

Before

UTTARAKHAND ELECTRICITY REGULATORY COMMISSION

In the matter of:

Grid connectivity for 12.6 MW SHP of M/s Uttar Bharat Hydro Power Pvt. Ltd. (UBHP), A-2/452, Sector-8, Rohini, New Delhi (*suo-moto*).

And

In the matter of:

Uttarakhand Power Corporation Limited (UPCL) ...Respondent 1

M/s Uttar Bharat Hydro Power Pvt. Ltd. ...Respondent 2

Coram

Shri Subhash Kumar	Chairman
Shri C.S. Sharma	Member
Shri K.P. Singh	Member

Date of Order: September 11, 2015

ORDER

This Order relates to the *suo-moto* proceeding initiated by the Commission on an application submitted to the Commission in the matter of Loop In Loop Out connection from 33 kV Kapkote-Karmi Line for power evacuation of 12.6 MW generation from Sarju-II Power Station in District Bageshwar, Uttarakhand of M/s Uttar Bharat Hydro Power Pvt. Ltd. (UBHP) having registered office at A-2/452, Sector-8, Rohini, New Delhi.

I. Background

1. M/s UBHP vide its letter No. UBHP/U-55/02 dated 27.02.2015 had requested the Commission for clarification with regard to Loop In Loop Out connection from the 33 kV Kapkote-Karmi line passing close to their power station. In the aforesaid letter, M/s UBHP submitted that they have been allowed the connectivity for power evacuation at 33 kV Kapkote S/s by UPCL through a dedicated line.

However, with the construction of 33 kV Kapkote-Karmi line which is approx. 1.5 kms distant from their power station, they want to opt for Loop In loop Out connection from the Kapkote-Karmi 33 kV line with a rationale that by Loop In Loop Out system approx. 12 Km new line can be saved and with this UPCL can save 5 paisa per unit which shall be payable by UPCL to the generating company for the transmission line.

2. The Commission vide its letter No. 2209 dated 16.03.2015 forwarded the aforesaid letter of M/s UBHP to UPCL and directed it to submit its comments alongwith factual position in the matter.
3. In compliance to the Commission's above letter, UPCL vide its letter No. 2045 dated 16.05.2015 submitted that:

"... UPCL has signed PPA with M/s Uttar Bharat Hydro Power Pvt. for Sarju-II project on dated 16.12.2002 and supplementary PPA dated 26.02.2015 having connectivity at 33/11 KV Kapkote substation.

Further, M/s Uttar Bharat Hydro Power Pvt. has approached to Hon'ble UERC and UPCL for LILO arrangement on Karmi-Kapkote line (which is under construction) for the above said project.

In this context, following points are submitted before Hon'ble UERC:

1. *Kapkote-Karmi line on which generator seeks LILO arrangement is under construction. In LILO arrangement there is no dedicated line from substation to generating plant.*
2. *Since the Kapkote-Karmi line is 28 Km long and passes through dense forest area & tough hilly terrain therefore the chances of breakdown are more which will lead to claim for Deemed Generation.*
3. *On the other hand Sarju-II Kapkote 33 KV line is only 12 Km long which is not even half of that of Kapkote -Karmi line hence probability of outage /interruption is less.*
4. *There may be a possibility of bypassing the bay which may result into fictitious power flow to the grid through generator meter.*
5. *Further, there is no provision of LILO in any regulation of Hon'ble UERC.*

Hon'ble Commission is requested that providing LILO arrangement to Sarju-II is unfavorable to UPCL."

4. M/s UBHP vide its letter No. UBHP/UERC/57/02 dated 06.06.2015 reiterated its earlier submission made before the Commission and sought clarity in the matter as early as possible as they were ready to commission the project in the month of July, 2015.
5. The Commission decided to initiate *suo-moto* proceeding in the matter under the provisions of Section 94 of the Electricity Act, 2003 making M/s UBHP & UPCL as Respondents and fixed a hearing in the matter on 07.07.2015. Meanwhile, due to unavoidable circumstances the Commission decided to pre-pone the date of hearing and fixed the date of hearing on 02.07.2015. Thereafter, the Commission vide its letter No. letter No. 489 & 490 dated 24.06.2015 issued notice for hearing to M/s UBHP & MD, UPCL and directed the respondents to submit their comments, if any, under affidavit before the Commission latest by 30.06.2015.
6. In compliance to the Commission's above directions, M/s UBHP submitted its point-wise comments on the contentions of UPCL under affidavit on 01.07.2015 which are reproduced below:-

"Issue No. 1: Kapkote-Karmi line on which generator seek LILO arrangement is under construction. In LILO arrangement there is no dedicated line from Substation to generating plant.

