

Before

UTTARAKHAND ELECTRICITY REGULATORY COMMISSION

Petition No. 21 of 2015

In the matter of:

Application seeking approval of the Commission on the Power Purchase Agreement between UPCL and Generators.

In the matter of:

Uttarakhand Power Corporation Ltd.

... Petitioner

AND

In the matter of:

Uttarakhand Renewable Energy Development Agency

&

1. M/s Parvatiya Power Pvt. Ltd.
2. M/s S.R. Solar Energy Park.
3. M/s Om Prakash Agarwal.
4. M/s S.K. Solar Power.
5. M/s Raj Kumar.
6. Shri Ubedur Rehaman-proprietor USA Solar Systems.
7. M/s Sourabh Arora.
8. M/s Ashok Aneja.
9. M/s Anil Kumar Gupta.
10. M/s UJVN Ltd.
11. M/s KLA Foods India Ltd.
12. M/s Puran Chand.
13. M/s Dovetail Woodcrafters Pvt. Ltd.

... Respondents

CORAM

Shri Subhash Kumar Chairman

Shri C.S. Sharma Member

Shri K.P. Singh Member

Date of Hearing: September 22, 2015

Date of Order: January 06, 2016

The Order relates to the set of Petitions filed by Uttarakhand Power Corporation Ltd. (hereinafter referred to as "UPCL" or "Petitioner") seeking approval of total 13 PPAs executed by it

with project developers (hereinafter referred to as “Developers” or “Generators” or “Respondents”) for procurement of power from one SHP and twelve Rooftop & Small Solar PV Power Plants of the above mentioned Respondents.

1. Background

1.1 The Petitioner had vide its Petitions dated 27.08.2015, 28.08.2015 & 31.08.2015 submitted all the above mentioned 13 PPAs seeking approval of the Commission. The Commission forwarded copy of the Petition to the respective project developer/representative for submission of comments on the same. The Commission also held a hearing in the matter on 22.09.2015.

1.2 Only M/s KLA Foods India Ltd. submitted its comments vide its letter dated 15.09.2015. M/s KLA Foods India Ltd. submitted as under:

“

1. *Our unit is a frozen vegetables processing unit which is exporting vegetables to various countries and having state-of-the-art manufacturing facility imported from Sweden. This is most modern unit of Uttarakhand and only unit for export of vegetables. We have got 600 KVA power connection.*
2. *We have been allotted a capacity of 100 Kw roof top solar power project under registration no. USNKLAF015WB100KW110913 dated 11th Sept., 2013 under UREDA scheme against our connecting load of 600 KVA.*
3. *The state policy was finalized in mid February 2015, PPA signed on 10.03.2015 and project was commissioned on 31/03/2015. The time for installation was very limited as the time was hardly less than a month and there were many issues to be addressed regarding PPA.*
4. *The time was very limited and there were no precedents as this being Uttarakhand's first roof-top solar power project by a proper industry.*
5. *There is provision of net metering in the PPA as per para 2 sub para 2.1 and 2.2. But the tariff is not clarified that if the power is injected in the grid in any period the price of this should be Rs 9.20.*
6. *As any industry which is installing solar power will definitely have more power consumption than solar generation and If totalled at the end of month in units wise will never be able to achieve the price of solar tariff and will end up getting the price as that of power produced by non-renewable sources i.e Rs 3.40 per unit inspite of the units having been supplied to the power grid. This would be against the spirit of solar policy Uttarkhand which envisages higher tariff for solar energy i.e Rs 9.20 for the units supplied to the grid.*

7. *If the price of Rs 9.20 is not accrued for the units supplied to the grid this would make the solar power project unviable and will not be able to repay the loan of the bank as that will not be viable below Rs 9.20 per unit for the units supplied to the grid. Moreover this may lead to discouraging other investors in the state as we are the role mode for the future solar project in our state.*
8. *As informed above, our factory is seasonal. In seasonal factory for about 9 months, the load is very less and there is provision of MCG (minimum consumption guarantee) units. For this we just consume minimum units and if we do not consume the minimum units, we will be charged Excess charges due to MCG. In our case although presently we are consuming Just above the MCG which is 15840 (180 KVA x 80 %= 144 x 110 unit) and thus avoiding MCG charges. But, now we are producing on an average internally consuming 5000 solar units and exporting to grid about 9000 solar units.
The 5000 solar units consumed internally will reduce the units consumed from UPCL and we may not be able to consume 15840 units from UPCL and will fall pray to MCG.
This in another way will tantamount to zero "0" cost realization for the 5000 solar units consumed internally !! This would never have been envisaged by the solar policy of our state.
Therefore for seasonal factories, the MCG should be considered and a separate provisioning to be made.*
9. *Also like to bring to your notice that as per data available, generation cost of electricity from solar is approx. Rs 6-7 per unit (cutting of The Economic Times- paper attached for reference) and if it is to be promoted then the installer should get some monitory benefit so that his interest is saved, getting 3.60 per unit will destroy the interest of investor.*
10. *UPCL is having roastering (power cut) policy in the day time (when the Solar Power Generation is at its peak). When roastering is there we cannot supply power to the grid and neither the solar power can be generated. Thus on one hand our state wants to generate more power to avoid roastering while roastering is leading to non-generation of solar power which could help to reduce roastering as we will have surplus power.
Therefore for solar power generators roastering should not be allowed as they are net power produce that too clean power. For example we have got following hours of roastering:
59 hrs. 45 min In June 15,
52 hrs. 20 min In July 15,
42 Hours in August 15
details attached, hrs. calculated from 6.30 am to 6.30 pm only). “*

