Before

UTTARAKHAND ELECTRICITY REGULATORY COMMISSION

Petition no. 13 of 2015

In the matter of:

Application seeking approval of the Commission on the PPAs between UPCL and 12 nos. Generators.

In the matter of:

Uttarakhand Power Corporation Ltd.

... Petitioner

AND

- 1. M/s R.C. Energy
- 2. M/s Purshotam Industries Ltd.
- 3. M/s Purshotam Ispat
- 4. M/s Vivan Solar Pvt. Ltd.
- 5. M/s Uttar Bharat Hydro Pvt. Ltd.
- 6. M/s Root Hydrocarbons Ltd.
- 7. M/s Madhav Infra Projects Ltd.
- 8. UJVN Ltd.
- 9. M/s Eastman International
- 10. M/s Advika Energies Pvt. Ltd.
- 11. M/s Redwoods Infrastructure Pvt. Ltd.
- 12. UJVN Ltd.

... Respondents

CORAM

Shri Subhash Kumar Chairman

Shri C.S. Sharma Member

Shri K.P. Singh Member

Date of Hearing: July 23, 2015

Date of Order: October 14, 2015

The Order relates to the two sets of Petitions filed by Uttarakhand Power Corporation Ltd. (hereinafter referred to as "UPCL" or "Petitioner") seeking approval of total 14 PPAs executed by it with project developers (hereinafter referred to as "Generators" or "Respondents") for procurement of power from Solar PV Plants/SHP/Biogas power plants of the above mentioned Respondents.

1. Background

1.1 The Petitioner vide its Petition dated 15.05.2015 had submitted 10 PPAs for seeking approval of the Commission. Similarly, UPCL also had vide Petition dated 28.05.2015 submitted 4 PPAs seeking approval of the Commission. The Commission forwarded the copy of the

Petition to respective project developer for submission of their comments on the same. The Commission also decided to hold a hearing in the matter on 07.07.2015. However, due to some unavoidable circumstances the said hearing was rescheduled and was conducted on 23.07.2015.

- 1.2 In response to UPCL's Petitions dated 15.05.2015 & 28.05.2015, only UJVN Ltd. submitted its comments vide its letters dated 30.06.2015. During the hearing held on 23.07.2015 also the Respondents did not make any submissions on the PPAs submitted by UPCL.
- 1.3 Since all the above mentioned Petitions submitted by UPCL were of similar nature the Commission vide Order dated 23.07.2015 clubbed all these Petitions for further proceedings.
- 1.4 UJVN Ltd. submitted that sub-clause 2.5 of both the PPAs dated 27.03.2015 provided for 50% of applicable tariff in case the generation from Solar Plants exceeded the CUF of 22%. UJVN Ltd. requested to consider 80% of applicable tariff in place of 50% as mentioned above.
- 1.5 Sub-clause 5.2 of PPAs provided for signing of Joint Meter Reading by Executive Engineer (Distribution), Executive Engineer (Test), UPCL of the concerned division. In this regard, UJVN Ltd. submitted that the said provision should be modified to Executive Engineer (Distribution)/Executive Engineer (Test), UPCL of the concerned division.
- 1.6 Sub-clause 5.7 of the PPAs provides for interest of 1.25% per month to be paid in case of excess/shortfall of amount on final award of arbitration on dispute in energy bills raised by UPCL. In this regard, UJVN Ltd. submitted that the said provision should be modified by including the words "vice-versa" at the end the sub-clause 5.7.
- 1.7 Sub-clause 8.6 of the PPAs provides for specific approval from UPCL for any work to be done by Solar Power Plant and also for final approval from UPCL before charging of the line. In this regard, UJVN Ltd. submitted that the said provision should be modified by substituting the words "specific approval" by "prior intimation" and removal of the words "final approval" from the said clause.
- 1.8 Clause 15 of the PPAs provides for UPCL's acceptance/approval for equipment, additions or changes to equipment etc. In this regard, UJVN Ltd. submitted that said provision should be modified by inclusion of words "in case the acceptance/approval from UPCL is not received within 15 days time, it shall be deemed as approved" at the end of Clause 15.
- 1.9 Clause 22 stipulates that Solar Power Plant shall make provisions for an RTU for remote monitoring of voltage, current & other related electrical parameters as may be required by

UPCL and also for AMR facility. In this regard, UJVN Ltd. requested for removal of the said provision from Clause 22 of PPAs.

