### **Before**

# UTTARAKHAND ELECTRICITY REGULATORY COMMISSION

### Petition No. 17 to 26 of 2018

#### In the matter of:

Application seeking approval of the Commission on the Power Purchase Agreement executed between Uttarakhand Power Corporation Limited and Uttarakhand Renewable Energy Development Agency (for 10 nos. of Small Hydro Power Plants).

### In the matter of:

Uttarakhand Power Corporation Ltd.

... Petitioner

**AND** 

#### In the matter of:

Uttarakhand Renewable Energy Development Agency (UREDA)

... Respondent

#### **CORAM**

Shri Subhash Kumar

Chairman

Date of Order: August 28, 2018

This Order relates to the Petitions filed by Uttarakhand Power Corporation Ltd. (hereinafter referred to as "UPCL" or "Petitioner" or "Licensee") seeking approval of the ten nos. of Power Purchase Agreements (PPA) executed by it with Uttarakhand Renewable Energy Development Agency (hereinafter referred to as "UREDA" or "Respondent") for procurement of power from Small Hydro Power Plants (SHPs) being maintained and operated by UREDA.

## 1. Background

1.1. The Commission earlier vide its Order dated 23.01.2018, in the matter of approval of PPA executed between UPCL and M/s Himalaya Hydro (P) Ltd., directed UPCL to submit the PPAs which it has entered into, and which have not yet been approved by the Commission, for the approval of the Commission. The relevant extract of the said Order is as follows:

- "5. The Commission once again directs UPCL to submit the remaining PPAs which it has entered into and have not yet been approved by the Commission within 15 days of the date of this Order failing which appropriate action will be initiated against the respondent."
- 1.2. Accordingly, the Petitioner vide letter dated 04.04.2018 filed the Petitions seeking approval of the Commission on ten nos. of Power Purchase Agreement (PPAs) for purchase of energy generated from the Respondent's SHPs under Section 86(1)(b) of the Electricity Act, 2003, Regulation 39(1) of UERC (Conduct of Business) Regulations, 2014 and Clause 5.1, 5.2 & 5.4 of the license conditions of the Distribution and Retail Supply license dated 20.06.2003 issued by the Commission.

Since, the subject matter of all ten nos. of PPAs are similar in nature, the said PPAs are dealt with this single Order.

## 2. Petitioner's submission

- 2.1. The Petitioner submitted that as per the provisions of the Electricity Act, 2003 read with provisions of UERC (Conduct of Business) Regulations, 2014 and Distribution and Retail Supply License, the Petitioner is required to get the approval of the Commission on the PPAs entered into with the Respondent.
- 2.2. UPCL submitted that UREDA, is engaged in the business of promotion of Renewable Energy programs in the State and is desirous of selling the energy generated from its SHPs to UPCL and the Petitioner is desirous of purchasing the entire/surplus energy on the terms and conditions as agreed between the parties. Detail of the Plants is as follows:

Name of the Plant/location	Plant's Capacity	Contracted Capacity
Dior, District Pauri	100 kW	100 kW
Kanwashram, District Pauri	100 kW	100 kW
Toli, District Bageshwar	100 kW	50 kW
Lathi, District Bageshwar	100 kW	Surplus Energy
Ramgad, District Nainital	100 kW	Surplus Energy
Bursol, District Chamoli	200 kW	Surplus Energy
Gulari, District Chamoli	10 kW	Surplus Energy
Milkhet, District Chamoli	100 KW	Surplus Energy
Bhikuriyagad, District Pithoragarh	500 kW	Surplus Energy
Kanlogad, District Bageshwar	100 kW	Surplus Energy

## 3. Respondent's submission

- 3.1. In the matter, UREDA vide letter dated 28.07.2017 submitted that Small Hydro Plant Toli and Milkhet having capacity of 100 kW and Gulari having capacity of 10 kW were put to commercial operation prior to 01.01.2000. Further, the Commission Vide RE Regulations, 2010 has specified the generic levelized tariff to be applicable for the SHPs commissioned on or after 01.01.2002 whereas abovementioned plants were commissioned prior to 01.01.2000. UREDA also submitted that the Commission vide Order dated 10.11.2005 has provided an option to the developer either to approach Commission for determination of project specific tariff in accordance with the UERC (Terms and Conditions for Determination of Hydro Generation Tariff) Regulations, 2004 read with Commission's notification no. F9(3)RG/UERC/2004/842 dated 03.01.2005 or tariff will be determined as the weighted average cost of power allocated to the State from central generating station.
- 3.2. UREDA submitted that based on the above, the relevant provisions of PPAs executed for power plant Toli and Milkhet and Gulari should be amended accordingly.