1.3 During the hearing held on 22.09.2015 also M/s KLA Foods India Ltd. reiterated it's above

mentioned submissions. M/s S.R. Solar Energy Park, M/s S.K. Solar Power & M/s Sourabh Arora and other Respondents during the hearing submitted that their PPA were executed somewhere in Feb-March, 2015 and they were left with little time for commissioning of their respective plant before 31.03.2015. They also submitted that provision of payment of energy bills and rebate on the same is not in accordance with the regulations.

- 1.4 Since all the above mentioned Petitions submitted by UPCL were of similar nature the Commission decided to club all these Petitions for further proceedings. The view of the Commission on the Petitions & submissions made by the Respondents are discussed in the following Paras.

2. Commission's Views & Decisions

2.1 Legal Requirement for approval of PPA

- 2.1.1 A PPA is a legal document incorporating operational, technical & commercial provisions to be complied in accordance with the relevant rules & regulations.
- 2.1.2 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 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.
- 2.1.3 Further, the Distribution and Retail Supply License 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)

- 2.1.4 Regulation 39 of UERC (Conduct of Business) Regulations, 2014 specifies as under:

"

(1) The distribution licensee shall file with the Commission in complete form copies of all Power Purchase Agreements already entered into by it.

(2) The distribution licensee to establish to the satisfaction of the Commission that the

purchase of power by it is under a transparent power purchase procurement process and is economical and the power is necessary to meet its service obligation.

(3) *The Distribution licensee shall apply to the Commission for approval of the draft Power Purchase agreement that it proposes to enter into with the suppliers. The Commission may pass orders:*

(a) *Approving the agreement; or*

(b) *Approving the agreement with modifications proposed to the terms of the agreement;*
or

(c) *Rejecting the agreement.*

....”

2.1.5 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) read with third amendment of the same specifies as under:

“(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.

Provided that where a grid interactive roof top and small Solar PV plant, is installed in the Premises, by a third party who intends to sell net energy (i.e. after adjustment of entire consumption of owner of the premise) to the distribution licensee, a tripartite agreement will have to be entered into amongst the third Party, the Eligible Consumer and such Distribution Licensee.

(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)

2.1.6 Accordingly, UPCL as a distribution licensee was required to seek approval of the PPAs entered or proposed to be entered by it from the Commission.

2.2 Consistency of the PPA with the Regulations

2.2.1 Regulation 6(7) of RE Regulations, 2013 specifies as under:

“Except as provided in the 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 amended in accordance with these regulations, if inconsistent with these Regulations and such amended PPAs shall be valid for entire life of the RE Based Generating Stations and Co-generating Stations.”

2.2.2 Hence, all the PPAs entered into by UPCL are required to be amended in accordance with RE Regulations if they are inconsistent with the provisions of RE Regulations, 2013. Accordingly, PPAs executed between UPCL & the above mentioned Respondents are examined for consistency and conformity with the relevant provisions of the Electricity Act, 2003 & RE Regulations, 2013.