Response: Kapkote-Karmi line on which generator seeks LILO system is complete. In LILO system there is no need for dedicated line from Substation to generating plant.

Issue No. 2: Since the Kapkote-Karmi line is 28 KM long and passes through dense forest are and tough highly terrain therefore the chances of breakdown are more which will lead to claim of Deemed Generation.

Response: It is submitted that length of the new 33 kV line from where LILO connectivity is proposed to the UPCL Substation is 12 KM and the same does not passes through dense forest. It is pertinent to mention that UBHP's Sarju-III Transmission line is parallel to new 33 kV line and since past two years no major line breakdown was reported and hence no deemed generation has been reported.

Issue No. 3: There may be a possibility of bypassing the bay which could result into fictitious power flow to the grid through generator meter.

Response: Sarju-II to be connected in LILO system common bus through a line breaker

situated at Sarju-II switchyard. Hence there is no possibility of fictitious power flow to the grid through generator meter. Only generation station import can be record in generator meter. In case, it is in standstill mode and UBHP is taking power from the grid for auxiliary purpose the same would be recorded in the sealed meter room as this system is a full proof system and there is no possibility for fictitious power.

Issue No. 4: Further, there is no provision of LILO in any Regulation of Hon'ble UERC.

Response: As per Regulation 39 of the UERC (Tariff and Other Terms for Supply of Electricity from Non-conventional and Renewable Energy Sources) Regulations, 2013 (RE Regulation, 2013), UPCL shall endeavor to preferably provide connectivity to UBHP at nearest possible sub-station. It is submitted that the nearest sub-station from UBHP generating station is about 12 Km away and to connect with the same a dedicated line is to be installed, which for the reason mentioned in paragraph 3 is not favorable. It is respectfully submitted that UERC in exercise of it power to relax may kindly relax Regulation 39 in so much as it provides that connectivity is to be provided at the nearest UPCL sub-station and in the instant case permit UBHP to tender power by connecting to new 33 kV line with the help of LILO connection. It is pertinent to mention that there are two projects as per our knowledge are running under LILO system successfully the detail of which are as follows:

- Rajwakti SHEP (3.6 MW), Him Urja Pvt. Ltd., Tefna, Nandprayag, Chamoli, 66 kV LILO system from 2001 to date (14 years).
- Vanala SHEP, (7.5 X 2 MW), Him Urja PVT. Ltd., Vanala, Chamoli, 66 kV LILO system from 2010 to date (5 years).

...

- At present 4 gantry (incoming from Bageshwar, PPL, Sarju-II and Karmi gantry) are installed at Kapkote sub-station. In this regard it is submitted that at Kapkote sub-station, there is no free space available for constructing a dedicated line gantry and other equipments which will be required for installing the dedicated line. Therefore, in order to over-come the said situation UBHP suggested LILO connection.

...

- In light of the above mentioned facts it is respectfully submitted that UERC in exercise of it power to relax may kindly relax Regulation 39 in so much as it provides

that connectivity is to be provided at the nearest UPCL sub-station and in the instant case permit UBHP to tender power by connecting to new 33 kV line with the help of a LILO connection."

