

**Before**  
**UTTARAKHAND ELECTRICITY REGULATORY COMMISSION**  
**Petition No. 23 of 2020**

**In the Matter of:**

Petition seeking permanent connectivity for 214 MW (225 MW ISO) Phase II of 2x214 MW (450 MW ISO) Gas Based Combined Cycle Power Plant at Kashipur, Uttarakhand without any State transmission charges/losses subject to investment in existing State transmission system (Mahuakheraganj S/s to Kashipur S/s with LILO of SEPL) to be made by Sravanthi Energy Pvt Ltd under Section 86 of the Electricity Act, 2003 read with Regulation 40 of the Uttarakhand Electricity Regulatory Commission (Conduct of Business) Regulations, 2014 and the relevant provisions of UERC MYT Regulations, 2018.

AND

**In the matter of:**

M/s Sravanthi Energy Private Limited

...Petitioner

AND

**In the matter of:**

Power Transmission Corporation of Uttarakhand Limited (PTCUL)

...Respondent

**Coram**

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

**Date of Hearing December 22, 2020**

**Date of Order: March 05, 2021**

**ORDER**

The present Petition has been filed by M/s Sravanthi Energy Private Limited (hereinafter referred to as 'the Petitioner' or 'M/s Sravanthi' or 'M/s SEPL') under Section 86 of the Electricity Act, 2003 read with Regulation 40 of the Uttarakhand Electricity Regulatory Commission (Conduct of Business) Regulations, 2014 and relevant provisions of UERC MYT Regulations, 2018 for seeking permanent connectivity for 214 MW (225 MW ISO) Phase II of 2x214 MW (450 MW ISO) Gas Based Combined Cycle Power Plant at Kashipur,

Uttarakhand without any State transmission charges/losses subject to investment in existing State transmission system of the State Transmission licensee, i.e. Power Transmission Corporation of Uttarakhand (herein after referred to as 'the Respondent' or 'PTCUL').

## **1. Background and Petitioner's submission**

- 1.1 Initially 3 Gas based Power Projects namely Sravanthi Energy Private Limited ("SEPL"), Gamma Infraprop Private Limited ("GIPL") & Beta Infratech Private Limited ("BIPL") were planned to be setup in Kashipur, Udham Singh Nagar area.
- 1.2 M/s Sravanthi Energy Private Limited is a Company incorporated under the Companies Act, 1956. M/s SEPL is a "generating company" falling within the definition under sub section (28) of Section 2 of the Electricity Act, 2003 and has commissioned 214 MW (225 MW ISO) Phase-1 of combined cycle power plant on build, own and operate basis at Village Khaikhera, Kashipur in the Udham Singh Nagar district of Uttarakhand out of 428 MW (450 MW ISO). Each Phase of 214 MW consists of one module of two gas turbines having capacity of 71.5 MW each and one steam turbine, having capacity of 71 MW. Phase -1 of the Power Plant was commissioned on 20.11.2016. Phase-II is in the advance stage of Erection & Commissioning and the expected CoD is June 2021.
- 1.3 According to the Petitioner it had originally planned for construction of a dedicated 15.9 KM 400 KV Quad Moose D/c Transmission line from SEPL Switchyard to LILO point of one circuit of PGCIL's 400 KV Kashipur-Roorkee line at Village Kachnal Gazi for Phase II evacuation. The partial work was executed in 2011-12, however, due to serious RoW issues the said dedicated line could not be completed till date.
- 1.4 According to the Petitioner, as per the Government Order dated 10.06.2016, a total of 428 MW of power was approved to be procured from the 3 power projects in the following manner:

M/s. Sravanthi Energy Private Limited (SEPL) : 214 MW

M/s. Gamma Infraprop Private Limited (GIPL): 107 MW

M/s. Beta Infratech Private Limited (BIPL) : 107 MW

- 1.5 The Petitioner further submitted that UPCL signed PPA with all three developers for the procurement of power on Long Term basis. While M/s. SEPL and M/s. GIPL commissioned their projects in 2016, M/s. BIPL could not commission the Project within the timelines stipulated in the PPA, accordingly, PPA of M/s. BIPL to the extent of 107MW was terminated by UPCL which was upheld by the Commission vide its order dated 07.10.2020.
- 1.6 According to the Petitioner, its Phase-1 having capacity of 214 MW and 107 MW of M/s. Gama Infraprop Pvt Ltd is operational and evacuating power through existing 220 KV D/C Mahuakheraganj-Kashipur transmission line. The said existing system is unable to comply with N-1 conditions when both the projects are generating to their approved full capacity.
- 1.7 The Petitioner further averred that in view of the above PTCUL had approached the Commission for upgradation of the existing 220 KV system as follows:
- (i) Replacement of ACSR Zebra Conductor in 220 kV Mahuakheraganj (220 kV)-Kashipur (400 kV) 1st Ckt Line (including LILO portion for M/s SEPL) with the High Capacity ACCC Conductor.
  - (ii) Replacement of ACSR Zebra conductor in 220 kV Mahuakheraganj (220 kV)-Kashipur (400 kV)-II nd Ckt Line with high capacity ACCC Conductor.
- 1.8 The Commission approved the aforesaid upgradation of the system vide its order dated 07.02.2017.
- 1.9 According to the Petitioner that while the system upgradation was approved by the Commission in the year 2017, the work has not yet been initiated by PTCUL till now.
- 1.10 According to the Petitioner due to serious RoW issues it is nearly impossible to construct the proposed dedicated 400 kV transmission line from SEPL Switchyard to LILO point of one circuit of PGCIL's 400 KV Kashipur-Roorkee line, whereas Phase-II of the plant shall be ready to deliver power from June 2021 onwards. So in order to avoid bottling up of generation from Phase-II of the plant it proposes to bear the entire cost of upgradation of the 220 kV system between 220 kV

Mahuakheraganj S/s to 400 kV Kashipur S/s together with LILO of SEPL as approved by the Commission in its Order dated 07.02.2017.

- 1.11 According to the Petitioner after the replacement of ACSR Zebra Conductor with ACCC Conductor of 220 kV D/C Mahuakhedaganj to Kashipur line the capacity for each circuit shall increase to approx. 550 MW from 200 MW.
- 1.12 According to the Petitioner to establish economic viability, the above investment may be considered with the following conditions:
  - i. Permanent connectivity may be granted to Phase II (214MW) without any State transmission charges & losses upto Intra-State connection point (Kashipur 400 KV station).
  - ii. Permission for upgradation of 220 KV transmission line (Double Ckt) Mahuakheraganj S/s to Kashipur S/s.
  - iii. Waiver of transmission charges in case of sale of power from Phase-II to UPCL.
- 1.13 The Petitioner has further clarified that the above investment shall be related to Phase-II only and there shall be no cost implication on Phase-1. Further the upgradation of 220 KV transmission line (Double Ckt.) Mahuakheraganj S/s to Kashipur S/s shall be done under the supervision of the Respondent and the ownership of the line shall be transferred to PTCUL after completion of the work.
- 1.14 The Petitioner sought following relief from the Commission which are reproduced below:
  - (i) Admit the accompanying Petition.
  - (ii) Grant permanent connectivity to Phase II (214MW) and accord approval to sign the connectivity agreement and evacuate the power as per the plant commissioning schedule.
  - (iii) Grant permission to replace existing Zebra conductor to high capacity ACCC conductor of 220 KV Mahuakhedaganj to Kashipur (400 KV) transmission line with Sravanthi LILO.

- (iv) Allow for the waiver of STU transmission charges and losses to SEPL for power connected to CTU (400 KV Kashipur S/s (PGCIL bay) from Phase -2.
- (v) Allow for the waiver of STU transmission charges and losses to SEPL for power procured by UPCL from Phase-II.
- (vi) Allow additions/ alterations / changes/ modifications to the Petition at a future date.
- (vii) Pass such other order(s) as this Hon'ble commission may deem fit and proper in the facts and circumstances of the case.