2.3 Commission’s Analysis of the PPAs and Order on the same

2.2.3 Details of PPAs executed by UPCL with the Respondents and submitted before the Commission for approval are as follows:

S. No.	Respondent’s Name	Project Name/ Location	Capacity (MW/kW)	Tariff (Rs./kWh)	Date of PPA
1	M/s Parvatiya Power Pvt. Ltd.	Loharkhet SHP, Bageshwar	4.80 MW	2.50	16.12.2002 & 15.07.2005
2	M/s S.R. Solar Energy Park	Rooftop & Small Solar PV Power Plant Jahabarikhurd, Haridwar	500 kW	As per tariff notified by UERC	21.02.2015
3	M/s Om Prakash Agarwal	Rooftop & Small Solar PV Power Plant Landhaura, Haridwar	10 kW	As per tariff notified by UERC	10.04.2015
4	M/s S.K. Solar Power	Rooftop & Small Solar PV Power Plant Laksar, Haridwar	500 kW	As per tariff notified by UERC	21.02.2015
5	M/s Raj Kumar	Rooftop & Small Solar PV Power Plant Libberhedi Khass, Haridwar	500 kW	As per tariff notified by UERC	20.05.2015
6	Shri Ubedur Rehaman-proprietor USA Solar Systems	Rooftop & Small Solar PV Power Plant Manglore, Haridwar	500 kW	As per tariff notified by UERC	20.05.2015
7	M/s Sourabh Arora	Rooftop & Small Solar PV Power Plant, Gangapur Road, Rudrapur	500 kW	As per tariff notified by UERC	16.02.2015
8	M/s Ashok Aneja	Rooftop & Small Solar PV Power Plant, Ramnagar Nainital	500 kW	As per tariff notified by UERC	11.02.2015 & 16.03.2015
9	M/s Anil Kumar Gupta	Rooftop & Small Solar PV Power Plant, Nakrona, Dehradun	12 kW	As per tariff notified by UERC	28.02.2015
10	M/s UJVN Ltd.	Rooftop & Small Solar PV Power Plant, Pathri Power Power House Haridwar	500 kW	As per tariff notified by UERC	24.03.2015
11	M/s KLA Foods India Ltd.	Rooftop & Small Solar PV Power Plant, Kichha, Udham Singh Nagar	100 kW	As per tariff notified by UERC	10.03.2015
12	M/s Puran Chand	Rooftop & Small Solar PV Power Plant, Gangapur Patiya,, Udham Singh Nagar	500 kW	As per tariff notified by UERC	16.04.2015
13	M/s Dovetail Woodcrafters Pvt. Ltd.	Rooftop & Small Solar PV Power Plant, Haripur Motia Rampur Road Nainital	100 kW	As per tariff notified by UERC	22.07.2015

2.2.4 The PPAs submitted by UPCL have been examined 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 Act/Regulation. Such observations have been discussed in the subsequent paragraphs. UPCL is required to take note of the same and incorporate necessary corrections in the respective PPAs.

2.2.5 Further, all the PPAs submitted by UPCL in respect of Rooftop & Small Solar PV Power Plant executed with the above mentioned Respondents are same. Accordingly, the Commission's decisions in respect of PPAs for Rooftop & Small Solar PV Power Plant shall be equally applicable for all such PPAs submitted by UPCL.

2.2.5.1 PPA dated 16.12.2002 and supplementary PPA dated 15.07.2005 executed with M/s Parvatiya Power Pvt. Ltd.

- a. Clause 2.1.11 of the aforesaid PPA provides for reference to be made from Electricity Act, 1910 or Electricity (Supply) Act, 1948 for words/expression not mentioned in the PPA. However, the above referred Acts have been repealed and replaced by Electricity Act, 2003. Accordingly, the said provision of the PPA requires necessary correction in this regard.
- b. Address of UPCL mentioned at clause 2.2.7 of the PPA has been changed, hence, necessary correction is required to be made in the said PPA.
- c. Definition of Commercial Operation Date (CoD) mentioned at clause 2.2.13 is inconsistent with the definition specified in RE Regulations, 2013. Accordingly, UPCL is required to take note of the same and make necessary correction in the PPA.
- d. "Due date of Payment" mentioned at clause 2.2.27 is not consistent with regulations 22 & 23 of the RE Regulations, 2013. Accordingly, UPCL is required to take note of the same and make necessary correction in the PPA.
- e. Date of Implementation Agreement mentioned at clause 2.2.40 of the aforesaid PPA has been mentioned as 07.05.1997. The said date is incorrect which should be replaced by the correct date, i.e. 28.04.2004.
- f. Clause 2.2.43 of the aforesaid PPA provides for definition of "Interconnection Point". The said definition is inconsistent with the definition given in the RE Regulations, 2013 and the same needs to be corrected in accordance with

Regulation 3(1)(v) of RE Regulations, 2013.

- g. Clause 2.2.53 of the aforesaid PPA provides for definition of "Project". The said definition is inconsistent with the definition given in the RE Regulations, 2013 and the same needs to be corrected in accordance with Regulation 3(1)(dd) of RE Regulations, 2013.
- h. Clause 2.2.69 of the aforesaid PPA provides for definition of "Net Installed Capacity" as follows:

"Net Installed Capacity" means the installed capacity less summation of the capacities matching to the Govt. royalty, auxiliary consumption, transformation losses incurred in delivery of power upto the interconnection point. The auxiliary consumption, transformation losses and transmission losses shall be considered as 2% of the installed capacity."