- 1.10 Point 3.1 of Annexure-I to PPAs require approval by UPCL in respect of Material changes or additions to the Solar Power Plant's facilities reflected in single line diagram, relay list and trip scheme. In this regard, UJVN Ltd. requested for modification of the said clause by substituting the words "approval by" with "intimated to" in the said provision of PPAs.
- 1.11 Point 3.4 of Annexure-I to PPAs requires review & approval by UPCL the design, drawings and Bill of Material for the Solar Power Plant's electrical equipment, required to interconnect with UPCL's system. In this regard, UJVN Ltd. requested for removal of the said provision of PPAs.
- 1.12 UPCL vide its letter dated 14.09.2015 submitted its reply to the comments made by UJVN Ltd. and the same are discussed in the subsequent Paras alongwith the Commission's views on the same.

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 Cogenerating 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, in accordance with the requirement of the Act and Regulations referred to above, 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

2.3.1 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)	Tariff (Rs./kWh)	Date of PPA
1	M/s R.C. Energy	Solar PV Power Plant Landhaura, Haridwar	1.00	7.98	26.03.2015
2	M/s Purshotam Industries Ltd.	Solar PV Power Plant Landhaura, Haridwar	1.00	7.71	27.03.2015
3	M/s Purshotam Industries Ltd.	Solar PV Power Plant Landhaura, Haridwar	1.00	7.73	27.03.2015
4	M/s Purshotam Ispat	Solar PV Power Plant Landhaura, Haridwar	1.00	7.88	27.03.2015
5	M/s Purshotam Ispat	Solar PV Power Plant Landhaura, Haridwar	1.00	7.96	27.03.2015
6	M/s Vivan Solar Pvt. Ltd.	Solar PV Power Plant Landhaura, Haridwar	3.50	7.93	27.03.2015
7	M/s Uttar Bharat Hydro Pvt. Ltd.	Small Hydro Plant, Kapkot, Bageshwar	10.50	Levellised Tariff in accordance with RE Regulations, 2010	13.10.2011
8	M/s Madhav Infra Projects Ltd.	Solar PV Power Plant Buggawala, Haridwar	12.00	7.74	30.03.2015
9	UJVN Ltd.	Solar PV Power Plant Khodri, Dehradun	4.398	7.80	27.03.2015
10	M/s Root Hydrocarbons Ltd.	Biogas Power Plant, Shikarpur Landhaura, Haridwar	2.40	Levellised Tariff in accordance with RE Regulations, 2013	27.04.2015
11	M/s Eastman International	Solar PV Power Plant Landhaura, Haridwar	0.636	7.99	27.03.2015
12	M/s Advika Energies Pvt. Ltd.	Solar PV Power Plant Landhaura, Haridwar	1.00	7.56	31.03.2015
13	M/s Redwoods Infrastructure Pvt. Ltd.	Solar PV Power Plant Dada Jalalpur, Haridwar	2.00	6.85	27.03.2015
14	UJVN Ltd.	Solar PV Power Plant Dhakrani, Dehradun	1.466	7.75	27.03.2015

- 2.3.2 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.
- 2.3.3 Further, all the PPAs submitted by UPCL in respect of Solar Power Plants executed with the above mentioned Respondents are same except PPAs dated 13.10.2011 & 27.04.2015 executed with M/s Uttar Bharat Hydro Pvt. Ltd. & M/s Root Hydrocarbons Ltd. Accordingly, the Commission's decisions in respect of PPAs for Solar Power Plants shall be equally applicable for all such PPAs submitted by UPCL.

2.3.3.1 PPAs executed with Solar Power Plant Developers.

a. Clause 2.5 of the aforesaid PPAs specifies that:

"The Projects developed on conventional solar PV technology should have a minimum CUF of 12% in any given contract year. In case the developers fail to supply energy pertaining to minimum CUF in a contract year then the developer shall pay a penalty equal to 10% of the project tariff to UPCL, for such shortfall in units.

Further if the developers achieve the CUF greater than 22% for Solar PV in any given contract year, the applicable Tariff shall be 50% of the project tariff for such additional generated power above the 22% CUF from the developers."

UJVN Ltd., while agreeing to the above provisions, has requested for increase in applicable tariff from 50% to 80% in case the generation exceeds the CUF of 22%. UPCL vide its letter dated 14.09.2015 has refused to accept the UJVN Ltd.'s comments and submitted that it should be in accordance with the condition already mentioned in RfP published by UREDA before starting the process of bidding of 30 MW solar power plant under Type-1 category of Uttarakhand Solar Policy, 2013.

