mangalore area and approach the Commission for investment approval accordingly (if required), not in derogation to the conditions specified in their respective Licences.**"

- (2) Despite the above decision of the Commission, the Petitioner did not even take heed to apprise its Board and submitted a copy of previous Resolution of the 79<sup>th</sup> Board meeting held on 28.03.2017, meaning thereby the decision of the Commission vide its Order dated 21.12.2017 was not placed before its Board, whereas, as per UERC (Conduct of Business) Regulations, 2014, it is obligatory to submit specific Resolution of the Board on the Petitions related to Tariff, Investment and Review.
- (3) Further, as per direction of the Commission issued at para 12 of the Order dated 21.12.2017, the Petitioner & PTCUL are required to work out a

coordinated plan for meeting the load demand of the Manglore area and approach the Commission for investment approval accordingly (if required), not in derogation to the conditions specified in their respective Licences, whereas, on examination of the Petition, it is observed that the Petitioner did not comply with the directions of the Commission and rather opted for circumventing the issue by producing a copy of Minutes of Meeting (MoM) dated 27.02.2018 executed between the officers of UPCL & PTCUL. The excerpts of the aforesaid MOM are reproduced below:-

“ ...

*The meeting was convened in the aftermath of rejection of UPCL's investment proposal by Hon'ble UERC vide order no. UERC/5/Tech/Pet. No. 32 of 2017/1485 dated 21 December, 2017 for construction of 66/33 kV substation, Manglore and in compliance of direction of Hon'ble UERC for UPCL & PTCUL to work in a coordinated manner for meeting the future demand of the Manglore area.*

*Er. Saied Ahmed, CE (Project), UPCL informed that due to the overloading of existing 132/33 kV substation, Manglore, 33/11 kV substation, Manglore, to ensure reliable power supply, improved voltage profile and to meet future load growth in the adjoining areas, UPCL has proposed construction of new 66/33 kV Substation, Manglore. He also informed that due to ROW issues, the 66/33 kV substation is proposed to be fed through tapping of nearby passing 66 kV Mohammadpur-Ramnagar line of PTCUL. He also informed that UPCL had earlier requested PTCUL for issuance of NOC for tapping of above mentioned 66 kV D/C Mohammadpur-Ramnagar line.*

***In the light of above and after detailed deliberations, PTCUL gave consent to UPCL for operation and maintenance of 66 kV D/C Mohammadpur-Ramnagar line by UPCL. ”***

From the above statements recorded in MoM dated 27.02.2018, it is apparently clear that PTCUL had only given consent for O&M of the aforesaid line and had neither specifically commented on the construction of the 66/33 kV S/s & its associated 66 kV Loop-in Loop-out (LILO) arrangement from the 66 kV D/C Mohammadpur-Ramnagar line nor issued any No Objection Certificate (NOC) for the same. Moreover, it is observed that neither the Petitioner nor PTCUL has taken approval for handing over/taking over/relinquishing of operational rights of particular asset i.e. 66 kV Ramnagar-Mohammadpur line from their respective Boards. However, PTCUL, later on, made a submission before the Commission vide its letter dated 15.06.2018 that it does not intend to transfer or relinquish

operational rights of its assets in the instant case. The relevant para of the aforesaid letter of PTCUL is reproduced below:-

*“... beneficiary of 66kV Ramnagar-Mohammadpur line is UPCL and in the view of the same, consent of O&M of this line was given to UPCL inadvertently. However, as per Licence conditions issued to PTCUL, PTCUL is not intended to transfer or relinquish Operational Rights of its assets in the instant case.”*

Further, with regard to the letter dated 07.08.2018 of MD, PTCUL mentioned at point No. 18 above, it has been observed that:-

- (a) Without due approval of the Board, the consent of MD, PTCUL for transferring an asset which has been conferred to it under the Transfer Scheme, 2004 as well as in the Licence conditions is groundless. Further, it is known that transferring the Ownership and O&M of an asset has far reaching consequences on an Organisation's Financial & Commercial health.
- (b) Originally the 66 kV Mohammadpur-Ramnagar line is a power evacuation line and Petitioner is proposing a 66/33 kV S/s on the same. This may adversely affect the generation from Hydro Generating Stations of UJVN Ltd. & other SHPs of UPPCL connected to the same network due to reflection of faults of distribution network directly to these small generating stations.
- (c) Further, PTCUL's submission on its readiness to relinquish its Rights of Ownership and O&M on the grounds that UPCL is maintaining 66 kV line & S/s in Pauri-Garhwal & Rudraprayag Districts , is actually misguided, as the said lines & S/s were basically distribution lines maintained by the then UPSEB's distribution wing in pre-Electricity Act, 2003 era. Earlier, the issue was never brought before the Commission in this manner, which is actually against the Licence conditions issued to Transmission and Distribution utilities in the State.
- (d) On the submission of MD, PTCUL that it is having No Objection on LILO of 66 kV DC Mohammadpur-Ramnagar line, it is observed that upto the day of Hearing i.e. 07.08.2018, PTCUL was objecting the creation of the aforesaid 66/33 kV S/s on the pretext of technical