However, Regulation 3(1)(b) of the RE Regulations, 2013 provides for definition of "Auxiliary energy consumption" as follows:

"Auxiliary energy consumption" or 'AUX' in relation to a period in case of a generating station means the quantum of energy consumed by auxiliary equipment of the generating station and transformer losses within the generating station, expressed as a percentage of the sum of gross energy generated at the generator terminals of all the units of the generating station;"

Further, Regulation 48 of the RE Regulations, 2013 specifies auxiliary energy consumption as 1% in respect of SHPs. In view of the above mentioned provisions of RE Regulations, 2013, the definition of "net installed capacity" in the PPA is required to be amended.

- i. Clause 3.10 of the PPA provides that:

"The company shall provide at the station at its own cost suitable arrangements, compatible with the Grid System and as may be approved by the Corporation, for parallel operation with the Grid System as per prudent Utility Practices and also for automatic isolation of the Project from the Grid System and ensure that no damage is caused to the project due to aforesaid"

Similarly clause 4.1.2 & 5.1 of the PPA provide for implementation, connectivity, operation & maintenance of the power plant. In this regard, the Commission is of the view that CEA (Safety requirements for Construction,

Operation & Maintenance of Electrical Plants and Electric Lines) Regulations, 2011, CEA (Technical Standards for construction of Electric Plants and Electric Lines) Regulations, 2010, CEA (Technical Standard for Connectivity in the Grid) Regulations, 2007 & CEA (Measures relating to Safety and Electric Supply) Regulations, 2010 read with amendments issued from time to time, are in place for construction, connectivity and safety aspects. Hence, licensee should ensure including the said regulations in the PPA.

- j. Clause 6.1 dealing with payment for excess drawl made by the generator from UPCL's system for start up and maintenance should be modified in accordance with Regulation 45 of RE Regulations, 2013.
- k. Clause 6.2 of the aforesaid PPA provides for Tariff for Net Saleable Energy where the rate of sale of power to the Company is mentioned as Rs. 2.50/unit. Regulation 2(1) of the RE Regulations, 2010 specifies as under:

“(1) These regulations shall apply in all cases where tariffs for supply of electricity from Renewable Energy Sources and Non-fossil Fuel Based Co-generating Stations to the distribution licensees or local rural grids within the State of Uttarakhand are to be determined by the Commission under Section 62 of the Act.

Provided further that Regulations in Chapter 4 & 5 shall not be applicable for generating stations commissioned before 1.1.2002 and their present tariffs shall continue to be applicable till they are decided by the Commission on case to case basis.

Provided further that in respect of generating stations where directions/orders have been issued by a higher court, they shall be governed by such directions/orders.

Provided further that in all the cases, where legally valid PPAs have been entered into with the distribution licensee or where financial closure of the project has taken place prior to coming into force of these Regulations on the basis of previous Regulations/Orders of the Commission, such generators shall have the option to be covered under these Regulations, in which case these Regulations shall be applicable to them and the generators would be required to convey such option within one month of the notification of these Regulations. The PPAs of such generators would need to be amended to make them in line with these Regulations (as amended from time to time), failing which the provisions of these Regulations shall be deemed to have been incorporated in their PPAs and will have overriding effect over any of the previous provisions.

Provided further that generators who have entered into long term PPAs with State

Distribution Licensee and who have not opted to be covered under these Regulations, shall also be governed by these Regulations except the provisions of Chapter 4 and 5 of these Regulations.”

Accordingly, clause 6.2 should be amended in light of the option exercised by the generator in accordance with RE Regulations, 2010.

- l. Clause 6.4 of the aforesaid PPA provides for Deemed Generation. The said clause and the associated definitions and provisions needs to be consistent in accordance with the provisions specified in Regulation 47 of the RE Regulations, 2013.
- m. In Clause 7.2 of the aforesaid PPA, accuracy class for Active Energy measurement is mentioned as 0.5 which should be 0.2. The accuracy class and types of meters to be installed and related procedures should be consistent with the Central Electricity Authority (Installation and Operation of meters) Regulations, 2006 as amended from time to time.
- n. Clause 8.1, 8.2 & 8.3 of the PPA stipulate about the provisions relating to billing & payment, rebate and surcharges payable to or by UPCL which are in deviation to the RE Regulations. The same has to be consistent with the provisions of Regulation 22 & 23 of the RE Regulations, 2013.
- o. Clause 10.1 of the aforesaid PPA states the duration of the Agreement as 30 years. The same should be 35 years in accordance with the RE Regulations, 2013. UPCL is required to rectify the same.
- p. Clause 15.20 of the aforesaid PPA states about wheeling charges for captive use/ or sale of power outside the State which is inconsistent with Regulation 38 and Regulation 46 of RE Regulations, 2013. UPCL is required to take note of the above provision of the regulation while amending the PPA.