7. Further, UPCL vide its letter No. 3477 dated 01.07.2015 submitted its comments under affidavit, which are reproduced below:-

"

1. *That M/s UBHPP LTD. had signed PPA on dated 16-12-2002 and Supplementary PPA dated 26-02-2015 with UPCL for their upcoming Generating Station Sarju-II, wherein connectivity for the evacuation of power was agreed upon to be given from 33/11 kV Kapkote Sub-station. It is pertinent to mention here that M/s UBHPP LTD. even while signing the Supplementary PPA agreed to be granted connectivity at Kapkote Substation only, that it is reasonable to expect that M/s UBHPP LTD. after a long span of 12 years should have erected the evacuation line from their Generating Station Sarju-II to 33/11 kV S/s Kapkote. It is not understandable as to for what reasons M/s UBHPP LTD. has now moved the Hon'ble Commission for LILO of Kapkote-Karmi line, from this it appears that M/s UBHPP Ltd. has not fulfilled its contractual obligations of erecting the evacuation line and neither made any efforts towards the same. It is pertinent to mention here that UPCL insisted M/s UBHPP LTD. should have constructed the line in pace with the construction of the Sarju-II Generating Station.*
2. *That for proper evacuation of Generating Plant it is always better to either evacuate the power through Substation which has enough load base to cater the generation of the connected Generating plant or to take the evacuation through the load centre, which in present case would have been 33 kV S/s Bageshwar. Even at the time of signing of PPA, evacuation through 33/11 kV S/s Bageshwar would have been the ideal choice to evacuate the generation from Sarju-II but considering the limitations of the generator, UPCL had agreed upon the connectivity through 33/11 kV S/s Kapkote and taken the responsibility to connect 33/11 kV S/s Kapkote to 33 kV S/s Bageshwar in a way so that to evacuate the complete power from all the upcoming, generating stations like Sarju-I, Sarju-II, Sarju-III etc.*
3. *That the UPCL has been constantly pursuing towards better evacuation of generated power from different generating stations in the area and for the purpose of which has*

planned to connect 33/11 kV S/s Kapkote to 33/11 kV S/s Bageshwar with the additional new circuit of panther conductor.

- 4. That UPCL is erecting 28 KM Kapkote-Karmi 33 kV line for better supply of power to the adjoining areas of Karmi and the line is in very advance stage of completion. This network extension is purely for system strengthening, whereby new Karmi S/s will soon be energized, and the LILO of any Generator is nowhere in the scheme.*
 - 5. That in the circumstances it is not at all justified that M/s UBHPP LTD. should be allowed for LILO connection from Kapkote-Karmi Line as that would amount to awarding the M/s UBHPP LTD. for its inefficiencies and breach of contractual agreement. Hence, M/s UBHPP LTD. should not be given the benefit for not honouring the PPA clause and this Kapkote-Karmi line should not be the way out for M/s UBHPP LTD. for non-compliance of the PPA clause.*
 - 6. That it is humbly submitted that legally it is only permissible to connect a generator to a substation, in support of the contention the reference can be drawn from Regulation 39(1) of RE Regulations, 2013.*
 - 7. That M/s UBHPP LTD. has never moved the UPCL for changing the evacuation plan or for granting evacuation at certain other point. It is humbly submitted that the letter written by M/s UBHPP LTD. to the Hon'ble Commission in this regard was totally uncalled for.*
 - 8. That apart from the contentions made above and without prejudice it is humbly submitted that even otherwise the mere mentioning of word LILO by M/s UBHPP LTD. to Hon'ble Commission is not sufficient, the request made is totally vague and without any concrete plan hence the UPCL is not in a position to make any comments regarding the request for LILO of Kapkote-Karmi line by the generator to Hon'ble Commission. UPCL can only make submission in this regard when the proper and detailed plan as to how M/s UBHPP LTD. proposes to LILO the said line is submitted with the present status of the line from generator to Kapkote and a proper justification for not being able to complete the same as yet, UPCL further request the Hon'ble Commission to kindly grant opportunity for replying to the proposal of the generator, if any, and as and when the same is submitted."*
8. On the scheduled date of hearing i.e 02.07.2015, the Commission heard both the Respondents and issued an Order dated 02.07.2015. The operative paras of the

Order are being reproduced below:

“

1. Respondent No. 2 informed that its plant is ready to be commissioned by July end. Hence, to avoid bottling up of the generation the Commission, ad-interim, allows Respondent No. 2 Loop In Loop Out (LILO) connection from 33 kV Kapkote-Karmi Transmission line and directs Respondent No. 1 to provide the same.
2. Respondent No. 1 submitted that in its PPA dated 16.12.2002, Respondent No. 2 agreed for construction of evacuation line from its generating station to Kapkote substation. Representative of Respondent No. 2 also informed that the construction of the generating station started in 2008 and in February 2015, it informed Respondent No. 1 that it would not be able to construct the line till Kapkote. Respondent No. 2 is directed to submit the details of steps taken by it in this regard from 2008 to 2015 latest by 20.07.2015.
3. Further, the Respondent No. 1 is directed to submit following information latest by 20.07.2015:-
 - (1) The details of existing power evacuation capacity at Kapkote S/s and its adequacy with respect to evacuation of the available generation in the Kapkote region.
 - (2) Submit details of upcoming generation capacity in Kapkote region (Bageshwar district) in next 5 years and the comprehensive plan for power evacuation for the same.”

Copy of the above Order was forwarded to both the Respondents vide Commission's letter No. 573 & 574 dated 03.07.2015 for ensuring compliance at their end.

9. On issuance of the Commission's Order dated 02.07.2015, M/s UBHP vide its letter No. UBHP/UPCL/S-II/57/05 dated 06.07.2015 submitted a letter to MD, UPCL with a copy to the Commission that vide its earlier letter dated 17.03.2015, M/s UBHP had sought LILO connection from UPCL Kapkote-Karmi 33 kV line of UPCL passing closed to M/s UBHP's Sarju-II generating station and further confirming that the developer will construct 33 kV line upto LILO point by installing the related equipments at its Sarju-II switchyard and requested UPCL to

provide LILO connection from its Kapkote-Karmi 33 kV Transmission line. Further, M/s UBHP also submitted that they are ready to transfer the LILO line and its equipment to UPCL, if it desires so. Thereafter, in compliance to the directions issued at para 2 of the Order dated 02.07.2015, M/s UBHP submitted a letter dated 22.07.2015 under affidavit stating that :

“

3. *That on 02.07.2015 this Hon'ble Commission after duly considering the submission advanced by UBHP regarding installation of a LILO Connection and in order to avoid bottling up of the generation, as the plant is ready to be commissioned in end of July 2015, permitted that installation of LILO Connection from 33 kV Kapkote-Karmi transmission line and directed UPCL in this regard. Further, this Hon'ble Commission directed UBHP to submit the detail of steps taken towards apprising UPCL regarding construction of transmission lines. In this regard, it is submitted that, during the period from 2008 till 2015, UBHP has issued several communication to UPCL informing them regarding the enhanced capacity of the project from 3 MW to 15 MW and accordingly requested them to strengthen and build additional transmission lines to carry the proposed power from UBHP generating station. Copies of the said communication is attached herewith the present affidavit.*
4. *That it is pertinent to mention that as the capacity of project was enhanced from 3 MW to 15 MW the new interconnection point was not disclosed by the UPCL, due to which the clarity was lacking regarding setting-up of transmission line for carrying the power. The said clarity was gathered in February 2015 i.e. during execution of supplementary PPA which provided for construction of a dedicated 33 kV line from its generating station to 33 kV Kapkote sub-station of UPCL for the purpose of evacuation of power.*
5. *That in the meantime UPCL has built up a new 33 kV sub-station at Karmi and for connecting the same with Kapkote sub-station a new 33 kV line was installed. Thereafter, UBHP got aware regarding possibility of installing a LILO Connection at the new 33 kV line as the same was passing very close i.e. 1.5 Km from UBHP's sub-station. In response to the said request UPCL informed UBHP that there is no provision under RE Regulation, 2013 for providing LILO Connection.*

Consequently, UBHP approached this Hon'ble Commission seeking a clarification regarding installation of LILO Connection.

6. *That in the light of the above stated facts it is submitted that since 2008 UBHP time and again informed UPCL regarding strengthening and building of additional transmission lines in order to carry power from the generating station in an effective and efficiently manner."*

10. In compliance to the directions issued at para 3 of the Order dated 02.07.2015, UPCL vide its letter No. 3676 dated 24.07.2015 submitted that:-

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1. *The existing power evacuation capacity at Kapkote S/s is 12.6 MW and after replacement of Raccoon conductor to Dog conductor by next month it will become 15.5 MW.*
2. *Upcoming generation capacity in Kapkote region in next 5 years is:*
 - a. *Sarju-II – 12.6 MW.*
 - b. *Sarju-I – 7.5 MW.*

For power evacuation additional parallel line on Panther conductor between Kapkote and Bageshwar has been proposed. New 132/33 kV S/s at Bageshwar, is under construction which further ease out the power evacuation in Kapkote region."