In this regard, the Commission has observed that Request for Proposal (RfP) issued by UREDA for selection of project developers for implementation of Solar PV Power Plants up to 30 MW capacity also specify the same condition for CUF as prescribed in PPAs. Relevant Clause 2.4 of the aforesaid RfP is as follows:

"2.4. Minimum and Maximum CUF Limits

The Projects developed on conventional solar PV technology should have a minimum CUF of 12% in any given contract year. In case the developers fail to supply energy

pertaining to minimum CUF in a contract year then the developer shall pay a penalty equal to 10% of the project tariff to UPCL, for such shortfall in units.

Further if the developers achieve the CUF greater than 22% for Solar PV in any given contract year, the applicable Tariff shall be 50% of the project tariff for such additional generated power above the 22% CUF from the developers."

Since the generators have been allotted Solar Power Plant in accordance with the above mentioned RfP containing same clause as specified in PPA, hence, the Commission does not find merit in UJVN Ltd.'s submission for revision of tariff from 50% to 80% of applicable tariff for generation beyond the CUF of 22%, and hence rejects the request of UJVN Ltd.

b. Sub-clause 5.2 of PPAs provides that:

"The Monthly Bill in triplicate along with supported documents viz. Joint Meter Readings and the MRI document (Bill & Check Meter) duly signed by Executive Engineer (Distribution), Executive Engineer (Test) UPCL of the concerned division with load survey data of previous 35 days raised by the Solar Photovoltaic Power Plant shall be delivered to UPCL at office of Chief Engineer (Commercial), Gabar Singh Bhawan Kanwali Road Dehradun on or before the fifth (5th) working day of the following month hereinafter called the Monthly Bill date."

UJVN Ltd. has submitted that signing of Joint Meter Reading by Executive Engineer (Distribution), Executive Engineer (Test), UPCL of concerned division should be replaced by signing of JMR by Executive Engineer (Distribution)/ Executive Engineer (Test), UPCL of concerned division. UPCL has submitted that the provision of Joint Meter Reading and the MRI document duly signed by Executive Engineer (Distribution), UPCL & Executive Engineer (Test), UPCL has been incorporated for accuracy and to curb out any problem, if any, arising during the meter reading process. UPCL has refused to accept UJVN Ltd's comment for modification in the aforesaid clause of PPA.

In this regard, the Commission is of the view that signing of JMR by both the Executive Engineers can be considered in the PPA to enable accuracy of meter reading as submitted by UPCL. However, in order to make billing process time bound and also to avoid any dispute with the generators in this regard, UPCL is required to ensure signing of JMR documents within 3 days after the meter reading is taken and where either of the authorised officer is not available during these three days signature of one officer should suffice.

c. Sub-clause 5.7 of the PPAs provides that:

"In case, the dispute is not resolved within 30 working days as provided in para 5.6 above, and in the event it is decided to proceed with the Arbitration as provided in para 23 of this agreement, then UPCL shall pay 100% of the disputed amount forthwith and refer the dispute for arbitration as provided in this agreement. The amount of excess/ shortfall with respect to the said disputed amount on final award of arbitration shall be paid/adjusted but in case of excess, the adjustment shall be made with interest at rate 1.25% per month from the date on which the amount in dispute was refundable by the Solar Photovoltaic Power Plant to UPCL."

UJVN Ltd. has submitted that the said provision should be modified by including the words "vice-versa" at the end of the clause 5.7. UPCL submitted that the proposed amendment would not be feasible and may not be incorporated as the clause of the agreement already provides for paying 100% of the disputed amount by UPCL, and, therefore, the right as per the clause would arise only to UPCL.

UPCL has further submitted that any dispute that may arise subsequent to the initiation of Arbitration process cannot be considered as a dispute, which is the subject matter of already pending Arbitration proceeding, as the same has to again go through the process provided in the agreement. UPCL submitted that no useful purpose would be served by incorporating the proposed amendment, on the contrary it would create various practical difficulties in execution.