2.2.5.2 PPAs executed with Rooftop & Small Solar PV Power Plant Developers.

- (a) PPAs have been executed for sale of power from Rooftop & Small Solar PV Power Plant on net metering basis in accordance with the RE Regulations, 2013. In this regard, relevant definitions introduced vide the 3rd amendment to RE Regulations, 2013 notified on 22.08.2015 are as follows:

“(c1) Billing cycle or Billing period” means a period of one month for which electricity bills shall be prepared for each Eligible Consumers by the licensee;”

“(m1) “Eligible Consumer” means a consumer of electricity in the area of supply of the distribution licensee, who has a rooftop or small solar system in its premises, to offset part or all of its electrical requirements;”

“(cc1) “Premises” means the land, building or infrastructure or part or combination thereof including the rooftops or/and elevated areas owned by the Eligible Consumer;”

Since the above referred terms have been mentioned in the PPAs such as clause 4.1, 5.1 & 5.2 etc., however, the same has not been defined in the PPA, hence, the Petitioner is required to incorporate the same in the PPAs.

(b) Clause 2.2 of the PPA provides that:

“In any billing period, the net energy i.e. the difference between the total energy injected by the Third Party Owner into the Grid and the energy supplied by the Distribution Licensee, shall be purchased, in accordance with the terms and conditions of this Agreement and at rate specified for such plants in Annexure I of the Uttarakhand Electricity Regulatory Commission (Tariff and other terms for supply of Electricity from Renewable Energy Sources and non-fossil fuel based co-generating stations) Regulations, 2013 and tariff order of UERC, whichever is applicable.”

In this regard, the relevant sub-regulations (2), (3), (4) & (5) of Regulation 35 of the RE Regulations, 2013 read with third amendment thereof are reproduced below which specify that:

“(2) Roof-top Solar PV sources can be installed for injecting into the distribution system of a licensee by any Eligible consumer.

Provided, the maximum installed capacity of rooftop PV solar power plant & small solar PV plant at the premises of eligible consumer shall not be more than 500 kW.

(3) Injection from roof-top solar PV sources owned by the Eligible consumer(s) or by third party shall be settled on net energy basis at the end of each Billing period.

Provided, such net energy shall not be more than 95% of the actual energy generated in the said Billing Period.

Provided, where the net energy injected exceeds 95% of the actual energy generated in a Billing Period, such excess net energy (net energy - 95% of actual energy generated) shall be paid at the lowest base slab of energy charges prescribed in the Rate Schedule for the said Eligible Consumer.

(4)The tariff, as per tariff orders of the Commission, in respect of the supply of electricity to the consumers by the distribution licensee shall be applicable for the net energy supplied by the licensee in a billing period if the supplied energy by the licensee is more than the energy injected by the roof-top solar PV sources of the consumer(s) or by third party.

Provided that such eligible consumer shall, however, be exempted from payment of monthly minimum charges or monthly minimum consumption guarantee charges or any other charges.

Provided further that no open access charges including surcharges shall be leviable on such eligible consumers for the captive use of power.

(5)If in a billing period the supplied energy by the licensee is less than the energy injected by the roof-top solar PV sources of the consumer(s) or the third party, subject to provisions in sub-Regulation (3) above, the licensee would be billed at the generic tariff as may be specified by the Commission for such net energy supplied to it."

Accordingly, the provision of adjustment of energy injected by Solar power plants and applicability of tariff for such energy, as stipulated in the above mentioned sub-regulations, is required to be elaborated in clause 2.2 of the PPAs. Hence, clause 2.2 should be read as under:

"Injection from roof-top solar PV sources owned by(name of the generator) shall be settled on net energy basis at the end of each Billing period. However, such net energy shall not be more than 95% of the actual energy generated in the said billing Period. Where the net energy injected exceeds 95% of the actual energy generated in a Billing Period, such excess net energy (net energy - 95% of actual energy generated) shall be paid at the lowest base slab of energy charges prescribed in the Rate Schedule for the said Consumer.