## **2. Submission of the Respondent**

- 2.1 Admitting the Petition, the Commission forwarded the copy of the Petition to PTCUL for their comments and fixed a hearing on 05.11.2020. On the request of Respondent, the hearing in the matter proposed to be held on 20.11.2020 and 26.11.2020 was adjourned and was finally held on 22.12.2020.
- 2.2 Further, the Commission vide its letter dated 17.12.2020 directed PTCUL to submit system study report taking into consideration the proposed reconductoring of existing 220 kV D/C Mahuakhedaganj-Kashipur line and power flow of 214 MW from M/s Gama Infraprop Pvt. Ltd. and injection point at 220 kV S/s Mahuakhedaganj together with power flow of 214 MW each from Phase-1 and Phase-II of M/s SEPL with injection point at LILO of 220 kV D/C Mahuakhedaganj-Kashipur line.
- 2.3 PTCUL vide its letter dated 18.12.2020 submitted its final reply on the Petition filed by M/s SEPL alongwith system study report. The system study was done under two scenarios (i) omitting the proposed 132 kV D/C Mahuakhedaganj-Jaspur line (ii) taking the proposed 132 kV D/C Mahuakhedaganj-Jaspur line into consideration. The power flow and injection point were taken as above. According to the Respondent evacuation of total 642 MW power is possible with proposed reconductoring under the second scenario in normal as well as under N-1 contingency. However, one additional 220/132 kV, 100 MVA transformer at 220 kV

- S/s Mahuakhedaganj and one additional 220/132 kV, 160 MVA transformer at 400 kV Kashipur shall be required to meet T-1 contingency.
- 2.4 Further, with regard to the proposal put forth by M/s SEPL regarding upgradation/augmentation of STU's network by it and in turn securing connectivity for Phase-II generating station together with waiver of STU's transmission charges and losses, the Respondent submitted that there are no Regulations which permit augmentation/upgradation of the existing STU's network by any private player and, therefore, the Petitioner may be directed to get connectivity from the originally planned system.
- 2.5 The Respondent submitted that the replacement of ACSR Zebra conductor in 220 kV D/C Mahuakhedaganj-Kashipur line with high capacity ACCC conductor is withheld till future requirement of UPCL.
- 2.6 The Respondent further averred that as per the minutes of joint meeting between PTCUL and Uttarakhand Power Corporation Ltd. (UPCL) on 02.12.2020 it was informed by UPCL that they do not intend to purchase any additional power from M/s SEPL Phase-II in near future.
- 2.7 Further, the Respondent during the hearing held on 22.12.2020 contended that transmission loss upto 400 kV S/s Kashipur shall be borne by the Petitioner and not by PTCUL.

### **3. Commission's view**

- 3.1 The Petitioner through its Petition has requested the Commission to allow it to upgrade the existing 220 kV D/C Mahuakhedaganj-Kashipur line by replacing the existing ACSR Zebra Conductor with high capacity ACCC conductor alongwith the LILO of SEPL and in turn grant permanent connectivity to its 214 MW (225 MW ISO) Phase II of 2x214 MW (450 MW ISO) Gas Based Combined Cycle Power Plant at Kashipur, and waive off any transmission charges and losses upto CTU connection (PGCIL bay) at 400 kV Kashipur S/s in relation to power generated from its Phase-II generating station.
- 3.2 Considering the background of the matter, the Commission vide its Order dated 07.02.2017 had accorded approval for enhancement of capacity of 220 kV D/C

Mahuakhedaganj-Kashipur line by replacing its ACSR Zebra conductor with high capacity ACCC conductor, which will be adequate to transmit/evacuate the rated capacity generation from the 03gas based generating stations proposed in Kashipur area.