#### 4. Commission's Views & Decisions

## 4.1. Legal Requirement for approval of PPA

- 4.1.1. A PPA is a legal document incorporating operational, technical & commercial provisions to be complied in accordance with the relevant rules & regulations.
- 4.1.2. Section 86(1)(b) of the Electricity Act, 2003 stipulates that one of the function of the Commission is to regulate electricity purchase and procurement process of the distribution licensees including the price at which electricity shall be procured from the generating companies or licensees or from other sources through agreements for purchase of power for distribution and supply within the State.
- 4.1.3. Further, the Distribution and Retail Supply Licence issued by the Commission lays down certain conditions of license, which amongst others also has the following:
  - "5.1 The Licensee shall be entitled to:
  - a)...
  - b) Purchase, import or otherwise acquire electricity from any generating company or any other person under Power Purchase Agreements or procurement process approved by the Commission; ..."

(Emphasis added)

- 4.1.4. Further, Regulations 7(2) & 7(3) of the UERC (Tariff and other Terms for Supply of Electricity from Non-Conventional and Renewable Energy Sources) Regulations, 2013 (RE Regulations, 2013) specifies that:
  - "(2) The distribution licensee on an offer made by the said RE based Generating Stations and Co-generating Stations shall enter into a power purchase agreement in conformity with these Regulations and relevant provisions of other Regulations and the Act. The distribution licensee shall sign the PPA within two months of offer made by the generating company, failing which the generating company may approach the Commission for suitable remedy.
  - (3) The distribution licensee shall make an application for approval of power purchase agreement entered into with the generating station in such form and manner as specified in these regulations and Uttarakhand Electricity Regulatory Commission (Conduct of Business) Regulations, 2004 as amended from time to time."

(Emphasis added)

4.1.5. Accordingly, in accordance with the requirements of the Act and Regulations referred above, UPCL as a distribution licensee is required to seek approval of the PPAs entered or proposed to be entered by it from the Commission.

## 4.2. Consistency of the PPA with the Regulations

- 4.2.1. Regulation 6(7) of RE Regulations, 2013 specifies as under:
  - "(7) Except as provided in First & Second Proviso to sub-Regulation (1) of Regulation 2 above, all Power Purchase Agreements signed by the generating stations existing on the date of notification of these regulations shall be renewed in accordance with these regulations and such renewed PPAs shall be valid for entire life of the RE Based Generating Stations and Cogenerating Stations."
- 4.2.2. Hence, all the PPAs entered or to be entered into by UPCL are required to be amended in accordance with RE Regulations if they are inconsistent with the provisions of RE Regulations. Accordingly, PPAs executed between UPCL and UREDA are examined for consistency and conformity with the relevant provisions of the Electricity Act, 2003 & prevailing RE Regulations.

## 4.3. Commission's Analysis of the Draft PPA and Order on the same

- 4.3.1. Ten nos. of PPAs have been entered into between UPCL and the Respondent for the supply of entire energy scheduled to be generated from small hydro plant Dior & Kanwashram having capacity of 100 kW each situated at District Pauri and half of installed capacity of small hydro plant Toli having capacity of 100 kW situated at district Bageshwar. Further, UPCL also executed PPA with UREDA for supply of surplus power generated from plants, namely Lathi (100 kW) and Kanlogad (100 kW) situated at district Bageshwar; Ramgad (100 kW) situated at district Nainital; Bursol (200 kW), Gulari (10 kW) & Milkhet (100 kW) situated at district Chamoli; and Bhikuriyagad (500 kW) situated at district Pithoragarh.
- 4.3.2. The Respondent has submitted its comments, vide its letter dated 25.08.2017, on the Clauses of the PPAs submitted by UPCL which are dealt in the subsequent Paras.
- 4.3.3. The present petitions for approval of ten nos. of PPAs have been filed in accordance with the direction issued by the Commission vide its Order dated 23.01.2018. The relevant extract of the Order is as follows:
  - "5. The Commission once again directs UPCL to submit the remaining PPAs which it has entered into and have not yet been approved by the Commission within 15 days of the date of this Order failing which appropriate action will be initiated against the respondent."
- 4.3.4. Further, the Commission has examined these PPAs and submissions of the Respondent in light of the relevant rules & regulations. The Commission observed that certain clauses in the PPAs submitted by UPCL are inconsistent with the provisions of the Act/Regulations. Such observations have been discussed in the subsequent sub-Paras. UPCL is directed to take note of the same and incorporate necessary corrections in the PPAs accordingly.
  - a) Clause 1.1 of all the ten nos. of PPAs provides the definition of 'Bill meter' as follows:

"'Bill Meter' means Import and Export Meter as per CEA norms on the basis of which energy billing shall be raised by the Generation Company/UPCL.