feasibility and all of a sudden PTCUL has now submitted “No Objection” on LILO of 66 kV DC Mohammadpur-Ramnagar line. This clearly shows that PTCUL is trying to run away from its responsibility of Ownership and O&M of 66 kV system for which it has been conferred the responsibility as per the Transmission Licence and prevailing Regulations of the Commission. Further, it appears that PTCUL is circumventing the issue, infact, it was the responsibility of PTCUL to create transmission network in the area or augment 132 kV Manglore S/s for meeting the prospective load growth of Manglore area.

(e) However, in this particular case, merely allowing for LILO connection and relinquishment of the O&M or assets by MD, PTCUL would not serve the basic purpose of catering the load requirement of Manglore area, as PTCUL has already made it clear in a detailed submission that the existing D/C 66 kV Mohammadpur-Ramnagar (Roorkee) Line, which is evacuating power of various SHPs under UJVN Ltd. & UPPCL, is not capable of handling the load of proposed 2X15 MVA, 66/33 kV S/s Manglore. It is observed that under prevailing circumstances/constraints the basic objective of catering the load of the area can be fulfilled only by augmenting/strengthening the said 66 kV Line. Therefore, No Objection of PTCUL w.r.t. LILO of the aforesaid Line has no substance.

(4) As far as, the technical feasibility of the proposed 2X15 MVA, 66/33 kV S/s at Manglore is concerned, it is observed that the owner and operator of the 66 kV Mohammadpur-Ramnagar line i.e. PTCUL, during the hearing also had blatantly rejected the feasibility of the aforesaid line for catering the load of the proposed 30 MVA S/s on the pretext of aging, dilapidated condition and issues related to clearances and also submitted that it would not be appropriate to limit the current flow on the said 66 kV line via relays as the relay mechanism shall disallow any over load condition and would result in frequent tripping of the generation & tripping connected to the said 66 kV line.



- (5) Further, it has also been observed that the proposed S/s would be almost 80% loaded in the very first year of operation and would be fully loaded in next 4 years of operation, therefore, the proposal of the Petitioner is limited to cater the present load requirement only and under the aforesaid circumstances, as per CEA norms and Commission's Regulations, the proposed S/s calls for an immediate planning for future load growth from the very first day of its commissioning.

Moreover, the N-1 contingency criterion which is one of the basic criteria for planning a line/transformer is missing in the proposed S/s which itself speaks about an utter failure of planning at Petitioner's end.

From the above, it is observed that the Petitioner has constructed a sub-station which neither satisfy the technical feasibility of the incoming feeder nor N-1 contingency criterion & adequate scope for future expansion. Such proposals cannot be said justified and thus not eligible for dispensation on the aforesaid accounts.

- (6) In several occasions, the Commission has cautioned the Petitioner for showing its indifferent approach towards the long term planning of the Distribution System in the State. However, from the instant case, it has surfaced that the Petitioner has not even discussed its issues with PTCUL with regard to immediate load requirements at 33 kV level in Mangalore area.
- (7) Based on the observations made at point No. (3) to (6) above , the Commission is of the view that in the interest of the State Power Sector, it is imperative to keep the Ownership & O&M of the 66 kV S/s & lines in the hands of PTCUL which is solely accountable for the upkeeping of the 66 kV S/s & lines under the Licence and Regulations. Moreover, the ARR of the Transmission Licensee is linked with the availability of 66 kV and above network which by virtue of norms defined in MYT Regulations makes PTCUL accountable for reliable and quality power supply in the State. However, in the current proceedings, the Commission directs its staff to put up separately the issue of transfer of 66 kV S/s and lines.