II. Commission's View

1. On examination of the various submissions made by UPCL before the Commission in the matter, it has been observed that UPCL has not planned in a coordinated manner with PTCUL and execution of necessary augmentation work has been tardy, be it replacement of Raccoon conductor by Dog or additional Panther conductor circuit between 33 kV Kapkote S/s and 33 kV Bageshwar S/s, for ensuring evacuation of existing/ upcoming generators in the area technically feasible and also economically viable for them. On the contrary, it has come to the notice of the Commission that UPCL on account of above reason has been issuing instructions to restrict generation from the existing projects namely Sarju-III and Sarju-II in the Kapkote region which is blatant disobedience of the duties cast upon the licensee in the Act/Regulations under which UPCL has to play a pivotal role in providing evacuation system for transmitting power from the existing as

well as upcoming Small Hydro Power projects in the State. Apathy shown on distribution licensee's part towards evacuation of Power from their projects is in contravention to the provisions of the Act/Regulations. The Commission is of the view that bottling up of renewable power for want of proper evacuation capacity has been primarily on account of poor planning and lack of co-ordination between the transmission and distribution licensee in the State.

2. On examination of Power Purchase Agreement dated 16.12.2002 & supplementary PPA dated 26.02.2015 between M/s UBHP & UPCL, it has been observed that M/s UBHP was required to construct, operate and maintain 33 kV power evacuation line from generating station to 33 kV S/s Kapkote. The relevant para 2.2.54 of PPA dated 16.12.2002 and Para 14 of Supplementary PPA dated 26.02.2015 is reproduced below:

Para 2.2.54 of Agreement dated 16.12.2002

"Project Line means 33 kV single circuit transmission line from the station to 33 kV sub-station of the Corporation at Kapkote, Dist. Bageshwar, Uttaranchal to be constructed, operated and maintained as a part of the Project by the Company, for the purpose of evacuation of power from the Project. This shall however not include the interconnection Facilities."

Para 14 of Agreement dated 26.02.2015

"The Clause 2.2.10, 2.2.49, 2.2.50, 2.2.59, 2.2.68, 5.6, 15.19, 15.20, 15.20. & 15.21 of the Original Power Purchase Agreement stands deleted.

All other terms and conditions of the Power Purchase Agreement signed between M/s Uttar Bharat Hydro Power Private Ltd., and UPCL on dated 16.12.2002 shall remain unaltered and shall apply mutatis mutandis."

M/s UBHP has apparently till date, not commenced construction of 33 kV line from its generating station upto UPCL's 33 kV Kapkote Substation for more than 13 years and is now manoeuvring to wriggle out of the conditions of the Agreement in this regard.

(1) On analyzing the submission of M/s UBHP dated 22.07.2015, the Commission observed that upto the year 2013, M/s UBHP had made all correspondences regarding the evacuation of power from its generating station upto UPCL's 33 kV Kapkote S/s. However, in its letter dated 17.12.2013, M/s UBHP had also proposed to evacuate the generation through 33 kV line upto UPCL's 33 kV S/s Shama instead of Kapkote. However, this arrangement has never been referred to or contested in the replies submitted either by UPCL or M/s UBHP in the current proceedings.

(2) It is pertinent to refer to Regulation 15 of UERC (Tariff and other terms for Supply of Electricity from Renewable Energy Sources and non-fossil fuel based Co-generating Stations) Regulations, 2013, specifies as under:

"15(1) (a)...