With regard to Meter to be used for energy accounting, the terminology used should be Main meter and not the Bill meter as per the CEA (Installation and

Operation of Meters) Regulations, 2006 which has provided the definition of Main Meter as follows:

"'Main Meter' means a meter, which would primarily be used for accounting and billing of electricity"

Accordingly, Main Meter is to be used for accounting as well as billing of electricity by the Generator Company/UPCL. Accordingly, the clause 1.1 shall be read as follows:

"'Main Meter' means Import and Export Meter as per CEA norms on the basis of which energy accounting and billing of electricity shall be done by the Generating Company/UPCL"

Further, based on the above modification in the draft PPA, UPCL is required to replace word 'Bill Meter' with 'Main Meter' in all the clauses of the draft PPAs.

b) Clause 1.3 of all the ten nos. of PPAs provides the definition of 'Date of commercial operation or Commissioning (COD)' as follows:

"'Date of Commissioning' means the date on which supply of Energy is commercially commenced by the Generating Company to UPCL and includes COD."

The above mentioned clause needs to be corrected and be replaced in accordance with the Regulation 3(1)(l) of RE Regulation, 2013 which is as follows:

"Date of commercial operation or Commissioning (CoD)" in relation to a unit means the date declared by the generator on achieving maximum continuous rating through a successful trial run and in relation to the generating station, the date of commercial operation means the date of commercial operation of the last unit or block of generating station and expression 'commissioning' shall be construed accordingly. In case of Small Hydro Plants the date of commissioning shall, however, not be linked to achieving maximum continuous rating, but the generator will have to demonstrate the same within three years of commissioning."

Accordingly, the definition provided in clause 1.3 of the PPA shall be replaced with the definition given under RE Regulations, 2013.

c) As per Regulation 6(5) of RE Regulations, 2013 (Obligation and Duties of the

Generating Station), the RE based generation stations and Co-generation stations shall ensure the compliance of the IEGC, the State Grid Code and the Distribution Code as amended from time to time. Further, the Commission has specified UERC (Distribution Code) Regulations, 2018 which covers all material technical aspects relating to the operation and use of the Distribution System including the operation of the electrical lines and electrical plants and apparatus connected to the Distribution System. Hence, both the parties are required to fulfil all the requirements/compliances mentioned under **UERC** (Distribution Code) Regulations, 2018 alongwith the requirement/compliance of UERC (State Grid Code) Regulation, 2016. Accordingly, the following Clause shall be inserted after Clause 1.3:

"1.3(a) 'Distribution Code' means the Uttarakhand Electricity Regulatory Commission (Distribution Code) Regulations, 2018 as amended from time to time."

The Petitioner is also required to insert 'Distribution Code' in all the clauses of the draft PPA where compliance of State Grid Code is required.

d) As mentioned under point (a) above in the definition of 'Main Meter', terminology of 'Import meter' and 'Export Meter' has been used. However, these terms have not be defined anywhere in the PPAs executed with the Respondent. Therefore, definitions of export meter and import meter are required to be inserted after Clause 1.4 and shall be read as follows:

"Export Meter' means Main Meter installed at the interconnection point for measurement of Active Energy, Maximum demand and Power Factor for energy exported from the Generating Station to UPCL.

'Import Meter' means Main Meter installed at the interconnection point for measurement of Active Energy, Maximum demand and Power Factor for energy imported by the Generating Station from UPCL."

e) Clause 1.13 of ten nos. of PPA provides the definition of "Interconnection Point" as follows:

"Interconnection Point" means the physical touch point where the project line(s) and the allied equipment forming a part of the interconnection facilities are connected to the bus bar at a 11 kV voltage at generating plant."