The retail tariff, as per tariff orders of the Commission, in respect of the supply of electricity to the consumers by the distribution licensee shall be applicable for the net energy supplied by the licensee in a billing period if the supplied energy by the licensee is more than the energy injected by the roof-top solar PV sources of(name of the generator). However, such consumer shall be exempted from payment of monthly minimum charges or monthly minimum consumption guarantee charges or any other such charges or open access charges including surcharges.

If in a billing period the supplied energy by the licensee is less than the energy injected by the roof-top solar PV sources of(name of the generator), the

licensee would be billed at the generic tariff as may be specified by the Commission for such net energy supplied to it."

- (c) Clause 3.1 of the PPA provides that Rooftop & Small Solar PV Plant shall supply two identical sets of meters and Clause 3.2 provides that such plant shall bear the cost of installing new/additional meter/metering system. However, sub-regulation 42(4) of the RE Regulations, 2013 read with third amendment to said regulations specifies as under:

"(4)The cost of switch gear, metering and protection arrangement at generator end shall have to be borne by the owner of solar generators. However, Check Meter with same specification of Main Meter shall be provided by distribution licensee.

Provided, Check Meter and related equipments can be procured by such plant owner. However, the cost of Check Meter shall be refunded by the licensee to such plant owner."

In view of the above provision of the regulation, licensee is required to bear the cost of check meter. Hence, necessary correction is required to be made in the said clause of the PPA. Further, sub-regulation 42(3) of the RE Regulations, 2013 read with third amendment to the said regulations specifies that the energy supplied by the plant can be measured either by two separate meters or alternatively by an export-import type meter as reproduced below :

"(3)Supply of electricity to the consumer(s) from the licensee's sources and that to the licensee's distribution system from the roof-top Solar PV sources shall be measured either by two separate meters, the readings of which shall be used in each billing period for settlement on net basis or alternatively by an export-import type meter suitable for directly measuring the net exchange."

In view of the above provision of the regulations, the Rooftop & Small Solar PV Plant can opt to install either two separate meters or one single export-import meter suitable for directly measuring the net exchange of power.

- (d) Clause 3.13 & 3.14 of the PPA provides the metering arrangement at generator terminal unit and other parameters to be in accordance with "CEA (Installation and Operation of Meters) Regulations, 2010" however, short title of the said regulations should be substituted with "CEA (Installation and Operation of Meters) Regulations, 2006 as amended from time to time."
- (e) Clause 4.1 of the PPA provides that UPCL shall prepare bill for net electricity

purchased by Rooftop & Small Solar PV Plant from UPCL or net electricity supplied by such plants to UPCL. In this regard, as discussed in sub-Para b above, billing of energy supplied from such plants shall be strictly in accordance with sub-regulations (2), (3), (4) & (5) of Regulation 35 of the RE Regulations, 2013 read with third amendment thereof. Hence, necessary correction is required to be incorporated in said clause 4.1 of the PPA.

- (f) Clause 5.2 of the draft PPA is not consistent with provisions of regulations as also pointed out by the developers. Clause 5.2 provides that:

“5.2 If in any billing period, the energy injected by the Rooftop and small Solar PV Plant is more than the energy drawl from the Distribution Licensee, the Distribution Licensee shall pay monthly bill based on net energy as per Uttarakhand Electricity Regulatory Commission (Tariff and other terms for supply of Electricity from Renewable Energy Sources and non-fossil fuel based co-generating stations) Regulations, 2013.

a. UPCL shall make full payment against such Bills as per RE Regulation 2013 to the Rooftop and small Solar PV Plant, from the date of the receipt of original bill with complete documents with following rebate options:-

(a)UPCL shall avail 2% rebate for prompt (within 07 working days) payment.

(b) UPCL shall avail 1% rebate for payment within 30 (Thirty) working days.

b. For default in payment beyond 60 days from the billing, a surcharge at the rate of 1.25(%) percent per month or part thereof shall be levied on the billed amount.”

The above mentioned Clause 5.2 of the PPA should be read as:

*“If in any billing period, the energy injected by the Rooftop and small Solar PV Plant is more than the energy drawl from the Distribution Licensee, the Distribution Licensee shall pay monthly bill based on net energy in accordance with Uttarakhand Electricity Regulatory Commission (Tariff and other terms for supply of Electricity from Renewable Energy Sources and non-fossil fuel based co-generating stations) Regulations, 2013 **read with sub-regulations (2),(3),(4) &(5) of regulation 35 of third amendment of these Regulations.***

a. UPCL shall make full payment against such Bills as per RE Regulation 2013 to(name of the generator), from the date of the issuance/raising of original bill with complete documents with following rebate options:-

i. For payment of bills through the letter of credit on presentation, a rebate of 2% shall be allowed.