(b) In case, the generating company opts to construct the evacuation infrastructure from point of inter-connection to the nearest sub-station of transmission or distribution licensee to which the generating station is connected, it shall be allowed a normative levelised tariff of 5 paise/unit over and above the generic tariff determined at the point of inter-connection. However, in case of solar generating company a normative levelised tariff of 12 paise/unit over and above the generic tariff determined at the point of inter-connection shall be allowed. The said normative tariff for evacuation infrastructure has been arrived at considering the cost of normative line length of 10 kms. (including cost of terminal equipments) for different capacities of generating stations as per normative cost given below:

- | | |
|---|----------------------|
| <i>(i) Upto 3 MW, 11 kV S/C</i> | <i>-Rs.44 lakh</i> |
| <i>(ii) Above 3 MW and upto 13 MW, 33 kV S/C</i> | <i>-Rs.85 lakh</i> |
| <i>(iii) above 13 MW and upto 25 MW, 33 kV 2x S/c or DC</i> | <i>-Rs. 170 lakh</i> |

39(2) In case the generating company opts to construct the evacuation system including the transmission/ distribution line upto the nearest substation of Transmission/ Distribution Licensee, the required bay, terminal equipments and associated synchronization equipment etc, the cost of such evacuation system shall be borne by the generating station.

The generating station may also get the work of construction of the power evacuation system carried out by State transmission/distribution licensee.

Provide further that the land for extending the bay shall be provided by the owner of the sub-station free of cost." [Emphasis added]

It is evident that M/s UBHP has already exercised its option of construction of the evacuation line from its generating station to UPCL's Kapkote S/s and this option was never changed. Therefore, contention of M/s UBHP at a later date to get connected through LILO on Kapkote-Karmi line of UPCL, which is still under construction, is not proper. However, to avoid bottling up of the generation, the Commission has allowed LILO connection as an ad-interim arrangement for evacuation of power from Sarju-II generating station.

3. Further, with regard to construction of the 33 kV line for evacuation of power from Sarju-II to the nearest S/s of UPCL, the Commission is of the view that primary responsibility of constructing dedicated line from Sarju-II generating station upto UPCL's Kapkote S/s was of M/s UBHP in accordance with the PPA read with supplementary PPA executed between UPCL & M/s UBHP. The Commission is further of the view that as far as possible the generator should be connected directly to the nearest sub-station of UPCL since the LILO connectivity has following inherent constraints which would also be detrimental to the reliable operation of the generator causing loss of generation:-

1. During maintenance of line, shut down needs to be taken for all the entities connected to the line including the generator.
2. Fault occurring at Karmi S/s or at down-stream of Karmi S/s shall reflect at outgoing feeder at Kapkote S/s and at LILO point of M/s UBHP, which will result in power interruption for the generator.

Despite the above constraints detrimental to the generator, M/s UBHP has requested for LILO connection. Based on the above, the deemed generation claim, if any, on account of tripping of 33 kV Kapkote-Karmi line would not be justified in such circumstances and in case of interim LILO connection for evacuation of power from the concerned generator.

4. In light of the above, it is ordered that:

(1) UPCL shall:

- (a) Submit a comprehensive Action Plan under affidavit for evacuation of existing and proposed generation in Kapkote region including three generating stations (Sarju-I, Sarju-II & Sarju-III) of M/s UBHP latest by 30.09.2015.
- (b) Ensure timely completion of ongoing works including replacement of Raccoon conductor by Dog conductor between its 33 kV S/s Kapkote and 33 kV S/s Bageshwar, additional panther conductor circuit between the aforesaid sub-stations etc, so as to ensure that generation of Sarju-III & Sarju-II and other upcoming generators in the vicinity of Kapkote region does not get bottled-up. Progress achieved be reported within 15 days of close of each quarter.

(2) M/s UBHP shall :

- (a) Start construction of 33 kV line as per PPA and supplementary PPA dated 16.12.2002 & 26.02.2015 between its existing/upcoming generating station and UPCL's 33 kV S/s Kapkote.
- (b) Complete the said work strictly within 12 months beyond which the ad-interim arrangement of LILO connection may be disallowed.

(3) Deemed generation claim shall not be admissible to M/s UBHP on account of interruptions/trippings/breakdowns on 33 kV Kapkote-Karmi line till the construction of 33 kV dedicated line between Sarju-II generating station and 33 kV S/s Kapkote is completed by M/s UBHP in accordance with the agreed PPA and Supplementary PPA between the respondents.

Ordered accordingly.

(K.P. Singh)
Member

(C.S. Sharma)
Member

(Subhash Kumar)
Chairman