In this regard, the Commission is of the view that, in present case, generators shall be preparing energy bills for the energy supplied to licensee and dispute, if any, as envisaged in the above mentioned clause 5.7 would only be raised by beneficiary, i.e. UPCL. In case of dispute towards the energy bill, the licensee is liable to pay 100% of billed amount as per provision of the clause. On settlement of the dispute, accordingly, the provision of interest on excess amount paid by licensee is appropriate as the licensee would have already released 100% billed amount as raised by the generator, hence, cost of excess amount retained by the generator should be levied by way of interest on the same. However, submission of UJVN Ltd. that interest on shortfall in the amount on settlement of dispute be provided, does not have any rationale as 100% against the generation/energy bill as served by generator itself would have been paid by the licensee.

d. Sub-clause 8.1 of the PPAs provides that:

"Interconnection Facilities means all the facilities which shall include existing 33/11 KV Sub-Station, Dhakrani, Uttarakhand owned, maintained and operated by UPCL/UJVNL without limitations, switching equipment, communication, protection, control, meters and metering devices etc, for the incoming bay(s) for the Project Line(s) to be installed and maintained by Solar Photovoltaic Power Plant/UPCL at the cost to be borne by the Solar Photovoltaic Power Plant, to enable the evacuation of electrical output from the project in accordance with the Agreement. Interconnection facility is subject to the feasibility of the connection at the respective Sub-Station provided by Executive Engineer, Concerned Division.

In case of change of location of the Solar Photovoltaic Power Plant, the developer shall inform within 15 days of finalization of land for the plant in writing to the office of Chief Engineer, Commercial, UPCL and to the Executive Engineer, concerned Division of UPCL subsequently UPCL shall provide feasibility report for the new location within 30 days."

In this regard, sub-regulation 39(1) of the RE Regulations, 2013 provides that:

" 39. Evacuation of Power

(1) Transmission Licensees and Distribution Licensees shall endeavour to provide connectivity to the RE Based Generating Stations and Co-generating Stations at nearest possible sub-station preferably within a range of 10 kilometers from the location of such generating station. They may further mutually agree to provide connectivity at appropriate voltage level subject to technical feasibility and technical standards for construction of electrical lines and connectivity with the grid as may be specified by CEA."

The above provision of RE Regulations, 2013 stipulates for providing connectivity to nearest possible sub-station within a range of 10 km and also with mutual consent of both the parties. Further, the Commission vide Order dated 20.03.2015 in the matter of approval of draft PPA submitted by UPCL at Para 2.2.2 (i) directed that:

"Clause 8.1 states about interconnection facility for the connection of the Solar PV Project subject to the feasibility of the connection at the respective sub-station provided by the Executive Engineer of the Concerned Division. This provision appears to be a unilateral decision to be made by the Executive Engineer of the Petitioner. It should be decided with mutual consent of both the parties involved in the PPA."

However, UPCL has not taken note of the above stated direction of the Commission. Accordingly, UPCL is again directed to modify the above mentioned clause so that interconnection facility shall be made available to project with mutual consent of both the parties at the nearest possible sub-station.

e. Sub-clause 8.6 of the PPAs provides that:

"Any work to be done by the Solar Photovoltaic Power Plant shall be taken up only with a specific approval and on the basis of approved drawings and specifications from UPCL and in compliance with the safety requirements as per the SGC. On the completion of work, final approval shall be obtained from UPCL before charging the line. The Solar Photovoltaic Power Plant shall obtain all statutory clearances/approvals required for this purpose."

UJVN Ltd. has submitted that the said provision should be modified by substituting the words "specific approval" by "prior intimation" and removal of the words "final approval" from the said clause. UPCL has agreed on the proposal of the UJVN Ltd. in respect of clause 8.6 of the PPA.

In this regard, the Commission is of the view that distribution licensee has to maintain smooth and safe functioning of its system. Further, Licence condition stipulates that Licensee shall take all reasonable steps to ensure that all Consumers connected to the Licensee's Distribution System receive a safe, economical and reliable Supply of electricity. In addition licensee has to ensure compliance of CEA regulation on technical standards for construction of electric lines/plants and connectivity with the grid and State Grid Code alongwith the Distribution Code as approved by the Commission from time to time and operate the Licensee's Distribution System in accordance with the Distribution System Operating Standards. In view of the above, no one can be allowed to connect/modify/work which has implications on safe and secure operation of the licensee's system including charging of the line without prior approval from the licensee. However, in order to avoid delay in completion of interconnection facility works by the generators and to ensure timely approval by the licensee in this regard, a provision be incorporated that such approval shall not be unreasonably withheld and an approval or otherwise shall be conveyed to the generator within 30 days.