- ii. *Where payments are made by a mode other than through the letter of credit but within a period of one month of presentation of bills by the generating company, a rebate of 1% shall be allowed.*
- b. *For default in payment beyond 60 days from the billing, a surcharge at the rate of 1.25% per month or part thereof shall be levied on the billed amount."*
- (g) Numbering of clauses are inconsistent e.g. clause 8 is appearing after clause 6 of some of the PPAs such as PPA executed with M/s S.R. Solar Park & M/s S.K. Solar Power. UPCL is required to correct all such anomalies in all such PPAs.
- (h) Clause 6 pertaining to "parallel operation" as provided in PPA executed with M/s S.R. Solar Energy Park has not been incorporated in PPAs executed with Respondents no. 3, 5, 6, 10, 11, 12 & 13, whereas, other PPAs do not specify this provision. **UPCL is directed to clarify the above mentioned discrepancy within 21 days of the order. UPCL is also directed to maintain consistency at all places of the PPAs.**
- (i) Some of the PPAs executed with Respondents no. 2, 4, 7, 8, 9 & 11 stipulate provision of "Name Transfer "at clause no. 15/16 of the PPAs. **In this regard, UPCL is directed to clarify for incorporating the said provision in PPAs within 21 days of the Order.**
- (j) Project Registration no. as mentioned in PPAs with Respondents no. 2, 4 & 5 is in deviation with that of registration no. mentioned in letters dated 19.03.2013, 26.09.2013 & 19.02.2015 respectively issued by UREDA to these Respondents. Further, registration no. has not been mentioned in PPA executed with Respondent no. 11. In this regard, UPCL is required to make necessary correction in the above mentioned PPAs.
- (k) Clause 7.1 of the PPA provides that:
- "7.1 Power from the Rooftop generator shall be evacuated at voltage and connected to nearest feasible LT/HT line of UPCL system as per Clause 42 of UERC Regulation 2013."*
- This Clause should be read as:
- "7.1 Power from the Rooftop generator shall be evacuated at voltage and connected to nearest feasible LT/HT line of UPCL system as per Clause 42 of UERC Regulation 2013 as amended from time to time."*

(l) Clause 6.7 of the PPA provides that Rooftop & Small Solar PV Plant 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. In this regard, the Commission is of the view that CEA (Safety requirements for Construction, Operation & Maintenance of Electrical Plants and Electric Lines) Regulations, 2011, CEA (Technical Standards for construction of Electric Plants and Electric Lines) Regulations, 2010, CEA (Technical Standard for Connectivity in the Grid) Regulations, 2007 & CEA (Measures relating to Safety and Electric Supply) Regulations, 2010 read with amendments issued from time to time, are in place for construction, connectivity and safety aspects. Hence, licensee should ensure including said regulations in the PPA.

(m) Further, sub-regulation 42(2) of the RE Regulations, 2013 read with third amendment thereof provides that:

(2)“In the interconnection of roof top PV solar energy generator with the local distribution licensee’s grid, the relevant provisions of the Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2010 as amended from time to time shall apply.”

Interconnection facility mentioned at Clause 6 & Clause 7 of the PPA should be in accordance with the above mentioned CEA Regulations, 2010 and the same should also be specified in said Clause of the PPA.

(n) Clause 7.2 of the PPA requires that Rooftop & Small Solar PV Plant should obtain prior approval of licensee in respect of protection scheme. However, no timeline for the same has been provided in said Clause. In this regard, UPCL is required to provide a definite time line with mutual consent of both parties for according the said approval.

(o) Clause 7.3 requires for installation of necessary equipments by Rooftop & Small Solar PV Plant for elimination of feeding reverse power from grid to such plant in absence of any agreement for purchase of power with UPCL.

It is pertinent to reproduce Sub-regulations (6) & (7) of Regulation 42 of the RE Regulations, 2013 (third amendment) which cast responsibilities both on Distribution Licensee & Eligible Consumer w.r.t. to protection & safety aspects

and the same reads as:-

“(6)The roof top PV solar energy generator shall be responsible for safe operation, maintenance and rectification of defect of its system up to the interconnection point beyond which the responsibility of safe operation, maintenance and rectification of any defect in the system including the net meter shall rest with the distribution licensee.

(7) The eligible consumer shall be solely responsible for any incidents/accident to human being/animals whatsoever (fatal/nonfatal/departmental/non-departmental/damages to material of the licensee) that may occur due to back feeding from the solar plant when the grid supply is off and such consumer shall not only bear the cost of the damages to the material of the licensee but also compensate for the life of any human being/ animals in case of such incidents/accidents. The distribution licensee reserves the right to disconnect the consumer’s installation at any time in the event of such exigencies to prevent accident or damage to man and material.”