21. Summarising the issues discussed above, the Commission has observed that following are the core issues in the instant case:-

- (1) The root-cause of such proposal from the Petitioner i.e. the distribution licensee is the lack of the co-ordination between the STU/transmission license and distribution license or in other words the inability of the STU/transmission licensee to swiftly gauge, plan and execute works for meeting the load growth requirements at distribution periphery, which is the sole responsibility of the transmission licensee within the State.
- (2) Though, the transmission licensee is agreeing to relinquish its rights of O&M and ownership of 66 kV double circuit Mohammadpur-Ramnagar (Roorkee) line in favor of the Petitioner, however, this transfer of asset/O&M has no substance as the transmission licensee has itself repeatedly questioned the technical feasibility of its own aforesaid 66 kV line for catering to the load requirement of the proposed 66/33 kV Substation.
- (3) The instant Petition has been filed by the Petitioner for construction of 66/33 kV S/s and its associated lines at Manglore, which in principle falls under the purview of transmission licensee.
- (4) The Petitioner has tried to conceal the facts from the Commission, as the instant Petition has been filed before the Commission for prior investment approval, whereas, most of the activities under the proposed works have already been completed by the Petitioner.
- (5) The Petitioner has adopted a nonchalant approach while planning and conceptualization of the proposed 66/33 kV S/s and has failed to consider vital issues viz. condition & adequacy of incoming feeder, N-1 contingency criteria and adequate scope for future expansion, which are the pre-requisites for establishing a reliable & robust EHT S/s.
- (6) The aforesaid 66/33 kV S/s at Manglore has been proposed to be connected to the 66 kV D/C Mohammadpur-Ramanagar (Roorkee) line through LILO arrangement for catering the load of Manglore area, whereas, the said line is basically a power evacuation line used for evacuating power of 3x3.1 MW Mohammadpur SHP of UJVN Ltd. and other small hydro plants of UPPCL.

Therefore, transfer of the said line to the Petitioner would be a major ground for deemed generation claims from these generators whereas, the same is not applicable in the case of transmission licensee.

22. With regard to the core issues mentioned at 21 (1) & 21 (2) above, the Commission is of the view that Section 39 (2) of the Electricity Act, 2003 provides that :-

*“ 39 (2) The functions of the State Transmission Utility shall be-*

*...*

*(c) to ensure development of an efficient, coordinated and economical system of intra-state transmission lines for smooth flow of electricity from a generating station to the load centres;”*

Further, Section 40 of the Electricity Act, 2003 provides that:-

*“ 40. Duties of transmission licensees.- It shall be the duty of a transmission licensee-*

*(a) to build, maintain and operate an efficient, co-ordinated and economical inter-State transmission system or intra-State transmission system, as the case may be;”*

Since, 'PTCUL' is the State Transmission Utility as well as transmission licensee within the State. Therefore, from the above, it is clear that the responsibility of developing, building, maintaining & operating an efficient, coordinated and economical system of intra-state transmission lines lies with PTCUL. Whereas, in the instant case, PTCUL has behaved like a spectator and has not proactively performed its duties/responsibilities bestowed under the Licence and Regulations, rather trying to run away from its responsibility by relinquishing the ownership of its assets/EHT line.

23. With regard to the core issue mentioned at 21 (3) & 21 (4) above , the Commission is of the view that:-

(1) One of the intents of the Electricity Act, 2003 was to clearly demarcate the boundaries of operation of Generation, Transmission & Distribution so that it results in better planning, efficiency and accountability in the Power Sector. Whereas, the instant Petition is a request before the Commission to deviate from the settled principles of defining the boundaries of operation for

transmission and distribution licensee, infact it is an act of encroachment on rights of the Transmission licensee which is not only against the licence conditions but would also lead to inappropriate planning, degraded efficiency and loss of accountability in the State's Power System.

- (2) With regard to the unexpected submission made by the Petitioner before the Commission during hearing that the work of construction of the 66 kV S/s at Manglore is almost complete, the Commission is of the view that the Petitioner has tried to conceal the facts in the present matter as the instant Petition was for prior investment approval filed by the Petitioner in the matter. Whereas, the aforesaid act of the distribution licensee on one side is violation of licence conditions (licence no. 2 of 2003) as well as the provision of UERC (Conduct of Business) Regulations, 2014 and on the other side *ultra vires* act by constructing a 66 kV S/s which do not fall under its jurisdiction.
- (3) On examination of the submission of the Petitioner in compliance to Commission's Order dated 07.08.2018 pertaining to list of officers involved in Planning & Execution of the construction of 66 kV S/s & associated line, the Commission decides to initiate a separate proceeding for the same.