Clause 8.8 of the PPA provides that the Generator 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 State Grid Code Regulations, State Distribution Code Regulations, 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 their amendments issued from time to time, are in place for construction, connectivity and safety aspects. Hence, licensee should ensure including these regulations in the PPA.

g. Clause 15 of the PPAs provides that:

"15. ACCEPTANCE AND APPROVAL OF UPCL

UPCL's acceptance or approval for equipment, additions or changes to equipment, and their operational setting etc., would be required. Such acceptance/approval shall not be unreasonably withheld and shall be based on UPCL's existing policies and practices."

UJVN Ltd. has submitted that the said provision should be modified by inclusion of words "in case the acceptance/approval from UPCL is not received within 15 days time, it shall be deemed as approved" at the end of Clause 15. UPCL has agreed to modify clause 15 of the PPA as submitted by UJVN Ltd.

However, the Commission is of the view that any material changes in equipment, operational settings etc. having implications on safe and secure operation of the licensee's system should not be done without prior consent from the licensee. As discussed at "Para f" above in order to avoid delay in completion of interconnection facility works by the generators and to ensure timely approval by the licensee in this regard, a suitable time frame can be incorporated in the PPA with mutual consent of the parties involved.

h. Sub-clause 21.4 of the PPAs stipulates that:

"21.4 UPCL reserves the right to terminate this agreement upon one months notice to the Solar Photovoltaic Power Plant, if the Solar Photovoltaic Power Plant's facility fails to commence production of electric power within three months from the planned commercial operation date mentioned in Annexure 1."

However, Annexure-I to the PPA does not specify any date of commercial operation as mentioned above. UPCL is required to make necessary correction in this regard.

i. Clause 22 of the PPAs stipulates that:

"22. COMMUNICATION

In order to have effective co-ordination between UPCL and the Solar Photovoltaic Power Plant, a designated official shall be kept on duty round the clock by the Solar Photovoltaic Power Plant and UPCL in their respective premises, with information to each other about the name, location, telephone number etc., of the official. Without prejudice to discharge of their rightful duties by others, this duty official shall take necessary action on receiving information about developments from the other party. The Solar Photovoltaic Power Plant shall provide reliable and effective communication through wireless/hotline etc., between the Solar Photovoltaic Power Plant & the interconnecting substation of UPCL/UJVNL and between the Solar Photovoltaic Power Plant and the SLDC. The Solar Photovoltaic Power Plant shall make provision for an RTU for remote monitoring of voltage, current and other related electrical parameters, as may be required by the UPCL and also for AMR facility.

UJVN Ltd. has requested for removal of the words "Solar Power Plant shall make provisions for an RTU for remote monitoring of voltage, current & other related electrical parameters as may be required by UPCL and also for AMR facility" from Clause 22 of PPAs. UPCL has agreed to modify clause 22 of the PPA as submitted by UJVN Ltd.

In this regard, sub-regulations of Regulation 6 of the RE Regulations, 2013 stipulate that:

"6. Obligations and Duties of the Generating Station

- (1).....
- (2) The RE Based Generating Stations and Co-generating Stations shall:
- (a) Submit the technical details concerning the generation and/or transmission as may be specified by the Authority/Commission for carrying out studies relating to cost and efficiency.
- (b) Submit the information in respect to generation, demand met, capacity availability, capacity utilization factor, auxiliary consumption, specific heat rate and specific oil consumption or on any other parameters etc. as may be directed by the Commission.

- (c) Shall Establish a communication and data transfer system with State Load Dispatch Centre and Co-ordinate with State Load Dispatch Centre and the Regional Load Dispatch Center in respect to;
- (i) Scheduling
- (ii) Exchange of data of quantity of electricity transmitted through the grid.
- (iii) Real time grid operation and dispatch of electricity in accordance with IEGC and State Grid Code."

(emphasis added)

The Commission observed that provision of communication and data transfer systems with State Load Dispatch Centre have been provided in the existing RE Regulations, 2013. Accordingly, the Commission is of the view that Installation of RTU/AMR facility at power plants is required not only for effective monitoring of electrical parameters of plants but also necessitated for scheduling of generation by SLDC as and when required. Further, RTU/AMR facility at power plant shall be of immense use for fetching remote data for the cities such as Dehradun covered under SCADA/DMS system to be implemented by UPCL. Hence, objection for installation of such facilities by generators and the licensee agreeing to the same for modifying the said clause is not appropriate. Hence, the contention of UJVN Ltd. is not accepted and UPCL is directed to retain such clause in the PPA which is in accordance with the provisions of the regulations in this regard.

j. Point 3.1 of Annexure-I to PPAs provides that:

"For the purpose of this agreement the Solar Photovoltaic Power Plant's facility includes all real estate, fixtures, and property owned, controlled, operated or managed by the Solar Photovoltaic Power Plant in connection with or to facilitate generation, transmission, delivery, or furnishing of electricity or required to interconnect and deliver the electricity to UPCL's system.