- 3.3 As per the load flow studies submitted by PTCUL, after the enhancement of capacity of 220 kV D/C Mahuakhedaganj-Kashipur line, by replacing its ACSR Zebra conductor with high capacity ACCC conductor, the line shall be adequate to transmit/evacuate the rated capacity generation from Phase-1 and Phase-II of M/s SEPL having capacity of 214 MW each and 214 MW of M/s. Gamma Infraprop Private Limited both in normal as well as in N-1 contingency. The Commission feels that when the investment approval for carrying out the above work has already been accorded by the Commission which will be adequate to evacuate the rated power of 642 MW (428 MW of M/s SEPL and 214 MW of M/s GIPL), it would be economically unviable decision to create another 400 kV dedicated line asset, i.e. 400 KV Quad Moose D/c Transmission line from M/s SEPL Switchyard to LILO point of one circuit of PGCIL's 400 kV Kashipur-Roorkee line for evacuating the entire generation, i.e. 428 MW of M/s SEPL including the existing 214 MW capacity having long term PPA with UPCL, at an additional cost, as this will not only lead to duplication of asset but will also amount to additional cost incidence on the generation tariff, resulting in additional burden on UPCL/end consumers of the State in the form of increase in retail Tariffs. In addition to the above, UPCL shall have to bear the additional interstate PoC transmission charges for the power drawn from Phase-1 of M/s SEPL for which it has a long term PPA with the Petitioner which shall further enhance the retail tariff of the electricity consumers of the State.
- 3.4 Further, with enhancement of capacity of 220 kV D/C Mahuakhedaganj-Kashipur line capable of carrying additional 214 MW from Phase-II of the Petitioner's plant will enable availability of additional power at 220 kV system of 400/220 kV Kashipur S/s resulting in overall strengthening of State transmission system.
- 3.5 The Respondent (PTCUL) in its System Study report submitted alongwith letter dated 18.12.2020 at Annexure B has further stated that along with enhancement of

capacity of 220 kV D/C Mahuakhedaganj-Kashipur line, additional work of construction of 132 kV D/C Mahuakhedaganj-Jaspur line together with addition of 1 no. 220/132 kV 100 MVA transformer at Mahuakhedaganj and also addition of 1 no. 220/132 kV 160MVA transformer at Kashipur should also be taken up to meet N-1 and T-1 contingencies. In this regard, the Commission would like to point out that in its investment approval Order dated 07.02.2017 it has already accorded approval for construction of 132 kV D/C Mahuakhedaganj-Jaspur line together with installation of 1 no. 220/132 kV 160 MVA transformer and its associated bays at 400 kV S/s Kashipur. As far as installation of 1 no. additional 100 MVA transformer at 220 kV Mahuakhedaganj is concerned, it is to point out that the Respondent in its earlier System Study report submitted alongwith the DPR dated 10.01.2017 for seeking investment approval from the Commission in the matter pertaining to enhancement of capacity of 220 kV D/C Mahuakhedaganj-Kashipur line, had mentioned the need for installation of 1 no. additional 100 MVA transformer at 220 kV Mahuakhedaganj alongwith the aforesaid work. Even after elapse of more than 04 years since then, Respondent has not taken any steps in this regard. Based on the above, the Commission directs PTCUL to undertake the aforesaid additional works namely (i) construction of 132 kV D/C Mahuakhedaganj-Jaspur line (ii) installation of an additional 220/132 kV 160 MVA transformer alongwith its associated bays at 400 kV Kashipur S/s (iii) installation of an additional 100 MVA transformer alongwith its associated bays at 220 kV Mahuakhedaganj without any further delay so that the generation from M/s SEPL and M/s GIPL is not bottled up under normal or N-1/T-1 contingencies.

- 3.6 Notwithstanding with above, the existing 220 kV line after upgradation to ACCC Conductors will have a capacity to carry 550 MW and along with load catered by 220 kV Mahuakhedaganj S/s of 95 MW, the overall transmission system capacity will be 645 MW. Further, considering the existing PPAs and the instant Petition of the Petitioner, the overall generation capacity in the area works out to 535 MW. Therefore, there is still 110 MW of spare capacity available in the system under various N-1/T-1 contingencies.