The above mentioned clause needs to be corrected and be replaced in accordance with the Regulation 3(1)(v) of RE Regulations, 2013 as follows:

""Inter-connection Point" shall mean interface point of renewable energy generating facility with the transmission system or distribution system which shall be line isolator on outgoing feeder on HV side of generator transformer."

f) Clause 2.2(vii) of PPA executed with the Respondent for the supply of power from its Plant Toli situated District Bageshwar and Plant Guliar & Milkhet situation at district chamoli provides as follows:

"vii) Any new source or technology which would qualify as 'renewable energy', only after the approval of Commission based on the Ministry of Non-conventional Energy Source (MNRE) approval in accordance with the terms and conditions of this Agreement, at the levelised rate specified for such plant in Schedule I of Uttarakhand Electricity Regulatory commission (Tariff and Other Terms for Supply of Electricity from Non-conventional and Renewable Energy Sources) Regulations, 2008 as amended from time to time"

It is to be noted that Plant Toli and Gulari were put under commercial operation in year 2000 whereas Plant Milket was commissioned in year 1996. Further, the Commission has determined levelised generic tariff for the plants commissioned on or after 01.01.2002 and moreover, with regard to levelised tariff for the hydro generating stations of generation capacity of 1 MW or less, the Commission vide its Order dated 10.11.2005 had ordered that such plants may either opt for tariff equivalent to the weighted average cost of power allocated to the State from central generating stations or approach the Commission for project specific tariff determination. The Relevant extract of the Order is as follows:

"6. After carefully going through the paper on Approach to Initial Tariff for Micro Hydel Generating Stations with capacity upto 1 MW circulated earlier and after considering the responses and suggestions received from the various respondents, the Commission hereby orders that for determining tariffs for sale of electricity generated in hydro generating stations of generation capacity of 1 MW or less, such generators will have the following options:

i) Relaxing the requirements of Uttaranchal Electricity Regulatory Commission (Terms and Conditions for Determination of Hydro Generation Tariff) Regulations, 2004 read with

Commission's notification no. F9(3)RG/UERC/2004/842 dated 03.01.2005, their tariff will be determined as the weighted average cost of power allocated to the State from central generating stations. All other related provisions of these Regulations will continue to be applicable.

ii) However, if a generator or any other stakeholder so chooses he will be free to seek determination of his tariff in accordance with the provisions of the Uttaranchal Electricity Regulatory Commission (Terms and Conditions for Determination of Hydro Generation Tariff) Regulations, 2004 read with Commission's notification no. F-9(3)RG/UERC/2004/842 dated 03.01.2005, without any relaxations"

Accordingly, based on the comments of UREDA and above discussion, the above mentioned clause needs to be corrected in the PPAs executed for supply of power from aforesaid plant and be replaced as follows:

"vii) Any new source or technology which would qualify as 'renewable energy', only after the approval of Commission based on the Ministry of Non-conventional Energy Source (MNRE) approval in accordance with the terms and conditions of this Agreement, at the weighted average cost of power allocated to the State from central generating stations or as determined by the Commission for such plant under the approach of project specific tariff."

## g) Clause 8.4 of PPAs provides as follows:

"The Generating Company shall be responsible for the Maintenance of all interconnection facilities including terminal equipment at the generating end and the dedicated transmission line."

The Commission has specified the regulation for maintenance of Transmission lines and equipments from time to time. Such maintenance should be done in accordance with the prevailing regulations from time to time. Accordingly, the above mentioned clause needs to be corrected and be replaced as follows:

"The Generating Company shall be responsible for the Maintenance of all interconnection facilities including terminal equipment at the generating end and the dedicated transmission line in accordance with the Renewable Energy Regulations issued by UERC from time to time."

## h) Clause 8.7 of the PPAs provides as follows:

"Without limiting the foregoing, the Generating Company and UPCL shall, operate and maintain the interconnection and parallel operation facility in accordance with accepted good engineering practices in the electricity industry and the SGC as amended from time to time and directions of Director Electrical Safety (GoU) and Safety requirements as specified by the Authority under section 53 of the Act, 2003."

It is to be noted that the Commission and CEA has issued guidelines from time to time in respect of Technical standards for construction of electric plants and electric lines, measures relating to safety requirement for construction, operation & maintenance of electrical plants, electrical lines and Electrical supply. Accordingly, based on these measures and technical standards, the above mentioned clause shall be read as follows:

"Without limiting the foregoing, the Generating Company and UPCL shall, operate and maintain the interconnection and parallel operation facility in accordance with accepted good engineering practices in the electricity industry, technical standards & measurements and the SGC issued by the Commission and/or CEA from time to time and directions of Director Electrical Safety (GoU) and Safety requirements as specified by the Authority under section 53 of the Act, 2003."

- 4.3.5. UPCL is directed to take note of the above observations/corrections/modifications pointed out in the PPAs and carry out the same in the PPAs and submit the amended/supplementary PPAs to the Commission within 15 days of the date of the Order.
- **5.** Ordered accordingly.

(Subhash Kumar) Chairman