(Explanation: A single-line diagram relay list and trip Scheme of the Solar Photovoltaic Power Plant's facility, reviewed and accepted by UPCL at the time the Agreement is signed, shall be attached to this agreement and made part hereof. The single-line diagram, relay list, and trip scheme shall expressly identify the point of electrical interconnection of the Solar Photovoltaic Power Plant's facility to UPCL system. Material changes or additions to the Solar Photovoltaic Power Plant's generating and interconnection facilities reflected in the single-line diagram relay list, and trip scheme shall be approved

UJVN Ltd. has requested for modification of said clause by way of substituting words "approval by" in the last line of explanation as reproduced above by "intimated to" of the said provision of PPAs. UPCL has agreed to incorporate modification suggested by UJVN Ltd. in respect of Point 3.1 of Annexure-I to the PPA.

Since this is also subject matter of safe and secure operation of the licensee's system, the Commission does not accept the proposal of UJVN Ltd., as discussed at "Para f" above. However, in order to avoid delay in completion of interconnection facility works by the generators and to ensure timely approval by the licensee in this regard, a suitable time frame can be incorporated in the PPA with mutual consent of the parties involved.

k. Point 3.4 of Annexure-I to PPAs provides that:

"UPCL shall review and approve the design drawings and Bill of Material for the Solar Photovoltaic Power Plant's electrical equipment, required interconnecting with UPCL's system. The type of electrical equipment, the type of protective relaying equipment and the settings affecting the reliability and safety of operation of UPCL and the Solar Photovoltaic Power Plant's interconnected system shall be approved by UPCL. UPCL at its option, may request review of operation of the control, synchronizing, and protection schemes."

UJVN Ltd. has requested for removal of the said provision of PPAs. UPCL has agreed to incorporate modification suggested by UJVN Ltd. in respect of Point 3.4 of Annexure-I to the PPA.

This is again a subject matter of safe and secure operation of the licensee's system and hence, the Commission does not accept the proposal of UJVN Ltd. As discussed at "Para f" above, in order to avoid delay in completion of interconnection facility works by the generators and to ensure timely approval by the licensee in this regard, a suitable time frame can be incorporated in the PPA with mutual consent of the parties involved.

At the end of point no. 2 of Annexure-V & VI to the PPAs (except for PPA mentioned at S.No. 9 in table above) words "Dindustries Ltd.cher." appears to be misplaced or misspelt. UPCL is required to make correction to the same.

2.3.3.2 PPA dated 13.10.2011 executed with M/s UBHPL.

- a. Preamble, Clauses 2.2, 5.1 & point no. 5 of Annexure-II of the aforesaid PPA stipulate that UPCL shall raise monthly bills for sale of power to Generating Company. The said Clauses are not consistent with Regulation 45 of RE Regulations, 2013 as the Regulations talks about netting of energy which the Generating Station procures from Distribution Licensee to meet its requirement of his own use or for startup power, from the electricity sold to the Distribution Licensee on month to month basis. Hence, the said conditions in the PPA are required to be modified in accordance with the Regulations.
- b. Clause 5.4 of the aforesaid PPA provides for rebate @ 2% if payment is made within 30 days of the receipt of the monthly bills. This clause is not as per provision of the regulation and needs to be made consistent in accordance with RE Regulations, 2013.
- c. Clause 8.8 of the PPA provides that the Generator 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
- d. Clauses 14.9 & 14.10 of the aforesaid PPA state for reading/MRI report of the bill meter. These Clauses also provides limit of variation in reading of Main & Check Meters upto 1%. The variation in reading should not be more than 0.4%. Further, all the metering arrangements should be in accordance with CEA (Installation and Operation of Meters) Regulations, 2006.
- e. Provision of deemed generation in accordance with Regulation 47 of RE Regulations, 2013 should also be incorporated in the PPA.

2.3.3.3 PPA dated 27.04.2015 executed with M/s Root Hydrocarbons Ltd.

a. Clause 8.8 of the PPA provides that the Generator 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

Ordered accordingly.

(K.P. Singh) Member (C.S. Sharma) Member (Subhash Kumar) Chairman