In order to ensure safe and secure operation of overall system of the licensee and life of human being/animal as well, the above mentioned two sub-regulations are critical, accordingly, licensee is required to revise clause 7.3 and incorporate the above provisions of the Regulation in the clause 7 of the PPA.

- (p) M/s KLA submitted that they had very limited time for installation of project after signing of PPA with UPCL. In this regard, the Commission noted that plant capacity was allocated to them vide registration dated 11.09.2013. Being a commercial entity developer has to be proactive for completing requisite formalities for implementation of plant within estimated timeframe. Similar issues raised by other developers are clarified accordingly.
- (q) M/s KLA submitted that clause 2.1 & 2.2 of the PPA do not clarify about applicable tariff of Rs. 9.20/unit. In this regard, the Commission has at sub-Para b above of this order has clarified that necessary amendments are to be made in the PPA. Further, the Commission has in the matter of Petition seeking clarification on various issues for implementation of “Uttarakhand Grid Interactive Rooftop and Small SPV Power Plants Scheme” vide Order dated 07.11.2014 at Para 2.2.3 had clarified that:

“2.2.3 However, in view of submissions made by UREDA and UPCL in this regard, with a view to remove any uncertainty and also with an intent to promote the installations of grid interactive solar rooftop projects in the State which as of now is in

initial stage, the Commission decides not to review or amend the benchmark capital cost for grid interactive roof top and small solar PV projects specified in the RE Regulations, 2013 till March 31, 2015 and consequently the tariffs for the same. Accordingly, if any consumer installs a grid interactive roof top and small solar PV plants by the end of March 31, 2015, and injects surplus power into the distribution system of UPCL he shall be eligible for tariffs as specified in RE Regulations, 2013 for such surplus injection into the grid."

(Emphasis Added)

In view of the above decision of the Commission and provision stipulated at clause 2.2 of the PPA applicable tariff for sale of power from such plant is apparent, however, for the sake of clarity it can also be specified in the PPA.

- (r) M/s KLA has submitted that power injected by their plant into the grid is lesser than that of power imported from the same, hence, on account of net metering they shall not be able to achieve the price of solar tariff and this would make solar plant unviable. In this regard, the Commission clarified that the developers have themselves got allocation of Rooftop & Small Solar PV Power Plant under net metering arrangement. Provision of net metering in place is in accordance with the RE Regulations, 2013 issued on 15.04.2013. The project developers are expected to be well aware of the prevalent rules & regulations and their implications. Hence, any issue raised on this account cannot be considered by the Commission.
- (s) M/s KLA has also submitted that with the consumption of power generated from their own Rooftop & Small Solar PV Power Plant they are liable to pay MCG charges. In this regard, sub-regulation 35(4) of the RE Regulation, 2013 read with third amendment thereof provides that:

"(4)The tariff, as per tariff orders of the Commission, in respect of the supply of electricity to the consumers by the distribution licensee shall be applicable for the net energy supplied by the licensee in a billing period if the supplied energy by the licensee is more than the energy injected by the roof-top solar PV sources of the consumer(s) or by third party.

Provided that such eligible consumer shall, however, be exempted from payment of monthly minimum charges or monthly minimum consumption

guarantee charges or any other charges.

Provided further that no open access charges including surcharges shall be leviable on such eligible consumers for the captive use of power.

“

(Emphasis Added)

Hence, it is hereby clarified that all such eligible consumers in accordance with regulations are exempted from payment of MCG charges.

- (t) M/s KLA has also raised an issue of frequent rostering of power by UPCL which also leads to non-generation by solar plants. In this regard, the Commission observes that rostering of power is a persistent problem being faced by consumers of the State. Numbers of representations have been received by the Commission in the matter, despite repeated directions to avoid such problem, UPCL has failed to improve its quality of supply. **Accordingly, the Commission directs UPCL to avoid such undue frequent power-cuts as reported by M/s KLA and other industrial consumers also specifically on feeders/sub-stations where such generators are connected.** Further, as submitted by M/s KLA, during rostering period in day time such solar power plants also become non-operational leading to loss of valuable generation that may be utilized to alleviate the demand-supply gap as also to meet their Renewal Purchase Obligation. **In this regard, UPCL is hereby, directed to plan rostering of power in such a manner that generation from such solar plant is not affected while ensuring safe operation of the distribution system in accordance with the provisions of the Act & Regulations.**

2.2.6 Ordered accordingly.

(K.P. Singh)
Member

(C.S. Sharma)
Member

(Subhash Kumar)
Chairman