3.7 On the contention of PTCUL that the proposal for replacement of ACSR Zebra Conductor with High Capacity ACCC conductor in 220 kV D/C Mahuakheraganj-Kashipur line is withheld by it till future requirement of UPCL, it is worth mentioning that PTCUL being an STU has a much larger role to play in terms of planning and development of transmission system within the State in accordance with the Act/Regulations. In accordance with Section 39 of the Act, an STU, inter-alia, is required to discharge functions of planning and to ensure development of an efficient, co-ordinated and economical system of intra-State transmission lines for smooth flow of electricity from a generating station to the load centres and also to provide non-discriminatory access of IaSTS to licensees, generating companies and other designated IaSTS customers (DICs). Accordingly, the Respondent, as an STU, has the paramount responsibility of development/strengthening /augmentation of transmission system necessary for transmission of power to meet the future load growth as well as up-coming generation in the State, irrespective of the fact whether the consumers or the generators are drawing or selling power within the State or transacting through open access outside the State. Accordingly, the Commission directs the Respondent to strictly adhere to its perspective State Transmission Plan included in its Business Plan and Investment Approval petitions duly approved by the Commission.

3.8 The Respondent in its submission dated 18.12.2020 has further stated that there are no Regulations which permit a private party to upgrade the existing system of the transmission licensee, therefore, the Petitioner cannot be allowed to undertake the work of upgradation of 220 kV Mahuakheraganj-Kashipur line. The submission of the Respondent, as above, is not appropriate since, the Commission feels that it has powers to deal with any matter or exercise any power under the Act for which no Regulations has been framed if in view of the special circumstances, it deems it just or expedient for deciding such matter. This has been dealt in Regulation 59(3) of the UERC (Conduct of Business) Regulations, 2014 which provides the Commission the inherent powers to deal with any matter or exercise any power under the Central Act or State Act, for which no Regulations have been framed. Hence, in exercise of such inherent powers, when the Commission is of the view that the proposed dedicated 400 KV Quad Moose D/c Transmission line from SEPL

switchyard to LILO point of one circuit of PGCIL's 400 KV Kashipur-Roorkee line cannot be constructed due to serious RoW issues whereas, Phase-II project of the Petitioner is almost ready and is about to be commissioned by June, 2021 and the Respondent is not ready to undertake the said upgradation work, the Commission allows the Petitioner to carry out the upgradation work of the Respondent's 220 kV Mahuakhedaganj-Kashipur line under the supervision of the Respondent so that the generation from its Phase-II is not bottled up. The above submissions of the Respondent, points towards the lackadaisical approach of the Respondent more so, as an STU given the responsibility to discharge functions provided in the Act. It has been almost 4 years since the grant of investment approval by the Commission for the line upgradation work, however, the Respondent instead of executing the work as per the approved scheme has till date not even started the work and also it did not submit any compliance report on the order granting investment approval of the said scheme. However, with the inception of these proceedings, wherein the Petitioner is ready to do the work by itself on behalf of the Respondent, in order to avoid bottling up of its generation from its Phase-II, this has come to the knowledge of the Commission where the Respondent is acting in a manner which vitiates its roles and functions as a STU under the Act or can be considered as ignorant of its responsibilities enshrined in the Act.

- 3.9 The request of the Petitioner to waive off transmission charges and losses upto CTU connection at 400 kV S/s Kashipur in relation to power generated from Phase-II of the project cannot be accepted completely, in view of the fact that the Petitioner has proposed for replacement of conductors only, whereas the other elements of the existing transmission system of PTCUL namely; towers, interconnecting transformers, bus and bays equipments etc. will in any way be utilized by the Petitioner for supply of power from its Phase-II of the project. Accordingly, the Commission is of the view that the Petitioner should ideally bear the proportionate cost and transmission charges thereof for using other elements of the existing transmission system of the Respondent. However, considering the fact that 400 kV S/s Kashipur and Mahuakheraganj-Kashipur lines are almost 10 years old it would not be an easy exercise to segregate the cost of the other elements as referred above and, hence, deriving out the transmission charges for such elements would not be

practically possible. Further, as mentioned above that the S/s and lines had been commissioned more than 10 years ago, loans would have been almost paid off for these assets and depreciation charges would only be nominal. The only cost element that would be devolving would be the RoE and O&M charges for the system. Further, it should not be ignored that the Petitioner is incurring expenditure towards upgradation of the system which was the responsibility of the Respondent, and the same would be beneficial for the State as it will strengthen the transmission system and also reduce the impact on tariffs as the Petitioner would be transmitting the entire power through this system. If permission of upgradation is denied, it will have to commission its 400 kV line to PGCIL for evacuation of entire 428 MW power, due to which burden of not only the cost of the transmission line but also the PoC charges and losses would devolve on UPCL. Hence, since the Petitioner would be making investment which would also be beneficial for the State, the Commission is of the opinion that it should bear only the proportionate O&M charges for the line, bays and ICTs.