24. With regard to the core issue mentioned at 21 (5) above, the Commission is of the view that:-

- (1) The Petitioner has been conferred with a responsibility of developing, operating & maintaining distribution system of 33 kV & below in the State whereas, in the instant case the Petitioner has attempted to plan, conceptualize and build an EHT S/s. In this regard, the Commission is of the view that in general the existing dilapidated condition of the protection system at 11 kV S/s, 33 kV S/s & lines of the Petitioner is vociferously speaking that the Petitioner is finding it difficult to properly operate & maintain the assets which are under its control as per licence conditions.
- (2) The Commission also took cognizance of the frequent trippings occurring at 66 kV system spreading more than 120 km emanating from Srinagar (Garhwal) to Joshimath catering to the load of Karnprayag, Gopeshwar & Badrinath (Joshimath) areas having the famous Hindu shrines and also

various strategic defense establishments. In this regard, the Commission is of the view that for such long distance power networks with these important places and having strategic defense importance, proper planning & development of network w.r.t. N-1 criteria and adequacy for future expansion is of utmost importance. Hence, 66 kV system in such areas cannot be kept at the mercy of the Petitioner for which it is not having jurisdiction.

- (3) Further, the calculation of voltage wise losses and upcoming Intra State ABT/Deviation Settlement Mechanism makes it all the more imperative to clearly demarcate the voltage levels of ownership & operation for the Transmission & Distribution licensee. Since, the issue of improper demarcation of 66 kV assets between Transmission & Distribution licensee has now clearly been highlighted before the Commission, the Commission finds it prudent & justified in the interest of electricity consumers of the State to hand over the entire 66 kV system to the Transmission Licensee.

25. With regard to the core issue mentioned at 21 (6) above, the Commission is of the view that:-

- (1) Since the D/C 66 kV Mohammadpur-Ramnagar (Roorkee) line is under PTCUL's control, therefore, it is well aware about its technical constraints and is also in a better position to strengthen the same for optimal utilization of the proposed 66 kV S/s. As far as N-1 contingency criterion & adequate scope for future expansion in the proposed 66 kV S/s is concerned, the Commission is of the view that once the composite setup of the said 66 kV S/s alongwith associated 66 kV line is under the aegis of appropriate licensee i.e. transmission licensee then it is expected that the N-1 contingency criterion & adequate scope for prospective expansion issues would be resolved in near future and generation loss of the generators connected to this line would be minimal.
- (2) As far as the concern of the Petitioner for catering the present load demand of the Manglore Area, the transmission licensee i.e. PTCUL has proposed augmentation of 132 kV S/s Manglore from 2x40 MVA to 1x40 MVA + 1x80 MVA and to meet future load growth of the area, PTCUL has planned to construct 220/132/33 kV S/s at Manglore. However, considering that the

expenses have already been incurred in construction of 66 kV S/s & associated line, the Commission has observed that it would not be prudent to keep the constructed sub-station as a stranded asset as it would be an overall loss for the State. Hence, the Petitioner is allowed to charge the newly constructed 66/33 kV S/s Mangalore.

26. In light of the above, the Commission hereby orders that:-

(1) The Petitioner is allowed to charge the 66/33 kV S/s Mangalore and the Transmission licensee namely PTCUL is directed to allow the LILO connectivity to the Petitioner on 66 kV D/C Mohammadpur- Ramnagar (Roorkee) line, within the technical limitations of the existing system.

(2) The Transmission licensee namely PTCUL shall:-

(a) Review its proposed plan for augmenting the transformation capacity of 132 kV S/s Mangalore from 2X40 MVA to 1X40 MVA + 1X80 MVA taking into consideration of induction of the aforesaid 66/33 kV S/s Mangalore in the network and initiate immediate action to cater the load requirement in the area. An Action Plan, in this regard, shall be submitted before the Commission within one month from the date of issuance of this order.

(b) Submit an Action Plan for construction of 220/132/33 kV S/s Mangalore as planned by it for catering the future load requirements of Mangalore area latest by 15.10.2018.

27. In the matter of transfer of assets pertaining to 66 kV S/s and lines, the Commission will initiate a separate proceeding in accordance with the Electricity Act, 2003 and conditions of the respective Licences issued to the Licensees.

Ordered accordingly.

**(Subhash Kumar)**  
**Chairman**