Currently, the Regulations do not provide for O&M charges separately for lines and bays, hence, in order to remove any difficulty in this regard, the Commission using its inherent powers under the Conduct of Business Regulations, 2014 decides to adopt the O&M charges specified in the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for lines, bays and ICTs which have been specified upto FY 2023-24 hereunder. However, subsequent to aforesaid financial year PTCUL shall approach the Commission for determination of these charges from time to time.

**Table No. 1: Normative O&M Charges of Transmission Elements**

Year	2021-22	2022-23	2023-24
<b>Norms for sub-station Bays (Rs Lakh per bay)</b>			
220 kV	24.12	24.96	25.84
<b>Norms for AC lines (Rs Lakh per km per annum)</b>			
Double Circuit (Single Conductor)	0.404	0.419	0.433
<b>Norms for Transformers (Rs Lakh per MVA)</b>			
400 kV	0.384	0.398	0.411

Accordingly, the Petitioner would be required to bear pro-rata O&M charges for the line, bays and ICTs utilised in proportion to power injected by Phase-II of the Petitioner's project *vis-a-vis* overall energy handled by these elements. The

Petitioner is directed to account for the same separately and no incidence of the same should devolve on Phase-I of the project for which it has PPA with UPCL. Moreover, it is also clear that after the augmentation of the aforesaid line the ownership of the line would be handed over to PTCUL and subsequently, PTCUL would recover the proportionate O&M charges of the above transmission elements based on the normative charges as per Table given above from the Petitioner.

3.10 As far as the losses are concerned, they shall have to be borne by the Petitioner on actual basis. The Petitioner's losses cannot be loaded on to PTCUL. Losses will be calculated based on the difference of the energy sent out recorded in the meter at generator busbar and energy recorded at the bay at 400 kV Kashipur.

3.11 In view of the above, the upgradation work of 220 kV D/C Mahuakhedaganj-Kashipur line by replacement of ACSR Zebra conductor with high capacity ACCC conductor may be carried out by the Petitioner with the following conditions:

- (i) The estimate for carrying out the upgradation work shall be prepared by M/s SEPL and vetted by PTCUL.
- (ii) The above work shall be executed by M/s SEPL under the strict supervision of PTCUL so that the proposed line after upgradation can be handed over to STU/PTCUL.
- (iii) All pre-despatch inspection tests shall be witnessed by PTCUL.
- (iv) The proposed line after the upgradation shall be handed over by M/s SEPL to PTCUL and thereafter, the said line shall be part of intra-State transmission system.
- (v) From the date of handover of the upgraded line, proportionate O&M charges for the line, bays and ICTs used w.r.t. power injected by Phase-II of the project and energy handled by these elements shall be borne by M/s SEPL and it shall also account for the same separately and no incidence of the same should devolve on Phase-I of the project for which it has PPA with UPCL.
- (vi) Actual Losses for power injected shall be borne by M/s SEPL w.r.t. Phase-II of the project.

(vii) The other modalities as necessary may be chalked out by the Petitioner and the Respondent for smooth and timely completion of the said work.

(viii) PTCUL to grant connectivity and sign a permanent connectivity agreement with the Petitioner for connectivity of 214 MW phase-II of 2x225 MW(ISO) gas based combined cycle power plant at LILO point of 220 kV Mahuakhedaganj-Kashipur line matching with commissioning schedule of phase II of the Petitioner's Project.

3.12 The works mentioned at sl. no. (b) and (i) of Table no. 2 of the investment approval order dated 07.02.2017 in the matter of Petition No. 05 of 2017 amounting to Rs. 18.29 Cr. and Rs. 23.89 Cr. respectively, shall now be deleted and the Order stands modified to that extent accordingly.

Ordered accordingly.

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

**(D.P. Gairola)**  
**Member (Law)**